University Catalogue 2016-2017

USEK
HOLY SPIRIT UNIVERSITY OF KASLIK

University Catalogue

2016-2017

Notice

The Holy Spirit University of Kaslik Catalogue 2016-2017, is a source of information for students, applicants and all stakeholders on student services, resources, academic rules for undergraduate, graduate and doctoral studies, programs of study, etc.

USEK reserves the right to amend the information contained in the University Catalogue with or without prior notice. It's the student's responsibility to keep updated on the most current information on academic rules and programs of study.

Address

Main Campus

P.O. Box 446 Jounieh, Mount Lebanon – LEBANON
E-mail : usek@usek.edu.lb
Tel.: (+961) 9 600 000, (+961) 9 600 001
Fax: (+961) 9 600 100

Zahle RUC

Main Highway – Zahle, Bekaa - LEBANON
E-mail: zahle@usek.edu.lb
Tel.: (+961) 8 932 132, (+961) 8 932 232

Chekka RUC

El-Rahban Street– Chekka, North Lebanon - LEBANON
E-mail : chekka@usek.edu.lb
Tel.: (+961) 6 543 216, (+961) 6 543 217, (+961) 6 543 218
Fax : (+961) 6 543 219

Rmeich RUC

Monastery of Our Lady of Annunciation - Rmeich, South Lebanon - LEBANON
E-mail : rmeich@usek.edu.lb
Tel.: (+961) 7 470 470
Fax : (+961) 7 471 400

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The University

About USEK

The Holy Spirit University of Kaslik (USEK) is a private Catholic institution of higher education founded and governed by the Lebanese Maronite Order (LMO) since 1938. USEK is located on the cost side of Mount Lebanon with an exceptional exposure to the Mediterranean Sea. Nowadays, USEK welcomes around 8000 students across its 12 Faculties and 3 Institutes.

USEK is committed to provide students with an excellent learning experience by a strong focus on teaching and learning, quality assurance, research, campus life and facilities. Continuous improvement and excellence are the key points of USEK current activities and strategic planning. USEK has incorporated e-learning to support student learning and provided its faculty with a professional certification in teaching and learning from notorious international institutions. USEK has also created a center of teaching excellence for the continuous development of faculty qualifications and sharing best practices in teaching and learning. In 2015, the European Union Erasmus+ program has awarded USEK a grant to lead the project "Professional Standards Framework for Excellence in Teaching and Learning in Lebanese Universities / E-TALEB" in Lebanon with the collaboration of the Directorate General of Higher Education in Lebanon and 12 other partner universities and organizations from Lebanon, United Kingdom, France and Germany. This project aims at developing Lebanese Professional Standards in Teaching and Learning and cooperating for innovation and exchange of good practices and experiences relevant to similar frameworks established in Europe. Moreover, in order to enhance students' employability, USEK has adopted a new program framework based on learning outcomes defined in collaboration with local and international employers. USEK did voluntary seek international external evaluation and accreditation. After a long process of evaluation and enhancement, USEK has obtained in 2012 the European institutional accreditation from EVALAG for five years.

The international academic reputation resulting from quality assurance is embodied, by the continuous academic development and with the internationalization of the university activities through the signature of more than 200 cooperation agreements with renowned universities and notorious associations throughout the world, has the World Bank to consider USEK as one of the outperforming universities of the MENA region. Our students are the primary beneficiaries from this international academic reputation.

The student's learning and campus experience lies at the heart of the institutional strategy of USEK. The University Students affairs and social services offices provide personal support to student in their educational path to overcome social, financial or educational difficulties. The University Career Service Office aims to build confidence in career planning and mature decision-making. USEK has also a strong rewarding system for student's excellence with a set of scholarship based on outstanding academic records. In 2015, USEK gained Matrix accreditation for its "Student Support Services" to ensure its commitment to offer high quality services to its students for their welfare on campus, and ultimately for supporting them in their learning, career and life goals.

USEK offers to its students as well an outstanding environment for research and innovation; facilities (Library, laboratories, etc.) and professional guidance and support. In this context, the USEK main library and the laboratories have been renovated to provide better support to all University stakeholders in their research activities and projects.

USEK sows the seeds of a better future across the promotion of a sustainable development culture among the community. This culture being concretized through a closer cooperation with NGOs and the public sector, and also through the organization of international conferences on corporate governance, ethics, and citizenship, sustainable constructions, human rights, etc.

In 2016, as part of its journey of "Going Green", USEK created a Green committee to promote green practices within the campus, to identify the environmental problems, research solutions, and implement changes that create the healthiest campus life.

Open to the world of technology and modern communication and during the last two years, the presence of USEK in different social media platforms radically increased. In addition, the USEK Mobile App continues its progressive development in always responding to the aspirations of the University community.

From boasting one of the most prestigious and richest Libraries in the Region to the distinctive works of its professors, the institutional path of USEK has been crowned with success and excellence. As a result, the University has validated its international position among Higher Education Institutions and its openness to the world.

Background, Mission and Core Values

Background

USEK was founded in 1938 as an independent private Catholic institution, by the Lebanese Maronite Order (hereafter referred to as the "OLM") who serves Higher education in monasteries since the 18th century. The University was founded before the first Lebanese Law of Higher Education promulgated in 1961, and by that date, the Lebanese State recognized USEK as a private Higher Education Institution in Lebanon, according to the Law of Higher Education in Lebanon. Since 1997, the university has adopted the North American credit system, in order to facilitate students' credit transfer and recognition and to move toward an American Style institution.

Mission

Since its founding, USEK seeks, in accordance with the Article 92 of the *Constitutions of the OLM (ed. 2012)* and the social teaching of the Catholic Church on universities, to contribute to the development of all its students through quality educational programs and research in various fields of study. By providing a high quality American-style education to its students, USEK intends to prepare future leaders for innovation, professional growth and life-long learning, in Lebanon, within the Middle East and throughout the world. USEK is committed to a faith-based educational development of its students rooted in the Catholic tradition whereby spiritual values and ethics as well as respect for cultural and religious pluralism are promoted.

Core Values

EXCELLENCE IN TEACHING AND LEARNING

USEK is committed to provide its students an excellent educational and academic experience. Therefore, we promote active learning and use of technology in order to support and enhance educational provision, build teamwork and peer observation in teaching and learning, support research and innovation in teaching, and commit ourselves to insuring continuous professional development to our faculty and staff.

EXCELLENCE IN QUALITY SERVICE

We are committed to roll quality service that impacts our stakeholders, both within and outside the University Campus. We strive to offer the best quality service, acting at all times with integrity and professionalism and are devoted to serving the common good by better understanding and meeting the needs and expectations of our students, faculty, staff, and external constituents.

CREATIVITY AND CONTINUOUS IMPROVEMENT

We assert commitment to continuously improve University stakeholders' well-being through creative ideas, innovation and positive change. We stimulate creativity and innovation by manifesting freedom of thought, autonomy, empowerment and decision making.

INTEGRITY AND ACCOUNTABILITY

We commit to act with honesty and integrity, be open and fair for maintaining the highest relationship trust. We aim to communicate transparently to serve in the best interest of students, faculty, staff, and other constituents. We believe in continuous assessment of our practices and hold ourselves accountable of our own actions that influence the well-being of our students, faculty members and fellow employees.

COOPERATION AND DIVERSITY

We believe in synergy of cooperation and teamwork and provide support to one another. We value diversity, talents, others' views, promoting justice, fairness, equitable treatment, and creating a positive and enjoyable workplace.

STEWARDSHIP AND SERVICE TO SOCIETY

We are socially responsible for the welfare of human beings, through education, social assistance and community support. Thus, we devote ourselves to guide and support our students throughout their higher education. We are keen on cultivating ethics and moral conducts in line with our Catholic social teaching and commit to ensure the safety of our people in a healthy work environment.

Accreditation and External Evaluation

Institutional Evaluation Program

In September 2009, USEK has completed an Institutional Evaluation Program conducted by the European University Association (EUA) and became the first university in the Middle East that conducts such an evaluation programme.

The Institutional Evaluation Programme (IEP) is an independent membership service of the European University Association (EUA), the representative organization of universities and national rectors' conferences in 47 European countries. IEP is a full member of ENQA (the European Association for Quality Assurance in Higher Education) and is listed in EQAR (the European Quality Assurance Register for Higher Education). Created in 1994, IEP ensures that higher education institutions gain maximum benefit from a comprehensive evaluation conducted by a team of experienced higher education leaders. To date, IEP evaluation teams have carried out nearly to 400 evaluations and follow-up evaluations of diverse higher education institutions in 45 countries worldwide.

This evaluation programme conducted lasted for an entire year. Following the auto-evaluation phase which extended over more than 6 months, USEK hosted, twice, a team of 5 experts from the EUA. The experts did not only evaluate the action plan and the applied practices inside the university, but they have also met the majority of officials, a group of students, as well as different stakeholders involved in the university community (Director of Higher Education in Lebanon, representatives of NGOs and associations, entrepreneurs, etc.).

EVALUATED BY IEP

Institutional Accreditation: European Institutional Accreditation

As part of continuous process of improvement and the strategic direction to meet the international standards, the Holy Spirit University of Kaslik was pioneering in 2008 with achievement of the Institutional Evaluation Programme (IEP) with the EUA and later on in 2012 the European Institutional Accreditation.

Conducting a European Institutional Accreditation was to assure that the university is in a continuous process of improvement and that strategic vision and practices meet the European standards. In December 2012, USEK was granted the European Institutional Accreditation for five years by the German institution, evalag EVALUATIONSAGENTUR BADEN – WÜRTTEMBERG, EQAR (European Quality Assurance Register), ENQA (European Association for Quality Assurance in Higher Education) and EUA member. Evalag is known as a centre of competence for quality assurance and enhancement and a source of support for higher

education institutions and other scientific institutions, with commitment for good quality in teaching and learning, research and other services.

Matrix Accreditation for the Student Support Services

USEK became the first university in Lebanon and the region to gain accreditation for its student support services, which aims to ensure its commitment to offer high quality services to its students for their welfare on campus, and ultimately for supporting them in their learning, career and life goals.

The student support services at USEK have successfully gained the matrix accreditation, confirming that all areas of the services provided by the following offices met the matrix standard, recognizing that the continuous quality improvement is ensured and supported by the Quality Assurance and Institutional Effectiveness Office:

- Registrar Office
- Student Affairs Office
- Social Service Office
- Orientation Office
- International Affairs Office (international students' services)
- Careers Services Office
- Quality Assurance and Institutional Effectiveness Office

The matrix standard is the established quality standard within the UK for organizations delivering information, advice and/or guidance services.

The process of obtaining the student support services accreditation undertaken by Assessment Services Ltd lasted for one year. It was launched at the beginning of the academic year 2014-2015 with a consultative site visit by a matrix advisor and was completed following the 3 day on-site assessment visit held in July 2015, during which the matrix assessor had individual and group meetings with the University administration, directors and staff of the concerned offices, students, and external partners such as schools and employers.

Accredited Programs

Computing Programs

Two Computing Programs are accredited by the Computing Accreditation Commission of ABET, http://www.abet.org, the global accreditor of college and university programs in applied science, computing, engineering, and engineering technology. These programs are listed as follows:

Faculty of Sciences:

- Computer Science (BS)
- Information Technology (BS)

Engineering Programs

Seven Engineering Programs are accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org, the global accreditor of college and university programs in applied science, computing, engineering, and engineering technology. These programs are listed as follows:

Faculty of Agricultural and Food Sciences:

- Agricultural Engineering (Engineering Diploma)

Faculty of Engineering:

- Biomedical Engineering (BE)
- Chemical Engineering (BE)
- Computer Engineering (BE)
- Electrical and Electronics Engineering (BE)
- Mechanical Engineering (BE)
- Telecommunications Engineering (BE)

To know more about ABET Accreditation, please click on the following links:

- Why Accreditation Matters >
- Accreditation Step by Step >
- Accredited Program Search >

Board of Trustees

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Professor Nehme Azoury, Deputy President for Research
Doctor Rima Mattar, Deputy President for International Affairs and Global Initiatives
Doctor Faten El Hage, Deputy President for Teaching and Learning

Academic and Research Council

The University Academic and Research Council is composed of the President, Vice-Presidents and Provost, Deputy-Presidents, Deans of Faculties, Dean of Doctoral College, Librarian, two full-time faculty members.

Members:

- Father Professor Georges Hobeika, President of the Holy Spirit University of Kaslik
- Father Professor Jean Akiki, Senior Vice President
- Father Doctor Georges Azzi, Vice President for Finance
- Father Doctor Talal Hachem, Vice President for Community Life
- Doctor Georges Yahchouchi, Provost
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- Father Doctor Badih El Hajj, Dean of the Faculty of Music

- Doctor Paul Zgheib, Dean of the Faculty of Fine and Applied Arts
- Doctor Lara Wakim, Dean of the Faculty of Agricultural and Food Sciences
- Professor Jean-Claude Lahoud, Dean of the Faculty of Medicine and Medical Sciences
- Doctor Walid Hleihel, Dean of the Faculty of Sciences
- Doctor Barbar Zeghondy, Dean of the Faculty of Engineering
- Father Youssef Tannous, Dean of the Faculty of Religious and Oriental Studies
- Father Doctor Joseph Moukarzel, The University Librarian
- Doctor Ghada Karam, Faculty Member
- Doctor Joseph Al Assad, Faculty Member

Academic Units Founding Dates

Academic Units	Founding dates
Pontifical Faculty of Theology	1950
Faculty of Philosophy and Humanities	1950
Faculty of Letters	1950
Faculty of Law	1950 for the Canon Law 1988 for the Faculty of Law
Faculty of Business and Commercial Sciences	1966
Faculty of Music	1970 Institute of Musicology 1993 Faculty of Music
Faculty of Fine and Applied Arts	1974
Faculty of Agricultural Sciences	1988
Faculty of Medicine and Medical Sciences	2001
Faculty of Sciences	2000 Faculty of Sciences and Computer Engineering, 2010 Faculty of Sciences
Faculty of Engineering	2000 Faculty of Sciences and Computer Engineering, 2010 Faculty of Engineering
Faculty of Religious and Oriental Studies	1969 Institute of Liturgy 2011 Faculty of Religious and Oriental Studies
Institute of History (Affiliated to the Faculty of Letters)	1972
Higher Institute of Nursing Sciences (Affiliated to the Faculty of Medicine and Medical Sciences)	1999
Higher Institute of Political and Administrative Sciences (Affiliated to the Faculty of Law)	2006

Campus and Regional University Centers

Main Campus

The Holy Spirit University of Kaslik is located in the city of Jounieh which borders the splendid Bay of Jounieh on the coast of the Mediterranean Sea.

Jounieh is a cosmopolitan city; it vibrates with its history, archeology, and natural beauty and with its recreational and sport activities, amusement centers and numerous restaurants.

Jounieh is located 15 km north of the Lebanese capital, Beirut, 10 km south of Byblos and 50 km south of Tripoli.

Main Campus Plan

Building A - Bloc AA:	Central Administration, University Board Room
Building A - Bloc AC:	Pontifical Faculty of Theology, Faculty of Religious and Oriental Sciences, Institute of History, Higher Center for Research and Student Support Offices
Building A - Bloc AB:	Main Library
Building A - Bloc AM:	Faculty of Music
Building B:	Faculty of Law, Faculty of Philosophy and Humanities, Faculty of Letters
Building C:	Faculty of Fine an Applied Arts
Building D:	Faculty of Business and Commercial Sciences
Building E:	Faculty of Agricultural Sciences, Higher Institute of Political and Administrative Sciences
Building F:	University Residence
Building G:	Administrative Offices
Building H:	Faculty of Sciences, Faculty of Engineering, Faculty of Medicine and Medical Sciences

Regional University Centers

Concerned in contributing to a democratization of the higher teaching and struggling against the exclusion of youth living in remote areas, the Holy Spirit University of Kaslik (USEK) has carried out the creation of three Regional University Centers (RUC):

- Zahle RUC located in the Bekaa Valley
- Chekka RUC located in North Lebanon
- Rmeich RUC located in South Lebanon

RUC Zahle

RUC Chekka

RUC Rmeich

Student Services

Orientation Office

Mission

The Mission of the Orientation Office is to welcome candidates, USEK students and their parents or teachers in order to inform and guide them in their chosen major, in their potential reorientation and in their occupational choice. The office organizes orientation days mainly addressed to students in Grades 9 to 12 who wish to know about the different majors and specializations available at USEK and about the education regulations in force. These days are held in local and foreign high schools, as well as on USEK's four campuses. Visitors are provided with helpful brochures during these days, which help guide new USEK students in the administrative process.

Vision

The Vision of the Orientation Office is to reach and attract all Lebanese students in Lebanon, as well as foreign students abroad, and to seek the continuous development of our orientation visual and listening methods, and to coordinate with international orientation offices, especially in the United States and Europe.

Services to Future Students

- Open doors to greet students and introduce them to the campus, faculties and institutes;
- Guided tours of the Notre Dame des Secours Hospital, which is located in Jbeil, for candidates interested in the medicine and medical sciences curricula;
- Psychology tests to help students choose their specializations according to their preferences;
- Different forms of orientation :
    - General orientation for 9th to 12th grade students through our participation in regional forums, our presence in forums held by educational institutions and our visits to national and international educational institutions;
    - Individual orientation by providing accurate information, consultation, and examples to candidates.
- Spreading awareness regarding the accessible careers determined by the chosen programs;
- "Shadowing", giving students the opportunity to attend several classes of their choice;
- Updating future candidates and current students with the latest information related to the entrance exams and available programs (calendars, brochures, website and mobile application).

For more information and contacts, check usek.edu.lb.

Registrar Office

Mission

The Office of the Registrar at USEK is privileged to serve students from the moment they apply to USEK to the time of their graduation.

As part of its activities, the Registrar's Office is responsible for issuing student IDs, as well as official academic transcripts and certificates. It manages requests such as readmission,

interruption of studies and change of academic program or of campus, in accordance with the regulations in force. Moreover, it supervises the registration process and updates the catalogue, in addition to organizing and managing course and final exam schedules.

The Office of the Registrar takes joy in being the interpreter of USEK's academic policies and the steward of all student records from application to degree conferred.

Services to Students

- Deliver ID cards to students;
- Admission of continuing education students, free listeners and cross-registration students;
- Deliver certificates, official transcripts, course descriptions and diplomas;
- Update and modify the students' personal information;
- Handling of all forms such as: readmission, change of program, change of campus, change in personal information, withdraw, interruption of studies, term withdraw, double major and exemption.

For more information and contacts, check usek.edu.lb.

Student Affairs Office

Mission

The mission of the Student Affairs Office is to further the students' success, help them with any problems they face and involve them in all campus activities based on USEK's mission and rules.

Vision

The Student Affairs Office at USEK strives to provide help and advice to all students on various levels during their academic journey.

Services

- Organize a wide selection of many social and cultural activities;
- Organize Welcome Days for new students;
- Act as a link between students and all departments and faculties;
- Assist students in submitting absence petitions for midterm and final examinations;
- Offer on-campus student jobs;
- Manage the university residence for female students;
- Provide first-aid services through the Infirmary;
- Manage lost and found objects;
- Disseminate information among students;
- Make referrals to appropriate services and assist students in resolving problems involving university policies, systems or procedures.

For more information and contacts, check usek.edu.lb.

Social Service Office

Mission

In keeping with the mission of the Lebanese Maronite Order, USEK is committed to helping every student facing personal, relational, family, financial or medical difficulties without any discrimination related to religion, culture or nationality.

Vision

The vision of the Social Service Office is the well-being of every student registered at USEK. This vision includes giving them a better academic results and improved adaptation capabilities in their professional field.

Services to Students

- Financial aid programs
- Student job opportunities
- Spreading the payment of tuition fees
- Personal and family counseling
- Orientation towards other student support offices on campus
- Orientation towards external specialized experts and/or institutions

For more information and contacts, check usek.edu.lb.

International Affairs Office

The International Affairs Office manages all the partnership and cooperation agreements established between USEK and other local and foreign Higher Education institutions.

The Office is responsible, furthermore, for establishing relationships with potential partners in order to implement new collaborations within a perspective of developing educational offers, cultural exchanges, knowledge, know-how and this for the benefit of lecturers-researchers as well as students.

The establishment of cooperation agreements aims at launching multiple actions placed under the supervision and management of the Office, mainly: joint scientific research projects; joint organization of seminars, colloquiums, conferences, etc.; joint publications; exchange of lecturers-researchers and students; scholarships for USEK students applying for one of the partner institutions in order to pursue their university studies; as well as co-direction and co-supervision of dissertations and theses.

The International Affairs Office welcomes international students to USEK, within the framework of partnerships and cooperation agreements, and encourages students to pursue their studies abroad. Regularly visit USEK website to learn about ongoing calls for applications.

For more information and contacts, check usek.edu.lb.

Career Services Office

Mission

The Career Services Office (CSO) at the Holy Spirit University of Kaslik (USEK) provides guidance as well as resources to current students and recent USEK graduates for their life-long career development by guiding them in their choice of career options and developing effective career life planning skills.

It is further committed to assist organizations in meeting their hiring needs for the joint benefit of students, graduates as well as employers.

Vision

The Career Services Office (CSO) at the Holy Spirit University of Kaslik (USEK) helps current students and recent USEK graduates in their educational and career choices in planning and promoting professional and personal success. Moreover, it encourages them to develop their potential in order to meet market expectations on the national, regional and international level.

Services to Students

The Career Services Office (CSO) supports students with their academic and career paths by offering practical advice and guidance to ensure their success.

It offers students advice about the following career development areas:

- Mapping education
- Exploring all career options
- Understanding the career development process
- Gaining knowledge about adapting to working life
- Identifying local, regional and international opportunities, acquiring internship / work experience, and developing skills to compete in the labor market
- Learning how to foster connections with the USEK Alumni

For more information and contacts, check usek.edu.lb.

Sports Service

As a privileged space of conviviality and solidarity, the Sports Office puts forward, among other things, the social and collective nature of any physical activity. The group sports proposed in this Office foster, in particular, the development of a team spirit. The belonging to a group and the convivial atmosphere that prevails within that unit, allows the creation of lasting friendship and solidarity bonds.

The Sports Center at the campus Kaslik has a tennis and mini football field, as well as a dance hall, a chess and table tennis rooms. Moreover, a swimming pool and a basket and volley-ball field are at the disposal of USEK's students, in the Central Club of Jounieh. The project of building a sports complex in the Main Campus of USEK is currently under study.

Within the general requirements program, a credit is dedicated to one of the ten activities proposed by the Sports Office; students will have the choice between: basket-ball, football, volley-ball, tennis, table tennis, dance, chess, swimming, badminton and judo. The assessment of this course takes into consideration the student's participation within the chosen activity, the achieved progress, as well as his knowledge and understanding of the game's rules and strategies.

Mentored by first class trainers, students can, if they wish, join a University team in order to represent USEK in local and international tournaments.

Several university teams, coached by specialized trainers, were formed to represent USEK in national and international university competitions. These teams operate in the following fields: basket-ball, volley-ball, football, futsal, table tennis, ski, tennis, chess, fencing, combat sports and athletics. USEK's Sports Office is also involved in international sports events and training sessions, which are held to maximize the players performances.

USEK New Sport Complex

To complete the picture, the new Sport complex will be built according to the highest sustainable environmental standards, including being powered completely by renewable energy. This will house the University's student sports programs - mini-football, basketball and tennis - under one roof, with facilities including training grounds, sports medicine, and offices for coaches and staff. The complex will also function as a cultural space for USEK community, housing activities such as concerts and giving students a vibrant meeting point.

Outdoor view of the upcoming Sport Complex

Indoor view of the upcoming Sport Complex

For more information and contacts, check usek.edu.lb.

Pastoral Office

The University Pastoral of USEK was founded by the Assembly of the Catholic Patriarchs and Bishops in Lebanon in 1979, and was officially recognized by the Lebanese State in 1988. Registered within the organic statute of the University, the Pastoral is open to all current students.

The objective of any University Pastoral within a Catholic Higher Education institution in Lebanon is to propose to the students a space for leading a Christian life and spiritual reflection. The students, who join, have the chance to live a fulfilling human experience of exchanges and encounters.

The main objectives of the University Pastoral answer the call of the Pope John Paul II: "In school and university life, it is proper to pay attention to the presence and quality of spiritual activities by means of well-organized chaplaincies, for that the young find moments of reflection and prayer helping them to unify their life of Christian men or women, taking into account the knowledge they acquire from their education program." (A new hope for Lebanon, no110)

In fact, USEK University Pastoral is:

- A Christian place for prayer (through community prayers, spiritual retreats, pilgrimages, etc.), of faith, of information and of education for an understanding of the faith;
- A Christian space for meeting, exchange, and contact with others of diverse background;
- A dynamic space of spiritual, cultural, sporting and leisure;
- A space for listening and spiritual fellowship (chaplaincy) such as psychological support.

USEK Pastoral regularly organizes:

- Spiritual meetings, religious celebrations and a yearly pilgrimage on the 1st of May to Marian sites, in order to celebrate the worship of the Virgin Mary;
- Cultural events and lectures, on current themes or of general culture, paving the way for a freely practiced reflection;
- Moments of meditation and sharing;
- Sporting and leisure activities (excursions, lectures, evenings, games…) in order to develop a team spirit as well as membership of a group.

For more information and contacts, check usek.edu.lb.

Library

As a center of intellectual inquiry, the USEK Library shares with the rest of the University an aspiration to "contribute to the welfare of the human being, all human beings, throughout education, research and publication in all fields of knowledge."

The USEK Library aims to enrich the student learning experience; it encourages exploration and research at all levels, and provides access to an array of scholarly resources. The Library seeks to empower students to foster intellectual growth in an information age that produces leaders of the next generation in Lebanon and the Middle East.

The Library continues to embrace change and thrives on diversity to support professional growth and opportunity, and to reward flexibility and innovation.

The USEK Library supports and nurtures the mission and vision of the University, namely, the education of the youth and the building of a humanist culture. As such, the mission of the USEK Library is to support the research, teaching, and learning needs of the University community by providing comprehensive collections, services, facilities and expertise.

The Holy Spirit University of Kaslik Library includes the Main Library at the Kaslik campus, as well as libraries in the Regional University Centers (Chekka, Zahle and Rmeich). Two centers are affiliated to the Library: the Center for Written Heritage Conservation and the Center for Reprography and Digitization.

National and international authorities:
On the national level, the library is a member of the LLA (Lebanese Library Association), and two national consortia: Lebanese Academic Library Consortium (LALC) and Lebanese ILL/DD Services (LIDS)

On the international level, the library is a member of several world organizations pertaining to library science and paleography:

1. e-corpus
2. The World Digital Library
3. Hill Museum & Manuscript Library
4. I-Revues
5. e-ktobe
6. The International Federation of Library Associations and Institutions (IFLA)
7. MELCom International, the European Association of Middle East Librarians
8. Medical Library Association (MLA)
9. North American Serials Interest Group (NASIG)

Premises and Map of the Library:
Located in the main pavilion, south of the campus, the Library occupies a surface area of 3230 m2 divided into two basement levels, a ground floor, and one storey.

a- Ground Floor (Surface area 500 m2)
b- Basement Level 1 (N-1) (Surface area 1100 m2)
c- Basement Level 2 (N-2) (Surface area 1170 m2)

Services

Services	Objective
Borrowing	To be able to borrow materials from the Library
Course Reserves	To reserve books and other print and non-print items which are required material for coursework. These items are placed behind the Circulation Desk within the Library and are issued for shorten loan periods.
Intercampus Loan	To allow USEK students, faculty and staff to request materials to be transferred between campus libraries (Kaslik Main Campus Library, Chekka Campus Library and Zahle Campus Library).
InterLibrary Loan & Document Delivery Services (ILL-DDS)	To allow USEK users to obtain books, e-book chapters, journal articles, theses and dissertations, conference papers not available at USEK Library.
Reference	To meet library users' information needs by assisting in finding out what information people need and using library resources to provide that information
Acquisitions	To allow faculty members to assist in extending and developing the Library collection in their field
Off-Campus Access	To be able to access the Library electronic databases from anywhere in the world.
Reprographic Services	To provide copies of rare and special material and collections to prevent from being stolen or mishandled and, therefore, maintain availability of the resources.
Visitor Services	To provide comprehensive resources and services in support of the research, teaching, and learning needs of the University and its surrounding community: visitors, alumni and OLM monks.
Search	**Objective**
OPAC Catalog	To search for material available in the library
Find a title	To be able to locate electronic journals found in the Library electronic resources
Summons	To be able to search the electronic resources provided by the library, as well as open access resources form one search box as a discovery tool.
Research Tools	**Objective**
Endnote & Refworks	To allow users to manage and organize the bibliographic references found in the Library catalog and databases; and to prepare a bibliography or reference list automatically
TurnItIn	To assist faculty members to detect plagiarism through an electronic software tool
Help Tools	**Objective**
Research guides	To provide the required manuals and guidance that students need to complete their projects and theses
Training and Orientation	To keep students and faculty members up-to-date on the new materials and software attained and aid in developing the students' skills
LibGuides	To provide listings of recommended resources for finding information, such as databases, journals, books, web pages and other useful resources most relevant to your area of study

IT and Communication Resources

Banner Self-Service

Access to the Banner self-service allows the student to register online and to consult:

- ✓ Student personal academic transcripts;
- ✓ Student studies fees account;
- ✓ Student registration report;
- ✓ The University course catalogue;
- ✓ The University course schedules.

The banner self-service is accessible through the University website, MyUSEK and the mobile application.

Course Evaluation by Students

Students are required to fill, on the BLUE evaluation system adopted by USEK, the evaluation of each course they have completed during a semester. They cannot access their final grade without filling this evaluation.

This evaluation revolves around the following criteria, using a scale from 1 to 4:

- General evaluation of the course
- Teaching organization by the teacher
- Educational abilities of the teacher
- Evaluation of the learning method adopted by the teacher
- General opinion of the course and the teaching method

N.B.: *This evaluation is strictly anonymous and confidential.*

Students are also required to fill the BLUE evaluation "On-Campus Well-Being" at the end of each semester. This evaluation revolves around the administrative services provided by the University: student life, student services, library, restaurant, communication and telecommunication, etc.

Finally, all final year students having fulfilled the requirements to obtain their diploma are required to fill the "Graduation Survey" evaluation when they launch their diploma/degree request at the Registrar Office.

E-learning

Aiming to develop blended online teaching wherein the e-learning technology supports Faculty members in their educational activities, USEK started using the Moodle e-learning platform in September 2012 which facilitates learning through an improved course management discussion and exchange between faculty members and students and between students themselves.

The use of E-learning has contributed to the development of the University's teaching and learning strategy mainly:

- The teacher-student interaction and student-student (Active learning and group-based learning)
- Improved assessment of student work, Effective feedback to the student
- Improved course management
- Traceability of student progress
- Traceability of educational development and course
- Capacity building for teachers
- Development of computer skills of teachers

It is worth mentioning that, in the academic year 2015-2016, more than 60 classes have been offered exclusively online to more than 1,000 students.

E-Portfolio

USEK adopted the platform Mahara/ E-Portfolio since Fall 2014-2015 to support faculty, students and staff in the process of creating dynamic and engaging digital Portfolios where they will record and highlight their professional, personal and educational development and achievements.

Through E-Portfolio you can post and share your personal information, your Résumé - including your Goals, Skills, Employment and Education History – and your academic and professional projects.

E-Portfolio is capable of storing visual and auditory content including text, images, video and sound.

Why to use E-Portfolio?

- Learning and personal development: It's a space for reflection, review the current achievements and personal development planning
- Showcasing/Promotion: Presenting evidence of achievements, skills and qualities
- Assessment/Student:
  - Collection of evidence to be judged against a standard by an external assessor
  - Could use templates; tutor might access contents

Mobile App

In May 2013, USEK launched their mobile app. With USEK mobile app, students can check for available courses at USEK, access their account balance, view their grades and even get information about their course schedule. They will be notified about the main events, announcements and receive messages from their instructor! They can also find directions to locations and any administrative staff they need for help. Students can also privately chat with each other and publish their personal ad. USEK mobile app will also allow students to have access to USEK sports' events, scores and news, as well as to latest vacancies.

The application is available on android and app store.

MyUSEK

MyUSEK intranet is one of the privileged and official means of communication and collaboration within the University. It offers intuitive navigation, easy access to information, tools related specifically to the role at USEK and many other features:

- Customized homepage: a page that is customized to your role(s) at USEK whether you are a student, faculty, or staff member offering a quick view to:
    - My emails, My tasks, My calendar, My pending workflows (for all users)
    - My Pending Evaluations, My Holds, My Courses (additional features for students)
- Availability of information in English and French
- Exclusive accessibility from outside USEK, reserved for USEK Community http://myusek.usek.edu.lb/.

It presents the USEK flowchart, different faculties/institutes, offices/services, employees/faculty members, procedures and workflows etc. Thus, it spreads internal information and offers downloadable and accessible applications, documents, and links to students, including Banner and Webmail.

Quality Assurance and Institutional Effectiveness Office

Mission

The Quality Assurance and Institutional Effectiveness Office (QAIE) supports the University, helping it to achieve its mission by assessing and improving administrative and academic performance, supporting the various units of the University and providing excellent educational experience for the students.

Vision

Our vision is to become a national and regional model in Quality Assurance and Institutional Effectiveness through assessment, accreditation and excellence in teaching and learning and student support.

Accreditation

The QAIE Office supports International Institutional Accreditation on both European and American levels and promotes and provides support for program accreditation by being an assessment resource, for the academic units, on matters pertaining to assessment and curricular and program improvement.

Assessment

Keeping improved student learning and institutional effectiveness in the priorities of the Holy Spirit University of Kaslik through developing efficient, sustainable, and integrated assessment processes, USEK has adopted an assessment strategy that includes:

- University Catalogue data collection including program credentials (mission, educational objectives, outcomes), curriculum maps and courses descriptions
- Strategic Planning and Assessment
- Academic programs assessment and evaluation
- Surveys

For more information and contacts, check usek.edu.lb.

Learning and Teaching Excellence Center (LTEC)

Mission

The Learning and Teaching Excellence Center (LTEC) at the Holy Spirit University of Kaslik is dedicated to the development of the professional qualifications of educators in teaching and learning through the promotion of teamwork, innovation, self-reflection and the efficient use of instructional technologies, and through sharing best practices to enhance the student learning experience.

LTEC serves USEK and non USEK faculty members by engaging and supporting them in their research-based teaching and learning concepts, and bringing them into intentional daily practice both inside and outside the classroom.

The LTEC provides a number of tools that can improve and enhance the online teaching and learning process, and also offers training on emerging digital platforms (such as e-learning) that can be used in both distance and face-to-face classrooms.

Objectives

The main focus of the Learning and Teaching Excellence Center at the Holy Spirit University of Kaslik is to support, promote and enhance teaching effectiveness and student learning.

LTEC aims to:

- → Facilitate the professional and intellectual development of faculty, staff, and graduate students as educators.
- → Promote and support a community of teachers where the theory and practice of teaching and learning are shared.
- → Help faculty members develop, implement, and assess instructional approaches and methods.
- → Foster innovations in Higher Education teaching and learning.
- → Advocate appropriate use of technology in enhancing university teaching and learning.
- → Help individual instructors assess their teaching effectiveness and their students' learning.
- → Sustain a university culture that recognizes and rewards both scholarly teaching and the scholarship of teaching and learning.
- → Develop and maintain learning systems and technologies that can be used by staff and students across the university to facilitate and enable the online and hybrid teaching and learning process.

Alumni Relations Office

The USEK Alumni Relations Office aims to establish a continuing relationship between USEK and its alumni to foster a spirit of loyalty, solidarity and connectivity. Our role is to promote the special links that connect the alumni to each other and encourage them to develop a lifelong engagement with USEK.

The Office offers a varied program of benefits, events and workshops to keep the alumni in touch and involved with the University. It also acknowledges and embraces them as vital stakeholders in the future of USEK and therefore we invite every single alumnus to proudly take part in USEK's ongoing achievements.

For more information and contacts, check usek.edu.lb.

Tuition Fees 2016

Undergraduate Studies

Academic Unit / Program	Cost per 1 credit in USD
Agricultural and Food Sciences	210
Business	320
Engineering	370
Fine and Applied Arts : Architecture	310
Fine and Applied Arts : Other Majors (cycle 1)	290
Fine and Applied Arts / Sacred Art	200
History	200
Law	210
Letters/School of languages	200
Liturgy	200
Medicine	400
Music	200
Nursing Sciences	200
Nutrition / Bachelor of Science in Engineering Sciences-Food Engineering	275
Philosophy/Teaching Diploma	200
Political Sciences	200
School of Music	145
Sciences	320
Sports	200
Theology/School of Theology	200

Graduate Studies

Academic Unit / Program	Cost per 1 credit in USD
Agricultural and Food Sciences	340
Business	425
Engineering	425
Fine and Applied Arts : Architecture	340
Fine and Applied Arts : Other Majors (Graduate Studies)	340
Fine and Applied Arts : Sacred Art	275
History	275
Law	275
Letters	275
Liturgy	275
Medicine	500
Music	275
Philosophy	275
Political Sciences	275
Theology	275
Sciences	400

Postgraduate Studies

Academic Unit / Program	Cost per 1 credit in USD
Business	500
Doctoral College	425
Fine and Applied Arts	425
History	425
Law	425
Letters	425
Liturgy	425
Music	425
Philosophy	425
Theology	425

Academic Calendar 2016-2017

Announcements related to academic, cultural and sports events and activities will be regularly posted online on the USEK website: usek.edu.lb

August 2016

- Wednesday 3: Admission tests for the Undergraduate Studies program (except for Medicine and Engineering) for the Fall Semester 2016-2017
- Wednesday 10: Admission tests for the Graduate Studies program for the Fall Semester 2016-2017 / Admission Tests for Postgraduate Studies program for the academic year 2016-2017
- Monday 15: Assumption
- Tuesday 16: Admission tests for the Undergraduate Studies program (except for Medicine) / Competitive Exam in Engineering for the Fall Semester 2016-2017
- Friday 19: Registration put on hold for students with incomplete files
- Monday 22 - Wednesday 24: Validation of the Pre-Registration and Registration for the Fall Semester 2016-2017 for Undergraduate, Graduate and Postgraduates Studies programs (Settlement of the 1st payment of tuition fees for the Fall Semester: 2 working days prior to online registration)
- Thursday 25 - Monday 29: Pedagogical orientation and registration of new students, transferred students and readmitted students to the Fall Semester 2016-2017

September 2016

- Thursday 1: Start of classes for the Fall Semester 2016-2017
- Thursday 1 - Wednesday 7: Add/Drop - Late registration for the Fall Semester 2016-2017
- Thursday 1: Application of the $100 late registration penalty
- Thursday 1: Registration cancellation of new students with incomplete files
- Sunday 11 - Monday 12: Eid El Adha*
- Friday 30: Deadline to submit a request for transfer for Spring Semester 2016-2017

October 2016

- Saturday 1: English Proficiency Test
- Sunday 2: New Hegira Year*
- Tuesday 11: Achoura*
- Monday 10 - Friday 14: Pedagogical orientation for the Spring Semester 2016-2017
- Friday 14: Deadline to submit a tuition allowance request for students who are siblings
- Thursday 20: Settlement of the 2nd payment of tuition fees for the Fall Semester 2016-2017
- Friday 21: Application of the financial penalty
- Monday 24 - Friday 28: Midterm exams (without class suspension) for the Fall Semester 2016-2017
- Friday 28: Deadline to submit a request of exemption from the NSSF membership fees

November 2016

- Tuesday 1 : All Saints Day
- Tuesday 2: Deadline to submit a request for a double degree, to change the academic program and to change the campus for the Spring Semester 2016-2017 (According to Student's Guide - Week 9)
- Monday 7: Deadline for Withdrawal (W) (According to Student's Guide - Week 10)

- Saturday 12: Admission tests for the Undergraduate Studies program (except for Medicine and Engineering) for the Fall Semester 2017-2018
- Monday 14 - Sunday 20: Online Pre-Registration for the Spring Semester 2016-2017 for current students
- Monday 21: Settlement of the 3rd payment of tuition fees for the Fall Semester 2016-2017
- Tuesday 22: Independence Day / Application of the financial penalty
- Friday 25: Open doors for school students

December 2016

- Thursday 8: Make-up of Tuesday classes of week 6
- Friday 9: Make-up of Monday classes of week 2 / End of classes of the Fall Semester 2016-2017
- Saturday 10: TOEFL exam
- Sunday 11: Prophet Mohammad Birthday*
- Monday 12 - Tuesday 20: Final exams of the Fall Semester 2016-2017
- Wednesday 14: Deadline to submit a request for readmission for the Spring Semester 2016-2017
- Thursday 22: Deadline to submit the final grades of the Fall Semester 2016-2017
- Saturday 24 - Sunday 1, January: Christmas and New Year Holiday

January 2017

- Monday 2: Deadline to submit a request to review a final grade of the Fall Semester 2016-2017
- Wednesday 4: Deadline to sit for a make-up final exam for the Fall Semester 2016-2017
- Wednesday 5: Deadline to complete the grades (I) of the Fall Semester 2016-2017
- Wednesday 6: Epiphany - Armenian Christmas
- Saturday 7: Admission tests for the Undergraduate Studies program (except for Medicine and Engineering) for the Fall Semester 2017-2018
- Monday 9: Registration put on hold for students with incomplete files
- Wednesday 11 - Sunday 15: Validation of the Pre-Registration and Registration for the Spring Semester 2016-2017 for Undergraduate, Graduate and Postgraduates Studies programs (Settlement of the 1st payment of tuition fees for the Spring Semester: 2 working days prior to online registration)
- Monday 16 - Wednesday 18: Pedagogical orientation and registration of new students, transferred students and readmitted students for the Spring Semester 2016-2017
- Tuesday 17: Saint Anthony the Great
- Monday 23: Start of classes for the Spring Semester 2016-2017
- Monday 23 - Friday 27: Add/Drop - Late registration for the Spring Semester 2016-2017
- Monday 23: Application of the $100 late registration penalty
- Monday 23: Registration cancellation of new students with incomplete files

February 2017

- Thursday 9: Saint Maron
- Tuesday 14: Memorial of H.E.Mr. Rafic Hariri
- Friday 24: Deadline to submit a request of exemption from the NSSF membership fee
- Saturday 25: English Proficiency Test

March 2017

- Friday 3: Deadline to submit a tuition allowance request for students who are siblings
- Monday 13 - Friday 17: Midterm exams (without class suspension) for the Spring Semester 2016-2017
- Monday 20: Deadline to submit a request for a double degree, to change the academic program and to change the campus for the Fall Semester 2017-2018 (According to Student's Guide - Week 9)
- Monday 20: Settlement of the 2nd payment of tuition fees for the Spring Semester 2016-2017
- Tuesday 21: Application of the financial penalty
- Monday 27: Deadline for Withdrawal (W) (According to Student's Guide - Week 10)

April 2017

- Saturday 1: Admission tests for the Undergraduate Studies program (except for Medicine and Engineering) for the Fall Semester 2017-2018
- Monday 3: Start of the period for the submission/renewal of the social file for the Academic year 2017-2018
- Monday 3 - Sunday 9: Online Pre-Registration for the Summer Session 2016-2017 for current students
- Thursday 13 - Monday 17: Catholic and Orthodox Easter
- Thursday 20: Settlement of the 3rd payment of tuition fees for the Spring Semester 2016-2017
- Friday 21: Application of the financial penalty

May 2017

- Monday 1: Labor Day
- Friday 5: End of classes of the Spring Semester 2016-2017
- Saturday 6: TOEFL exam
- Monday 8 - Monday 15: Final exams of the Spring Semester 2016-2017
- Tuesday 9: Deadline to submit a request for readmission for the Summer Session 2016-2017
- Wednesday 17: Deadline to submit the final grades of the Spring Semester 2016-2017
- Friday 19: Deadline to submit a request to review a final grade of the Spring Semester 2016-2017
- Tuesday 23: Deadline to sit for a make-up final exam for the Spring Semester 2016-2017
- Thursday 25: Deadline to complete the grades (I) of the Spring Semester 2016-2017
- Tuesday 30 - Thursday June 1: Validation of the Pre-Registration and Registration for the Summer Session (Settlement of the 1st payment of tuition fees for the Summer session: 2 working days prior to online registration)

June 2017

- Monday 5: Start of classes for the Summer Session 2016-2017 - Late Registration / Application of the $100 late registration penalty
- Saturday 10: Admission tests for the Undergraduate Studies program (except for Medicine and Engineering) for the Fall Semester 2017-2018
- Friday 23: Deadline for Withdrawal (W)
- Monday 26: Eid el Fitr*
- Monday 26 - Sunday July 2: Online Pre-Registration for the Fall Semester 2017-2018
- Friday 30: Deadline to submit/renew the social file for the academic year 2017-2018

July 2017

- Saturday 1: Admission tests for the Undergraduate Studies program (except for Medicine and Engineering) for the Fall Semester 2017-2018
- Wednesday 5: Settlement of the 2nd and last payment of tuition fees for the Summer Session 2016-20176:
- Thursday 6: Application of the financial penalty
- Saturday 8: TOEFL exam
- Monday 10: End of classes for the Summer Session 2016-2017
- Tuesday 11 - Wednesday 12: Final exams for the Summer Session 2016-2017
- Wednesday 12: Competitive Exam in Medicine for the Fall Semester 2017-2018
- Friday 14: Deadline to submit the final grades of the Summer Session 2016-2017 / Deadline to submit a request for transfer for Fall Semester 2017-2018
- Tuesday 18: Deadline to submit a request to review a final grade of the Summer Session 2016-2017
- Thursday 20: Deadline to sit for a make-up final exam for the Summer Session 2016-2017
- Friday 21: Deadline to complete the grades (I) of the Summer Session 2016-2017 / Admission tests for the Undergraduate Studies program (except for Medicine) / Competitive Exam in Engineering for the Fall Semester 2017-2018
- Monday 31: Deadline to submit a request for readmission for the Fall 2017-2018

August 2017

- Friday 4: Admission tests for the Undergraduate Studies program (except for Medicine and Engineering) for the Fall Semester 2017-2018
- Friday 11: Admission Tests for Ph.D. programs for the academic year 2017-2018
- Friday 18: Admission tests for the Undergraduate Studies program (except for Medicine) / Competitive Exam in Engineering for the Fall Semester 2017-2018
- Monday 21: Registration put on hold for students with incomplete files
- Monday 21 - Monday 27: Validation of the Pre-Registration and Registration for the Fall Semester 2017-2018 for Undergraduate, Graduate and Postgraduates Studies programs (Settlement of the 1st payment of tuition fees for the Fall Semester: 2 working days prior to online registration)
- Thursday 24 - Monday 28: Pedagogical orientation and registration of new students, transferred students and readmitted students to the Fall Semester 2017-2018

September 2017

- Thursday 1: Start of classes for the Fall Semester 2017-2018
- Thursday 1 - Friday 9: Add/Drop - Late registration for the Fall Semester 2017-2018
- Thursday 1: Application of the $100 late registration penalty
- Monday 5: Eid El Adha* / Registration cancellation of new students with incomplete files

Academic Rules and Policies

Academic Rules – Undergraduate Studies

Undergraduate Diplomas/Degrees

A student registered in the Undergraduate Studies at USEK is registered in one of the following diplomas:

- Bachelor Degree
- Bachelor of Engineering
- Diploma of Agricultural Engineering
- Teaching Diploma

Admission

Admission Conditions

To enroll in undergraduate studies at USEK applicants should:

1. Hold a Lebanese Baccalaureate (Life Sciences - LS, General Sciences - GS, Literature and Humanities - LH, Socio-Economics - SE, Technical Baccalaureate - TB) or an equivalent degree.

   N.B.: The admission of a candidate with a Technical Baccalaureate depends on the compatibility between the applicant's specialization and the envisaged academic program.

2. Fill an undergraduate studies admission form, available online or at the Orientation Office, and attach the following documents:
   - A photocopy of the national identity card (a photocopy of the passport for foreigners);
   - Two recent passport photos;
   - A photocopy of the grades transcript of the three secondary classes certified by the school (the first two trimesters for Grade 12 in case the admission form is submitted before the end of the current academic year);
   - The certificate of the Lebanese Baccalaureate or an equivalent degree (as soon as it is obtained), certified by the Lebanese Ministry of Education and Higher Education;
   - An authentic copy of the attestation of university studies already completed, if applicable.

   The completed admission application should be returned to the USEK Orientation Office within the established deadline fixed in the Academic Calendar, published on the University website.

3. Pay the fees for opening a student file and for an admission tests; these non-refundable fees should be set up beforehand in one of the banks specified by the University.
4. Pass the admission test, organized by the University, relevant to the chosen program.

Admission Application

The admission application can be downloaded from the University website or taken directly from the Orientation Office. The applicant can make the choice of three majors in his/her file.

The admission application should be returned, completed and accompanied with all the required documents, to the Orientation Office within the established deadline. This application, as well as the attached documents, even the official documents, remain the property of USEK and will be confidential.

Incomplete files will not be taken into consideration. The voluntary transcription of incorrect information and submission of falsified documents, will automatically lead to the annulment of the admission request.

The admission application includes a section entitled "Right of oversight" enabling the candidate to specify to the University if he/she allows or not to disclose, to one person or more persons, the information contained in his academic file. This permission applies when he/she reaches 18 years.

NB: Before 18 years old, the right of oversight is automatic for legal tutors.

Admission test

Objectives

This test, organized by USEK, is a prerequisite for registration in undergraduate studies and aims at assessing the linguistic, cultural and scientific levels of the applicant. The results of this test, which complements the admission application, serve as the main criteria for being admitted at the University. In the case where the applicant obtains passable results, he/she will be required to enroll in remedial courses in subjects the exam revealed as weak areas. In case of failure, the applicant can register a second time to the admission test without having to pay the full admission fees, but will have to pay fee for the management of the admission test.

Calendar

Applicants are responsible for consulting the USEK calendar on the University website to check for the dates and times of the admission test, or they can refer to the Orientation Office directly. The registration to the admission test is done no later than five days before the date of the exam at the University's Orientation Office, or at the secretariats of the Regional University Centers.

Admission Test

The admission test is divided into two parts:

- A language placement test (French and/or English and/or Arabic);
- A specific entrance exam related to the chosen program.

The Language Placement Test

The type of the Language Placement Test the applicant should pass is related to their chosen program: French and/or English and/or Arabic. Specimens of the different placement tests can be given to the applicants through the Orientation Office.

Applicants applying for the English section of an academic program are not required to undergo the French Language Placement Test. However, in order to be admitted, they should obtain a minimum grade "B"[1] in the English Language Placement Test.

N.B.

Applicants wishing to register at the Faculty of Medicine and Medical Sciences, the Faculty of Engineering, the Bachelor and Master in Architecture (Combined Program), the Bachelor in Engineering Sciences – Food Engineering and the Diploma of Agricultural Engineering should get a minimum grade "C" on the English placement test and grade "B" on the French placement test in order to apply for the entrance exam.

Applicants wishing to register at the Faculty of Law should get a minimum grade "B" on the Arabic placement test.

It is worth noting that the obtained results on the placement tests have an unlimited validity. However, placements tests can be taken again by students who are not satisfied with their results. They will have to pay the fees for the placement test every time.

Exemption from the French and English Language Placement Tests

Applicants who are holders of DELF B2 or TCF B2 will be exempt from the French Language Placement Test and related remedial courses.

Applicants who are holders of SAT-TOEFL (W:360), Institutional TOEFL (550), CBT (213), IBT (80), FCE (C) or IELTS (7) will be exempt from the English Language Placement Test and related remedial courses.

Applicants who have followed and passed language courses (French, English or Arabic) at the USEK Language Center will be exempt from the corresponding placement tests and related remedial courses.

The Specific Entrance Exam Related to the Chosen Program

Applicants are required to pass an entrance exam, proposed by the University, related to their chosen program (Mathematics, biology, drawing, etc.). Samples of past tests, can be given to candidates, via email, through the Orientation Office.

The obtained results on the admission test remain valid for two consecutive semesters.

[1] Grade A : no remedial courses – Grade B : one remedial course – Grade C: two remedial courses – Grade D: three remedial courses

N.B.

Those students wishing to register at the Faculty of Medicine and Medical Sciences, the Faculty of Engineering, the Bachelor and Master in Architecture (Combined Program), the Bachelor program in Food Engineering Sciences, and the Master of Science in Food Engineering should know that the results of entrance exams are only valid for the fall semester of the same year.

Exemption from Admission Tests

Applicants who are holders of the Lebanese Baccalaureate (or an equivalent degree acknowledged by the Ministry of Education and Higher Education), dating back no more than 2 years and having obtained a Good rating at the official exam, are exempt from the admission test (except for the Medicine Program) following the special authorization of the Admission Committee based on:

- The grades of the applicant during the three secondary years of study, signed and stamped by the Head of the school;
- The official grades of the Lebanese Baccalaureate or its equivalent.

If correlation cannot be established between the official exam grades of the applicant, his/her grades at high school and the assessment given by the school, the Committee will issue an unfavorable notice.

In case of linguistic deficiency, according to the teaching language of the chosen program, the application is rejected and the student will be required to pass the tests in order to be accepted.

Types of Admission Tests According to the Academic Programs

Applicants should pass the language placement tests and the entrance exams corresponding to the program in which they wish to enroll, as indicated in their admission application.

The table of the admission tests according to the program is available online on the University's website.

N.B.:

Candidates holding a Technical Baccalaureate are required to consult the Orientation Office to get information on the tests they will have to undertake according to the chosen program.

File Transfer

Applicants who have previously pursued academic studies in another university accredited by the Lebanese Government or in a technical studies institute, and are wishing to pursue their studies at USEK, should fill in an admission application and tick the "Transfer" box. Any transfer request should be submitted, through an admission application, **within at least three weeks** prior to the beginning of the registration period.

Transfer requests should be accompanied with all the required documents for admission to USEK, and with detailed descriptions of the potential transferable courses (specifying the number of hours), in addition to the latest academic transcript; noting that the admission is applicable, in such case, based on the secondary school grades and the university transcript. Furthermore, applicants requesting a file transfer option may be required to take a Language Placement Test in French and/or English and/or Arabic according to the chosen program.

Following the evaluation of the file and the study of the applicants' references by the hosting Faculty/Institute and the Admission Committee, all transferable courses will be validated by the letter 'T'. The assessment of the credits to be likely transferred is based on the criteria defined by the academic regulations of the University.

N.B.:

A transfer to the Faculty of Engineering, to the Bachelor and Master in Architecture (Combined Program), to the B.S. in Engineering Sciences – Food Engineering and to the Diploma in Agricultural Engineering is accepted only if a student is coming from a program from a Faculty of Engineering, of Agricultural Sciences, and of Fine and Applied Arts recognized by the Order of Engineers and Architects. Candidates who wish to get a transfer to the Faculty of Engineering should necessarily sit for a French and English placement test.

Transfer is not accepted for a student in a probationary situation.

Admission on File

Applicants who are eligible to be admitted on file are students in their final year of high school. They are required to submit a completed application to the Orientation Office, according to the dates fixed in the academic calendar, available on the University website or at the Orientation Office.

The Admission Committee carefully studies each application, adopting flexible criteria with each particular case. In case of linguistic deficiency, according to the teaching language of the chosen program, the file is rejected.

Applicants admitted on file with excellent school results throughout the three secondary classes are eligible of obtaining a scholarship and this according to the criteria defined by the *Regulations of Granting Excellence Scholarships and Merit Scholarships*.

Applicants for a Medicine program cannot submit an application for Admission on File. They should pass the competitive exam.

Admission on Title

Applicants who obtained a *Very Good* ranking in the Lebanese Baccalaureate or its equivalent benefit from an admission on title (except for Medicine), as well as an excellence scholarship.

However, If correlation cannot be established between the official exam grades of the applicant, his/her grades at high school and the assessment given by the school, the

Admission Committee will issue an unfavorable notice towards the admission on file or granting a scholarship.

An excellence scholarship can cover the whole tuition fees (NFSS registration fees excluded). Maintaining the scholarship beyond the first year depends on whether or not the applicant maintains a high Grade Point Average throughout their studies, and also on the criteria defined by the *Regulations of Granting Excellence Scholarships and Merit Scholarships* at USEK.

Admission

The opening of an admission application allows the applicant to pre-register at the University, while they await for results of the Lebanese Baccalaureate (or its equivalent) and the admission test.

The application and the results of the admission test are assessed in parallel by the University's Admission Committee, which judges the suitability of the applicant. Afterwards, the decision of this Committee is published on the USEK website. The admitted applicant should confirm his/her choice of program by proceeding to the Orientation Office, or confirming via the University website. Having completed this procedure, the student can register in his/her courses after paying the first installment of his/her tuition fees.

Admission Validity

The admission is only valid for the ongoing academic year. The applicant who does not register for one of the two semesters during the year in which he/she is accepted, loses his/her right of admission; he/she will then have to submit a new application form to be studied according to the admission conditions.

No admission is authorized for the summer session, noting that the first registration at USEK should take place during Fall or Spring semesters.

The admission to the Medicine program is only valid for one semester.

Admission of the *Ungraded Attendee*

The *Ungraded Attendee* status enables interested candidates to register at USEK in order to take courses, without any previous conditions of having a diploma/degree or undertaking a test. Applicants for the Ungraded Attendee status have to fill an admission application at the Registrar Office, along with a photocopy of the identity card and two passport photos. The file will be examined by the Admission Committee in cooperation with the Head of the Academic Unit related to the chosen courses.

The *Ungraded Attendee* will receive, at the end of the semester or of the Summer session, a certificate of attendance or a transcript with the grade U (Ungraded). If the *Ungraded Attendee* does not attend the class as a regular student, he/she will get the grade "R" and will not receive any certificate. He/she does not benefit from the scholarship granted to students

(scholarships, student Social Security). The *Ungraded Attendee* must pay all the fees of registration and studies at the beginning of the semester.

Non-Degree Students and Visiting Students[1]

The purpose of the application of non-degree and visiting students is to pave the way to their enrollment for a short period of study and not for a whole curriculum.

Applicants must submit the following documents:

• A completed application form;

• An official copy of school / university transcript with information about the rating scale;

• Two letters of recommendation required for visiting students: one from a school advisor and the other from a professor;

• A photocopy of passport or identity card (if local);

• Non-refundable registration fee of 100 000 LL or 67 USD.

To pay the costs of application and registration, applicants (s) who send their applications by mail should include a written check to the Holy Spirit University of Kaslik. The application fee can also be paid by bank transfer, in reference to the name of the applicant. Applicants who submit their applications personally should pay the expenses to the Accounting Office in the ground floor of Building A.

N.B.: Cash is not allowed.

Admission of a visiting student

This category applies to a student who is currently enrolled in a degree program outside Lebanon, and who seeks to take courses at USEK as part of a recognized study abroad or of an experience of exchange and who wishes to apply or to transfer credits for courses taken at USEK to the curriculum of his/her university of origin.

Admission is normally offered during two semesters if the student enrolled in Fall Semester at USEK or for two semesters if he/she starts from the Spring semester (registration may be extended for another semester depending on the course offerings and the results of the courses taken at USEK; the petition to this effect is fundamental).

Applicants should note the following:

- Visiting students must normally complete their studies in their universities of origin;
- Visiting students can normally take up to 18 credits of undergraduate program or 9 from the graduate program per semester;

[1] A visiting student can be an international student coming to USEK not in the frame of an agreement as for the International Exchange Students.

- Visiting students must be enrolled in an undergraduate or a graduate program at a university recognized outside Lebanon;
- Applicants must complete the first year or a minimum of 30 credits at their university of origin before beginning their studies at USEK;
- Students' file is examined by the University's Admission Commission;
- Students must meet the language requirements in English and French;

The exemption is given to applicants whose native language is English or French, or to those who register ONLY in Arabic language courses.

NB: The admission at USEK as an Ungraded Attendee or as a visiting student does not entitle the student to a regular study program at USEK.

Admission of Non-Degree Students

For a student who does not want to graduate:

This category applies to students enrolled in an academic program recognized in Lebanon, having completed at least two semesters (24 credits minimum) and who do not wish to enroll in a study program at the USEK. The non-degree student may take up to 18 credits per semester. Admission is normally offered for two semesters if the student enrolled in the Fall Semester at USEK or for two semesters if he/she starts from the Spring Semester (registration may be extended to another six months depending on the range of courses and on the results of the courses taken at USEK. The petition for this is fundamental).

Candidates must know the following:

- Students can normally take up to 18 credits of undergraduate program or 9 from the graduate program per semester;
- Students must have a high school diploma, a high school certificate recognized by the government or a higher level of education recognized by USEK;
- Students must have completed at least two semesters at another university recognized by USEK;
- Credits taken at USEK will be considered in USEK diplomas if the student wishes to apply as a student. He/she will then be accepted following the admission criteria;
- Students must meet the language requirements in English and French.

N.B.: An exemption may apply.

International Exchange Students

Admission of an Incoming Exchange student

This category applies to students enrolled in a degree program abroad in one of USEK partner institutions (list of partners http://www.usek.edu.lb/en/international/agreements-and-

collaborations-by-country), having completed at least two semesters (30 credits minimum), and who wish to transfer credits taken at USEK to their university of origin.

Admission is normally offered for up to two semesters (summer session may be added), with the possibility of extension upon the approval of the home university.

Applicants must submit the following documents:

- A completed application form;
- An official copy of university transcript with information about the rating scale;
- One letter of nomination from the university of origin;
- A photocopy of passport or identity card (if local);

Applicants should also note the following:

- Incoming Exchange Students must be enrolled in an undergraduate or a graduate program at a university that has a signed agreement with USEK;
- Incoming Exchange Students must have completed the first year or a minimum of 30 credits at their university of origin before applying at USEK;
- Incoming Exchange Students must be nominated by their home university;
- Incoming Exchange Students are exempted from paying the tuition fees at USEK if stipulated in the agreement signed with the university of origin;
- Incoming Exchange Students can normally take up to 18 credits of undergraduate program or 9 of the graduate program per semester. Taking additional credits must be approved by the relevant department chair knowing that the student must pay the tuition fees of the total number of additional credits;
- Incoming Exchange Students must meet all language requirements at USEK;
- Incoming Exchange Students must complete their studies at their university of origin;

Outgoing Exchange Students

This category applies to students regularly enrolled at USEK and who seek to take courses abroad as part of a recognized program (exchange program to one of USEK partners, special programs, scholarships) and who wish to validate at USEK the credits earned abroad. Mobility period can be of a maximum of two semesters.

Applicants should note the following:

- Outgoing Exchange Students must be enrolled and active in an undergraduate or a graduate program at USEK;
- Outgoing Exchange Students must complete the first year or a minimum of 30 credits at USEK before going abroad;
- Outgoing Exchange Students must have a GPA of 80/100 or 3.0 / 4.0 or its equivalent

- Outgoing Exchange Students are under the obligation of registering USEK equivalent courses and covering the inherent tuition fees in due dates to ensure course recognition;
- Outgoing Exchange Students must normally complete their studies at USEK after the mobility period

Registration

Pre-registration

During the sixth week of classes, educational orientation aiming at guiding students regarding their pre-registration is conducted within academic units by the department heads and educational advisors.

Students wishing to make a change in the program must submit their application during the ninth week at the latest.

During the eleventh week, pre-registration takes place online. The period given to the online pre-registration is similar to that attributed to common registration (one week).

Online pre-registration is conditioned by the following criteria:

- The courses of the current semester are considered successful completed (in other words, registration in the courses with the prerequisites is done).
- The catalog must be observed, the "overrides" are not feasible;
- The student is entitled to a maximum registration of 18 credits in undergraduate programs and 10 credits in Graduate programs.

- During the registration period for the following semester, the code "PR" of the pre-registration carried out by the student must be confirmed online, by "Complete Registration".

- Student who fails to confirm or drop his courses during the Registration period will be subject to a penalty fee.

- If the prerequisite courses considered successful in the pre-registration are not successfully completed, the confirmation of courses attached therein cannot be made.

- By the end of the semester, the student in Undergraduate programs placed in a probationary situation will only validate his/her registration from 12 to 13 pre-registered credits. Students in Graduate programs will validate the registration of 6 pre-registered credits.

The student community will be informed about the procedure and all the related information to ensure the proper progress of the pre-registration online.

Calendar and Modalities

Course registration is done at the beginning of every semester or the summer session, exclusively online according to the academic calendar. For more information about this calendar, students should visit the University website.

Students cannot register before the specified period. For those who could not register within the established deadlines, it will be possible for them to undergo Late Registration during the Add/Drop period, but they will be subject to penalty fees.

Registration Procedure

1. For his/her first registration, the candidate confirms his/her choice of program in the Orientation office or on the University website.
2. Then the admitted applicant pays the installment of the first payment of tuition fees at one of the banks listed in the admission application and on the University website.

   The first installment of tuition fees includes: the registration fees, The National Social Security Fund fees fixed by the government, and the first term of tuition fees (the full table on the fees is available on the USEK website).

   The amount of the first installment, fixed by the University, is similar for all students of the same program, regardless the number of credits that the student is willing to register in, and even though he/she benefits from a financial aid (in this case, the financial adjustments will take place after the registration period).

   If the amount fixed by the University exceeds the tuition fees related to the student's semester (for example in case of a final year student), the student should then proceed to the secretariat of the related Faculty/Institute, fill out the relevant final payment form and have it signed by the Dean/Director or the Academic Secretary of the related Faculty/Institute, before submitting it to the Social Service Office. He/she can then set the first payment to start the next day.
3. Once the first payment of tuition fees is set up, the student can register his/her courses during the period defined by the academic calendar (the student should wait 48 hours at least after depositing the payment at the bank before being able to register his/her courses). The payment should therefore be paid within 48 hours before the end of the registration period. Otherwise, the student will have to undergo a Late Registration and pays a penalty for the amount announced during the registration period.

Steps to follow for course registration:

- Consult in advance the timetable of the courses on the USEK website (usek.edu.lb) or on the bulletin boards and choose courses according to the

chosen program. With the exception of final year students who have been issued exemption from this rule by the Head of Department, approved by the Dean/Director, the student is required to register in 12 credits at least.

- Meet, in case of a need, with the Academic Advisor to choose his/her courses.
- Proceed to the online registration on the Banner Self-Service during the fixed registration period in the Academic Calendar.

N.B.:

During the Drop/Add period, the student should also consult his/her Academic Advisor. A student cannot undertake the desired modifications outside his/her related Faculty/Institute.

A course in the course offering may be canceled for major administrative purposes at the end of the registration period. Students and teachers will be notified of its closure by the concerned authorities. The adjustment of registration may be done during the Drop/Add period.

Access to Banner Self-Service and USEK Email Address

All students enrolled at USEK automatically benefit from access to the University computer and management system, the Banner Self-Service System, which allows students to consult their academic transcripts, course catalogue, course offering) as well as the account related to their tuition fees. Also, every student is issued with a unique USEK email address (FName.InitialOfFather'sName.LName@net.usek.edu.lb). These services are a means of communicating information among the University's administration, faculty members and students.

This information is automatically given to the students as soon as he/she activates his/her USEK account – as soon as he/she confirms his/her choice of program at the Orientation and Admission Office or on the University website.

Access to both accounts is made available through connecting to the University Intranet MyUSEK or through the USEK website. In case of problems or for further information, students can refer to the IT Service Desk.

Student Card

This card identifies students registered at USEK. Therefore, he/she should always carry it with them, as it is necessary for students to access the University campus, classrooms, Library, exams, conferences, sports center, etc.

Students should collect their card from the Registrar Office, after the registration period.

While waiting for his/her card to access the campus, classrooms, Library, etc., the student should show his/her registration form.

Duplicate: in case of loss of the card, a duplicate can be made by the Registrar Office and the student should participate in the reproduction cost fixed by the University and indicated on the University website.

University Fees

Registration Fees

The registration fees for each semester are fixed by the University for all sections and Regional University Centers, and are non-refundable (excluding academic services and summer sessions). The fees are available on the University website.

Membership Fees to NSSF

Membership fees to the National Social Security Fund (NSSF), as fixed by the government, are annual. Students already affiliated to the NSSF, or an equivalent fund, are required to submit an exemption form at the NSSF Delegate Office to ensure that the fee paid in advance is credited to their account during the registration. The relevant form can be downloaded from MyUsek, the University Intranet and from the USEK website (usek.edu.lb). It should be completed and submitted before the end of the fourth week of classes; the date is fixed in the Academic Calendar.

Tuition Fees

The cost of a credit varies according to the level of studies and the chosen specialization. The complete table of fees is available on the USEK website. Credit costs are reported in advance to students through bulletin boards, the University website and Intranet. It is the responsibility of each student to keep up-to-date with University news and announcements by regularly consulting these means of communication.

The fees are applied in all USEK branches. However, students registered in one of the three Regional University Centers automatically benefit from a 20% reduction on their tuition fees; this reduction does not include the fee for opening a file, the registration fee and the NSSF membership fee.

N.B.:

- A student registered in any of the three Regional University Centers of Zahle, Chekka and Rmeich and, thus, benefiting from a 20% subsidization of his /her study fees, will have to pay the full fees pertaining to the course) credits attended on USEK's main campus; without any subsidy if the same course is given in his/her home campus.

- A student registered in the main campus does not benefit from the 20% subsidization of his/her study fees pertaining to the course credits in one of the three Regional University Centers of Zahle, Chekka and Rmeich.

If the student registered in any of the three Regional University Centers of Zahle, Chekka and Rmeich, benefits from a scholarship or social aid, the amount in question will be applied to the subsidized tuition fees.

Payment Procedure

The student should pay his/her university fees in three installments per semester and two installments for the Summer Session.

Failure to comply with payment installments, as stated in the Academic Calendar, will lead to a 5% financial penalty calculated according to the amount due. Students who do not settle their payment on time will not be able to continue with any administrative procedure.

It is the responsibility of each student to make sure that his/her tuition fees were paid within the deadlines established by the administration of the University.

Refund

No refunds are granted unless in case of de-registration (refer to: Refund after Deregistration).

Financial Aid

Faithful to the mission of the Lebanese Maronite Order, USEK is committed to help every student facing personal, relational, family, financial or medical difficulties without any discrimination related to religion, culture or nationality.

- The Social Service Office proposes financial aids programs allowing the spreading out or the reduction of the tuition fees until the second year of studies. These donations are valid for one academic year, and are not automatically renewed. Applications must be submitted between April and June of the current year for the student to benefit from next year's reduction. It is noteworthy that the reductions granted may in no case be applied to the first payment of each semester and the Social Service Office reserves the right to cancel in the following cases: Falsification of data provided by the student to the BSS;
- Disciplinary action against the student;
- Student placed on probationary situation;
- Other reasons deemed plausible.

Academic Regulations

The provisions of the academic regulations detailed in the paragraphs below apply to all students of USEK. However, some academic units may have specific provisions which may overrule these regulations. Students can consult the specific regulations at the secretariat of the unit to which they are affiliated.

The University Council reserves the right to amend the academic regulations.

A candidate seeking admission to USEK is committed to comply with the regulations of the University, as well as any amendments, and also to follow the procedures in force.

A student has to keep informed about academic regulations, procedures and amendments. The University adopts many means of communication (website, Intranet, email, SMS, social media, etc.) to provide students with information that can be useful and necessary during their academic career.

That is why, if a student needs to modify his/her personal information, he/she is required to complete the related form at the Registrar Office.

Educational Structure

The curriculum in force at USEK is based on the modular system of credits.

Studies Structure

Each course is presented as a coherent collection of educational materials and activities, organized by a department inside a Faculty or an Institute. These educational materials include magisterial courses, directed activities, practical activities, personal activities (projects, term papers, training, etc.), or group activities, which are adapted to meet the needs of each group.

Each course has a certain number of credits and lasts for one semester. A student must register for these courses at the beginning of every semester and the course is either validated or not, according to the student's exam results at the end of the semester.

Faculty, Institute and Related Departments

According to his/her individual program, every student relates to a Faculty/Institute, namely a Department which manages their academic process, from registration to graduation. The Head of Department ensures that the relevant academic regulations are applied and guarantees the smooth running of courses and practical work, offered by the department, from course offering to final exams. In addition, the Head of Department controls the academic level of the students, gives advice about petitions, requests to revise a certain grade, and notifies about probationary situations leading to obligatory repetitions of a course, or to a modification in the curriculum.

For Faculties/Institutes which are not divided into departments, the Academic Secretary is in charge of the Head of Department's duties.

Educational Advisor

Upon registration and for the duration of their enrolment, students can refer to their assigned Educational Advisor. This Advisor is appointed by the Dean/Director and is chosen by the Department's (or unit's) faculty members, according to the student's program. The period of the academic orientation is fixed during each semester in the Academic Calendar.

The Educational Advisor guides the student's choices and informs him/her about the current regulations.

When the student changes his/her academic cycle or program, he/she refers to the new Educational Advisor assigned by the Dean/Head of the relevant new academic unit.

Educational Contract

All required courses necessary for obtaining the diploma are specified in an Educational Contract, which defines the following:

- The prerequisites and corequisites;
- The modules specified by the Faculty/Institute for the concerned specialization and according to the prepared degree (specializations can be proposed in every curriculum as options);
- The general education modules required by the university as well as the elective courses offered by various Faculties/Institutes.

Academic contracts and course itinerary for all programs of study offered at USEK are available on the website of the University and on the intranet *MyUSEK*.

The Faculty/Institute defines and organizes the various curricula proposed to students. It identifies the constitutive educational units, their credit hours, contents and arrangements within the chosen program and ensures training and educational follow-up.

The student, if he/she wishes to, can get his/her department's approval to comply with a more recent Educational Contract. In such a case, the concerned student will have to fully respect the requirements and directions of his/her new Educational Contract.

If the student changes his/her program or stream, he/she will have to comply with the Educational Contract of the new chosen specialization.

Credits System

The Credit

The biannual credit is the measuring unit of the number of hours per semester.

In the system adopted by the Holy Spirit University of Kaslik, one credit represents one teaching hour (50 minute course) per week during a 15 week semester (including exams and tests). Therefore, a three credit course generally represents 45 hours of attendance, including exams. As for practical activities, tutorials, group work or laboratory activities, they represent 30 hours of attendance for every credit.

In short: 1 credit = 15 teaching hours / semester.

1 credit = 30 hours of practical, directed or laboratory activities / semester.

Trainings in companies and hospitals, as well as projects are subject to specific regulations.

Every diploma/degree has a specific number of credits. Credits facilitate flexibility among various university programs, as well as the mobility of students. Acquired credits are capitalized and can sometimes be transferred from one Faculty/Institute to another; or even from one university to another.

The Course

A course is composed of one or more credits and is academically managed by the Faculty/Institute that determines its contents according to the objectives defined by the program of studies. Every course has its own requirements and the student cannot be registered for a course without the valid prerequisite/s, if it/they exist(s).

The student's freedom to choose his/her courses is conditioned by the criteria of prerequisites and corequisites and also by the approval of his/her Educational Advisor who, in certain cases, must take into account the candidate's academic credentials.

The Semester

The academic year is divided into two semesters, Fall and Spring, plus a Summer session.

Every semester includes 14 effective teaching weeks and one week of final exams. The Summer session includes, in average, 5 weeks, with 5 teaching days per week, including intensive courses and final exams. It is worth mentioning that Summer courses have exactly the same number of hours and evaluation criteria as Fall and Spring semesters.

Credit Hours

<u>The minimum and maximum number of credits, per semester, for a full-time registered student</u>

The average number of credits for every student per semester is 15. The student can take up to 18 credits per semester. The minimum number of credits per student during a semester is 12.

Following the approval of the Dean/Director, a student, in certain circumstances, considered as necessary, can register in a maximum of 21 credits. This approval is conditional upon the Faculty of Medicine with a cumulative GPA of 85/100 (Summer Session included).

A student on probation can only be registered for 12-13 credits. He/she is advised to register in the course that he/she has to repeat in order to get out of the probation status.

N.B.:

A student enrolled in a Double Degree can register in a maximum of 21 credits per semester. However, he/she has to give a minimum of 12 credits for the priority program.

<u>The minimum and maximum number of credits during the Summer session</u>

Students can register for a minimum of 1 credit and a maximum of 6 credits. Following the approval of the Dean/Director, student can, in certain cases, register for a maximum of 9 credits. Students on probation can only register for courses they have to repeat and for a maximum of 6 credits.

Academic Status

- Bachelor Degree (BA):

  A student is considered as having finished an academic year once he/she has validated 30 credits, apart from the ones he/she had already accumulated during previous years. Therefore, a student who has accumulated 30 credits, after the baccalaureate, is admitted into the second year and a student with 60 credits is admitted into the third year. However, some programs can follow a slightly different distribution.

An undergraduate student is considered to be at the end of his/her academic journey:

- During his/her registration for the Fall or Spring semester, he/she is not on probation, and he/she still has 18 credits or less to validate his/her academic program, in accordance with the educational contract of the related program;

- During his/her registration for the Summer session, he/she is not on probation, and he/she still has 9 credits or less to validate his/her curriculum, in accordance with the educational contract of the related program.

Home Campus

A student is bound to register at a given campus. However, since the quality of education is the same within all USEK campuses, a student may, if the Dean/Director approves his /her request, attend one or several courses in another campus.

Remedial Course

A student admitted under the condition of following remedial courses, should register for these courses upon his/her first semester at USEK. Any violation of this rule will lead to the termination of his/her admission.

A remedial course cannot be taken more than two times (can only be registered twice maximum) under penalty of being excluded from the University. Nevertheless, the student can present a petition to the Faculty asking to reconsider his/her case for one last chance before exclusion.

During his/her program of studies, a student who has to validate the remedial course can, if he/she wishes, present an exemption request of one or all remedial courses in French and/or English in case he/she validates, outside the University, the DELF B2 (or its equivalent) or the TOEFL (or its equivalent), or present an admission test and pass it.

If the validation of DELF B2 (or its equivalent) or TOEFL (or its equivalent) takes place during the first semester, the student who has an exemption request of one or all remedial courses should not necessarily be registered at one or all remedial courses subject of exemption. A student who presents an exemption request for one or all remedial courses necessarily has to be registered, during the semester when he/she submits the request, in the remedial course(s) that will be subject to exemption. Therefore, he/she has to submit the related form at the Registrar Office and indicate the motive of exemption to the Orientation Office. The Orientation Office will announce to the student the date of the entrance exam.

N.B.:

An exemption request of one or all remedial courses must be made no later than five days before the date of the last placement test before the final exam.

Grading System

The Grading Table

The final grade given for a course is a numerical grade over 100 or a code according to the following table:

Grade /100	Alphabetical Equivalent	Scale 0-4	Grade in English
100	A^+	4.0	Outstanding
95	A^+	4.0	Excellent
90	A	4.0	Very good
85	B^+	3.5	Good
80	B	3.0	
75	C^+	2.5	Average
70	C	2.0	
65	D^+	1.5	Pass
60	D	1.0	
40-55	F	0	Failure
-	IP	-	In progress
-	I	-	Incomplete
-	W	-	Withdraw
-	AW	-	Administrative Withdraw
-	WW	-	Term Withdraw
40	FW	-	Fail to Withdraw
-	P/ PR	-	Pass/Pass Remedial
-	R / RR	-	Repeat/Repeat Remedial
-	T	-	Transfer
-	U	-	Ungraded Attendee
-	G	-	Granted

Alphabetical Grading

"IP" for In Progress

The grade IP is attributed for a course in which the student is given additional time to complete all of its requirements. If it is deemed valid by the concerned teacher, in some exceptional circumstances, and after the approval of the Head of Department, the IP grade can be attributed to a course if it is administratively feasible. Therefore, the student is given additional time to complete all of its requirements. This delay should not exceed the deadline of the registration period of the following semester.

"I" for Incomplete

The temporary grade I is attributed by the teacher to a course when the student did not attend for the final evaluation, for justified and accepted reasons (not passing the final examination, internship report, presentation of final project, etc.).

On the grades transcript given by the teacher, the notation I is accompanied by the preliminary grade over 100 (i.e. I50, I60, etc), which will then be considered as the final grade if the student does not fulfill his/her obligations, by the date limit fixed by the University's academic calendar. It is impossible to change this grade; it is the responsibility of the student to pass his/her remedial examination or deliver his/her work on time.

"W" for Withdraw

The grade W is attributed to a course, when the student drops it within the allotted time fixed by the University's academic calendar. This can be justified when the student considers that his/her mid-term grades will not allow him/her to pass the course; his/her average grade will not, therefore, be affected.

N.B.:

- *A student cannot withdraw a course if this requires from him/her to exceed the deadline in order of graduation.*
- *Absence during mid-terms or finals does not lead in any case to withdrawal from the concerned course.*
- *A student who repeats a required course in his/her program for the third time cannot withdraw from it. He/she cannot withdraw from a remedial course if it is the second time he/she is repeating it.*
- *A student who withdraws from a course should not have absences that exceed 20%. If he/she does, they will be attributed to the grade FW (Fail to Withdraw) on the course.*
- *A student who withdraws from a course during a semester/summer session cannot apply for a scholarship of excellence for the next semester/summer session, even if he/she fulfills all the required conditions.*

- *A student who withdraws from a course will have to pay all his/her University fees, as they were calculated during his/her registration. This means that a withdrawal does not lead to any modification of University fees.*
- *Withdrawal from a course will be refused if the number of credits falls below the minimum of 12 credits upon withdrawal per semester or 3 credits for the Summer Session.*

"WW" for Term Withdraw

The grade WW is only attributed by the University's administration when the student drops all his/her courses for major reasons keeping him/her from continuing the semester; such as, serious health problems, traveling, etc.

In order to obtain the Term Withdraw, the student has to officially apply for it by completing a specific form and submitting it to the Registrar Office. If the withdrawal is not officially completed, related teachers will give the student a "Fail to Withdraw" grade in every course.

N.B.:

A student who gets a "WW" grade, will have to pay all his/her University fees as they were calculated during his/her registration; meaning that an administrative withdraw will not lead to any modification of University fees.

A student cannot withdraw a course if this requires from him/her to exceed the deadline in order of graduation.

A student who repeats a required course in his/her program for the third time cannot withdraw from it. He/she cannot withdraw from a remedial course if it is the second time he/she is repeating it.

A student who withdraws from a course during a semester/summer session cannot apply for a scholarship of excellence for the next semester/summer session, even if he/she fulfills all the required conditions.

"AW" for Administrative Withdraw

This grade is only attributed by the University President or the Council of Discipline in case of violation of the regulations.

N.B.:

A student who gets an AW grade, will have to pay all his/her University fees as they were calculated during his/her registration; meaning that an administrative withdraw will not lead to any modification of University fees.

"FW" for Fail to Withdraw

The FW grade is given for a course which the student stopped attending without having officially undergone the "Withdraw" procedure – or because he/she did not get the authorization to withdraw. This FW grade is taken into account when calculating the average grade and is equivalent to 40/100.

N.B.:

A student who gets a FW grade will have to pay all his/her University fees. This means that a "Fail to Withdraw" grade doesn't lead to any modification of University fees.

Students who get the grade FW on all their courses during a semester will be excluded from their program of studies in the end of the semester.

"P" for Pass and "R" for Repeat

The grades P and R are given with particular courses, such as internships, etc. These courses are assessed with a non-numerical grade; as a result, they will not be taken into consideration while calculating the general average.

"PR/RR" for Pass Remedial / Repeat Remedial

This grade is attributed to the remedial courses (languages or mathematics courses).

"T" for Transfer

The grade T is given for validated transferred courses. A student cannot repeat a transferred course by registering for its equivalent in the Holy Spirit University of Kaslik.

"U" for Ungraded Attendee

The grade U is given for a course in which the student is registered as a free attendee, after the approval of the Head of Department and the Dean/Director. An Ungraded Attendee does not undertake the exams of the course he/she is registered in. No grade can be converted into a "U" and vice versa.

"G" for Granted

The grade G is given for a number of credits of validated courses in the context of a diploma/degree, which means that the courses are granted and students pursuing a higher diploma/degree would not have to repeat them.

Passing Grade of a Course

The passing grade required to validate every course in the curriculum is defined in the related educational contract. Students can refer to the curricula in the student file edited by the concerned academic unit or on the USEK website.

In general, the grade required to pass an undergraduate course is 70/100 or P or PR. For some courses, the passing grade is 60/100 as stipulated in the academic contract and even if the General Average is 70/100.

A higher grade can be required for certain program of studies.

However, the student has to ensure that his/her Grade Point Average of the Diploma/Degree is of at least 70/100 (80/100 in Sciences in Health Fundamental Sciences - Medicine).

The Evaluation Criteria

In every course, the evaluation of student work is done according to the following scale:

- Attendance and positive participation[2]: 10 %
- Quizzes, research and/or projects: 50 %
- Final exam: 40 %

These percentages can vary between courses and curriculums. The scale of change is approved by the Dean of the concerned Faculty in consultation with the Pro-Rector for Academic Affairs. These percentages will be defined and explained to the student during the first sessions of the course. The criteria for evaluation will also include in the syllabus of the course, given to students at the beginning of the semester.

A student has the right to know all his/her grades (positive participation, attendance, research and/or projects, midterms, quizzes, etc.) in order to decide whether he/she wants to drop acourse or not before the deadline for withdrawal from a course, as stated in the academic calendar.

During the summer semester/session, the teacher manages all the components of his/her course: lateness, absence, midterms, projects, attribution of grades, oral presentations, the course content, the make-up sessions, etc.

A student who fails to meet a course requirement (exam, test, report, etc.) will be attributed a failing grade, **zero**, by the teacher.

N.B.:

The sum of the requirements is a minimum score of 40/100

Rules of Midterms and Finals

Final exams are organized at the end of a semester. Specific exam dates are defined by the academic calendar. Students will need their photo ID card to enter the examination room and the student will have to sign a register of attendance.

Any cheating, or attempt to cheat, during the exam will inevitably lead to the annulment of the student's exam. The concerned student will not be entitled to a make-up exam (or for a second session for Faculty of Law students). The proctor has the right to withdraw his/her copy and to ask him/her to leave before informing immediately Administration. Additional measures can also be taken by the University's Council of Discipline.

A student who does not show up for the exam, for any reason, is given, by the teacher, the failing grade of zero or R/RR. If this absence is due to special justifiable circumstances, the student can present a petition with supporting documents to the Student Affairs Office, and request a make-up exam. The appropriate authority will consider this request.

Faculty of Law students, having benefitted from a make-up exam, cannot benefit from the 2nd session.

[2] Attendance and positive attendance do not cover only the physical presence of the student in class, but depends on the participation of the latter and on the active involvement in the course and its material.

However, it is worth mentioning that in order for these petitions to have positive consequences, they must be legitimized by one of the following reasons:

- Death of a parent;
- Hospitalization, attested by a medical report from the hospital;
- Serious accident, attested by an official report from a sworn expert.

Such, free of charge, petitions must be presented to the Student Affairs Office within 24 hours after the missed exam. The request will be ignored in the case of a recurrence and a student who has showed up for the exam cannot, in any case, present a petition.

Midterm exams will be organized during the semester for the concerned Faculties/Institutes. The aforementioned rules for the final exams also apply to the midterms.

Request to Review a Grade

The student has the right to ask, within the two working days after the display of the final grade on the Banner Self-Service, for his/her grade to be re-examined through the means of a specific form available at the registrar office. After this period, no recourse, even a justified one, is possible.

A student can ask for the re-examination of two grades, at the most, per semester or summer session. The fee for requesting a grade review is payable to the Accounting Office - Student Services Department. This fee, which sum is fixed by the University and is indicated on the website is returned to the student if the review outcome is positive for the student.

The only acceptable requests for a grade review are as follows:

- In case a mistake occurred while adding up the grade;
- In case a mistake occurred while copying the grade.

The student should present his/her request/s to the Registrar Office with a receipt as proof of full settlement. He/she has to present the receipt for refund in case the review outcome is positive.

The teacher concerned will write down his/her decision on the exam review request form and change the grade if necessary. After that, the form is successively presented to the Head of Department and the Academic Secretary, in order to give their approval by signing the document. In case of conflict, the request is submitted to the Faculty/Institute's Council which will take the final decision. It is eventually submitted to the Registrar Office for processing.

General Average

Grade Point Average (GPA)

It is the general average of grades for all student courses during specific program of studies, balanced by the number of credits for every course, according to the formula:

$$\text{GPA} = \frac{\sum_{\text{course}} \text{credit (course)} \times \text{grade (course)}}{\sum_{\text{course}} \text{credit (course)}}$$

If a course was repeated, the higher grade is used while calculating the Grade Point Average.

The grades I, W, WW, PR, RR and U as well as credits transferred from another institution (T) or granted (G) are not included in the general average.

The grades FW which are equal to 40 are included in the general average.

The Grade Point Average is calculated to the second decimal and is displayed on the grades transcript.

General Average per Semester (GAS)

The General Average per Semester is calculated according to the same aforementioned formula (refer to Grade Point Average (GPA)), according to the course taken in a particular semester.

The General Average per Semester is calculated to the second decimal and is displayed on the grades transcript.

Grade Point Average of a Diploma/Degree (GPAD)

The Grade Point Average of a Diploma/Degree is the Grade Point Average taken into account and needed in order to graduate.

With a normal academic process, the Grade Point Average of a Dilpoma/Degree is equal to the aforementioned Grade Point Average.

If a student changes his/her academic program, the Grade Point Average of a Diploma/Degree is calculated according to the same previous formula (refer to Grade Point Average (GPA)), whilst taking into account the following courses:

- Courses taken by a student **before** changing the program and which are equivalent to some courses in the new academic program;
- Courses taken by the student **after** changing his/her specialization.
- General education courses.

For the repeated or equivalent courses, the higher grade will be taken into consideration. The Grade Point Average of a Diploma/Degree is displayed on the grades transcript.

It is worth mentioning that the Grade Point Average of all the courses, since registering in undergraduate studies at USEK, is calculated and displayed in the student's grades transcript.

Duration of Studies

The minimum and maximum duration of study, specified in the educational contract of each academic program, are defined for the undergraduate degrees as follows:

- Bachelor Degree: between 6 semesters (3 years) and 10 semesters (5 years) maximum.
- BA in Theology: between 10 semesters (5 years) and 14 semesters (7 years) maximum.

- Bachelor of Engineering: between 10 semester (5 years) and 14 semesters (7 years) maximum.
- Diploma of Agricultural Engineering: between 10 semester (5 years) and 14 semesters (7 years) maximum.
- Bachelor in Health Fundamental Sciences: between 6 semesters (3 years) and 8 semesters (4 years) maximum

If deadlines are not met, students who have not finished the required courses of the curriculum are excluded from the Faculty/Institute.

N.B.:

No provision of this Regulation should be interpreted in the sense that the maximum duration of studies established for each program may be exceeded.

Administrative Substitution of a Course

In exceptional circumstances, the Head of Department can ask the Dean/Director of the Faculty/Institute to allow a regular student to follow a course other than the one included in the program, notably when this student is not able, for legitimate reasons, to follow this course as defined by the program, or when the course offering does not allow him/her to attend in the semester during which he/she might finish his/her curriculum. In this case, the course is replaced with another one of the same level within the same major and within the program's field of knowledge.

Notwithstanding the above:

- No failed obligatory course can be subject to administrative substitution, unless the concerned course cannot be offered anymore, due to a modification in the program.
- A student cannot be allowed to follow more than two substitution courses.
- General Education courses cannot be substituted by courses required by the programs of Faculties/Institutes and vice versa.

Tutorship Course

A Head of Department can ask the Dean/Director of the Faculty/Institute to allow a student to follow a tutorship course, only when all the following conditions are fulfilled:

1) The student is about to graduate;
2) The student could not validate this course on time, for legitimate reasons and this course is not offered in the semester during which the student might finish his/her program;
3) The course cannot be taken externally;
4) The Department has checked for the approval of a specialized teacher in the Department.

Notwithstanding the above:

- No failed obligatory course can be subject to tutorship, unless the concerned course cannot be offered anymore due to a modification in the program.
- A student cannot be allowed to follow more than one tutorship course in his/her entire program.

Add/Drop

Once registration is closed, a student can, if he/she wants, modify the registration of one or two courses during the Add/Drop period (as stated in the Academic Calendar). In order to do so, the student has to visit his Faculty/Institute to proceed with the Add/Drop. Students who perform Add/Drop, has to maintain his/her status as a full time student (a minimum of 12 credits). No courses can be dropped during the summer session.

Withdrawal

After the Add/Drop period, every withdrawal from a course must be subject to a previously written request before the authorized due date, as fixed in the Academic Calendar. To this purpose, the student must complete the relevant form, have it signed by the related teacher and the Head of Department before submitting it to the Registrar Office. The deadline for the official withdrawal from a course is fixed, unless otherwise noted, at the 10th week of the semester (or third week of the summer session). It is worth mentioning that an absence during midterms or finals does not lead, in any case, to the withdrawal from the course.

If a student is allowed to withdraw from a course, the latter will be displayed on his/her academic file with the grade W; the course fees cannot be reimbursed or deducted from the general fees the student has to pay. Furthermore, a withdrawal from a course does not lead to any modification in the student's University fees. In addition, a student, having withdrawn from a course during the semester, cannot apply for a scholarship of merit for the following semester, even if all other required conditions are fulfilled.

The withdrawal from a course will be refused if a student's credits per semester drop below the minimum number of 12 credits per semester.

Term Withdrawal

If a student cannot complete a semester and has to withdraw from all his/her courses after the Add/Drop period for major reasons; such as, serious health problems, exceptional family circumstances, etc., the University's administration can attribute the grade WW (Term Withdraw) to each course. In order to obtain a Term Withdrawal, the student has to submit the relevant official form to the Registrar Office. If the withdrawal from a course is not officially done, the student will be given the failing grade FW (Fail to Withdraw) by the teachers concerned, for every course at the end of the semester.

A student who gets a WW grade, will have to pay all his/her university fees, as they were calculated during his/her registration.

N.B.:

A term withdrawal can only be granted to a student once during his university curriculum.

Deregistration

Definition

Deregistration is the dropping of all courses during the registration and during Add/Drop period.

During the registration and add/drop period, the student can drop all his/her courses. For current students, students who have recourse to deregistration, while they were registered during the previous semester/session at USEK, the deregistration request must be accompanied by a request for the interruption of studies. The latter must also be submitted to the Registrar Office via an appropriate form and the interruption of studies will be noted in the student's academic file.

Refund after Deregistration

In case of deregistration during the Add/Drop period, the student can ask the Accounting Office in the Student Services Office for a refund. Then, the entire amount of study fees, which have been already paid, will be refunded. However, the student has to pay a penalty which amount is fixed by the University (to view the fees, consult the University website).

Transfer

In case of admission by transfer of file, the evaluation of credits which might be transferred is based on the following criteria:

- The course validated by transfer must have the same credit hours as its equivalent in the Holy Spirit University of Kaslik;
- The minimum grade in the university of origin and that is transferable is 10/20 on the French scale (70/100 according to the US one). In alphabetical rating scale according to the ECTS , validated courses with A, B and C will be transferred.
- Courses validated six years ago, or more, before the admission date, cannot be taken into account (unless the Admission Commission decides otherwise) ;
- The number of transferred credits cannot exceed 49% of the total number of credits required for undergraduate studies;
- All transferred credits are declared and validated during admission to the Holy Spirit University of Kaslik; afterwards, no transferred credits can be added.

The grade T will be given to the transferred courses and the student cannot repeat a transferred course by registering for its equivalent in the Holy Spirit University of Kaslik.

The Transfer File has to be submitted, along with all required documents, to the Registrar Office, **three weeks** at least before the beginning of the registration period.

N.B.:

Any student who left USEK voluntarily with an overall average >= 70% to another university may apply for a transfer to the Registrar Office, upon his return. This request will be studied

by the transfer Commission. The student cannot in any way dispute the decision of the Commission. This approach can be applied to a student only once during his university curriculum and without exceeding the deadline of the program.

Change of Academic Programs or Specializations

A student wishing to change programs or specializations during his/her studies must present an official request by completing the relevant form. This request must be submitted to the Registrar Office at the most during the ninth week of the semester. Any change of program or specialization enters into force in the following semester.

For changing programs, the admission conditions related to the new academic program must be respected or else switching programs will be refused. The approval of the hosting Faculty/Institute, according to the admission test results and the student academic journey, is required.

During a specific studies program, the student has the right to switch an academic program once. It is worth mentioning that such a request cannot be presented during the summer.

The credits of the initial program, related to common and equivalent courses, are validated by the new chosen program.

After changing the academic program, the average taken into consideration to determine the student's academic status (probation, obtaining the diploma/degree, etc.) is the Grade Point Average of the Diploma/Degree. On the other hand, the entire academic performance of the student is displayed on the grades transcript.

The academic status of a student is calculated according to the number of credits validated by the new program and will be taken into consideration for the period during which the diploma/degree is being obtained.

Change of Campus

The student who wishes to change his campus, without changing his/her academic program, must present an official request by completing the relevant form and submitting it to the Registrar Office, located in the University's main campus of Kaslik, by the end of the ninth week of the semester at the latest. This procedure must be followed in order to switch from a Regional University Center to the main campus of Kaslik or vice versa.
Students already registered in one of the three Regional University Centers who benefit from a 20% reduction on their tuition fees, will not benefit from this grant, once registered in the main campus of Kaslik. However, students already registered in the main campus of Kaslik will be able to benefit from the 20% grant, when switching to one of the three Regional University Centers.

Double Degree

A student can enroll in a double degree upon his/her first registration at USEK, during his/her undergraduate studies, under the condition of not having to validate any remedial course. He/she must define the priority program and the secondary program.

Within a program, the student can apply for another program that will be considered as secondary, in case he/she validated all the needed remedial courses. Therefore, he/she will have to pass the admission test of the new program.

Double majors have to include more than 50% of the number of different credits.

A student in a probation situation in his/her priority program cannot apply, simultaneously, to another program.

The student is required to fill the related form in the Registrar Office.

N.B.:

Medicine, Architecture, Engineering, Agricultural Sciences and Law programs cannot be secondary programs.

Interruption of Studies

A student who wishes to temporarily suspend his/her studies for a period not exceeding two consecutive semesters, must complete the relevant form and submit it to the Registrar Office.

During the interruption of studies, the concerned student is considered as an "inactive student". However, The authorized interruption duration is included in the maximum duration of studies; therefore, the student should not surpass this maximum authorized duration for obtaining the diploma, or else he/she will be excluded from his/her academic program.

After an interruption of studies, and in order to reregister in the initial program, the student will be automatically readmitted to the "Return Semester" as indicated in the form; if the student does not register to the semester following the authorized interruption period, he/she will inevitably be excluded from the academic program.

If a student suspends his/her studies without officially informing the administration of the Holy Spirit University of Kaslik, by submitting the appropriate form to the Registrar Office, he/she will be excluded from the academic program. In this case, the student has the right to present a readmission demand to the suspended program or to a new one; this demand will be examined according to the regulations in force during the time of the application's filing.

Readmission

After the unofficial interruption of studies, and in order to be readmitted into the study program, the student has to present a readmission request (if he is not under academic probation) to the Registrar Office, at least three weeks before the registration period.

The readmission request is automatically accepted if the interruption of studies is official and was delivered to the Registrar Office in the fixed period. If this wasn't the case, the readmission request is examined by the University's Admission Commission the relevant Faculty/Institute and if the student's readmission was refused, no other recourse request can be filled.

The readmitted student is subject to the program structure in force during the presentation of the readmission request, and will have to follow the directions of his/her Educational Advisor.

Cross-Registration

Within the framework of agreements signed between USEK and other Lebanese and foreign universities, a student may attend one or two courses in another university, after having obtained first the authorization of his/her Department and the approval of the Dean/Director of his/her home Faculty/Institute.

Courses attended in another institution should be deemed equivalent to those of the current program; the equivalency decision being issued by the Admission Commission.

In order to be able to follow external courses, the student must abide by the following conditions:

- Student must be registered in his/her last semester;
- Student must not have failed his course (s) before;
- The courses attended in Lebanon, albeit in another university, should not be taught within the student's original Faculty/Institute during the semester in question;
- The Head of the Department must send, to the Registrar Office, a written statement certifying that all requirements are met by the student;
- The Registrar Office authorizes, in writing, the cross-registration. This authorization is is delivered by the student at the hosting university;
- The final grade for each course should be directly reported by the host university, according to the grading system adopted by USEK, to the Dean/Director of the academic unit who will report it to the Registrar Office. This grade (T) will be registered on the academic transcript and is accounted for with the remaining grades, when calculating the student's Grade Point Average and General Average per Semester;
- In addition to the registration fees of USEK, the student should pay all the necessary fees of the host university.

Probation

1. A student registered for a **Bachelor Degree**, a **Bachelor of Engineering** or a **Diploma of Agricultural Engineering** is put under academic probation at the end of the semester

(excluding Summer Session) if the Grade Point Average of the Diploma/Degree is less than 70/100.

2. A student registered in a Bachelor of Sciences in Health Fundamental Sciences (Faculty of Medicine and Medical Sciences) is put on academic probation at the end of the semester (excluding Summer Session) in one of the following cases if his/her Grade Point Average of the Diploma/Degree is less than **80/100**;

During the Summer Session, the student in a probation situation has the right to register only in the failed courses.

The student stops being under probation when he/she gets the required General Average per Semester and Grade Point Average.

Students have to check their academic position at the end of each semester by looking at their Banner account.

Exclusion from an Academic Program

A student is excluded from the program he/she is registered in for one of the following reasons:

- **Faculty of Medicine:** A student is definitively excluded from the Faculty of Medicine when he/she receives the second consecutive probation warning except for summer sessions.
- **Other Faculties/Institutes:** A student is definitively excluded from these Faculties when he/she receives the third consecutive probation warning except for summer sessions;
- If he/she fails to validate his/her academic program within the established time limit;
- If he/she fails a required course three times;
- If he/she fails a remedial course twice;
- If he/she fails/obtains the grade FW on all the courses during a semester following an non official suspension of studies;

A student who is excluded from the academic program can submit an admission form to another program offered by USEK unless he/she fails a required remedial course twice. However, the grade of his/her exclusion will still appear on his/her academic file.

Suspension / Exclusion from USEK

An administrative measure of temporary suspension can be taken by the University President.

A student can be excluded from USEK, based on an administrative decision of the University President or the University's Council of Discipline. The decision will define the nature of the exclusion and its implication on the academic level. The grade of a student's exclusion will appear on his/her academic file. The student will get the grade AW (Administrative Withdraw).

Moreover, if the student fails twice in the remedial courses, it can lead to his/her exclusion from the University. Nevertheless, the student can submit a petition to the Faculty asking to reconsider his/her case to get a last chance before exclusion.

Responsibility and Recourse

Positive Participation

Positive participation is required for courses, practical activities, directed activities, laboratory sessions, etc. No absence, even a justified one, liberates the student from his/her responsibilities regarding the work required or regarding whatever the teacher may have said during his/her absence.

The student can be absent to the number of hours equal to 20 % of the course: 9 hours (6 sessions of one hour and 15 minutes) for a course of 3 credits or 6 hours (4 sessions of one hour and 15 minutes) for a course of 2 credits.

A student who exceeds this limit, in a certain course, without completing a course withdrawal, might be given the grade FW (Fail to Withdraw) by the teacher concerned, and, subsequently, will not be able to present his/her exams.

A student who does not show up to all his/her courses for more than three consecutive weeks will be considered by the administration as having resigned; he/she will be given the grade FW (Fail to Withdraw) in all his/her courses and will be consequently excluded from his/her academic program at the end of the semester. However, the student can present a readmission demand to the Faculty/Institute in order to continue his/her education, starting from the following semester (a readmission form must be presented to the Registrar Office). The Dean/Director of the Faculty/Institute gives his/her opinion; however, the readmission request can be refused by Admission Committee.

If the student justifies the exceptional circumstances of his/her absence to all the courses for three consecutive weeks, he/she can apply for an Administrative Withdraw by presenting the appropriate form to the Registrar Office.

Intellectual Integrity

Intellectual integrity is at the core of University learning and is compromised by plagiarism and fraud.

Plagiarism

Plagiarism consists of someone pretending that other people's ideas and statements are his/her own. For example, plagiarism cases comprise:

- Copying texts or parcels of texts without indicating they are borrowings and without citing their source;
- Omitting to cite the source of a paraphrased or summarized text.

Fraud

Fraud cases include for example the following situations:

- To present, under one's own name, a text partially or entirely prepared by someone else;
- To borrow, buy, sell or lend a text that is to be presented for a course;
- To submit the same text in more than one course;
- To receive or give help or information from, or to, another student during a test or an exam;
- To use unauthorized material during a test or an exam;
- To present, during a test and under one's own name, a text partially or entirely prepared by someone else;
- To submit false information in a work or a report;
- To obtain the questions of a test or exam in an unauthorized way;
- To pretend to be someone else during a test or an exam, or let someone else do the test or the exam.

A student who commits plagiarism or fraud will be given, the grade FW on the plagiarized work or the exam during which the fraud was committed. The teacher must report this fraud to the Dean/Director, who will have to evaluate its gravity before deciding whether he wants to submit the case or not to the University President; the latter will therefore be able to refer the case to the Council of Discipline.

Appeal Procedure in the Application of Academic Regulations and Petitions

The student who considers that he/she was wrongly accused, can appeal against the decision taken on his/her behalf.

In order to do so, the student must refer to the Student Affairs Office which will give him/her the appropriate form related to his/her request/situation or ask him/her to write a petition (a petition cannot be accepted if there is a form concerning the same exposed request).

The student will have to submit his/her petition at latest one week after the release of the official notification of the contested decision. This petition is submitted free of charge.

The application of every appeal outcome is suspended until it is confirmed by the Student Affairs Office (SAO) which will communicate the relevant decision within ten working days after receiving the petition. The SAO final decisions are enforceable and have no recourse. The SAO makes sure the University regulations are applied.

Requirements to Obtain a Diploma/Degree

Bachelor Degree

In order to obtain a Bachelor Degree the candidate must have:

- Completed at least three years of studies (6 semesters);
- Finished all the required courses during a maximum of five years (10 semesters) starting the first registration to the program;

- Passed all the courses required by the program and defined in the educational contract;
- Fulfilled all the requirements of his/her educational contract;
- Followed and passed a minimum of 51 % of the Faculty/Institute's credits;
- Accumulated a Grade Point Average of a Diploma/Degree, at least equal to 70/100.

BA in Theology

In order to obtain a BA in Theology, the candidate must have:

- Completed at least five years of studies (10 semesters);
- Finished all the required courses during a maximum of seven years (14 semesters) counting from the first registration to the program;
- Passed all the courses required in the program and defined in the educational contract;
- Fulfilled all the requirements of his/her educational contract;
- Followed and passed a minimum of 51% of the Faculty/Institute's credits;
- Accumulated a Grade Point Average of a Diploma/Degree, at least equal to 70/100 ;
- Passed the final thesis exam before a jury and with a minimum grade of 70/100.

BA in Law

In order to obtain a BA in Law, the candidate must have:

- Finished all the required courses and accumulated the required number of credits with a general average of 70/100 ;
- Accumulated an average of at least 70/100 in each course belonging to the Lebanese Law;
- Accumulated an average of at least 60/100 in each course belonging to the General Law, if the student has accumulated a general average of at least 70/100;
- Followed and passed at least 51 % of the credits in the same Faculty;
- Respected the minimum (4 years) and maximum number of years (8 years).

Bachelor of Engineering

In order to obtain a Bachelor of Engineering, the candidate must have:

- Completed at least five years of studies (10 semesters or 8 semesters and 3 summer sessions);
- Passed all the required courses in maximum 7 years (14 semesters) starting the first registration in the program;

- Passed the required modules required by the program and defined in the educational contract and accumulated at least 146 credits;
- Defended a final study thesis with a minimum grade of 75/100;
- Followed and passed 51% of the credits required by the Faculty itself;
- Accumulated a General Point Average (GPA) of at least 75/100 for all the courses of his educational contract;

Diploma of Agricultural Engineering

In order to obtain a Diploma of Agricultural Engineering, the candidate must have:

- Completed at least five years of studies (10 semesters);
- Passed all the required courses in maximum 7 years (14 semesters) starting the first registration in the program;
- Passed the required modules required by the program and defined in the educational contract and accumulated at least 160 credits;
- Defended a final study thesis with a minimum grade of 80/100;
- Followed and passed 51% of the credits required by the Faculty itself;
- Accumulated a General Point Average (GPA) of at least 70/100 for all the courses of his educational contract (with the exception of the dissertation with a minimum grade of 80/100);

N.B.: No provision of this Regulation should be interpreted in the sense that the maximum duration of studies established for each program may be exceeded.

Issuing Undergraduate Diplomas/Degrees

Graduation Procedure

At the end of each semester, the University proceeds with the graduation of the final year students who have met the requirements at degree level.

However, students have the right to suspend their graduation in case they were willing to re-enroll in the Summer Semester/Session to repeat a course and increase their GPA. In order to do so, students should visit the Registrar Office to put an end to the graduation procedure as soon as they receive the notification of the ongoing graduation process. The academic unit to which students are affiliated should approve the suspension request.

Procedure for Issuing Diplomas/Degrees

In their diploma request (parchment; degree certificate; academic transcript) presented online or to the Registrar Office, students should make sure the personal data included in their file (name, surname, date and place of birth, etc.) is correct, and then, in case of error, proceed with the necessary corrections (especially uppercase, lowercase, accents, spaces). Students are required to submit legal documents justifying their modifications. If this is not

the case, the parchment will be automatically printed and a financial penalty will be applied to any request for modification.

Graduation Ceremony

Students willing to participate in the graduation ceremony are required to complete the related request online or at the Registrar Office, within the deadline indicated on the Academic Calendar or on the website.

At the end of the Summer Session/Semester, the academic authorities of each Faculty/Institute check whether the students, who have submitted a degree request, meet the requirements of their respective curricula of their Faculty/Institute. Students who meet these requirements are allowed to take part in the graduation ceremony.

Students who have their request rejected will be notified by the Academic Secretary, who will state the reasons which prevent them from graduating.

Issued Documents and Fees

To certify that a student has succeeded in a program, USEK delivers 1 diploma/degree on parchment. The parchment is labeled in both Arabic and English languages.

However, fees, which are available on the University website, are required for each certified document from the related authorities. Therefore, a student has to pay these fees at the Accounting counter for every request for an official document (and/or a true copy):

- Official registration certificate (in English, French and/or Arabic).
- Official diploma certificate (in English, French and/or Arabic).
- Official academic transcript (delivered in French only).

Collection of a Diploma/Degree (Parchment) and Certificates

Students should collect their degrees and certificates from the Registrar Office. They are required to turn up in person, submit their national identity card and sign a special register.

A student who cannot collect these documents in person, for any reason, is entitled to delegate a representative, by complete in the relevant form granting permission. The representative should submit the student's ID along with his/her commission, which will be saved in the student's file.

National and international mailing services are ensured, in case of need, through the Registrar Office.

USEK reserves the right not to deliver a student's degree and certificates if he/she is in any irregular situation with the Library and/or the Financial Administration.

Diploma replacement request (Duplicate)

Graduates who have misplaced, lost or damaged their original diploma may request a replacement one, in person only, by completing the Replacement Diploma form available at the Registrar Office.

If the diploma is lost, the graduate requesting the duplicate must certify on the Replacement Diploma Form that the replacement will be returned when the original is found. In case the original diploma is damaged, the applicant must then return what remains of the diploma. The new diploma will be issued with the same date as the original diploma.

Please note that the newly issued diploma will bear the wording « Duplicata » stating that the document is a replacement of the originally issued one.

The diploma replacement fee is payable by cash (in person only), by check made payable to Université Saint-Esprit de Kaslik, by MasterCard, or Visa.

The replacement diploma will bear the signature of the incumbent concerned authorities.

If the graduate wishes the replacement diploma to display his/her name in a different spelling than the one mentioned on his/her original diploma or the one in his/her records, he/she must submit a Personal Information Form along with the Replacement Diploma Form. The Personal Information Form must be accompanied by official documentation of his/her new legal name (court order, passport or Lebanese ID).

A new parchment may be issued when any typo mistake except those related to the graduate's personal information is found in the original diploma. The new parchment will be handed over to the concerned person, in exchange for the originally issued one without any additional fees.

Initiation and Withdrawal of Official Documents

The procedures must, unless otherwise stated, be initiated by the student in the Registrar Office. When the student initiates his/her request, a receipt must be delivered, indicating the time required for the processing of the application. The student is required to keep this document until receiving a response to his/her request.

The student may, if he/she wishes, delegate a third party to initiate a procedure or retrieve the requested documents. He/she will then mandate officially the Registrar Office by a signed letter or by sending an email to registrar@usek.edu.lb.

General Education Requirements

General Education aims to endow students enrolled in the undergraduate studies program with value learning, intellectual inquiry and cultivation of particular skills to become thoughtful and engaged and active citizen of the country, the region and the world while bringing them to a critical and appreciative understanding of religious tradition, ethical theories and moral development.

To this end, at least 30 credits of the undergraduate studies curriculum are devoted to General Education that includes basic general knowledge, common and proper to USEK while taking into consideration that students who are enrolled in professional fields such as sciences and engineering should be exposed to the humanities and social sciences and students enrolled in humanities fields should be aware of natural sciences and quantitative reasoning:

- **English Communication (3 credits)**
- **Religious Sciences (3 credits)**
- **History of Lebanon (3 credits)**
- **Quantitative Reasoning (3 to 9 credits)**: Mathematics / Statistics / Information Technology
- **Civic Engagement (2 credits)**
- **Sports (1 credit)**
- **Arts & Humanities (3 to 6 credits)**: Ethics and justice / Arts / Philosophical inquiry / Literature
- **Behavioral & Social Sciences (3 to 6 credits)**: Psychology / Sociology / Politics / Economics
- **Sciences & Health (3 to 9 credits)**: Biology / Chemistry / Physics / Agriculture / Nutrition / Environment / First aid and Emergency care.

Moreover, through these 30 credits of General Requirements, the university seeks to make its students good citizens of the future, actively engaged in the development of societies, empowered with a sound culture, know-how as well as humanism, and contributing hence to the establishment of a better world.

Institutional Learning Outcomes:

Through USEK General Education, students will be able to:

- Engage fundamental questions of faith and justice.
- Identify, reflect upon, integrate, and apply different arguments to form independent judgments.
- Collect, interpret, evaluate, and use evidence to make arguments and evidence based decisions.
- Apply knowledge and tools from various disciplines in order to identify and address intellectual, ethical, and practical problems of relevance to the contemporary world.
- Communicate ideas and arguments through clear writing and speech.
- Identify information needs, locate and access information, and critically evaluate sources.
- Collaborate intellectually and creatively with diverse people.
- Engage in the creative process and think critically about, its products, and its cultural traditions to support society.

English Communication | 3 credits

ENG240	English Communication (obligatory)

Religious Sciences | 3 credits

SRO211	Introduction to the Bible
SRO213	Religious Pluralism and Dialogue
SRO214	Christian Presence in the Middle East
SRO215	Social Teachings of the Church
SRO216	Religion and Politics
SRO218	The Church and Mass Media

History of Lebanon | 3 credits

HIS215	Lebanon in the Ancient Period
HIS220	Lebanon in the Medieval Period
HIS225	Lebanon in the Modern Period
HIS230	Lebanon in the Contemporary Period

Quantitative reasoning | (3 to 9 credits)

Mathematics | 3 credits	
MAT216	General Mathematics (*or any equivalent course*)
Statistics | 3 credits	
STA220	Probability and Applied Statistics
Information Technology | 3 credits	
CSC204	Information Technology & Networking (*or any equivalent course)*

Civic engagement | 2 credits

Civic engagement | 2 credits	
SOC217	Citizen and Civic Engagement |2 credits

Sports | 1 credit

SPT	Sports Education

Arts & Humanities | (3 to 6 credits)

Ethics and Justice | 3 credits	
SRO217	Bioethics
DRT214	Human Rights
HUM345	Pedagogical Movements
Arts | 3 credits	
AVC203	Music and Film Thematic
AVC204	Introduction to Contemporary Cinema
AVP203	Introduction to Photography
AVS202	Initiation to Theatre Practices
ARS216	Introduction to Artistic Expression
DAA241	General History of Art
PHO224	Laboratory Theory and Photo Shooting
THT280	Introduction to Acting
MUS200	Musical Initiation
MUS202	Musical Listening and Appreciation
MUS203	Musical Computing
MUS208	Occidental Music Theory
MUS226	Choral Singing
Philosophical inquiry | 3 credits	
PHI201	Introduction to Philosophy
PHI210	Greek Philosophy
PHI212	Philosophy of Earth
Literature | 3 credits	
LFR210	Myth and literature
LLA213	Introduction to Arab Literature
ELL211	Introduction to English Literature

Behavioral and Social Sciences | (3 to 6 credits)

Psychology | 3 credits	
PSY201	Introduction to Psychology
Sociology | 3 credits	
HUM248	Arab World and Civilization
HUM258	Societies and Environment
SOC201	Introduction to Sociology
SOC210	Introduction to Anthropology
SOC211	Youth and Society
Politics | 3 credits	
POL211	Introduction to Political Science
POL212	Introduction to Geopolitics
POL213	Introduction to International Relations
RIN205	Anthropology of Travel
Economics | 3 credits	
ECO222	Macroeconomics
MGT225	Foundations of Entrepreneurship

Sciences& Health | (3 to 9 credits)

Everyday Biology | 3 credits	
BIO211	Cellular Biology | 3 credits (*or any equivalent course*)
Everyday Chemistry & Physics| 3 credits	
CHM212	General Chemistry | 3 credits (*or any equivalent course*)
PHY210	General Physics | 3 credits (*or any equivalent course*)
Nutrition | 3 credits	
NTR211	Introduction to Nutrition |3 credits
Environment / Agriculture| 3 credits	
BIO228	General Botany |3 credits
BIO222	Animal Biology | 3 credits
GAG303	Introduction to Ecology and Environment
First Aid and Emergency Care | 3 credits	
SIN244	First Aid and Emergency Care

Freshman Equivalency

Eligible Students for admission at USEK

Students holding the Lebanese Baccalaureate Part II or its equivalent are eligible for consideration for admission to the **Sophomore** class at USEK. All Lebanese students holding the Lebanese Baccalaureate Part II admitted in **Sophomore** level are granted 30 credits based on their Baccalaureate strand (see table 1).

Freshman students who successfully completed at least 30 credits may receive equivalency to the Lebanese Baccalaureate Part II and be admitted accordingly. Below is the number of credits and the types of subjects that the Lebanese Baccalaureate Part II and the freshman are covering:

Table 1: Lebanese Baccalaureate part II and freshman contents

Subject	USEK					
	Leb. Bac. Lit/Hum (LH)	Leb. Bac. Eco/Sco. (SE)	Leb. Bac. Life Sciences (SV)	Leb. Bac. General Sciences (SG)	Freshman Arts	Freshman Sciences
Humanities	18 cr.	6 cr.	9 cr.	9 cr.	16 cr. to 19 cr.	9 cr.
Natural Sciences	9 cr.	9 cr.	15 cr.	12 cr.	4 cr. to 8 cr.	12 cr.
Social Sciences	--	9 cr.	--	--	Min 3 cr.	3 cr.
Mathematics	3 cr.*	6 cr.**	6 cr.***	9 cr.****	3 cr.	6 cr.
"Electives"	--	--	--	--	0 cr. To 7 cr.	0 cr. To 3 cr.
Total	30 cr.	30 cr.	30 cr.	30 cr.	30 cr.	30 cr.

According to the regulations of the Lebanese ministry of Education the above mentioned Subjects includes the following topics:

- Humanities: Languages, literature, philosophy, history
- Natural Sciences: Biology, chemistry, physics, geology, astronomy, nutrition
- Social Sciences: Psychology, sociology, anthropology, economics, geography…
- Mathematics.

The granted courses for each strand (as equivalent to the 30 credits) are listed below:

- **Leb. Bac. Literature & Humanities (LH):**
  - HUM101 - Human Sciences I (3 cr.)
  - HUM102 - Human Sciences II (6 cr.)
  - HUM105 - Language and Civilizations I (3 cr.)
  - HUM106 - Language and Civilizations II (3 cr.)
  - HUM110 - Introduction to Philosophy (3 cr.)
  - SOC100 - Social Sciences I (3 cr.)

- BIO101 - Biology I (4 cr.)
- MAT100 - Calculus I (3 cr.)
- Physical Education (1 cr.)
- Arts (1 cr.)

- **Leb. Bac. Economics & Sociology (SE)**
  - HUM101 - Human Sciences I (3 cr.)
  - HUM105 - Language and Civilizations I (3 cr.)
  - HUM106 - Language and Civilizations II (3 cr.)
  - HUM110 - Introduction to Philosophy (3 cr.)
  - SOC100 - Social Sciences I (3 cr.)
  - SOC101 - Social Sciences II (3 cr.)
  - ECO100 - Economics (3 cr.)
  - BIO101 - Biology I (4 cr.)
  - MAT100 - Calculus I (3 cr.)
  - Physical Education (1 cr.)
  - Arts (1 cr.)

- **Leb. Bac. Life Sciences (LS)**
  - HUM101 - Human Sciences I (3 cr.)
  - HUM105 - Language and Civilizations I (3 cr.)
  - HUM110 - Introduction to Philosophy (3 cr.)
  - SOC100 - Social Sciences I (3 cr.)
  - BIO101 - Biology I (4 cr.)
  - CHM102 - General Chemistry (4 cr.)
  - PHY101 - Physics I (4 cr.)
  - MAT100 - Calculus I (3 cr.)
  - MAT101 - Calculus II (3 cr.)

- **Leb. Bac. General Sciences (GS)**
  - HUM101 - Human Sciences I (3 cr.)
  - HUM105 - Language and Civilizations I (3 cr.)
  - HUM110 - Introduction to Philosophy (3 cr.)
  - SOC100 - Social Sciences I (3 cr.)
  - CHM102 - General Chemistry (4 cr.)
  - PHY101 - Physics I (4 cr.)
  - MAT100 - Calculus I (3 cr.)
  - MAT101 - Calculus II (3 cr.)
  - MAT102 - Algebra and Analytic Geometry (3 cr.)
  - Physical Education or Arts (1 cr.)

Academic Rules - Graduate Studies

Graduate Diplomas/Degrees

A student registered in the Graduate Studies at USEK is registered in one of the following diplomas:

- Master
- Diploma in Interpretation
- Doctor of Medicine M.D.

Admission

Admission Conditions

To enroll in graduate studies at USEK applicants should:

1. Hold a Bachelor Degree in the target university field; the degree should be recognized by the Lebanese State.

   N.B.: For the admission in the MBA or Master in Educational Sciences, a university degree, recognized by the Lebanese State, in a major different than the target major can be accepted on the condition that the student takes additional courses which amount to 12 credits.

   Have a GPA of at least 75/100 in the bachelor degree program.

2. Fill a graduate studies admission form and attach the following documents:

   a. A photocopy of a recent family civil extract (not older than 3 months and only for Lebanese citizens);
   b. Two recent passport photos;
   c. A certified copy by the Ministry of Education and Higher Education in Lebanon of the equivalence of the bachelor degree;
   d. Two recommendation letters given by teachers who have taught the student;
   e. An attestation of professional experience, if applicable;
   f. The original certificate of the coverage of the National Social Security Fund dated within three months from the start of the course or its equivalent
   g. A *curriculum vitae* (C.V.).

   N.B.: USEK students who are applying are not required to present all the above mentioned documents. They are required to present 2 recent passport photos, a photocopy of the national identity card and a photocopy of a recent family civil extract (not older than 3 months and only for Lebanese citizens);

The completed admission application should be returned to the USEK Orientation Office within the established deadline dates fixed in the Academic Calendar, published on the University website usek.edu.lb.

3. Pay the fees for opening a student file and for an admission tests; these non-refundable fees should be set up beforehand in one of the banks listed by the University.

4. Pass the written and/or oral admission test which date is fixed by the academic calendar of the University.

   An exemption from the admission test is given to:

   - Candidates who have obtained their undergraduate degree at USEK with a GPA of 80/100 or higher (with the exception of the candidates with a graduate degree from the Faculty of Business and Commercial Sciences);
   - Candidates with a graduate degree from the Faculty of Philosophy and Humanities, the Pontifical Faculty of Theology, the Institute of Liturgy, the Institute of History, the Faculty of Law, the Faculty of Music, the Faculty of Fine and Applied Arts, the Faculty of Engineering, who have obtained their undergraduate degree from USEK with a GPA of 75/100 or higher.

Admission File

The admission application can be downloaded from the University website or taken directly from the Orientation Office. The applicant can make the choice of three majors in his/her file. For some majors with options, the applicant has the possibility to mention in his/her admission file the choice of three specializations (or options) for the targeted program of studies.

The admission application should be returned, completed and accompanied with all the required documents, to the Orientation Office within the established deadline dates. This application, as well as the attached documents, even the official documents, remain the property of USEK and will be confidential.

Incomplete files will not be taken into consideration. The voluntary transcription of incorrect information and submission of falsified documents, will automatically lead to the annulment of the admission request.

Admission Test

Objectives

This test and/or interview, organized by the concerned Faculty/Institute, is a mandatory prerequisite for registration for the graduate studies and it aims to assessing the linguistic and academic levels of the applicant.

The results of this test, which complements the admission application, serve as the main criteria for being admitted at the University.

In the case where the candidate of the test does not meet a high level of competence, and according to the teaching language of the target program, the applicant will be asked to take language courses.

Calendar

Applicants are invited to consult the USEK calendar on the University website to check for the dates and times of the admission test, or they can refer to the Orientation Office directly. The registration to the admission test is done no later than ten days before the date of the exam at the University's Orientation Office, or at the secretariats of the Regional University Centers.

Types of Admission Tests According to the Academic Programs

Faculty/Institute	Department/Section	Required Undergraduate Degree	Admission test
Letters	English Language and Literature	BA in English Language and Literature	Literary Essay in English
	French Language and Literature	BA in French Language and Literature	Literary Essay in French
	Arabic Language and Literature	BA in Arabic Language and Literature	Literary Essay in Arabic
	Interpretation and Translation	BA in Modern Languages and Translation	Literary Analysis and Translation A, B, C
	Applied Languages – Business and Trade	BA in Applied Languages – Option Business and Trade	Literary Analysis and Translation A, B, C Oral
	Journalism and Communication	BA in Journalism and Communication	Interview
Business and Commercial Sciences		Academic Bachelor Degree (with additional courses for students who do not have a Bachelor Degree in Business)	Written test Oral Interview
Agricultural and Food Sciences	Nutrition	BS in Biology, BS in Human Nutrition and Dietetics	Written test
	Agricultural Engineering	BS in Engineering Sciences – Agri-Food BS in Agri-Food Sciences BS in Human Nutrition and Dietetics BS in Biochemistry BS in Chemistry BS in Biology	Written test
	Agri-Food Sciences	BS in Agri-Food Sciences BS in Human Nutrition and Dietetics BS in Biochemistry BS in Chemistry BS in Biology	
	Œnology	BS in Agri-Food Sciences Diploma of Agricultural Engineering BS in Human Nutrition and Dietetics BS in Biochemistry	Written test
Sciences	Biochemistry	BS in Biochemistry	English Oral Interview
	Chemistry	BS in Chemistry	English Oral Interview
	Computer	BS in Computer Sciences	English Oral Interview
	Mathematics	BS in Mathematics or an equivalent degree	English Oral Interview
	Actuarial and Financial Mathematics	BS in Actuarial Mathematics and Statistics	English Oral Interview
	Life and Earth Sciences	BS in Life and Earth Sciences	English Oral Interview
	Information Technology	BS in Information Technology	English Oral Interview

File Transfer

Applicants who have previously pursued academic studies in another university accredited by the Lebanese Government or in a technical studies institute, and are wishing to pursue their studies at USEK, should fill in an admission application. Beforehand, they are advised to check with the host Faculty/Institute about course transfers and access conditions to the target program. Any transfer request should be submitted, through an admission application, within at least three weeks prior to the beginning of the registration period.

Transfer requests should be accompanied with all the required documents for admission to USEK, and with certified copies of the courses syllabi of the potential transferable courses, in addition to the latest academic transcript; noting that the admission is applicable, in such case, based on the results in the initial academic career. Furthermore, applicants requesting a file transfer option may be required to take a Language Placement Test in French and/or English and/or Arabic according to the chosen program.

Following the evaluation of the file and the study of the applicants' references by the hosting Faculty/Institute and the Admission Committee, all transferable courses will be validated by the letter 'T'. The assessment of the credits to be likely transferred is based on the criteria defined by the academic regulations of the University.

Admission

The opening of an admission application allows the applicant to pre-register at the University, while they await results of the admission test if applicable.

The application and the results of the admission test are assessed in parallel by the concerned Faculty/Institute and the University's Admission Committee and, which judges the suitability of the applicant, and, the decision of this Committee will be published on the USEK website.

The admitted applicant should confirm his/her choice of program by proceeding to the Orientation Office, or confirming via the University website. Having completed this procedure, the student can register in his/her courses after paying the first installment of his/her tuition fees.

Admission Validity

The admission is only valid for the ongoing semester. The applicant who does not register for the semesters during which he/she is accepted, loses his/her right of admission; he/she will then have to submit a new application and pass the admission test again.

The first registration for graduate studies at USEK should take place during Fall or Spring semesters.

Admission of the Ungraded Attendee

The *Ungraded Attendee* status enables interested candidates to register at USEK in order to take courses, without any previous conditions of having a diploma/degree or undertaking a test. Applicants for the *Ungraded Attendee* status have to fill an admission application along with a photocopy of the identity card and two passport photos. The file will be examined by the Admission Committee in cooperation with the Head of the Academic Unit related to the chosen courses.

The Admission Committee may require from the candidate to present a language placement test in order to validate his/her linguistic competencies.

Registration

Calendar and Modalities

Course registration is done at the beginning of each semester online according to a pre-fixed calendar. For more information about this calendar, students should visit the University website or refer to the secretariat of the Faculty/Institute they are affiliated to.

Students cannot register before the specified period. For those who could not register within the established deadlines, it will be possible for them to undergo Late Registration during the Add/Drop period, but they will be subject to penalty fees.

Procedure

1. The admitted candidate confirms his/her choice of program in the Orientation and Admission office or on the University website.
    1. Then the admitted applicant pays the first installment of tuition fees at one of the banks listed in the admission application and on the University website.

       The first installment of tuition fees includes:

    - **The registration fees** (non-refundable).
    - **The National Social Security Fund (NSSF) fees,** fixed by the government**.**
    - **The first term of tuition fees:** The amount of the first installment, fixed by the University, is similar for all students of the same program, regardless the number of credits that the student is willing to register for, and even if he/she benefits from a financial aid (in this case, the financial adjustments will take place after the registration period).

      If the amount fixed by the University exceeds the tuition fees related to the student's semester (for example in case of a final year student), the student should then proceed to the secretariat of the related Faculty/Institute, fill out the relevant final payment form and have it signed by the Dean/Director or the Academic Secretary of the related Faculty/Institute, before submitting it to the Social Service Office. He/she can then set the first payment to start the next day.

2. Once the first payment of tuition fees is set up, the student can register his/her courses during the period defined by the academic calendar. The student should wait 24 hours at least after depositing the payment at the bank before being able to register his/her courses. The payment should therefore be paid within 48 hours before the end of the registration period. Otherwise, the student will have to undergo a Late Registration.

   Steps to follow for course registration:

    - Consult in advance the timetable of the courses on the USEK website (usek.edu.lb) or on the bulletin boards and choose courses according to the chosen program.
    - Meet, in case of a need, with the Academic Advisor to choose his/her courses.

It is worth noting that a student should register for 3 credits minimum (excluding the dissertation) and for 10 credits maximum per semester. Any registration for more than 10 credits will be automatically rejected by the computer system, unless otherwise approved (for a maximum of 12 credits) by the Dean/Director or Academic Secretary. The duration of graduate studies cannot exceed four years (8 semesters) starting the first registration to the program.

N.B.:

During the Drop/Add period, the student should also consult his/her Academic Advisor. A student cannot undertake the desired modifications outside his/her related Faculty/Institute.

Access to Banner Self-Service and USEK Email Address

All students enrolled at USEK automatically benefit from access to the University computer and management system, the Banner Self-Service System, which allows students to consult their academic transcripts, course catalogue, course offering) as well as the account related to their tuition fees. Also, every student is issued with a unique USEK email address (FName.InitialOfFather'sName.LName@net.usek.edu.lb). These services are a means of communicating information among the University's administration, faculty members and students.

This information is automatically given to the students as soon as he/she activates his/her USEK account – as soon as he/she confirms his/her choice of program at the Orientation Office or on the University website.

Access to both accounts is made available through connecting to the University Intranet *MyUSEK* or through the USEK website. In case of problems or for further information, students can refer to the IT Service Desk.

Student Card

This card identifies students registered at USEK. Therefore, he/she should always carry it with them, as it is necessary for students to access the University campus, classrooms, Library, exams, conferences, sports center, etc.

Students should collect their card from the Registrar Office, after the registration period.

While waiting for his/her card to access the campus, classrooms, Library, etc., the student should show his/her registration form.

Duplicate: in case of loss of the card, a duplicate can be made by the Registrar Office and the student should participate in the reproduction cost fixed by the University and indicated on the University website.

University Fees

Registration Fees

The registration fees for each semester are fixed by the University for all sections and Regional University Centers, and are non-refundable (excluding summer sessions). The fees for 2015-2016 are published on the University website.

Membership Fees to NSSF

Membership fees to the National Social Security Fund (NSSF), as fixed by the government, are annual. Students already affiliated to the NSSF, or an equivalent fund, are required to submit an exemption form at the NSSF Delegate Office to ensure that the fee paid in advance is credited to their account during the registration. The relevant form can be downloaded from MyUsek, the University Intranet and from the USEK website (usek.edu.lb). It should be completed and submitted before the end of the fourth week of classes; the date is fixed in the Academic Calendar.

Tuition Fees

The cost of a credit varies according to the level of studies and the chosen specialization. The complete table of fees is available on the USEK website. The cost of a credit is subject to change; the administration reserves the right to review and modify fees for the coming years. All likely modifications of a credit cost are reported in advance to students through bulletin boards, the University's website and MyUsek. It is the responsibility of each student to keep well-informed with University news and announcements by regularly consulting these means of communication.

Payment Procedure

The student should pay his/her university fees in three installments per semester and two installments for the Summer Session.

Failure to comply with payment installments, as stated in the Academic Calendar, will lead to a 5% financial penalty calculated according to the amount due. Students who do not settle their payment on time will not be able to continue with any administrative procedure.

It is the responsibility of each student to make sure that his/her tuition fees were paid within the deadlines established by the administration of the University.

Refund

No refunds are granted unless in case of de-registration (refer to: Refund after Deregistration).

Academic Regulations

The provisions of the academic regulations detailed in the paragraphs below apply to all students of USEK. However, some academic units may have specific provisions which may overrule these regulations. Students can consult the specific regulations at the secretariat of the unit to which they are affiliated.

The University Council reserves the right to amend the academic regulations.

A candidate seeking admission to USEK is committed to comply with the regulations of the University, as well as any amendments, and also to follow the procedures in force.

A student has to keep informed about academic regulations and procedures. The University adopts many means of communication (website, Intranet, email, SMS, social media, etc.) to provide students with information that can be useful and necessary during their academic career or to inform them about the amendments made to the texts in force.

That is why, if a student needs to modify his/her personal information, he/she is required to complete the related form at the Registrar Office.

Educational Structure

The curriculum in force at USEK is based on the modular system of unites capitalized per semester or “credits”.

Studies structure

Each course is presented as a coherent collection of educational materials and activities, organized by a department inside a Faculty or an Institute. These educational materials include magisterial courses, directed activities, practical activities, personal activities (projects, term papers, training, etc.), or group activities, which are adapted to meet the needs of each group.

Each course has a certain number of credits and lasts for one semester. A student must register for these courses at the beginning of every semester and the course is either validated or not, according to the student’s exam results at the end of the semester.

Faculty, Institute and Related Department

According to his/her individual program, every student relates to a Faculty/Institute, namely a Department which manages their academic process, from registration to graduation. The Head of Department ensures that the relevant academic regulations are applied and guarantees the smooth running of courses and practical work, offered by the department, from course offering to final exams. In addition, the Head of Department controls the academic level of the students, gives advice about petitions, requests to revise a certain grade, and notifies about probationary situations leading to obligatory repetitions of a course.

For Faculties/Institutes which are not divided into departments, the Academic Secretary is in charge of the Head of Department’s duties.

Educational Advisor

Upon registration and for the duration of their enrolment, students can refer to their assigned Educational Advisor. This Advisor is appointed by the Dean/Director and is chosen by the Department's (or unit's) faculty members, according to the student's program. The period of the academic orientation is fixed during each semester in the Academic Calendar.

The Educational Advisor guides the student's choices and informs him/her about the current regulations.

When the student changes his/her academic cycle or program, he/she refers to the new Educational Advisor assigned by the Dean/Head of the relevant new academic unit.

Educational Contract

All required courses necessary for obtaining the diploma are specified in an Educational Contract, which defines the following:

- The prerequisites and corequisites;
- The modules specified by the Faculty/Institute for the concerned specialization and according to the prepared degree (specializations can be proposed in every curriculum as options);

The Faculty/Institute defines and organizes the various curricula proposed to students. It identifies the constitutive educational units, their credit hours, contents and arrangements within the chosen program and ensures training and educational follow-up.

The student, if he/she wishes to, can get his/her department's approval to comply with a more recent Educational Contract. In such a case, the concerned student will have to fully respect the requirements and directions of his/her new Educational Contract.

If the student changes his/her program or stream, he/she will have to comply with the Educational Contract of the new chosen specialization.

Credits System

The Credit

The biannual credit is the measuring unit of the number of hours per semester.

In the system adopted by the Holy Spirit University of Kaslik, one credit represents one teaching hour (50 minute course) per week during a 15 week semester (including exams and tests). Therefore, a three credit course generally represents 45 hours of attendance, including exams. As for practical activities, tutorials, group work or laboratory activities, they represent 30 hours of attendance for every credit.

In short: 1 credit = 15 teaching hours / semester.

1 credit = 30 hours of practical, directed or laboratory activities / semester.

Trainings in companies and hospitals, as well as projects are subject to specific regulations.

Every diploma/degree has a specific number of credits. Credits facilitate flexibility among various university programs, as well as the mobility of students. Acquired credits are capitalized and can sometimes be transferred from one Faculty/Institute to another; or even from one university to another.

The Course

A course is composed of one or more credits and is academically managed by the Faculty/Institute that determines its contents according to the objectives defined by the program of studies. Every course has its own requirements and the student cannot be registered for a course without the valid prerequisite/s, if it/they exist(s).

The student's freedom to choose his/her courses is conditioned by the criteria of prerequisites and corequisites and also by the approval of his/her Educational Advisor who, in certain cases, must take into account the candidate's academic credentials.

Credit Hours

The minimum and maximum number of credits, per semester, for a full-time registered student

The minimum number of credits is 2 per student per semester (without the dissertation) and the maximum is 10.

A student can increase this number to reach 12 credits per semester following the signed approval of his/her Educational Advisor and the Academic Secretary of the Head of the Department he/she is affiliated to. It is noteworthy that specific regulations can impose, according to the Faculty/Institute, and in some cases, exceptions thereto (examples: registration for seminars – special topics – dissertation, etc.).

A student on probation can only register for courses that he/she should repeat and for a maximum of 6 credits. He/she is advised to register in the course that he/she has to repeat in order to get out of the probation status.

N. B.:

Candidates for the status of Ungraded Attendee can register in a maximum of 12 credits per semester within the limit of available places in each course.

Remedial Course

A student admitted under the condition of following remedial courses, should register for these courses upon his/her first graduate semester at USEK. Any violation of this rule will lead to the termination of his/her admission.

A remedial course cannot be repeated; only one unique registration is allowed.

The minimum grade to validate a remedial course is 70/100. However, this grade will be mentioned on the academic transcript as a "P".

Grading System

The Grading Table

The final grade given for a course is a numerical grade over 100 or a code according to the following table:

Grade /100	Alphabetical Equivalent	Scale 0-4	Grade in English
100	A^+	4.0	Outstanding
95	A^+	4.0	Excellent
90	A	4.0	Very good
85	B^+	3.5	Good
80	B	3.0	
75	C^+	2.5	Average
70	C	2.0	
65	D^+	1.5	Pass
60	D	1.0	
40-55	F	0	Failure
-	IP	-	In progress
-	I	-	Incomplete
-	W	-	Withdraw
-	AW	-	Administrative Withdraw
-	WW	-	Term Withdraw
40	FW	-	Fail to Withdraw
-	P/ PR	-	Pass/Pass Remedial
-	R / RR	-	Repeat/Repeat Remedial
-	T	-	Transfer
-	U	-	Ungraded Attendee
-	G	-	Granted

Alphabetical Grading

"IP" for In Progress

The grade IP is attributed for a course in which the student is given additional time to complete all of its requirements. The student has to register again for the course during the next semester/summer session, in order to complete it.

"I" for Incomplete

The temporary grade I is attributed by the teacher to a course when the student did not attend for the final evaluation, for justified and accepted reasons (not passing the final examination, internship report, presentation of final project, etc.).

On the grades transcript given by the teacher, the notation I is accompanied by the preliminary grade over 100, which will then be considered as the final grade if the student does not fulfill his/her obligations, by the date limit fixed by the University's academic calendar. It is impossible to change this grade; it is the responsibility of the student to pass his/her remedial examination or deliver his/her work on time.

"W" for Withdraw

The grade W is attributed to a course, when the student drops it within the allotted time fixed by the University's academic calendar. This can be justified when the student considers that his/her mid-term grades will not allow him/her to pass the course; his/her average grade will not, therefore, be affected.

N.B.:

- *Absence during mid-terms or finals does not lead in any case to withdrawal from the concerned course.*
- *A student who repeats a required course in his/her program for the third time cannot withdraw from it. He/she cannot withdraw from a remedial course if it is the second time he/she is repeating it.*
- *A student who withdraws from a course should not have absences that exceed 20%. If he/she does, they will be attributed to the grade FW (Fail to Withdraw) on the course.*
- *A student who withdraws from a course during a semester/summer session cannot apply for a scholarship of excellence for the next semester/summer session, even if he/she fulfills all the required conditions.*
- *A student who withdraws from a course will have to pay all his/her University fees, as they were calculated during his/her registration. This means that a withdrawal does not lead to any modification of University fees.*
- *Withdrawal from a course will be refused if the number of credits falls below the minimum of 9 credits upon withdrawal.*

"WW" for Term Withdraw

The grade WW is only attributed by the University's administration when the student drops all his/her courses for major reasons keeping him/her from continuing the semester; such as, serious health problems, traveling, etc.

In order to obtain the Term Withdraw, the student has to officially apply for it by completing a specific form and submitting it to the Registrar Office. If the withdrawal is not officially completed, related teachers will give the student a "Fail to Withdraw" grade in every course.

N.B.:

A student who gets a "WW" grade, will have to pay all his/her University fees as they were calculated during his/her registration; meaning that an administrative withdraw will not lead to any modification of University fees.

"AW" for Administrative Withdraw

This grade is only attributed by the University President or the Council of Discipline in case of violation of the regulations.

N.B.:

A student who gets an AW grade, will have to pay all his/her University fees as they were calculated during his/her registration; meaning that an administrative withdraw will not lead to any modification of University fees.

"FW" for Fail to Withdraw

The FW grade is given for a course which the student stopped attending without having officially undergone the "Withdraw" procedure – or because he/she did not get the authorization to withdraw. This FW grade is taken into account when calculating the average grade and is equivalent to 40/100.

N.B.:

A student who gets a FW grade will have to pay all his/her University fees. This means that a "Fail to Withdraw" grade doesn't lead to any modification of University fees.

Students who get the grade FW on all their courses during a semester will be excluded from their program of studies in the end of the semester.

"P" for Pass and "R" for Repeat

The grades P and R are given with particular courses, such as remedial courses, internships, etc. These courses are assessed with a non-numerical grade; as a result, they will not be taken into consideration while calculating the general average.

"PR/RR" for Pass Remedial / Repeat Remedial

This grade is attributed to the remedial courses (languages or mathematics courses).

"T" for Transfer

The grade T is given for validated transferred courses. A student cannot repeat a transferred course by registering for its equivalent in the Holy Spirit University of Kaslik.

"U" for Ungraded Attendee

The grade U is given for a course in which the student is registered as a free attendee, after the approval of the Head of Department and the Dean/Director. An Ungraded Attendee does not undertake the exams of the course he/she is registered in. No grade can be converted into a "U" and vice versa.

An ungraded attendee will be given a registration record at the end of the course.

"G" for Granted

The grade G is given for a number of credits of validated courses in the context of a diploma/degree, which means that the courses are granted and students pursuing a higher diploma/degree would not have to repeat them.

Passing Grade of a Course

The passing grade required to validate every course in the curriculum is defined in the related educational contract. Students can refer to the curricula in the student file edited by the concerned academic unit or on the USEK website.

In general, the grade required to pass a graduate course is 80/100 or P. A higher grade can be required for certain program of studies.

However, some courses are considered as validated with a grade of 75/100 (or 70/100 according to the course and the Faculty/Institute) in case the student has a GPA of 80/100 at least.

The Evaluation Criteria

The evaluation of the students' word takes place according to the scale stated in the syllabus of each course and will be defined to the student during the first sessions of the course. The syllabus of the course is given to students at the beginning of the semester.

A student has the right to know all his/her grades (positive participation, attendance, research and/or projects, midterms, quizzes, etc.) in order to decide whether he/she wants to drop a course or not before the deadline for withdrawal from a course, as stated in the academic calendar.

During semester, the teacher manages all the components of his/her course: lateness, absence, midterms, projects, attribution of grades, oral presentations, the course content, the make-up sessions, etc.

A student who fails to meet a course requirement (exam, test, report, etc.) will be attributed a failing grade, zero, by the teacher.

Rules of Midterms and Finals

Final exams are organized at the end of a semester. Specific exam dates are defined by the academic calendar. Students will need their photo ID card to enter the examination room and the student will have to sign a register of attendance.

If a student is late, he/she will be allowed to enter the exam room if no other student has already left, but he/she will not be given additional time.

Any cheating, or attempt to cheat, during the exam will inevitably lead to the annulment of the student's exam. Additional measures can also be taken by the University's Council of Discipline.

A student who does not show up for the exam, for any reason, is given, by the teacher, the failing grade of **zero** or R/RR. If this absence is due to special justifiable circumstances, the student can present a petition with supporting documents to the Student Affairs Office, and request a make- up exam. The appropriate authority will consider this request.

However, it is worth mentioning that in order for these petitions to have positive consequences, they must be legitimized by one of the following reasons:

- Death of a parent;
- Hospitalization, attested by a medical report from the hospital;
- Serious accident, attested by an official report from a sworn expert.

Such, free of charge, petitions must be presented to the Student Affairs Office within 24 hours after the missed exam. The request will be ignored in the case of a recurrence and a student who has showed up for the exam cannot, in any case, present a petition.

Midterm exams will be organized during the semester for the concerned Faculties/Institutes. The aforementioned rules for the final exams also apply to the midterms.

Request to Review a Grade

The student has the right to ask, within the two working days after the display of the final grade on the Banner Self-Service, for his/her grade to be re-examined through the means of a specific form. After this period, no recourse, even a justified one, is possible.

A student can ask for the re-examination of two grades, at the most, per semester or summer session. The fee for requesting a grade review is payable to the Accounting Office - Student Services Department. This fee, which sum is fixed by the University and is indicated on the website is returned to the student if the review outcome is positive for the student.

The only acceptable requests for a grade review are as follows:

- In case a mistake occurred while adding up the grade;
- In case a mistake occurred while copying the grade.

The student should present his/her request/s to the Registrar Office with a receipt as proof of full settlement. He/she has to present the receipt for refund in case the review outcome is positive.

The teacher concerned will write down his/her decision on the exam review request form and change the grade if necessary. After that, the form is successively presented to the Head of Department and the Academic Secretary, in order to give their approval by signing the document. In case of conflict, the request is submitted to the Faculty/Institute's Council which will take the final decision. It is eventually submitted to the Registrar Office for processing.

General Average

Grade Point Average (GPA)

It is the general average of grades for all student courses during specific program of studies, balanced by the number of credits for every course, according to the formula:

$$GPA = \frac{\Sigma_{courses}\ \text{credit (course)} \times \text{grade (course)}}{\Sigma_{courses}\ \text{credit (course)}}$$

If a course was repeated, the higher grade is used while calculating the Grade Point Average.

The grades I, W, WW, PR, RR and U as well as credits transferred from another institution (T) or granted (G) are not included in the general average.

The grades FW which are equal to 40 are included in the general average.

The Grade Point Average is calculated to the second decimal and is displayed on the grades transcript.

General Average per Semester (GAS)

The General Average per Semester is calculated according to the same aforementioned formula (refer to Grade Point Average (GPA)), according to the course taken in a particular semester.

The General Average per Semester is calculated to the second decimal and is displayed on the grades transcript.

Grade Point Average of a Diploma/Degree (GPAD)

The Grade Point Average of a Diploma/Degree is the Grade Point Average taken into account and needed in order to graduate.

With a normal academic process, the Grade Point Average of a Dilpoma/Degree is equal to the aforementioned Grade Point Average.

The Grade Point Average of a Diploma/Degree is calculated to the second decimal and is displayed on the grades transcript.

Grade Point Average of a Diploma/Degree (GPAD) after changing the academic program

The change of academic programs is not applicable in graduate studies. Students wishing to change their academic program are required to submit a new admission application, and in that case, they have to pass to corresponding admission test.

However, students can submit a request to change the option in their academic program. This request will automatically be rejected in case the student was under probation.

If a student changes his/her academic program, the Grade Point Average of a Diploma/Degree is calculated according to the same previous formula, whilst taking into account the following courses:

- Courses taken by a student before changing the program and which are equivalent to some courses in the new academic program;
- Courses taken by the student after changing his/her specialization.

For the repeated or equivalent courses, the higher grade will be taken into consideration.

It is worth mentioning that the Grade Point Average of all the courses, since registering in undergraduate studies at USEK, is calculated and displayed in the student's grades transcript.

Duration of Studies

The minimum and maximum duration of study, specified in the educational contract of each academic program, are defined for the graduate degrees as follows:

- Master: between 4 semesters (2 years) minimum and 8 semesters (4 years) maximum, starting from the first registration for the program.
- Diploma in Interpretation: between 4 semesters (2 years) minimum and 8 semesters (4 years) maximum, starting from the first registration for the program.
- Diploma of Doctor in Medicine M.D.: between 8 semesters (4 years) minimum and 12 semesters (6 years) maximum, starting from the first registration to the program.

If deadlines are not met, students who have not finished the required courses of the curriculum are excluded from the Faculty/Institute.

Administrative Substitution of a Course

In exceptional circumstances, the Head of Department can ask the Dean/Director of the Faculty/Institute to allow a regular student to follow a course other than the one included in the program, notably when this student is not able, for legitimate reasons, to follow this course as defined by the program, or when the course offering does not allow him/her to attend in the semester during which he/she might finish his/her curriculum. In this case, the course is replaced with another one of the same level within the same major and within the program's field of knowledge.

Notwithstanding the above:

- No failed obligatory course can be subject to administrative substitution, unless the concerned course cannot be offered anymore, due to a modification in the program.

- A student cannot be allowed to follow more than two substitution courses.

Tutorship Course

A Head of Department can ask the Dean/Director of the Faculty/Institute to allow a student to follow a tutorship course, only when all the following conditions are fulfilled:

1) The student is about to graduate;
2) The student could not validate this course on time, for legitimate reasons and this course is not offered in the semester during which the student might finish his/her program;
3) The course cannot be taken externally;
4) The Department has checked for the approval of a specialized teacher in the Department.

Notwithstanding the above:

- No failed obligatory course can be subject to tutorship, unless the concerned course cannot be offered anymore due to a modification in the program.
- A student cannot be allowed to follow more than one tutorship course in his/her entire program.

Add/Drop

Once registration is closed, a student can, if he/she wants, modify the registration of one or two courses during the Add/Drop period (as stated in the Academic Calendar). In order to do so, the student has to visit his Faculty/Institute to proceed with the Add/Drop.

Administrative Procedures

The procedures included in the below pages have to be initiated by the student at the Registrar Office, unless otherwise indicated.

When the student initiates his/her request, a receipt and an acknowledgement are given stating the necessary duration for examining the request. The student is required to keep these two documents until he/she gets the response to the request.

The student can, if he/she is willing, mandate another person to collect the required documents. Therefore, he/she has to sign an authorization letter prepared for this purpose at the Registrar Office.

Withdrawal

After the Add/Drop period, every withdrawal from a course must be subject to a previously written request before the authorized due date, as fixed in the Academic Calendar. To this purpose, the student must complete the relevant form, have it signed by the related teacher and the Head of Department before submitting it to the Registrar Office. The deadline for the official withdrawal from a course is fixed at the end of the 10th week of the semester. It is worth mentioning that an absence during midterms or finals does not lead, in any case, to the withdrawal from the course.

If a student is allowed to withdraw from a course, the latter will be displayed on his/her academic file with the grade W; the course fees cannot be reimbursed or deducted from the general fees the student has to pay. Furthermore, a withdrawal from a course does not lead to any modification in the student's University fees. In addition, a student, having withdrawn from a course during the semester, cannot apply for a scholarship of merit for the following semester, even if all other required conditions are fulfilled.

The withdrawal from a course will be refused if a student's credits per semester drop below the minimum number of 3 credits per semester, or if he/she misses more than 20% of the course.

Term Withdrawal

If a student cannot complete a semester and has to withdraw from all his/her courses after the Add/Drop period for major reasons; such as, serious health problems, exceptional family circumstances, etc., the University's administration can attribute the grade WW (Term Withdraw) to each course. In order to obtain a Term Withdrawal, the student has to submit the relevant official form to the Registrar Office. If the withdrawal from a course is not officially done, the student will be given the failing grade FW (Fail to Withdraw) by the teachers concerned, for every course at the end of the semester.

A student who gets a WW grade, will have to pay all his/her university fees, as they were calculated during his/her registration.

Deregistration

Definition

Deregistration is the dropping of all courses during the registration and during Add/Drop period.

During the registration and add/drop period, the student can drop all his/her courses. For current students, students who have recourse to deregistration, while they were registered during the previous semester/session at USEK, the deregistration request must be accompanied by a request for the interruption of studies. The latter must also be submitted to the Registrar Office via an appropriate form and the interruption of studies will be noted in the student's academic file.

Refund after Deregistration

In case of deregistration during the Add/Drop period, the student can ask the Accounting Office in the Student Services Office for a refund. Then, the entire amount of study fees, which have been already paid, will be refunded. However, the student has to pay a penalty which amount is fixed by the University (to view the fees, consult the University website).

Transfer

The files of transferred applicants are studied first by the hosting academic unit which submits afterwards its remarks and opinion to the Admission Committee for the final acceptance decision.

In case of admission by transfer of file, the evaluation of credits which might be transferred is based on the following criteria:

- The course validated by transfer must have the same credit hours as its equivalent in the Holy Spirit University of Kaslik;
- According to the American system, the minimum grade obtained in the original University which can be accepted during a transfer is 80/100. For some programs, a higher grade can be required. In all cases, the student must have passed the course validated by transfer, in his/her original university;
- Courses validated six years ago, or more, before the admission date, cannot be taken into account (unless the Admission Commission decides otherwise);
- The number of transferred credits cannot exceed 33% of the total number of credits required for graduate studies;
- All transferred credits are declared and validated during admission to the Holy Spirit University of Kaslik; afterwards, no transferred credits can be added.

The grade T will be given to the transferred courses and the student cannot repeat a transferred course by registering for its equivalent in the Holy Spirit University of Kaslik.

The Transfer File has to be submitted, along with all required documents, to the Orientation Office, three weeks at least before the beginning of the registration period.

European Credits Transfer Mode

The transfer of European credits (ECTS) to North-American credits used at USEK takes place in graduate studies according to the following scheme:

- For a Master of 36 or 39 North-Amercian credits: 1 North-Amercian credit is equal to 3,33 ECTS credits.

In order to be recognized as transferable, ECTS credits must correspond to courses deemed equivalent to courses at USEK which will be validated by transfer. The only ECTS credits that can be recognized as transferable must also correspond to courses graded A and B, regardless of the numerical value assigned to these courses.

Switching Option within the Same Academic Program

Switching academic programs in graduate studies is not possible. Students wishing to switch academic programs are required to submit a new admission application and pass the corresponding admission test.

However, students can submit an official request to switch options within the same academic program by filling the specific form for this purpose. This request, signed, should be presented to the Registrar Office.

The approval of the related Faculty/Institute is required. The final decision goes to the Admission Committee.

It is noteworthy that this request will be automatically rejected in case the student is on probation.

The credits of the initial program, related to common and equivalent courses, are validated by the new chosen program.

After changing the option, the average taken into consideration to determine the student's academic status (probation, obtaining the diploma/degree, etc.) is the Grade Point Average of the Diploma/Degree. On the other hand, the entire academic performance of the student is displayed on the grades transcript.

As for the seniority of the student, it is calculated with the number of validated credits within the framework of the new option. This seniority will be taken into consideration in the deadlines of obtaining the degree/diploma.

Double Degree

A student can enroll in a double degree in graduate studies. He/she must define the priority program and the secondary program.

Within a program, the student can apply for another program that will be considered as secondary, in case he/she validated all the needed remedial courses. Therefore, he/she will have to pass the admission test of the new program.

On the other hand, the student cannot enroll in a double degree in two options within the same program. He/she can enroll in two different and independent programs that he/she should validate without any time extension.

A student in a probation situation in his/her priority program cannot apply, simultaneously, to another program.

The student is required to fill the related form in the Registrar Office. The request will be examined by the Admission Commission and the related Department.

Interruption of Studies

A student who wishes to temporarily suspend his/her studies for a period not exceeding two consecutive semesters, must complete the relevant form designed purposely for this, have it signed by the persons concerned and submit it to the Registrar Office.

During the interruption of studies, the concerned student is considered as an "inactive student". However, The authorized interruption duration is included in the maximum duration of studies; therefore, the student should not surpass this maximum authorized duration for obtaining the diploma, or else he/she will be excluded from his/her academic program.

After an interruption of studies, and in order to reregister in the initial program, the student has to present a readmission demand; if the student does not register to the semester following the authorized interruption period, he/she will inevitably be excluded from the academic program.

If a student suspends his/her studies without officially informing the administration of the Holy Spirit University of Kaslik, by submitting the appropriate form to the Registrar Office, he/she will be excluded from the academic program. In this case, the student has the right to

present a readmission demand to the suspended program or to a new one; this demand will be examined according to the regulations in force during the time of the application's filing.

Readmission

After the interruption of studies, and in order to be readmitted into the study program, the student has to present a readmission request to the Registrar Office, at least three weeks before the registration period.

The readmission request is automatically accepted if the interruption of studies is official and was delivered to the Registrar Office in the fixed period. If this wasn't the case, the readmission request is examined by the University's Admission Commission and if the student's readmission was refused, no other recourse request can be filled.

The readmitted student is subject to the program structure in force during the presentation of the readmission request, and will have to follow the directions of his/her Educational Advisor.

Cross-Registration

Within the framework of agreements signed between USEK and other Lebanese and foreign universities, a student may attend one or several courses during one or more semesters in another university, after having obtained first the authorization of his/her Department and the approval of the Dean/Director of his/her home Faculty/Institute.

Courses attended in another institution should be deemed equivalent to those of the current program.

In order to be able to follow external courses, the student must abide by the following conditions:

- The total amount of external credits added to the credits transferred upon the student's admission, shall not exceed 49 % of the total required credits;
- The courses attended in Lebanon, albeit in another university, should not be taught within the student's original Faculty/Institute during the semester in question;
- The final grade for each course should be directly reported by the host university, according to the grading system adopted by USEK, to the Registrar Office. This grade will be registered on the academic transcript and is accounted for with the remaining grades, when calculating the student's Grade Point Average and General Average per Semester;
- In addition to the registration fees of USEK, the student should pay all the necessary fees of the host university.

Probation

A student registered in the graduate studies is put under probation at the end of the semester if the GPA is less than 80/100.

The student stops being under probation when he/she gets the required General Average per Semester and Grade Point Average.

A student may be placed on disciplinary probation upon decision of the Council of Discipline.

Exclusion from an Academic Program

A student is excluded from the program he/she is registered in for one of the following reasons:

- when he/she receives the third consecutive probation warning (i.e. when he/she is on probation for two consecutive semesters);
- If he/she fails to validate his/her academic program within the established time limit;
- If he/she fails a required course twice;
- If he/she fails an remedial course;
- If he/she suspends his/her education without officially informing the administration, by submitting the appropriate form to the Registrar Office.

A student who is excluded from the academic program can submit an admission form to another program offered by USEK. However, the grade of his/her exclusion will still appear on his/her academic file.

A student can be excluded from USEK upon the administrative decision of the President of the decision of the Disciplinary Council of the University. The decision will indicate the type of the exclusion and its consequence on the academic level. The grade of exclusion of a student will appear on his/her academic record.

Suspension / Exclusion from USEK

An administrative measure of temporary suspension can be taken by the University President.

A student can be excluded from USEK, based on an administrative decision of the University President or the University's Council of Discipline. The decision will define the nature of the exclusion and its implication on the academic level. The grade of a student's exclusion will appear on his/her academic file. The student will get the grade AW (Administrative Withdraw).

Responsibility and Recourse

Positive Participation

Positive participation is required for courses, practical activities, directed activities, laboratory sessions, etc. No absence, even a justified one, liberates the student from his/her responsibilities regarding the work required or regarding whatever the teacher may have said during his/her absence.

The student can be absent to the number of hours equal to 20 % of the course: 9 hours (6 sessions of one hour and 15 minutes for a three credit course), or 6 hours (4 sessions of one hour and 15 minutes for a two credit course).

A student who exceeds this limit in a certain course might be given the grade FW (Fail to Withdraw) by the teacher concerned, and, subsequently, will not be able to present his/her exams.

A student who does not show up to all his/her courses for more than three consecutive weeks will be considered by the administration as having resigned; he/she will be given the grade FW (Fail to Withdraw) in all his/her courses and will be consequently excluded from his/her academic program at the end of the semester. However, the student can present a readmission demand to the Faculty/Institute in order to continue his/her education, starting from the following semester (a readmission form must be presented to the Registrar Office); after that, the Admission Committee will have to decide whether to accept or refuse this readmission request.

If the student justifies the exceptional circumstances of his/her absence to all the courses for three consecutive weeks, he/she can apply for a Term Withdraw by presenting the appropriate form to the Registrar Office.

Intellectual Integrity

Intellectual integrity is at the core of University learning and is compromised by plagiarism and fraud.

Plagiarism

Plagiarism consists of someone pretending that other people's ideas and statements are his/her own. For example, plagiarism cases comprise:

- Copying texts or parcels of texts without indicating they are borrowings and without citing their source;
- Omitting to cite the source of a paraphrased or summarized text.

Fraud

Fraud cases include for example the following situations:

- To present, under one's own name, a text partially or entirely prepared by someone else;
- To borrow, buy, sell or lend a text that is to be presented for a course;
- To submit the same text in more than one course;
- To receive or give help or information from, or to, another student during a test or an exam;
- To use unauthorized material during a test or an exam;
- To present, during a test and under one's own name, a text partially or entirely prepared by someone else;
- To submit false information in a work or a report;
- To obtain the questions of a test or exam in an unauthorized way;
- To pretend to be someone else during a test or an exam, or let someone else do the test or the exam.

A student who commits plagiarism or fraud will be given, the grade 0 or F on the plagiarized work or the exam during which the fraud was committed. The teacher must report this fraud to the Dean/Director, who will have to evaluate its gravity before deciding whether he wants

to submit the case or not to the University President; the latter will therefore be able to refer the case to the Council of Discipline.

Appeal Procedure in the Application of Academic Regulations and Petitions

The student who considers that he/she was wrongly accused, can appeal against the decision taken on his/her behalf.

In order to do so, the student must refer to the Student Affairs Office which will give him/her the appropriate form related to his/her request/situation or ask him/her to write a petition (a petition cannot be accepted if there is a form concerning the same exposed request).

The student will have to submit his/her petition at latest one week after the release of the official notification of the contested decision. This petition is submitted free of charge.

The application of every appeal outcome is suspended until it is confirmed by the Student Affairs Office (SAO) which will communicate the relevant decision within ten working days after receiving the petition. The SAO final decisions are enforceable and have no recourse. The SAO makes sure the University regulations are applied.

Regulations of Master Dissertations

Specific Regulations of Academic Units

The procedure concerning the regulations of graduate dissertations is available on the USEK website. Students can consult these regulations at the secretariat of the unit they are affiliated to.

For registration, preparation and defense of a graduate dissertation, the student should abide by the regulations defined by the relevant Faculty.

Administrative Procedure

The Master dissertation is worth 6 to 9 credits and can be completed in one or two semesters.

During the first registration for the Master dissertation, the student registers for module 6XX A during a semester and pays the corresponding tuition fees.

After this first registration, the student:

- obtains a numeral grade (grade received upon the dissertation defense);
  or
  obtains the grade IP and should register in the following semester for the module 6XX B (while paying only the registration fees).

After the registration for the module 6XX B, the student:

- obtains a numeral grade (grade received upon the dissertation defense);
  or
- obtains the grade IP and should register for the module 6XX B, for the last time (while paying only the registration fees).

N. B.:

A student can only register for his/her dissertation for 3 consecutive times in total (6XX A; 6XX B; 6XX B). When he/she exceeds these 3 registrations, the student will be given the grade R and should, in case he/she wishes to reregister, submit a request for exemption to explain the

reasons of his/her new registration request for a new dissertation project. The Faculty/Institute Council studies the request of the student, who, in case of a positive response re-registers for the module 6XX A and has to pay the registration fees and tuition fees according to the number of dissertation credits he/she is registered for.

Requirements to Obtain a Diploma/Degree

Master, MBA, Diploma in Interpretation

To obtain his/her diploma, the candidate must have:

- studied for at least 2 years (4 semesters) after obtaining the undergraduate diploma/degree or a recognized degree by the Lebanese State;
- passed and finished all the courses required by the studying program and indicated in the educational contract with a maximum time of 4 years (8 semesters) starting from the first registration to the program;
- fulfilled all the requirements of his/her educational contract;
- drafted and defended his/her dissertation;
- followed and passed a minimum of 67% of the credits of his/her Faculty/Institute;
- achieved a diploma GPA of at least 80/100.

Doctor of Medicine M.D.

To obtain the Diploma of Doctor of Medicine M.D., the candidate must have:

- studied for at least 4 years after obtaining the Bachelor of Sciences in Fundamental Health Sciences at USEK;
- validated all required courses and internships by the studying program and indicated in the educational contract within a maximum duration of 6 years (12 semesters) starting from the first registration to the program;
- fulfilled all the requirements of his/her educational contract;
- followed and passed a minimum of 67% of the credits of his/her Faculty/Insitute;
- having drafted and defended with success his/her thesis in accordance with the regulation in force;
- achieved a GPA of at least 80/100 on the bachelor degree and the Doctor of Medicine degree.

Issuing Graduate Diplomas/Degrees

Graduation Procedure

At the end of each semester, the University holds the graduation ceremony of the final year students who have met the requirements at degree level.

However, students have the right to suspend their graduation in case they were willing to re-enroll in the Summer semester/session to repeat a course and increase their GPA. In order to do so, students should visit the Registrar Office to put an end to the graduation procedure as soon as they receive the notification of the ongoing graduation process. The academic unit to which students are affiliated should approve the suspension request.

The University has the right to cancel a suspended academic career and issue a diploma/degree to the related students after 2 consecutive semesters of suspension.

Procedure for Issuing Diplomas/Degrees

In their diploma request (parchment; degree certificate; academic transcript) either requested online or to the Registrar Office, students should make sure the personal data included in their file (name, surname, date and place of birth, etc.) is correct, and then, in case of error, proceed with the necessary corrections (especially uppercase, lowercase, accents, spaces). Students are required to submit legal documents justifying their modifications.

Graduation Ceremony

Students intending to participate in the graduation ceremony are required to complete the related request online or at the Registrar Office.

At the end of the Summer session/semester, the academic authorities of each Faculty/Institute check whether the students, who have submitted a degree request, meet the requirements of their respective curricula of their Faculty/Institute. Students who meet these requirements are allowed to take part in the graduation ceremony.

Students who have their request rejected will be notified by the Academic Secretary of their Faculty/Institute, who will state the reasons which prevent them from graduating.

Issued Documents and Fees

To certify that a student has succeeded in a program, USEK delivers 1 diploma/degree on parchment. The parchment is labeled in both Arabic and French, or Arabic and English languages.

However, fees, which are available on the University website, are required for each certified document from the related authorities. Therefore, a student has to pay these fees at the Accounting counter for every request for an official document (and/or a true copy):

- Official registration certificate (in English, French and/or Arabic).
- Official diploma certificate (in English, French and/or Arabic).
- Official academic transcript (delivered in French only).

Collection of a Diploma/Degree (Parchment) and Certificates

Students should collect their degrees and certificates from the Registrar Office. They are required to turn up in person, submit their national identity card and sign a special register.

A student who cannot collect these documents in person, for any reason, is entitled to delegate a representative, by complete in the relevant form granting permission. The representative should submit the student's ID along with his/her commission, which will be saved in the student's file.

National and international mailing services are ensured, in case of need, through the Registrar Office.

USEK reserves the right not to deliver a student's degree and certificates if he/she is in any irregular situation with the Library and/or the Financial Administration.

Replacement of a Diploma/Degree Parchment

A new parchment may be issued only when a mistake is found on the original one. The new parchment will be handed over to the person involved, in exchange for the original one, without any additional fees.

However, a student can request more than an official certificate of end of studies, document equivalent to the parchment.

Doctoral College Regulations

Article 1: Introduction

The purpose of these regulations is to define the structure, the conditions pertaining to the organization, the access and the development of studies required for the preparation of a thesis in order to obtain the degree of Doctor in USEK.

Article 2: Doctoral College

§1. A Doctoral College has been established within USEK, responsible for the coordination between Doctoral Schools and the follow up of doctoral students, preparing them for professional and academic integration. The Doctoral College contributes to the coordination and the coherence of doctoral studies within the different Faculties and Institutes of related disciplines, representing a Doctoral School for Sciences and Technology and another for Human and Social Sciences.

§2. The President of the Doctoral College is appointed by the President from among the tenured faculty members holding the academic rank of Professor. He is assisted by two coordinators of the Doctoral Schools (a specialist in Human and Social Sciences and another in Sciences and Technology), both shall hold the academic rank of Professor, and by an administrative unit called "Secretariat of the Doctoral College[1]".

§3. The Doctoral College consists of a Council composed of the President of the Doctoral College, Coordinators of the Doctoral Schools and Heads of the Doctoral Commissions in the different faculties. This Council shall meet twice a year at least upon the convocation of the President of the Doctoral College. A quorum of 2/3 of the members is required to hold the Council's meeting.

§4. The Doctoral College Council is responsible for:

- defining the general applicant selection criteria;
- deliberating over the admission of applicants;
- organizing and promoting doctoral studies as well as ensuring their quality;
- promoting university partnerships;
- ensuring the supervision quality of doctoral students by units and research groups;
- working with research centers to initiate research teams;
- encouraging scientific contacts and exchanges among doctoral students;
- ensuring the respect and implementation of the doctoral studies regulations as well as the Thesis Charter, and propose amendments, if necessary;
- organizing the doctorials, for the presentation of the doctoral students' papers which will be published in the *Proceedings of the Doctorials*.

[1] Cf. Meeting of the USEK Council – MOM no. CU 1711/2010.3

§5. The decisions of the Doctoral College are taken by the absolute majority of the legal members. In case of parity, the President has the casting vote.

Article 3: Doctoral Schools

§1. Two Doctoral Schools are established in USEK. They include the different Doctoral Commissions of related disciplines and are divided into Sciences and Technologies, and Human and Social Sciences.

§2. The University President appoints the Coordinators of the Doctoral Schools from among the tenured faculty members who hold the rank of Professor, for one renewable year.

§3. Coordinators of the Doctoral Schools are responsible for:

- the implementation and follow-up of the Doctoral College policy in the concerned disciplines;
- the promotion of coordination of teaching and activities among the different Doctoral Commissions of related disciplines.

Article 4: Doctoral Commissions

§1. A Doctoral Commission is established in each faculty with doctoral program. The doctoral program within institutes is attached to the concerned faculty. In this case, a faculty member from the institute is automatically a member of the Doctoral Commission.

§2. Each Doctoral Commission is managed by a Head appointed by the President, on the proposal of the Dean, from among the tenured faculty members of the concerned faculty having at least the academic rank of Associate Professor.

§3. The Doctoral Commission is composed of two members at least of the tenured faculty members having at least the academic rank of Associate Professor. These members are appointed by the President on the proposal of the Dean.

§4. The Director of an institute attached to a faculty proposes to the President the name of the Doctoral Commission member having at least the academic rank of Associate Professor.

§5. This Commission shall:

- prepare, in accordance with the admission requirements stipulated in article 5, a written test (and oral, depending on some specializations), to evaluate the ability of the applicant to pursue doctoral studies. This test covers the following fields:
  - language skills;
  - general knowledge;
  - familiarity with the relevant literature;
  - methodological skills.
- examine the applicants' files and give an opinion as to their admission;
- plan seminars; this planning should be approved by the Dean;
- ensure the scientific follow-up of doctoral students and check their regular attendance during the whole period of their doctoral program;

- evaluate regularly the quality of the doctoral student's scientific work and the progress of his/her research;
- inform the Doctoral College annually about the progress of work undertaken by doctoral students;
- propose the members of the thesis jury to the Dean of the faculty;
- provide the acquisitions of the Main Library in the disciplines related to research;
- take part in determining the research axes and in organizing conferences involving doctoral students.

§6. Decisions of the Doctoral Commission are taken at the absolute majority of its legal members. In case of parity, the Head has the casting vote.

Article 5: Admission

§1. Only those who hold a Research Masters' degree or an equivalent diploma, and who show an appreciable academic level[2] may apply for admission and register for the admission test, whose date is fixed by the University's academic calendar. Any applicant whose GPA in the Masters' degree is equal to or greater than 85/100, according to the American grading system (equal to or greater than 14/20 according to the French grading system), may also apply for admission.

§2. The applicant shall also:

- show proof of all the academic years previously completed;
- submit two recommendation letters issued by teacher-researchers;
- submit a duly completed application enclosing all the required supporting documents;
- submit a brief proposal of the expected research areas and the prospective topic;
- have at least a GPA of 85/100 in the Masters' program;
- pass the admission exam. The USEK graduates should also pass this test. Only applicants who are authors of two articles published in an indexed journal with a signature ranking of the said articles among the three top positions, are exempted of this test.

§3. Applicants to doctoral studies may not apply for admission on the basis of a transfer file.

Article 6: Registration and Re-registration

§1. Each applicant, accepted in the doctoral studies program, shall register in the same semester following his/her admission, or in the following one, since admission remains valid for two consecutive semesters. If the applicant does not register within the established

[2] The equivalent degree shall be obtained from the Commission of Equivalences in the Ministry of Education and Higher Education.

deadlines, he/she shall reapply for admission and re-pass the relevant test, without having to open a new file.

§2. As soon as admission is validated, all doctoral students should register their doctoral thesis, every semester, according to the relevant acronym and code.

§3. Following initial registration, each applicant shall re-register his/her thesis at the beginning of each semester, to be maintained in his/her studies, even if, during a certain semester, he/she is not attending any course or seminar. In addition to the registration fees and the course credits, the student shall install each semester tuition fees corresponding to 7.5 credits, assigned to the thesis.

§4. A doctoral student has the right to interrupt his/her studies once, and only for one semester; interruption must be approved by the Thesis Director and Head of the academic unit concerned. As soon as he/she returns, he/she shall fill in a readmission form (Rf. *Interruption of Doctoral Studies Request Form; Readmission to Doctoral Studies Request Form*). If he/she is absent for more than one semester, he/she will be excluded from the program. In order to return, the Ph.D. student will require an admission procedure (not a readmission procedure).

§5. Following the opinion of the Thesis Director and the Head of the Doctoral Commission, the Doctoral College may exclude from the program a doctoral student whose progress in the work is deemed unsatisfactory, or has exceeded, without prior approval, the number of years assigned to doctoral studies. (Rf. *Notification of Expulsion from Doctoral Studies Form*)

Article 7: Thesis Director[3]

§1. Starting the initial registration of the applicant, the Head of the Doctoral Commission, following the approval of the Dean, appoints a Thesis Director, responsible for the scientific follow-up of the student's work. This director, generally proposed by the applicant, is chosen from among the tenured faculty members, unless otherwise specified by the President, and shall hold, at least, the academic rank of Associate Professor. He/she supervises the research conducted by the doctoral student and his/her thesis. The prior approval of the President of the Doctoral College is required for the co-direction of the thesis if the nature of the work necessitates so. The co-director may be selected, if possible, from among the tenured faculty members or may be a teacher-researcher from outside USEK. He should hold, at least, the academic rank of Associate Professor.

§2. The Thesis Director shall hold at least two meetings every semester with the doctoral student. At the end of each semester, the Thesis Director is required to present to the Head of the Doctoral Commission an evaluation report of the research conducted by the doctoral student under his/her supervision. The report on the state of the student's progress is attached to the evaluation report of his/her supervisor.

[3] The appointment of the thesis co-director is subject to the provisions of Article 7 (cf. Meeting of the USEK Council held on May 13th, 2009- MOM no. 695).

§3. A faculty cannot supervise more than four theses at the same time, unless otherwise previously stated by the President.

§4. Any plan to change the Thesis Director shall be justified and communicated by the Head of the Doctoral Commission to both the Dean and the President of the Doctoral College for approval. (Rf. *Change of Thesis Director Request Form in Doctoral Studies*)

Article 8: Thesis Charter

The respective obligations of the Thesis Director and the doctoral student are explained in detail in a thesis charter outlined by the Doctoral College in accordance with the principles exposed set out in these regulations.

Article 9: Submission of a Thesis Proposal

§1. At the end of the first semester of registration, or the latest during the following semester after the initial registration, and unless otherwise allowed by the Head of the Doctoral Commission for a third eventual semester, the doctoral student shall write a thesis proposal of at least 20 pages to be submitted to his/her Thesis Director. It includes:

- definition of the research area;
- detailed problem statement;
- rationale;
- literature review;
- description of the adopted methodology;
- preliminary plan;
- selected and commented bibliography.

The final topic should be sent to the secretariat of the Doctoral College.

§2. Following the approval of the Thesis Director, the Head of the Doctoral Commission calls the doctoral student for an oral interview related to his/her thesis proposal. The Head of the Doctoral Commission may be assisted by an assessor, selected from among the tenured faculty members, if the nature of the subject necessitates so.

§3. Following the approval of the Thesis Director and the Head of the Doctoral Commission, the doctoral student shall, during the semester following his/her initial registration, submit his/her subject and the thesis proposal to the secretariat of the Doctoral College in accordance with the submission procedure required by the Doctoral College. (Rf. *Thesis Proposal Submission Request Form*)

§4. The secretariat of the Doctoral College registers the topics in a special record and publishes on the University website the list of doctoral students and the chosen topics.

Article 10: Structure of the Doctoral Program

§1. The doctoral studies curriculum is composed of 60 credits divided as follows:

Doctoral Program	Number of credits	Grading
Thematic program, of two seminars at least, proposed by the Doctoral Commission (organized according to the academic profile of the doctoral students) Methodological program of a seminar	9 credits	P[4]/R (Pass, Repeat)
Common program proposed by the Doctoral College dealing in general with multidisciplinary themes (one and/or two seminars)	3 or 6 credits	P/R
Doctorials and publication of the relevant Proceedings	3 credits	P
Thesis and academic defense	45 credits	/100
TOTAL	**60 credits**	

§2. The minimum duration to achieve the doctoral studies is six semesters, as from initial registration. A semestrial extension, of maximum four consecutive semesters, even if the student changes his/her research topic (Rf. *Change of Doctoral Thesis Topic Request Form*), may be granted by the President of the Doctoral College, following a report and a justified opinion from the Thesis Director and the Head of the Doctoral Commission. Following this deadline, the topic is deemed cancelled and the doctoral student is excluded from the program. (Rf. *Registration Extension Request in Doctoral Studies Request Form*)

Article 11: Nomination and Composition of the Thesis Jury

§1. Following the approval of the Thesis Director, the Head of the Doctoral Commission proposes two *rapporteurs* to the Dean. The approval of both the President of the Doctoral College and the President is required for this nomination. One of the *rapporteurs* at least is chosen from the faculty members from a university other than USEK. The two *rapporteurs* automatically become members of the jury and shall deliver their report within a deadline of 30 working days.

§2. The jury, proposed to the Dean by the Head of the Doctoral Commission, is composed of a minimum of five members; two of them should not be from USEK. Out of the five members, who constitute the Jury, at least four of them should hold the academic rank of Associate Professor. The President of the Jury, who can at the same time be the thesis director, must hold the title of Professor.

[4] The grade P (Pass) is ≥ to 85/100 according to the American grading system (14/20 according to the French grading system).

§3. Prior to communicating the thesis to the *rapporteurs*, the jury shall be approved by both the President of the Doctoral College and the University President. (Rf. *Thesis Jury Composition Request Form*)

Article 12: Thesis Submission

§1. The doctoral student is not allowed to submit his/her thesis before completing and validating all his/her credits of doctoral training, and not before publishing two scientific articles in indexed journals as the main author, or presenting two scientific papers within the framework of one or two international and specialized seminars.

§2. The approval of the Thesis Director as well as the written opinions of both *rapporteurs*, are communicated by the Head of the Doctoral Commission to the President of the Doctoral College, along with the *Thesis Submission / Defense Form*, duly completed. The President of the Doctoral College validates then the thesis submission. (Rf. *Thesis Submission / Defense Form*)

§3. The doctoral student shall submit 8 copies of his/her thesis at the secretariat of the concerned academic unit, as well as a digital copy at the secretariat of the Doctoral College, in accordance with the procedure of submission required by the Doctoral College.

§4. A certificate of thesis submission is delivered to the doctoral student by the secretariat of the Doctoral College.

Article 13: Thesis Defense

§1.The doctoral student is informed in writing by the secretariat of the Doctoral College of the date of his/her thesis defense.

§2. The thesis defense shall take place two months at least after submitting the thesis to the secretariat of the Doctoral College.

§3. The thesis defense is public, unless otherwise exceptionally stated by the President.

§4. An announcement for the thesis defense is issued by the secretariat of the Doctoral College and posted in the different academic units, ten days at least prior to the date of the defense.

§5. The thesis defense, as well as the deliberation, cannot take place unless all the jury members are present. The deliberation is held behind closed doors.

§6. Following the deliberation, the jury members shall fill and sign the record of thesis defense. The President of the jury writes the minutes of the thesis defense co-signed by all the jury members who attended the defense.

A duplicate of these minutes is attached to the diploma. The minutes shall indicate the grade obtained by the student, as well as the distinction in accordance with the following scale:

Grade	Distinction
85	Honorable (or "*cum laude*")
90	Highly honorable (or "*magna cum laude*")
95	Highly honorable with praise (or "*summa cum laude*")
100	Highly honorable with praise and recommendation for publication

For the distinctions "Highly honorable with praise" or "Highly honorable with praise and recommendation for publication", the unanimity of the jury members is required.

Article 14: Appeal

Until the nomination of the jury, the doctoral student can submit to the Doctoral Commission any disagreement he/she may have with his/her Thesis Director. The Doctoral Commission will listen to each of the litigant parties. Its decisions can therefore lead to an appeal to the Doctoral College at USEK.

Article 15: Plagiarism

Plagiarism refers to the insertion, in an academic and scientific work, of textual extracts, iconographic documents, ideas or analyses, of other authors, by representing them as one's own original work, either by appropriation of the said texts, documents or ideas of others, or by omission of the correct reference of others' texts, documents or ideas and their sources.

Plagiarism represents a serious misconduct of an ethical nature. USEK, believing in the transmission of knowledge as primarily related to ethics, autonomy, interdisciplinarity and transparency, considers plagiarism as a violation of the academic and scientific work integrity in universities. It is therefore subject to punishment, in this case to student expulsion, annulment of the Bachelor, Master or Ph.D. degree, and even criminal prosecution, if applicable.

USEK reserves the right to review every research work (reports, projects, dissertations, theses), by submitting them to a plagiarism detection software and/or to any other appropriate means[5].

It is understood that when a doctoral student is caught in the act of plagiarism after reviewing his/her work, and that his/her thesis is deleted, it is no longer possible for him/her to submit a new application for admission to doctoral studies at USEK[6].

Ratifications:

16/05/2009 Article 6
07/12/2010 Article 2.2
21/12/2011 Articles 2.4, 5, 6, 7, 9, 10, 11, 12 and 13
08/02/2012 & 05/12/2012 Article 15
21/05/2013 Articles 6, 7, 11, 12
09/10/2013 Article 2

[5] Cf. Meeting of the USEK Council on 8/2/2012
[6] Cf. Meeting of the USEK Council on 5/12/2012

Language Policy

The USEK language policy serves to help implement the University's strategic plan and its goals of being an American style university:

- USEK offers hybrid programs where courses are offered in French and English or programs fully delivered in English
- In teaching and other academic communication, language proficiency shall be considered a part of the learning outcome;
- French or English are the main languages of instruction;
- Students and graduates are expected to know and be able to use technical and professional terminology in English;
- The Arabic language is defined by exception for specific majors at which the native language is at their core (Law, theology, etc.);
- Mandatory prerequisite language placement tests are consequent to any student registration and admission;
- Students can choose upon course registration the language of study for each course, whether French or English, but a student cannot continue the course by swapping the language already chosen. Completion of each course is determined by the prior chosen language.

Suggestions and Complaints

Within the framework of the development of the teaching and learning process and administrative services, the Holy Spirit University of Kaslik encourages its students to share their suggestions or complaints and to participate in evaluations launched by the University.

All students can send us their suggestions or complaints regarding the administrative functioning of the University as well as the quality of the provided services at the Students Affairs Office or by writing to administration@usek.edu.lb.

Study Programs by Faculty

Sorted by units alphabetical order

Faculty of Agricultural and Food Sciences

Overview

The mission of the Faculty of Agricultural and Food Sciences is to pursue and maintain a national and regional leadership role in the quest for knowledge through a superior quality of teaching and learning, exploration and discovery to enhance advanced programs and activities in agriculture, nutrition, agri-food and agribusiness.

For the fulfillment of its mission, the faculty puts an emphasis on training and research and provides growth opportunities for its researchers, lecturers and students. The faculty promotes and maintains ethics at a high level by seeking new challenges and providing a positive and stimulating learning environment where the most advanced technologies are integrated into teaching and learning processes.

In addition, the faculty values creativity, inspiration, innovation, implementation and distinctive competence, which guide growth, development, outstanding cooperation and a healthy work environment.

Reaching excellence and making a difference in agriculture, nutrition, agri-food and agribusiness.

The Faculty of Agricultural and Food Sciences consists of the following departments/programs:

Department of Agricultural Enginering

- Diploma of Agricultural Engineering

Department of Human Nutrition and Dietetics

- Bachelor of Science in Human Nutrition and Dietetics
- Master of Science in Clinical Nutrition
- Master of Science in Nutrition and Public Health

Department of Agri-Food Sciences

- Bachelor of Science in Engineering Sciences - Food Engineering
- Master of Science in Food Engineering
- Master of Science in Enology

Administration and Full-time Faculty

Dr. Lara Hanna-Wakim, Associate Professor, Dean
Dr. Nabil Nemer, Associate Professor, Associate Dean, Head of the Agricultural Engineering Department
Dr. Joane Matta, Assistant Professor, Head of the Human Nutrition and Dietetics Department
Dr. Marc Bou Zeidan, Assistant Professor, Head of Agri-Food Sciences Department
Dr. Alain Abi Rizk, Assistant Professor
Ms. Carole Daoud-Zouein, Lecturer
Dr. Désirée EL Azzi, Assistant Professor
Rev. Fr. Joseph Wakim, Associate Professor
Dr. Marc El Beyrouthy, Associate Professor
Ms. Rita Daccache-Abi Assaad, Lecturer

Dr. Samar Azzi Achkouti, Assistant Professor
Mrs. Yonna Sacre-Al Shamy, Lecturer
Dr. Youssef Rayess, Assistant Professor

Programs of Study - Undergraduate Programs

Diploma of Agricultural Engineering (Hybrid[i])

Accreditation

This program is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org, the global accreditor of college and university programs in applied science, computing, engineering, and engineering technology.

Program Educational Objectives

1. Graduates will perform agricultural engineering tasks at an appropriate level of expertise and use collaborative skills and be willing to accept the ethical responsibility for the social and environmental impacts of engineering practices.
2. Formulate and/or design a system, process or program to meet desired needs in order to solve technological problems in the various branches of agricultural sciences.
3. Use their disciplinary knowledge, educational depth, and breadth to deal with changing career opportunities in agricultural and closely related industries.
4. Promote sustainable agriculture through the conservation of natural resources and provide advisory assistance and extension services to local and regional farmers on proper livestock production, processing and crop and animal production and protection, ecology and environment, landscaping and climate change.

Program Outcomes

a. An ability to apply knowledge of mathematics, science, and agricultural engineering.
b. An ability to design and conduct experiments, as well as to analyse and interpret data
c. An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
d. An ability to function on multidisciplinary teams
e. An ability to identify, formulate, and solve agricultural engineering problems
f. An understanding of professional and ethical responsibility as agricultural engineers
g. An ability to communicate effectively
h. The broad education necessary to understand the impact of agricultural engineering solutions in a global, economic, environmental, and societal context.

[i] Hybrid: Courses offered in French and/or English

i. A recognition of the need for, and an ability to engage in life-long learning
j. A knowledge of contemporary issues.
k. An ability to use the techniques, skills, and modern engineering tools necessary for agricultural engineering practice

Degree Requirements

General Education	**30**
General Education - Arts and Humanities	3
General Education - Behavioral and Social Sciences	3
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Sports	1
General Education - Religious Sciences	3
BIO211 - Cell Biology	3
CHM212 - General Chemistry	3
MAT216 - General Mathematics	3
PHY210 - General Physics	3
Common Core	**35**
BCH215 - Introduction to Biochemistry	3
BCH272 - Introduction to Biochemistry Laboratory	1
BIO228 - General Botany	3
CHM270 - Laboratory of General Chemistry	1
CSC205 - Information Technology and Database Management	3
GAA225 - Molecular Diagnostics in Food Science	2
GAA227 - Food Microbiology	2
GAA275 - Laboratory of Molecular Diagnostics in Food Science	1
GAA277 - Food Microbiological Laboratory	1
GAA334 - Food Composition and Transformation	3
GAA374 - Food Composition and Transformation Laboratory	1
GAAC617 - Modeling of Food Systems	3
GAG242 - Agricultural Zoology	3
GAG274 - Agricultural Zoology Laboratory	1
GAG333 - Rural Engineering and Technical Drawing	3
GAG434 - Field Visits II	1
GAAC615 - Seminar	3
GAG445 - Special Topics in Agriculture and Food Sciences	0
GAG447 - Special Topics in Agriculture and Food Sciences	0
Specialization	**81**
GAG202 - Introduction to Agricultural Sciences	1
GAG218 - Field Work I S1	1
GAG219 - Field Work I S2	1
GAG222 - Geology + Laboratory	2
GAG260A - Internship I	1
GAG303 - Introduction to Ecology and Environment	3
GAG310 - Botany and Systematics	2

GAG324 - Agrometeorology and GIS	3
GAG325 - Animal Physiology and Anatomy	2
GAG328 - Field Work II S1	1
GAG329 - Field Work II S2	1
GAG340 - Soil Sciences	2
GAG342 - Plant Physiology	2
GAG343 - Irrigation	3
GAG344 - Fertilization	2
GAG360A - Specialized Internship	1
GAG370 - Pedology Laboratory	1
GAG371 - Plant Physiology Laboratory	1
GAG372 - Anatomy and Animal Physiology Laboratory	1
GAG411 - Agricultural Entomology	2
GAG413 - Phytopathology	3
GAG428 - Field Work III S1	1
GAG429 - Field Work III S2	1
GAG442 - Zootechny	3
GAG443 - Arboriculture	3
GAG444 - Crop Production Systems	3
GAG446 - Animal Nutrition	2
GAG472 - Agricultural Entomology Laboratory	1
GAG474 - Animal Nutrition Laboratory	1
GAG505 - Pesticides	2
GAG542 - Hygiene and Veterinary Health	3
GAG545 - Landscape and Plant Engineering	3
GAG546 - Poultry Sciences	3
GAG554 - Livestock Farming Systems	3
GAG644 - Weed Science and Medicinal Plants	3
GAG646 - Statistical Analysis Methods	3
GAG647 - Biodiversity and Natural Resources Management	2
GAG651 - Genetic Engineering and Biotechnology	3
GAG652 - Genetic Engineering and Biotechnology Laboratory	1
GAGC560A - Advanced Specialized Internship	1
GAGC645 - Accounting and Management of Agricultural Businesses	3
Electives	**8 out of 20**
GAG420 - Renewable Energy	2
GAG421 - Aquaculture and Apiculture	2
GAA434 - Agri-Food Marketing	3
GAG448 - Agriculture and Sustainable Development	2
GAG453 - Insect Pests and Diseases of Crops in Lebanon	3
GAG465 - Agroforestry	3
GAAC527 - Machinery and Food Industrial Control	3
GAA342 - Food Packaging and Handling	2
Capstone	**6**
GAG690A - Final Thesis	6
Total	**160**

Bachelor of Science in Human Nutrition and Dietetics (Hybrid[i] & Eng.)

Offered in Main Campus Kaslik and RUC Zahle

Program Mission

The mission of the Department of Human Nutrition and Dietetics is to improve the health and wellbeing of individuals and diverse communities locally and globally through leadership and excellence in nutrition and dietetics education, research, practice and service. In addition, the program is dedicated to preparing graduates to become global citizens, ethical leaders and decision makers.

Program Educational Objectives

1. Prepare graduates to be competent entry level dietitians.
2. Grow their ability to translate research into practice through effective programs and valuable information dissemination.
3. Strongly engage in current nutrition and health issues affecting the national and global communities.

Program Outcomes

a. Students will learn how to maintain up-to-date knowledge and synthesize approaches related to contemporary and emerging nutrition issues.
b. Develop personal characteristics such as leadership and an ability to work in multidisciplinary teams.
c. Act ethically with accountability for life-long learning and commitment to excellence.
d. Apply the knowledge of food and nutrition in the disease management process.
e. Apply the knowledge of basic sciences and statistics.
f. Develop effective counseling techniques needed in clinical dietetic practice and assessing their outcomes.
g. Interpret and apply nutrition concepts to evaluate and improve the health of communities.
h. Conduct research using appropriate measures and methods.
i. Communicate effectively.

Degree Requirements – French Section

General Education	**30**
General Education - Arts and Humanities	3
General Education - Behavioral and Social Sciences	3
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Sports	1
General Education - Religious Sciences	3

[i] Hybrid: Courses offered in French and/or English

BIO211 - Cell Biology	3
BIO222 - Animal Histology	3
NTR211 - Fundamentals of Human Nutrition	3
STA220 - Probability and Applied Statistics	3
Common Core	**9**
BCH215 - Introduction to Biochemistry	3
CHM210 - General Chemistry	3
GAA227 - Food Microbiology	2
GAA277 - Food Microbiological Laboratory	1
Specialization	**51**
GAA340 - Food Composition and Analysis	3
GAA339 - Hygiene and Quality Control of Food	3
GAA378 - Food Composition and Analysis Laboratory	1
NTR222 - Nutrition and Physiology I	3
NTR223 - Nutrition and Physiology II	2
NTR322 - Human Nutrition I	3
NTR325 - Inborn Errors of Metabolism	2
NTR328 - Eating Behaviors and Disorders	2
NTR331 - Community Nutrition	3
NTR334 - Food Service Management	3
NTR335 - Nutrition in the Life Cycle	3
NTR336 - Human Nutrition II	2
NTR435 - Preventive Nutrition and Public Health	2
NUT442 - Clinical Counseling and Nutrition Assessment	2
NTR471 - Clinical Counseling and Nutrition Assessment Lab	1
NTR445 - Current Topics in Food Sciences and Nutrition	0
NTR446 - Pharmacology and Human Health	3
NTR447 - Pathophysiology of Nutrition Related Diseases	4
NTR452 - Medical Nutrition Therapy I	2
NTR475 - Medical Nutrition Therapy I Lab	1
NTR453 - Medical Nutrition Therapy II	2
NTR476 - Medical Nutrition Therapy II Lab	1
NTR454 - Medical Nutrition Therapy III	2
NTR478 - Medical Nutrition Therapy III Lab	1
Electives	**4 out of 18**
GAG448 - Agriculture and Sustainable Development	2
GAA338 - Food Quality Management	3
GAA342 - Food Packaging and Handling	2
GAG242 - Agricultural Zoology	3
NTR218 - Food Economy	2
NTR326 - Drug-Nutrient Interactions	2
NTR433 - Nutrition for Athletes	2
NUT320 – Food Processing	2
Capstone	**2**
NTR338A - Food Service Management and Community Internship	2
Total	**96**

Degree Requirements – English Section

General Education	**30**
General Education - Arts and Humanities	3
General Education - Behavioral and Social Sciences	3
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Sports	1
General Education - Religious Sciences	3
BLG211 - Cell Biology	3
BLG222 - Animal Histology	3
NUT211 - Fundamentals of Human Nutrition	3
STS220 - Applied Probability and statistics	3
Common Core	**9**
AGT227 - Microbiological Quality	2
AGT271 - Food Microbiology Laboratory	1
BCM215 - Introduction to Biochemistry	3
CHE210 - General Chemistry	3
Specialization	**51**
AGT340 - Food Composition and Analysis	3
AGT339 - Hygiene and Quality Control of Food	3
AGT378 - Food Composition and Analysis laboratory	1
NUT222 - Nutrition and Physiology I	3
NUT223 - Nutrition and Physiology II	2
NUT322 - Human Nutrition I	3
NUT325 - Inborn Errors of Metabolism	2
NUT328 - Eating Behaviors and Disorders	2
NUT331 - Community Nutrition	3
NUT334 - Food Service Management	3
NUT335 - Nutrition in the Life Cycle	3
NUT336 - Human Nutrition II	2
NUT435 - Preventive Nutrition and Public Health	2
NUT442 - Clinical Counseling and Nutrition Assessment	2
NUT471 - Clinical Counseling and Nutrition Assessment Lab	1
NUT445 - Current Topics in Food Sciences and Nutrition	0
NUT446 - Pharmacology and Human Health	3
NUT447 - Pathophysiology of Nutrition Related Diseases	4
NUT452 - Medical Nutrition Therapy I	2
NUT475 - Medical Nutrition Therapy I Lab	1
NUT453 - Medical Nutrition Therapy II	2
NUT476 - Medical Nutrition Therapy II Lab	1
NUT454 - Medical Nutrition Therapy III	2
NUT477 - Medical Nutrition Therapy III Lab	1
Electives	**4 out of 18**
GAG448 - Agriculture and Sustainable Development	2
GAA338 - Food Quality Management	3

GAA342 - Food Packaging and Handling	2
GAG242 - Agricultural Zoology	3
NUT218 - Food Economy	2
NUT326 - Drug-Nutrient Interactions	2
NUT433 - Nutrition for Athletes	2
NUT320 – Food Processing	2
Capstone	**2**
NUT338A - Food Service Management and Community Internship	2
Total	**96**

Bachelor of Science in Engineering Sciences – Food Engineering (Hybrid[i])

Mission

The Department of Agri-Food Sciences supports the vision and mission statements of the Faculty of Agricultural and Food Sciences through multidisciplinary teaching, learning and research activities in food science. The mission of the department is to produce socially and ethically responsible graduates who are leaders in dealing successfully with national and global food and health challenges and who will have a positive impact on their communities and the food industries for the betterment of the quality of human life.

Program Educational Objectives

Graduate will:

1. Demonstrate technical competence in the manufacturing process of food.
2. Manage production of safe food products and apply innovative solutions to problems related to agri-food.
3. Carry out physical, chemifcal, microbiological and sensory analyses.
4. Implement quality systems in agri-food businesses.

Program Outcomes

Students will:

a. Develop knowledge in appropriate concepts, theories and emerging methodologies from the fundamental disciplines.
b. Design and conduct experiments, as well as analyze and interpret data.
c. Implement and verify quality and safety systems.
d. Function in multidisciplinary teams.
e. Apply management and business theory principles.
f. Understand professional and ethical responsibility.
g. Develop communication skills sufficient for entry into professional practice.

[i] Hybrid: Courses offered in French and/or English

h. Acquire the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.

Degree Requirements

General Education	**30**
General Education - Arts and Humanities	3
General Education - Behavioral and Social Sciences	3
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Sports	1
General Education - Religious Sciences	3
BIO211 - Cell Biology	3
CHM212 - General Chemistry	3
MAT216 - General Mathematics	3
PHY210 - General Physics	3
Common Core	**23**
BCH215 - Introduction to Biochemistry	3
BCH272 - Introduction to Biochemistry Laboratory	1
CHM270 - Laboratory of General Chemistry	1
CSC205 - Information Technology and Database Management	3
GAA212 - Introduction to the Food Industry	1
GAA225 - Molecular Diagnostics in Food Science	2
GAA275 - Laboratory of Molecular Diagnostics in Food Science	1
GAA316 - Fluid Thermodynamics and Mechanics	2
GAA327 - Heat and Mass Transfer	3
GAG333 - Rural Engineering and Technical Drawing	3
STA220 - Probability and Applied Statistics	3
Specialization	**50**
GAA227 - Food Microbiology	2
GAA277 - Food Microbiological Laboratory	1
GAA312 - Physical Chemistry and Sensorial Properties of Foods	3
GAA333 - Food Production Management	3
GAA334 - Food Composition and Transformation	3
GAA337 - Legislation and Standardization	3
GAA338 - Food Quality Management	3
GAA342 - Food Packaging and Handling	2
GAA357 - Molecular Gastronomy	2
GAA372 - Physical Chemistry and Sensorial Properties of Foods Laboratory	1
GAA374 - Food Composition and Transformation Laboratory	1
GAA377 - Molecular Gastronomy Laboratory	1
GAA412 - Unit Operations in Food Engineering	2
GAA416 - Food Processing Technology	3
GAA422 - Unit Operations in Food Engineering II	2
GAA425 - Agri-Food Economy	2

GAA434 - Agri-Food Marketing	3
GAA436 - Food Toxicology	3
GAA444 - Beverages and Enology	2
GAA445 - Special Topics in Agriculture and Food Sciences	2
GAA474 - Beverages and Enology Laboratory	1
GAA475 - Techno-functionality of Ingredients and Additives Laboratory	1
GAA476 - Food Processing Technology Laboratory	1
GAG260A - Internship I	1
GAG360A - Specialized Internship	1
GAG432 - Field Trips S1	1
GAG445 - Special Topics in Agriculture and Food Sciences	0
GAG447 - Special Topics in Agriculture and Food Sciences	0
Electives	**5 out of 13**
GAA414 - Waste Management in Food Industry	3
GAG420 - Renewable Energy	2
GAG448 - Agriculture and Sustainable Development	2
NTR327 - Community Nutrition	2
NTR435 - Preventive Nutrition and Public Health	2
NUT320 – Food Processing	2
Total	**107**

Programs of Study - Graduate Programs

Master of Science in Clinical Nutrition (Hybrid[i])

Mission

The mission of the Department of Human Nutrition and Dietetics is to improve the health and wellbeing of individuals and diverse communities locally and globally through leadership and excellence in nutrition and dietetics education, research, practice and service.

In addition, this Master of Science in Clinical Nutrition provides graduates with a comprehensive professional and research-based theoretical and practical education with a focus on the medical nutrition therapy aspect of dietetics practice, and its application in prevention and disease management.

Program Educational Objectives

1. Prepare graduates to take leadership roles in the field of clinical nutrition.
2. Grow their ability to analyze and apply current research into practice and use these nutrition principles in the treatment and prevention of diseases.
3. Strongly encourage graduates to effectively position their services and offerings to clients, clinics and other practitioners in order to earn their livelihood as nutrition professionals.

[i] Hybrid: Courses offered in French and/or English

Program Outcomes

a. Students will apply research based evidence into dietetics practice.
b. Provide optimal nutrition counseling for different types of clients.
c. Effectively introduce behavioral change in clinical settings.
d. Develop personal characteristics and perform in interdisciplinary teams.

Degree Requirements

Common Core	**12**
NTR510 - Research Methodology in Nutrition	3
NTR512 - Advanced Food Service Management	3
NTR514 - Advanced Physiology in Nutrition	3
NTR516 - Nutritional Epidemiology	3
Common Core - Electives	**3 out of 15**
GAA523 - Food Innovation and Development	3
NTR617 - Functional Food and Genomics	3
NTR631 - Nutrition and Humanitarian Aid during Emergencies	3
NTR656 - Food Service Strategic Development	3
TAG632 - Quality Systems in Agri-food	3
Specialization	**12**
NTR551 - Advanced Strategies in Consultation	3
NTR552 - Medical Therapeutic Nutrition	3
NTR651 - Clinical Nutrition Infant, Maternal and Geriatric	3
NTR652 - Diabetes, Dyslipidemia and Obesity	3
Capstone	**9**
NTR688 - Seminar in Nutrition	3
NTR699A - Master's Thesis in Clinical Nutrition	6
Total	**36**

Master of Science in Nutrition and Public Health (Hybrid[i])

Mission

The mission of the Department of Human Nutrition and Dietetics is to improve the health and wellbeing of individuals and diverse communities locally and globally through leadership and excellence in nutrition and dietetics education, research, practice and service.

In addition, this Master of Science in Nutrition and Public Health provides interdisciplinary theoretical knowledge and practical training in public health and nutritional sciences. It aims to develop competent professionals and prepare them to take leadership roles. It also fosters innovative research leading to improved public health.

Program Educational Objectives

1. Graduates will provide evidence-based approaches and apply conceptual models to promote nutritional health.

[i] Hybrid: Courses offered in French and/or English

2. Develop educational, institutional and other population-based intervention strategies to improve food security and diet- related health problems among diverse population groups in Lebanon and the region.
3. Integrate knowledge of human nutrition and public health concepts to develop research proposals.

Program Outcomes

a. Students will interpret and translate evidence-based research in public health practices.
b. Plan, implement and evaluate public health nutrition systems, interventions, programs and initiatives in Lebanon and the region.
c. Contribute to the establishment of national and international nutrition guidelines and dietetics practices.
d. Develop personal characteristics and perform in interdisciplinary teams.

Degree Requirements

Common Core	**12**
NTR510 - Research Methodology in Nutrition	3
NTR512 - Advanced Food Service Management	3
NTR514 - Advanced Physiology in Nutrition	3
NTR516 - Nutritional Epidemiology	3
Common Core - Electives	**3 out of 12**
GAA523 - Food Innovation and Development	3
NTR617 - Functional Food and Genomics	3
NTR631 - Nutrition and Humanitarian Aid During Emergencies	3
NTR656 - Food Service Strategic Development	3
Specialization	**12**
NTR557 - Nutrition Communication Theory and Practice in Nutrition	3
NTR558 - Behavioral and Social Determinants of Health	3
NTR657 - Elaboration and Evaluation of Health Programs	3
NTR658 - Public Health in Lebanon	3
Capstone	**9**
NTR688 - Seminar in Nutrition	3
NTR697A - Master's Thesis in Nutrition and Public Health	6
Total	**36**

Master of Science in Food Engineering (Hybrid[i])

Mission

The Department of Agri-Food Sciences supports the vision and mission statements of the Faculty of Agricultural and Food Sciences through multidisciplinary teaching, learning and research activities in food science. The mission of the department is to produce socially and ethically responsible graduates who are leaders in dealing successfully with

[i] Hybrid: Courses offered in French and/or English

national and global food and health challenges and who will have a positive impact on their communities and the food industries for the betterment of the quality of human life.

Program Educational Objectives

Graduates will:

1. Invest the scientific and engineering skills acquired throughout their studies to meet the emerging challenges in the food industry.
2. Develop self-learning, practical proficiency and team work in food processing techniques and contribute effectively in multidisciplinary exploratory and production teams.
3. Produce safe food of high quality and nutritional values according to the latest national and international standards.
4. Innovate and design new products through the development of new processing techniques while considering their environmental effects and recycle food wastes.

Program Outcomes

Students will:

a. Apply knowledge of mathematics, science, and engineering.
b. Design and conduct experiments, as well as analyze and interpret data.
c. Design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
d. Identify, formulate, and solve engineering problems.
e. Communicate effectively.
f. Acquire the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
g. Recognize the need for, and an ability to engage in life-long learning.
h. Acquire a knowledge of contemporary issues.
i. Use the techniques, skills, and modern engineering tools necessary for engineering practice.

Degree Requirements

Common Core	**9**
GAA615 - Seminar	3
GAA617 - Modeling in Food Systems	3
STA515 - Statistical Analysis Methods	3
Specialization	**23**
GAA511 - Food Structure and Formulation	3
GAA513 - Microbiological and Enzymatic Engineering	3
GAA520 - Workshops in Food Engineering	1
GAA523 - Food Innovation and Development	3
GAA527 - Machinery and Food Industrial Control	3

GAA529 - Advanced Food Engineering	3
GAA619 - Quality Assurance and Consumer Health	3
GAG560A - Advanced Specialized Internship	1
GAG645 - Accounting and Management of Agricultural Businesses	3
Electives	**6**
TAG632 - Quality Systems in Agri-food	3
ENO511 - Viticultural Practices	3
ENO523 - Microbiology and Fermentation	3
ENO525 - Wine Tasting and Sensory Evaluation	3
ENO527 - Chemical Composition of Musts and Wines	3
ENO611 - Winemaking Technologies	3
ENO621 - Wine Global Market and International Law	3
Capstone	**6**
GAA690A - Final Thesis	6
Total	**44**

Master of Science in Enology (Hybrid[i])

Mission

The Department of Agri-Food Sciences supports the vision and mission statements of the Faculty of Agricultural and Food Sciences through multidisciplinary teaching, learning and research activities in food science. The mission of the department is to produce socially and ethically responsible graduates who are leaders in dealing successfully with national and global food and health challenges and who will have a positive impact on their communities and the food industries for the betterment of the quality of human life.

Program Educational Objectives

Graduates will:

1. Implement viticultural and enological practices and techniques in terms of production.
2. Develop self-learning, practical proficiency and team work in enology and contribute effectively in multidisciplinary exploratory and production teams.
3. Define production strategies and technical itineraries related to wine marketing.
4. Conduct experimental and research projects in vine and wine sectors.

Program Outcomes

Students will:

a. Develop strategic choices in terms of viticulture and enological practices.
b. Design and conduct experiments, as well as analyze and interpret data.
c. Identify, formulate, and solve problems in industry.
d. Communicate effectively.
e. Acquire a knowledge of contemporary issues.

[i] Hybrid: Courses offered in French and/or English

Degree Requirements

Common Core	**7**
GAA615 - Seminar	3
GAG560A - Advanced Specialized Internship	1
STA515 - Statistical Analysis Methods	3
Specialization	**21**
ENO505 - Wine and Terroirs	3
ENO511 - Viticultural Practices	3
ENO523 - Microbiology and Fermentation	3
ENO525 - Wine Tasting and Sensory Evaluation	3
ENO527 - Chemical Composition of Musts and Wines	3
ENO611 - Winemaking Technologies	3
ENO621 - Wine Global Market and International Law	3
Elective	**3**
ENO501 - Arak, Sparkling Wine and Spirits Processing	3
Capstone	**6**
ENO690A - Master Thesis	6
Total	**37**

Course Descriptions

BCH215 - BCM215 Introduction to Biochemistry 3 cr.
Pre-requisites CHM212 Or CHE212 Or CHM210 Or CHE210
This course consists of a study of the structure of carbohydrates, simple and complex lipids, and amino acids and proteins. It also introduces enzyme kinetics and examines the metabolism of carbohydrates, lipids and proteins.

BCH272 Introduction to Biochemistry Laboratory 1 cr.
Pre-requisites BCH215 Or BCM215 Or BCH315 Or BCM315
These laboratory sessions, which accompany BCH215, apply methods of purification, recrystallization, and esterification. They provide students with hands-on experience in the laboratory preparation of a buffer, determination of its pKa and capacity, and tea's caffeine extraction. Topics covered include: qualitative and/or quantitative studies of carbohydrates, lipids, amino acids and proteins, determination of the kinetic parameters of the invertase, and the effect of temperature and pH variation on its activity.

BIO211 - BLG211 Cell Biology 3 cr.
In this course students will study the structures and functions of prokaryotic and eukaryotic cells. We will focus on eukaryotic cells by examining different areas of cell biology including: plasma membrane and organelles structures and functions, cellular communication, the cell cycle and its regulation, as well as synthesis and function of macromolecules such as DNA, RNA, and proteins.

BIO222 - BLG222 Animal Histology 3 cr.
Pre-requisites BLG211 Or BIO211
Animal histology describes animal tissues and relating their structure to function. The lectures present details of the basic tissues (epithelium, connective tissue, muscle, and nerve) emphasizing human histology.

BIO228 General Botany 3 cr.
The course has two parts: plant histology and biology. Histology is the study of meristems, parenchyma and plant tissues, their origins, their characteristics, and roles. Plant biology looks at the lower and higher plants, their characteristics and their classifications.

CHM210 - CHE210 General Chemistry 3 cr.
This course presents a general introduction to chemistry. It highlights the structure of the atom (various models and properties of the elements in the periodic table), various chemical bonds (Lewis structure, VSEPR rules), thermochemistry (thermodynamics and chemical equilibrium), kinetic chemistry (reactions rate orders, Arrhenius law), solutions chemistry (acids and bases and various acid-base equilibrium), complexation, liquid solid equilibrium and solubility product, redox titration and electrochemical cells.

CHM212 General Chemistry 3 cr.
This course presents a general introduction to chemistry. It highlights the structure of the atom (different models and properties of the elements in the periodic table), various chemical bonds (Lewis structure, VSEPR rules), thermochemistry (thermodynamics and chemical equilibrium), kinetic chemistry (reactions rate orders, Arrhenius law), solutions chemistry (acids and bases and various acid-base equilibrium), complexation, liquid solid equilibrium and solubility product, redox titration and electrochemical cells.

CHM270 Laboratory of General Chemistry 1 cr.
Pre-requisites CHM212 Or CHE212 Or CHM210 Or CHE210
The general chemistry laboratory aims to develop different skills in the practical application of theoretical knowledge of general chemistry. Students will learn to use the following techniques: preparation and dilution of solutions, experimental verification of the Nernst equation, realization of different types of acid-base and redox titration by volumetric, calorimetric, pH-metric or potentiometric monitoring. They will also study solubility and precipitation reactions and characterization of ions present in a given matrix. The goal of the lab course is to ensure that students are able to understand the chemical concepts and to carry out experiments safely and carefully in the laboratory, to obtain data accurately and to manipulate the data correctly.

CSC205 Information Technology and Database Management 3 cr.
This course introduces the role of information systems in business organizations with a focus on their application. It also emphasizes the fundamentals of database development and provides hands-on experience in designing and developing databases to meet organizational goals through instruction in database management and design. The scope of instruction will include database concepts, data modeling, relational and database development.

ENO501 Arak, Sparkling Wine and Spirits Processing 3 cr.
This course covers the production of sparkling wines and the main types of spirits including Arak, Vodka, Whisky, Gin, Rum, Brandy and Tequila. It includes detailed information on regions of production, methods of production, commercial considerations and legal and business issues.

ENO505 Wine and Terroirs 3 cr.
The aim of this course is to consolidate the students' knowledge about the Lebanese and the worldwide terroirs. In this course, presentations will be made about the terroir characteristic (soil, climate, grape variety), the relationship between wine and terroir, the specific oenological practices, as well as the appellations of each wine region.
The regions covered in this course are: Lebanon (as one appellation), the appellations of Bordeaux, Bourgogne, Rhône Valley, Languedoc Roussillon, South-west of France, Champagne, Douro valley (Portugal), La Rioja (Spain) and Nappa Valley (USA).

ENO511 Viticultural Practices 3 cr.
This course covers the current practices for establishing a vineyard and maintaining its vigor and productivity. Topics covered include soil analysis, varietal selection, rooting cuttings, grafting and planting. The course also details the cultural practices in viticulture such as irrigation, fertilization, leaf removal, plowing, pruning, trellising, and phytosanitary treatments.

ENO523 Microbiology and Fermentation 3 cr.
This course details the microbial ecosystem from grapes to wines, the biology and growth of yeasts and bacteria. It covers alcoholic and malolactic fermentation processes as well as the conditions for better progress of these fermentations. This course also addresses the spoilage microorganisms, in addition to the selected productive microorganisms. It discusses the techniques and means for monitoring microbial stability: sulphuring, thermal destruction and filtration. The optimal conditions for wine packaging, conservation and storage will be discussed. Lab sessions will complete this course.

ENO525 Wine Tasting and Sensory Evaluation 3 cr.
This course identifies and describes basic tastes, aromas and flavors in wines using reference standards as well as a variety of types and styles of commercial wine. Through lectures and guided tastings and discussions, students will evaluate the sensory properties of wine using methods explained in class. In addition, students will come away with an objective and analytical approach to

sensory evaluation. They will also gain an appreciation of the importance of sensory evaluation to a successful winemaking business.

ENO527 Chemical Composition of Musts and Wines 3 cr.
This course describes the different chemical compounds present in musts and wine. It deals with the influence of different natural and technical conditions on the base material, and the evolution reactions affecting the final product. Laboratory sessions will be conducted to provide students with a hands-on experience in the analysis of wine.

ENO611 Winemaking Technologies 3 cr.
This course covers the practical aspects imposed in the processing of red wines (traditional and technological), white wines (dry and soft) and rosé wines (bleeding and press). This course details the preparation of juice / must, maceration steps, briefly the alcoholic and malolactic fermentation, aging in barrels, clarification, assemblies and the storage of finished product. The course also includes visits to wineries in Lebanon.

ENO621 Wine Global Market and International Law 3 cr.
This course provides students with insights into the nature, structure, functional mechanisms, and the complexities of the world's wine market, with emphasis on markets that are of strategic importance. Also, it examines key drivers in the world wine market and their impact on wine export dynamics and characteristics. In addition, the course highlights wine consumer behavioral aspects and successful marketing strategies employed in the wine consuming markets.

ENO690A Master Thesis 6 cr.
Pre-requisites STA 515 and ENO 511 and ENO 523 and ENO 525 and ENO 527 and ENO 611 and GAA 615
The Master thesis is a contribution work to applied or fundamental research that includes the research and findings of the students about a selected topic in enology. It defines the problem and working hypotheses, the general approach, methods and techniques employed. It also includes the statistical analysis, results and discussions, recommendations for future research and a bibliography. The thesis should be prepared according to the guidelines provided by the department and presented to an examining committee for defense.

GAA212 Introduction to the Food Industry 1 cr.
This course provides an introduction to the food sector from both historical and modern perspectives. It highlights the important role of food scientists in bringing a product from farm to fork. This course also offers a summary of the different areas of study (food processing, food safety, food analysis, food product development, food management and food engineering) and career opportunities within this industry, with a special focus on Lebanon and the Middle East.

GAA225 Molecular Diagnostics in Food Science 2 cr.
Co-requisites GAA275
Pre-requisites BIO211
This course deals with the structure and properties of nucleic acids, the basic principles involved in the transmission and the repair of genetic material, as well as gene expression and its regulation. It also discusses the most common techniques of molecular biology applied to research or exploration of genetic material.

GAA227 - AGT227 Microbiological Quality 3 cr.
Co-requisites GAA277
Pre-requisites BIO211

This course is a study of the fundamentals of food microbiology, including its history, classifications, spores and their importance, and the most common and serious pathogenic food microorganisms. Fermentation, spoilage and control methodology are also discussed.

GAA275 **Laboratory of Molecular Diagnostics in Food Science** **1 cr.**
Co-requisites GAA225
Pre-requisites BIO211

These laboratory sessions, which accompany GAA 225, enable students to extract, quantify and qualify DNA in a bacterial culture using electrophoresis. PCR using specific and non-specific primers, in addition to RAPD and SDS-PAGE protein extraction techniques, are performed. Methods of data interpretation and basic principles of bioinformatics are explained as well.

GAA277 - AGT271 **Food Microbiological Laboratory** **1 cr.**
Co-requisites GAA227
Pre-requisites BIO211
These laboratory sessions, which accompany GAA 227, provide students with a technical experience of the preparation of liquid and solid culture media (differential, enriched, specific and selective). They deal with inoculation, incubation and enumeration of microorganisms found in liquid and solid food products. Staining procedures and biochemical tests such as ELISA and AGID are also performed.

GAA312 **Physical Chemistry and Sensorial Properties of Foods** **3 cr.**
Co-requisites GAA372
Pre-requisites CHM 212

This course deals with the concepts and principles of physico-chemical experiments and analysis, in addition to the analytical techniques and instruments used in this type of analysis. It includes all the theoretical and practical information related to the implementation of sensory sessions and tests, and the collection and interpretation of sensory information, including statistical treatments. This course also emphasizes the industrial approach to follow in order to design a new food product and the sensory analysis involved in this step.

GAA316 **Fluid Thermodynamics and Mechanics** **2 cr.**
Pre-requisites PHY210

This course covers the laws of thermodynamics and explains the exchange of mechanical (work) and thermal (heat) energy between the external environment and the food system. It deals with concepts such as the conservation of energy in processes, the direction of spontaneous change, the limited efficiency in converting heat into useful power, and tradeoffs between equilibrium thermodynamics and kinetics when designing processes. Equations of state are also explained to model fluids and calculate their thermodynamic properties.

GAA327 **Heat and Mass Transfer** **3 cr.**
Pre-requisites GAA316
This course studies heat transfer by conduction (flat, cylindrical and spherical walls), convection (with and without phase change), by radiation and by molecular diffusion in foods and their processing systems. It deals with the turbulent system, mass transfer coefficients, the theory of two films and transfer at the interface. The course also emphasizes chemical kinetics (reaction speed and order) and the Arrhenius equation, with an interpretation of kinetic data.

GAA333 **Food Production Management** **3 cr.**
This course helps students to understand strategic issues related to the management of a food chain, and to consider the elements of management that make up this chain. It also aims to train responsible

staff for the production units as well as decision-makers in terms of cost, time, quantity and quality. The course provides students with an ability to lead a team and a capacity for analysis and synthesis.

GAA334 - AGT334 Food Composition and Transformation 3 cr.
Co-requisites GAA374
Pre-requisites CHM212
This course describes food as a complex system defined by an aqueous phase, a three dimensional matrix of a protein, fat and/or carbohydrate nature, in addition to dispersed elements. It deals with foods obtained from the primary processing of agricultural products, and their composition. The principles of extraction and characterization of some food biomolecules resulting from these products are developed, as well as the chemical and/or enzymatic methods used in order to develop new food products.

GAA337 Legislation and Standardization 3 cr.
This course provides in detail knowledge of national and international legislation, the integration of concepts of hygiene and food safety in production procedures, and the standards applied to each food product. It is concerned with traceability and specifically highlights the role of traceability in food safety. The course deals with the importance and development of food related legislation, standards and the Codex Alimentarius among others.

GAA338 Food Quality Management 3 cr.
This course introduces the importance of quality management for an organization and the necessity for orientation towards total quality. It deals with the main tools of quality assurance which are used both at the product design and operational levels of the firm, such as HACCP (Hazard Analysis Critical Control Points) and ISO series (International Standard Organization).
The course also covers preliminary strategies, risks, internal control and the responsibilities of auditors.

GAA339 - AGT339 Hygiene and Quality Control of Food 3 cr.
Pre-requisites AGT227
This course aims to discuss the current issues of food safety and quality in the food chain. The theoretical approach will enable students to acquire a deep understanding of the steps that would lead to the establishment of a quality system in food industries. These steps aim at ensuring that production conforms to a certain set of standards and through this they contribute to the fulfillment of consumers' safety requirements.

GAA342 Food Packaging and Handling 2 cr.
This course covers three parts: materials, systems and their applications. The first part describes the properties, manufacture and function of metal, glass, paper and plastic packaging. The second part covers food packaging systems and equipment, including cleaning, forming, filling and assembly of packaging materials. The final part of the course focuses on the food packaging applications including aseptic packaging, food/packing interactions, sealing integrity, active packaging, studies on shelf life and packets handling.

GAA357 Molecular Gastronomy 2 cr.
Co-requisites AGT377
This course deals with introductory concepts in the culinary arts (formulation, food habits of consumers), and is a midway between gastronomy and food science. It enables students to understand the physico-chemical principles of culinary processes and the main interactions with ingredients, in order to acquire analytical thinking on culinary innovation.

GAA372 **Physical Chemistry and Sensorial Properties of Foods Laboratory** **1 cr.**
Co-requisites GAA 312
Pre-requisites CHM212
These laboratory sessions, which accompany GAA 312, give students a hands-on experience of the laboratory tests performed to assay the vitamins and minerals in selected food products. Determination of lipids, carbohydrates and ethanol using chromatography is carried out as well. Furthermore, sensory analysis sessions are organized and statistical analysis of sensory data is performed.

GAA374 **Food Composition and Transformation Laboratory** **1 cr.**
Co-requisites GAA 334
Pre-requisites CHM212
These laboratory sessions, which accompany GAA 334, enable students to evaluate the composition of various food products through different techniques used in the laboratories. Experiments include moisture and water activity, carbohydrate and protein analysis, fat analysis and characterization, rheology, and nitrite determination.

GAA377 **Molecular Gastronomy Laboratory** **1 cr.**
Co-requisites GAA 357
These laboratory sessions, which accompany GAA 357, give students the opportunity to understand the functional properties of ingredients and the mechanical changes taking place in them. Stability of emulsions, particle shaping using substances such as sodium alginate and proteolytic enzymes are covered as well. At the end of the course, the students are expected to present an innovative culinary project.

GAA412 **Unit Operations in Food Engineering** **2 cr.**
This course introduces the concept of process engineering applied to food engineering. The first part deals with the control of unit operations and processes. The second part covers the unit operations in the food industry taking place at room temperature, such as preparation of the raw material, size adjustment, membrane separation techniques and concentration, and mixing and biological processes.

GAA414 **Waste Management in Food Industry** **3 cr.**
This course deals with the waste produced by the food industry. It is designed to provide an overview of the various sample collection, analytical, and data analysis techniques related to detection and control of waste. Topics covered include: technical and regulatory aspects of the handling and control of different waste types, effluent treatment, and management of hazardous and nonhazardous wastes in different categories of the food processing industry.

GAA416 **Food Processing Technology** **3 cr.**
Co-requisites GAA476
Pre-requisites GAA334
This course highlights different aspects of the processing of food commodities, of plant and animal origin. It deals with extraction and refining of different edible oils, fruits, vegetables, meat and dairy processing, and the technology of bread making. The course also covers the general procedures used in food preservation, auxiliary raw materials, specific processing technologies and packaging materials.

GAA422 **Unit Operations in Food Engineering II** **2 cr.**
Pre-requisites GAA412

This course covers the unit operations in the food industry taking place at variable temperature. It includes thermal processes by adding heat (bleaching, sterilization, cooking, extrusion cooking, pasteurization, drying, evaporation, distillation, and spray-drying) and thermal processes by subtracting heat (cooling, freezing, freeze-drying, and crystallization). The last part of the course will present examples of production lines of some foods which include the different processes involved in product development.

GAA425 Agri-Food Economy 2 cr.

This course examines tools of the economics discipline applied in agricultural and food sectors. It details the roles and functions of economic factors and their interaction. Topics covered include: theory of consumer behavior, market demand, economics of input and product substitution, market equilibrium and product price, government intervention in agriculture, impacts of macroeconomic policy and trade actions and feasibility studies.

GAA434 Agri-Food Marketing 3 cr.

This course provides an experimental-based approach to theoretical and practical applications of food and agricultural marketing. It also deals with the analysis of the agricultural market, supply, demand, modeling and prices of products. Topics covered include: the evolution of marketing, the significance and use of marketing research, marketing segmentation, product and/or service positioning, case studies, distribution, pricing and a variety of structures, and policies and strategies for agri-food products marketing communication and promotion.

GAA436 Food Toxicology 3 cr.

This course provides a general review of toxicology related to food and the human food chain. Fundamental concepts are covered, including dose-response relationships, absorption of toxicants, distribution and storage of toxicants, biotransformation and elimination of toxicants, target organ toxicity, teratogenesis, mutagenesis, carcinogenesis, food allergy, and risk assessment. The course also examines the chemicals of interest to food, such as food additives, natural products, mycotoxins, and pesticides.

GAA444 Beverages and Enology 2 cr.

Co-requisites GAA474

This course describes the production methods of both alcoholic and non-alcoholic beverages with respect to formulations, processes and equipment. It highlights the basics of juice processing including quality assurance and control, extraction, pigments and pigment preservation, a regulatory overview, research standards and regulations. The course also emphasizes the enzymes used in juice production, the degradative chemistry of juice, advanced processing technologies, and the pros and cons of antioxidants. It finally covers the different enology aspects from selecting grapes to bottling the finished product, wine aging, preservatives, and storage and laboratory tests.

GAA445 Special Topics in Agriculture and Food Sciences 2 cr.

Co-requisites GAA475

Pre-requisites GAA334

This course is designed to provide students with key concepts, current issues, research and new trends that are pertinent to professionals working in agricultural sectors, food industries, academia, government and NGOs. This seminar course is given by invited national and international speakers.

GAA474 Beverages and Enology Laboratory 1 cr.

Co-requisites GAA444

These laboratory sessions, which accompany GAA 444, enable students to measure the different quality attributes of drinking water, juice drinks and alcoholic beverages. It allows them to actually

produce a beverage out of raw materials using conventional and emerging processing technologies. A field trip to a winery or brewing facility is organized as well.

GAA475 Techno-functionality of Ingredients and Additives Laboratory 1 cr.
Co-requisites GAA445
These laboratory sessions, which accompany GAA 443, provide students with the technical aspects related to the use of emulsifying agents and stabilizers in foams. In addition, extractions and characterization of food colors and aromatic compounds are carried out. Testing several types of additives in order to find the optimal formulation is covered as well.

GAA476 Food Processing Technology Laboratory 1 cr.
Co-requisites GAA416
These laboratory sessions, which accompany GAA 416, introduce students to the equipment used in food processing and allow them to gain a hands-on experience in the manufacturing of major food commodities of plant and animal origin. In the pilot plant, students prepare canned food products, fruit jams, bread, yogurt and different types of cheese.

GAA511 Food Structure and Formulation 3 cr.
This course highlights the major food ingredients and their physico-chemical roles in foods. The food formulation is discussed in terms of developing a commercial product that is characterized by its added value and that meets pre-determined specifications. Also, the concepts of food texture, including the physiological processes of texture perception, the importance of the mechanical properties and structure of foods, in addition to the different methods of sensory analysis, are included.

GAA513 Microbiological and Enzymatic Engineering 3 cr.
This course will include a description of the latest techniques for the detection of microorganisms. Another aspect of this course will be a detailed examination of engineering fermentation processes, with a component on the selection of ferments. The theoretical part will be associated with functional examples of the production of ferments in the laboratory on a pilot scale with the optimization of physico-chemical parameters in flask and fermenter. The last part will include methods of cultivation of microorganisms, biosynthesis and purification of molecules of industrial interest, bioconversion and biodegradation, and strategies of genetic engineering for the production of proteins of interest and the construction of GMOs.

GAA520 Workshops in Food Engineering 1 cr.
This course is designed for food engineering students in order to initiate group discussions on current topics in their areas of study. Also, it includes critical analysis and evaluation of selected published scientific articles, in addition to presentations given by guest speakers from the public and private sectors on the emerging issues and challenges facing today's food industry. The course also includes mock job interviews and helpful tips to write a professional curriculum vitae.

GAA523 Food Innovation and Development 3 cr.
This course deals with the aspects needed by any modern agri-food business to remain competitive by developing new products. It introduces the students to the successive stages of innovation with a focus on the link that should be strengthened between science, technology and business sectors. The course also highlights the legal and social aspects, in addition to the market study and business plan, needed to establish new firms. Also, it covers some technical details for development of new products.

GAA527 Machinery and Food Industrial Control 3 cr.

This course develops the concepts of industrial automation and control of food industrial process. The first part of the course, industrial automation, covers modeling of industrial processes through physical principles and identifying these processes using time and frequency domain techniques. The second part, process modeling and control, involves Programmable Logic Controllers (PLC) with an explanation of their hardware and software and special attention to Ladder Programming.

GAA529 Advanced Food Engineering 3 cr.

This course highlights the advanced topics and concepts in agri-food engineering. Topics include: thermal properties, heat and mass transfer in food systems, packaging and distribution of food products, traditional and advanced thermal and non-thermal processing (UHT, ohmic heating, microwave, infrared, and radio frequency radiation, high hydrostatic pressure, pulsed electric field, shock-waves, etc.), supercritical fluid extraction, extrusion, rheology and kinetics of food transformations, and membrane processes.

GAA615 Seminar 3 cr.

Pre-requisites STA515 And (GAA511 or TAG601)

This seminar course helps students to develop the analytical skills required to evaluate scientific work. It teaches students to organize, design, and deliver formal presentations, to formulate research questions and an hypothesis, to use appropriate research design and methods and to write a literature review and a thesis proposal in agricultural, nutritional and food sciences disciplines.

GAA617 Modeling in Food Systems 3 cr.

This course examines the mathematical modeling of industrial food engineering processes. It deals with methods of reducing the number of experiments, optimizing, and improving process automation and capabilities control. Topics covered include roles and applications of modeling, building models, and formulation of differential equations for modeling.

GAA619 Quality Assurance and Consumer Health 3 cr.

This course highlights the importance of quality assurance on the health of consumers in the face of increasing demands for food quality and fast changing regulations. It emphasizes the fact that food quality assurance is not an option but rather an imperative. Also, it provides agri-food engineers with knowledge and skills for developing a coherent and comprehensive food management system (SOPs, GMPs, HACCP, ISO22000) that reflects their organization's professional standards, ethics, philosophy and values.

GAA690A Final Thesis 6 cr.

Pre-requisites STA515 And GAA615 And GAA511 And GAA513 And GAA520 And GAA523 And GAA611

The final thesis is an original endeavor in applied or fundamental research. It serves to synthesize, integrate and apply knowledge from earlier relevant courses in the program and to tackle significant genuine topics in agricultural engineering. The thesis demonstrates knowledge of the field and makes an innovative contribution to new theories and practices. It is designed and completed under the direction of a thesis supervisor according to Faculty guidelines and presented to an examining panel for defense.

GAAC527 Machinery and Food Industrial Control 3 cr.

This course develops the concepts of industrial automation and control of food industrial process. The first part of the course, industrial automation, covers modeling of industrial processes through physical principles and identifying these processes using time and frequency domain techniques. The

second part, process modeling and control, involves Programmable Logic Controllers (PLC) with an explanation of their hardware and software and special attention to Ladder Programming.

GAAC615 Seminar 3 cr.
Pre-requisites STA515 Or GAG646
This course covers the modeling of food engineering processes used in the industry in order to reduce the number of experiments, and optimize and improve the automation and control capabilities. It includes topics such as: the roles and applications of modeling in agricultural and food processes based on conservation principles of momentum, heat and mass; a systematic approach to model building; and formulation of a differential equation for modeling, applied to various agricultural and food engineering problems.

GAAC617 Modeling of Food Systems 3 cr.
This course covers the mathematical modeling of food engineering processes used in the industry in order to reduce the number of experiments, and optimize and improve the automation and control capabilities. It includes topics such as: the roles and applications of modeling in agricultural and food processes based on conservation principles of momentum, heat and mass; a systematic approach to model building; and formulation of a differential equation for modeling, applied to various agricultural and food engineering problems.

GAG202 Introduction to Agricultural Sciences 1 cr.
This course introduces students to a broad spectrum of topics exploring agriculture and illustrating applied principles of biological systems and how they relate to agriculture. Topics presented include plant science, animal science, biotechnology, soil science, food security, natural resource management, and sustainable agriculture. It also describes the different Lebanese agricultural governmental and non-governmental organizations.

GAG218 Field Work I S1 1 cr.
This course introduces students to the basics of fieldwork techniques such as greenhouses and preparation of agricultural land. It covers topics such as potting, transplanting, fertilization, pruning, grafting, and plant propagation. It also includes technical farm visits.

GAG219 Field Work I S2 1 cr.
This course covers topics such as pruning, grafting, different insect pests and diseases, proper pesticide applications, fertilization, plant propagation nurseries, field crops and ornamental plants. It also includes technical applications in bovine and poultry farms.

GAG222 Geology + Laboratory 2 cr.
This course explores basic geological concepts, principles and processes that shape the planet and the environment. It covers topics such as the history of life on earth, the solar system, the earth's structure, composition and evolution; and the nature of the processes that resulted in its formation and its present state.

GAG242 Agricultural Zoology 3 cr.
Co-requisites GAG274
This course is designed to introduce students to the study of zoology at the organismal and organ function levels. The lecture section will review the general principles of modern zoological theory and provide the students with an introduction to recent advances in zoology in the areas of systematics, evolution, reproduction, development, animal diversity, and animal ecology. The laboratory section is designed to allow students to become familiar with the form and function of major animal phyla through observation of living animals, study of prepared slides, examination of model specimens and museum mounts and dissection of preserved specimens.

GAG260A-B **Internship I** **1 cr.**
This introductory internship is an individualized program whereby students are apprenticed to proper officials to gain practical experience in agricultural and/or food facilities. It provides opportunities to apply skills, concepts and theories in a practical context.

GAG274 **Agricultural Zoology Laboratory** **1 cr.**
Co-requisites GAG242
These laboratory sessions, which accompany GAG 242, include an examination of cellular organelles, types of tissues, unicellular protozoa, sponges and multicellular animals. It provides students with hands-on experience in dissection of invertebrates and mammalian vertebrates.

GAG310 **Botany and Systematics** **2 cr.**
Pre-requisites BIO228
This course introduces students to the basic structural, reproductive and evolutionary patterns seen in the plant kingdom. It focuses on plant systematics with emphasis on the phylogenetic, evolutionary history, diversity and structure of plants. Topics covered include a survey of botanical life forms, taxonomy, structure, development and function. The course also highlights the classification and identification of plants by the use of dichotomous keys.

GAG303 **Introduction to Ecology and Environment** **3 cr.**
This course develops an understanding of the principles of ecology, the life supporting and resource generating structures and functions of the ecosystems. It explores the role of atmosphere, hydrosphere and lithosphere in sustaining life. The course also analyses reasons and effects of current and future environmental problems as well as different aspects of sustainable development.

GAG324 **Agrometeorology and GIS** **3 cr.**
This course explores the theoretical and practical aspects of agricultural meteorology and geographic information systems (GIS). It provides basic knowledge in agrometeorology related to the agricultural operational applications. It also exploits the climatic data in various agricultural activities in terms of designing and mapping products based on spatial analysis tools, particularly the GIS.

GAG325 **Animal Physiology and Anatomy** **2 cr.**
Co-requisites GAG372
Pre-requisites GAG242
This course describes the functioning of living organisms and their adaptation mechanisms. It covers the digestive system, its motricity and secretion, the digestion and absorption particularly in monogastric and polygastric mammals, the excretory system and the maintenance of osmolarity and composition of water and ions. The course also focuses on different phases of reproduction, with a particular emphasis on mammalian spermatogenesis and oogenesis, fertilization, pregnancy, lactation, puberty and menopause.

GAG328 **Field Work II S1** **1 cr.**
Pre-requisites GAG218 or GAG219
This course aims to develop innovative principles and practices in the areas of crop and animal production and protection. It covers crop rotation, fruit trees, seedbed preparation, installing of irrigation systems and greenhouses, turf grass and farm management, proper pesticide applications, apiculture and organic farming systems.

GAG329 **Field Work II S2** **1 cr.**
Pre-requisites (GAG218 Or GAG219)

This course covers topics such as fertilization, insect pests and diseases, pruning and management of fruit and forest trees and vines. It also includes technical applications in seasonal plant nurseries, cut flower nurseries, mushroom cultivation and milk processing farms.

GAG333 **Rural Engineering and Technical Drawing** **3 cr.**
Pre-requisites CSC205 Or CSC204
This course discusses the different fundamentals of architecture and drawing instruments. It integrates them into nature and explores the elements of rural construction. This course also deals with farm, silage forage, housing, water supply and reservoir designs, as well as drawing instruments, scales, lettering with orthographic projections and AutoCAD.

GAG340 **Soil Sciences** **2 cr.**
Co-requisites GAG370
Pre-requisites GAG222
This course illustrates processes controlling the distribution and formation of soils. It also examines their chemical, physical, and biological properties covering chemical composition and morphological properties, interaction between solid, liquid, and gaseous components, and relationships between plant, soil, and water. It also focuses on soil properties in managing the quality and fertility of agricultural terrains.

GAG342 **Plant Physiology** **2 cr.**
Co-requisites GAG371
Pre-requisites BIO228
This course provides the basic plant physiological principles and the interactions with their environment. It is designed to survey contemporary aspects of plant physiology with emphasis on recent research progress in related fields. Topics covered include water transport, mineral and organic nutrition, phytohormones, development and stress physiology.

GAG343 **Irrigation** **3 cr.**
Pre-requisites GAG340
This course discusses principles and innovations in irrigation management. It provides a mastery of aspects determining the water balance of cultivated fields and the calculations of crop water requirements. Topics covered include soil-water relations, evapotranspiration, chemigation and technical aspects of pumps, pipes, drips, sprinklers and irrigation systems scheduling and feasibility.

GAG344 **Fertilization** **2 cr.**
Pre-requisites GAG340 or
This course presents the principles of nutrient management as related to soil, growth media, plant requirements and fertilizer management systems. It discusses the use, manufacture, properties and fate of common organic and chemical fertilizers. The course also describes the methods of application and their effects on soil reactions.

GAG360A-B **Specialized Internship** **1 cr.**
This specialized internship involves off-campus work providing training opportunities for the practicum experiences with specific hands-on training and know-how in almost every discipline of agricultural and food sectors. It allows students to apply skills, concepts and theories in a practical context.

GAG370 **Pedology Laboratory** **1 cr.**
Co-requisites GAG340
These laboratory sessions, which accompany GAG 340, provide hands-on practical experience with the main techniques used in physical, chemical, and morphological characterizations of soils. This

laboratory also explains the calculations performed utilizing the data collected from soil testing procedures.

GAG371 **Plant Physiology Laboratory** **1 cr.**
Co-requisites GAG342
Pre-requisites BIO228
These laboratory sessions, which accompany GAG 342, contribute to the understanding of how plants function. It provides students with hands-on experience in basic physiological principles related to nutrient deficiencies, membrane permeability and composition, water/nutrient absorption and translocation, transpiration, photosynthesis and physiological functions of growth regulators.

GAG372 **Anatomy and Animal Physiology Laboratory** **1 cr.**
Co-requisites GAG325
These laboratory sessions, which accompany GAG 325, provide hands-on practical experience in identification, characterization and counts of blood and sperm cells. This laboratory also examines the structure of the skeleton, glands, female and male reproductive organs.

GAG411 **Agricultural Entomology** **2 cr.**
Co-requisites GAG472
Pre-requisites GAG242
This course focuses on the study of the biology of insects. It deals with morphology, physiology, phylogeny, behavior, ecology, and population dynamics of insects. The course also highlights the importance of insects as agricultural pests and their chemical, integrated, biological and cultural methods of control. Complementary laboratory sessions given in addition to lectures include an examination of the different orders, families of insects as well as a preparation of an insect collection. It provides students with insect dissection skills and examination of the digestive, reproductive, nervous and circulatory systems.

GAG413 **Phytopathology** **3 cr.**
Pre-requisites BIO228
This course is divided into two main parts. The first part consists of presenting plant pathology, bacteriology, virology and nematology as well as their importance and utility. It includes topics on disease origins and classifications, disease development, spread and epidemiology, the relationship between disease progress and yield reduction, classification, reproduction and dissemination of fungi, bacteria, mollicutes, viruses and nematodes. It also presents mechanisms of plant invasion by pathogens and those of plant resistance. The second part is subdivided into five themes. The first one is an introduction to pesticides and the four other themes look at fungicides, insecticides, herbicides and biopesticides. Active ingredients will be presented according to chemical family, mode of action and targeted plant pests.

GAG420 **Renewable Energy** **2 cr.**
This course provides fundamentals of energy systems and renewable energy resources related to social, economic and environmental issues. It emphasizes alternative energy sources and their technology and application. The course explores society's present needs and future energy demands. Topics covered include conventional energy sources and systems (fossil fuels and nuclear energy) as well as alternative and renewable energy sources (biomass, hydro, geothermal, wind, solar and tidal powers).

GAG421 **Aquaculture and Apiculture** **2 cr.**
This course deals with the fundamental principles of aquaculture and the activities associated with their culture, harvesting, processing and husbandry. It also deals with beekeeping principles and

honey production, diseases, pest management and pollination ecology. Topics covered include beekeeping and aquatic animal history, biology, chemistry, nutrition, safety and management.

GAG428 Field Work III S1 1 cr.
Pre-requisites GAG329 or GAG328
This course covers topics such as fertilization, insect pests and diseases, pruning and management of tomato, cucumber, potato, egg plants, pepper, banana, strawberry, and citrus production. It also includes technical applications in goat and swine farms.

GAG429 Field Work III S2 1 cr.
Pre-requisites (GAG328 Or GAG329)
This course covers topics such as fertilization, insect pests and diseases, integrated pest management, pruning and crop management of cucumber, melon, tomato, strawberry, eggplants, and cut flowers. It also includes feasibility studies, experimental designs, calculation and installation of irrigation systems, and new technologies in tomato grafting.

GAG432 Field Trips S1 1 cr.
This course involves visiting agricultural, animal and food manufacturing facilities. It provides an enriching experience and an opportunity for students to explore agricultural, animal and food sector operations. The course improves students' professional capabilities and communication skills. A special linkage is created between students and stakeholders, enhancing a significant professional discussion.

GAG434 Field Visits II 1 cr.
Pre-requisites GAG360B
This course involves visiting agricultural, animal and food manufacturing facilities. It provides an enriching experience and an opportunity for students to explore agricultural, animal and food sector operations. The course improves students' professional capabilities and communication skills. A special linkage is created between students and stakeholders, enhancing a significant professional discussion.

GAG442 Animal Science 3 cr.
Pre-requisites GAG242
The course identifies the scientific art of maintaining and improving animals under domestication including breeding, genetics, nutrition, and housing. It covers the production of animal meat, the general conditions of fattening, and livestock farming systems. The course also deals with animal genetics and various methods of reproduction.

GAG443 Arboriculture 3 cr.
Pre-requisites GAG344
This course describes the principles and practices of fruit trees. It deals with tree selection and planting to fit climatic, space and edaphic conditions as well as diagnosing abnormalities. The course also covers modern commercial fruit science, mineral nutrition, flower and fruit development, pollination, dormancy and winter injury, cultural responses and pest management practices.

GAG444 Crop Production Systems 3 cr.
Pre-requisites GAG342
This course examines the development, implementation, management, production, marketing and enterprise operations across a range of agricultural plant industries. It emphasizes the sustainability of plant and animal production to meet human needs. This course is also oriented towards the production of quality forage for herds in farms.

GAG445 Special Topics in Agriculture and Food Sciences 0 cr.

This course is designed to provide students with key concepts, current issues, research and new trends that are pertinent to professionals working in agricultural sectors, food industries, academia, government and NGOs. This seminar course is given by invited national and international speakers.

GAG446 Animal Nutrition 2 cr.

Co-requisites GAG474

Pre-requisites GAG325

This course focuses on the different digestive systems and nutritional requirements for bovine, cattle, and poultry. It also deals with optimal formulations of feed supplies for lactation, growth, work, and maintenance and egg production, regarding breeds and farming systems. The course also examines the classification and function of nutrients and deficiency symptoms. Complementary laboratory sessions included in addition to lectures provide hands-on practical experience and dissection of different digestive systems. This laboratory also deals with the main techniques utilized in physical and chemical characterizations of nutrient compounds (protein, fat, energy) as well as feed rations calculations.

GAG447 Special Topics in Agriculture and Food Sciences 0 cr.

This course is designed to provide students with key concepts, current issues, research and new trends that are pertinent to professionals working in agricultural sectors, food industries, academia, government and NGOs. This seminar course is given by invited national and international speakers.

GAG448 Agriculture and Sustainable Development 2 cr.

This course examines the economical, ecological, and social dimensions of sustainable agriculture. It covers the influence of specific agricultural technologies, organic farming and land use practices on the productivity of agricultural ecosystems, environmental quality, and human health. The course also develops problem-solving skills for seeking eco-friendly alternatives in environmental and production issues.

GAG453 Insect Pests and Diseases of Crops in Lebanon 3 cr.

This course discusses the most important insect pests and diseases of crops in Lebanon. It focuses on the causal agents such as fungi, bacteria, viruses, mollicutes, nematodes and insects. The course also covers the economic importance, damage, identification, classification of causal agents, host-plants, symptoms, biology, epidemiology and control measures.

GAG465 Agroforestry 3 cr.

The course deals with the concepts and classifications of agroforestry ecosystems, as well as their origin, evolution, structure and functioning. Topics covered include the diversity in forestry development strategies, socio-economic causes of deforestation, traditional and adaptive forest and tree management systems, non-timber forest products, and the role of forestry organizations in rural development.

GAG472 Agricultural Entomology Laboratory 1 cr.

Pre-requisites GAG411

These laboratory sessions, which accompany GAG 411, include an examination of the different orders, families of insects as well as preparation of an insect collection. It provides students with insect dissection skills and examination of the digestive, reproductive, nervous and circulatory systems.

GAG474 Animal Nutrition Laboratory 1 cr.

Pre-requisites GAG446

These laboratory sessions, which accompany GAG 446, provide hands-on practical experience and dissection of different digestive systems. This laboratory also deals with the main techniques utilized in physical and chemical characterizations of nutrient compounds (protein, fat, energy) as well as feed rations calculations.

GAG505 Pesticides 2 cr.
Pre-requisites GAG411 and GAG413
This course presents the role and use of synthetic and natural pesticides and their effects on biological activities in the environment. It explores the main chemical groups of pesticides and their chemical, physical and biological properties as well as their role and use in contemporary society, agriculture, urban pest control and public health. This course also covers the use of pesticides as a part of an integrated pest management program and their possible fate in the environment.

GAG542 Hygiene and Veterinary Health 2 cr.
This course describes the best ways to control zoonoses that impact human and animal health. It covers the nature and sources of infection, and deals with methods of hygiene and medical prophylaxis. The course also describes common methods used to diagnose, treat and control these diseases. Complementary laboratory sessions provide practical experience in identification of animal clinical and sub-clinical lesions due to major pathologies. They provide hands-on experience in differential diagnoses, disease investigation and management via autopsy and necropsy of diseased animals.

GAG545 Landscape and Plant Engineering 3 cr.
Pre-requisites GAG342
This course develops broad horticultural and floricultural foundations for landscape design. It focuses on seasonal and perennial plants, shrubs and trees as well as aspects of plant management. This course covers the production and maintenance of ornamental plants, creation of fences, windbreaks and other structures from a landscaping perspective. It also includes turf grass science and management, climatic adaptation and soil physics.

GAG546 Poultry Sciences 3 cr.
Pre-requisites GAG325
This course integrates the principles of aviculture and poultry production. It focuses on poultry physiology, anatomy and genetics, as well as the hatchery and the establishment and management of farms. Topics covered include broilers, breeders and layers production from economical, management, nutritional, health and biosecurity standpoints.

GAG554 Livestock Farming Systems 3 cr.
Pre-requisites GAG325 and GAG442
This course teaches the principles of animal husbandry techniques. It includes behavior, restraint, basic feeding principles, animal handling, and principles of humane care, housing and management. Topics covered also include species and breed identification applied to bovine, ovine, caprine, swine, and horses.

GAG560A-B Advanced Specialized Internship 1 cr.
This advanced internship is an individualized program whereby students acquire hands-on training experience and know-how in specific agricultural and food sectors. It provides students with knowledge of career opportunities and helps them to gain advanced experience and understanding of agriculture's role in today's society. This internship also provides opportunities to apply skills, concepts and theories in a practical context.

GAG644 **Weed Science and Medicinal Plants** **3 cr.**
Pre-requisites GAG310 And GAG342
This course discusses the biology and ecology of weed and medicinal plants. It introduces the principles of weed science including its identification, management techniques and methodologies. Special attention is given to plants used for the treatment of human diseases with a review of toxic plants. The course also deals with Lebanese floral species identification and preparation of Herbarium specimens.

GAG645 **Accounting and Management of Agricultural Businesses** **3 cr.**
This course describes the business and economics of the agriculture and food industries including the agricultural producer, consumer and food systems. It examines the management principles encountered in the day-to-day operation of an agricultural enterprise and their influence on the decision-making process. Topics also covered include preparation of feasibility studies, balance sheets, tracking systems, consumption and marketing of agricultural products, policies designed to achieve efficiency and welfare goals in agriculture.

GAG646 **Statistical Analysis Methods** **3 cr.**
Pre-requisites MAT216

This course enhances students' knowledge in the field of applied statistics and methodological aspects. It presents the main techniques of statistical tests used (descriptive statistics and differential explanatory methods and data analysis). Topics covered include approaches for data manipulation, quantitative analysis (descriptive statistics, hypothesis testing, linear models, time series, and spatial data analysis), analysis of Variance (ANOVA test), comparisons of samples, simple and multiple regression, the statistical methods (CRD, RBD, Latin squares), multivariate statistics (PCA, CA and discriminant analysis), and different statistical software (SPSS, Statistica, R).

GAG647 **Biodiversity and Natural Resources Management** **2 cr.**
Pre-requisites GAG305 or GAG303
This course covers the biological diversity of living organisms, the reasons behind the loss of biodiversity, the ecological importance of human disturbance and the methods applied in the field of conservation biology. It presents different levels of variability (inter- and intra-specific diversity) in terrestrial and aquatic ecosystems. This course also emphasizes the need for sustainable management of natural resources in terms of ecosystem goods and services. Lebanese biodiversity is examined in detail along with possible applicable management practices.

GAG651 **Genetic Engineering and Biotechnology** **3 cr.**
Co-requisites GAG652
Pre-requisites GAG342
This course covers the principles and applications of genetic engineering and biotechnology in agricultural related fields. It describes the latest technologies applied to plant biotechnology, plant and mutation breeding, genetic resources, gene cloning and transfer.

GAG652 **Genetic Engineering and Biotechnology Laboratory** **1 cr.**
Co-requisites GAG651
These laboratory sessions, which accompany GAG 651, provide hands-on practical experience in the tissue culture of plants. They also deal with the main techniques for the preparation of plant growth media and all necessary solutions and dilutions under sterile conditions.

GAG690A **Final Thesis** **6 cr.**
Pre-requisites GAGC560B

The final thesis is an original endeavor in applied or fundamental research. It serves to synthesize, integrate and apply knowledge from earlier relevant courses in the program and to tackle significant genuine topics in agricultural engineering. The thesis demonstrates knowledge of the field and makes an innovative contribution to new theories and practices. It is designed and completed under the direction of a thesis supervisor according to Faculty guidelines and presented to an examining panel for defense.

GAGC560A **Advanced Specialized Internship** **1 cr.**
Pre-requisites GAG360B

This advanced internship is an individualized program whereby students acquire hands-on training experience and know-how in specific agricultural and food sectors. It provides students with knowledge of career opportunities and helps them to gain advanced experience and understanding of agriculture's role in today's society. This internship also provides opportunities to apply skills, concepts and theories in a practical context.

GAGC645 **Accounting and Management of Agricultural Businesses** **3 cr.**
Pre-requisites CSC205 or CSC204

This course describes the business and economics of the agriculture and food industries including the agricultural producer, consumer and food systems. It examines the management principles encountered in the day-to-day operation of an agricultural enterprise and their influence on the decision-making process. Topics also covered include preparation of feasibility studies, balance sheets, tracking systems, consumption and marketing of agricultural products, policies designed to achieve efficiency and welfare goals in agriculture.

MAT216 **General Mathematics** **3 cr.**
This course provides the solid basics needed by students to be able to handle their specialty courses. Topics covered include: function of a real variable, elementary functions, Taylor's expansion, simple integral and methods of integration, differential equations, multivariable functions, continuity, partial derivative, the chain rule, differential, introduction to double integrals, methods of integration, matrix calculus, determinants, and linear systems.

NTR211 - NUT211 **Fundamentals of Human Nutrition** **3 cr.**
This three-credit course introduces the basic concepts related to nutrition. It gives an overview of nutrients, including their food sources, digestion, metabolism, functions, and requirements in humans. This course also examines the use of dietary guidelines and recommendations to assess the nutrient intake of healthy individuals. Upon completion of the course, students will be able to make optimal food choices for better health.

NTR218 - NUT218 **Food Economy** **3 cr.**
This courses analyzes different activities related to food consumption in a certain society. It allows the students to evaluate certain food consumption situations in order to examine the consumer's reaction and behavior according to the economic theory.

NTR222 - NUT222 **Nutrition and Physiology I** **3 cr.**
Co-requisites NTR223
Pre-requisites BLG211
Students will study the anatomical structures of the animal body as arranged into systems and they will correlate forms with functions performed, under specific laws and principles in an overall homeostatic setup. The course covers a range of topics where students will gain a general understanding of the organic structures and functions of the body systems and the coherence

between organs of the body. They will also learn about homeostasis and steady state of the human body, as well as the overall laws and principles that rule body functions.

NTR223 - NUT223 Nutrition and Physiology II 2 cr.
Co-requisites NTR222
The course describes the structure and function of the digestive, endocrine and reproductive systems. It also gives a clear idea of fluid and acid balance taking place in the human body, as well as energy balance and temperature regulation.

NUT320 Food Processing 2 cr.
Pre-requisites NUT211 or NTR211
This food processing course is considered as a scientific and technological activity covering the major food processes in the industry. It involves the application of scientific principles in industries in order to produce convenient products for the market while preventing spoilage. This course gives the students the opportunity to discover conventional and new techniques used for processing and preservation of food materials. In addition, a nutritional and sensory evaluation of food will be discussed.

NTR322 - NUT322 Human Nutrition I 3 cr.
Co-requisites NTR211
Pre-requisites BCH215
This course provides a comprehensive overview of human physiological needs and outlines the various parameters of the energy equation. The metabolism and impact on health of certain food substances will be developed (carbohydrates, lipids and alcohol-including essential fatty acids and their derivatives). Body composition and its evaluation methods will be explored. Muscle activity will be addressed in the physiological dimension, nutritional (energy systems, use of substrates), benefits (cardiovascular and others), etc. The Recommended Dietary Allowances will also be discussed.

NTR325 - NUT325 Inborn Errors of Metabolism 2 cr.
Pre-requisites NTR222 and NTR223 and BCH215
Genetic diseases of the metabolism are hereditary diseases resulting from a lack of activity or absence of a specific enzyme. Treatments could be the well renowned nutritional therapy. This course intends to study physiopathology of each of the metabolic diseases as well as their specific nutritional treatment.

NTR326 - NUT326 Drug-Nutrient Interactions 2 cr.
Pre-requisites NUT446
This course examines the interactions between nutrients and drugs. It includes the basic concepts essential for understanding the interactions, and the specific interaction between nutrients and drugs most frequently prescribed in different pathologies. It also presents the influences of nutrients on the pharmacokinetics of drugs and their effects, and those drugs on weight, metabolism, and minerals. The course also treats equally the particular interactions between nutrients and drugs, especially in children, pregnant women or nursing mothers and the elderly. The course also includes a research project with a report on a theme that is consistent with the concept of the course, and a brief oral presentation of the topic. This course is based on fundamental concepts and provides the students with useful recommendations that will apply in practice.

NTR327 Community Nutrition 2 cr.
This course studies the influences of country parameters in general and community ones in particular on the eating trends and habits of a population, in addition to the training and nutritional information means. It also introduces concepts, study methods and interventions (food and nutrition projects and policies) on food security within the context of the FAO.

NTR328 - NUT328 Eating Behaviors and Disorders 2 cr.
Co-requisites NTR211
This course enables students to learn about the psychology of humans in their relationship with food. It also aims to sensitize students to the psychopathological dimension and different eating disorders. The first topic deals with the basic psychological concepts, different psychological approaches, the relationship between psychology/nutrition, and includes an overview of the concept of weight, body image and body schema. The course goes on to explore the therapeutic framework and its specific features, motivational interviewing techniques and steps, and the various eating disorders, their causes and consequences from childhood to old age. There is a detailed look at the question of psychopathology and eating disorders, as well as hints and tips for future dietitians and key techniques essential to their future practice.

NTR331 - NUT331 Community Nutrition 3 cr.
Pre-requisites NUT211
This course focuses on the nutrition and food patterns of individuals and the cluster of individuals constituting a community. Topics will include specificity of models of food consumption in different communities in the world and will highlight differences in socio-economic, cultural and psychological factors which impact on the food consumption of individuals and the community. It will emphasize the elaboration of evaluation programs and the planning of nutritional interventions that could protect the community's health. Basic education for community groups will be discussed and applied.

NTR334 - NUT334 Food Service Management 3 cr.
This course aims to introduce students to the different types of food service organizations and to guide them throughout the concept research and development process. It also offers the students the ability to closely look into menu planning, and the design, analysis and understanding of the different service operations including purchasing, receiving, storage, inventory, production, and service. Finally, it provides them with the necessary information in order to manage operational functions in food service: financial management, human resources and marketing.

NTR335 - NUT335 Nutrition in the Life Cycle 2 cr.
Co-requisites NTR211
Nutritional needs vary depending on lifestyle stage. In this course, we will focus on the needs of micro and macronutrients throughout the lifecycle. The course will place an emphasis on nutritional needs of pregnant and lactating women, as well as those needs of infants, children, adolescents, adults and seniors. This course will also highlight different types of vegetarianism, as well as the risks and benefits of such a lifestyle.

NTR336 - NUT336 Human Nutrition II 2 cr.
Pre-requisites NTR211 and BCH215
The purpose of this course is to provide thorough coverage of normal metabolism. It will emphasize metabolic, biochemical and physiological processes related to nutrition. The course will be divided into two parts; the first one will focus on the anatomy of the gastrointestinal tract and its function with respect to digestion and absorption. It will also review primary metabolic pathways related to proteins and micronutrients. The second part will examine the interrelationships among the metabolic pathways that are common to the macronutrients, fluid and electrolyte balance, as well as the macronutrients exchange system. A small section of the second part will also discuss recent findings related to the metabolic syndrome, insulin action and insulin sensitivity.

NTR338A-NUT338A Food Service Management and Community Internship 1 cr.
Pre-requisites NTR334
Co-requisites NTR331 or GAA339

This 8 weeks rotation is coordinated through the university where internship placement for 2nd year students takes place. In the Food Service Management rotation, the intern will rotate through purchasing, inventory, food production, food service administration and management. During the Community rotation, the intern will have the opportunity to experience the role of a dietitian within a local community setting.

NTR433 - NUT433 Nutrition for Athletes 2 cr.
Pre-requisites NTR322
This is a course of two credits, where undergraduates study the type of nutrition related to sports activities, with a particular focus on the practical application to each person. It will cover the nutritional status of the athlete, their anthropometric measurements, and energy needs in macro and micro nutrients. In addition, a part of the course will be assigned for the nutritional preparation before and after the exercise for recovery. The rest of the course will cover the athlete's weight changes, their food implications and the different ergogenic supplements.

NTR435 - NUT435 Preventive Nutrition and Public Health 2 cr.
Pre-requisites NTR331
This course gives students the opportunity to understand nutritional public health, in addition to the tasks of nutrition professionals and the programs used to promote nutritional public health in the community. The course deals with public health problems with emphasis on alimentation and primary prevention of these problems by nutrition. It also shows the different types of foods linked to public health, together with the global strategies of preventive nutrition at an international level, adopted by the Organization of the United Nations.

NTR441 - NUT441 Clinical Counseling and Nutritional Assessment + Lab 3 cr.
Co-requisites NTR471
Pre-requisites NUT447
This course takes as its premise that patients should be guided to understand that they must take charge of their own lives. "Don't take your body to the doctor as if he were a repair shop", (Quentin Regestein). Healthy eating is not about strict dieting, staying unrealistically thin, or depriving yourself of the foods you love. Rather, it is about maintaining and improving general health, having more energy and stabilizing your mood. Clinical consultation is important to teach people how to deal with food in a positive way, to control their weight, as well as to prevent health problems. This course deals with the different steps of this nutritional consultation. It details all parts of a complete clinical consultation and allows students to perfect their clinical approach towards patients.

NUT442 Clinical Counseling and Nutrition Assessment 2 cr.
Co-requisites NUT447
Pre-requisites NUT471
This course examines in detail the various stages of clinical nutrition consultation. It allows students to improve their clinical approach towards the patient. It covers all parts of an ideal model of clinical nutrition consultation. Moreover, this course teaches the students how to deal with food in a positive way, to control the weight as well as to prevent health problems.

NTR445 - NUT445 Current Topics in Food Sciences and Nutrition 0 cr.
This course is designed to provide students with key concepts, current issues, researches and new trends that are pertinent to professionals working in nutrition, dietetics and food sciences field.
This seminar course is given by invited national and international key-speakers.

NTR446 - NUT446 Pharmacology and Human Health 3 cr.
Pre-requisites NUT222 and NTR223

This course is divided into two parts: general pharmacology and specific pharmacology. General pharmacology is based on fundamental concepts, while specific pharmacology is related to the use of various drugs in the treatment of different diseases. This latter part deals with the different therapeutic classes, the drugs that are frequently prescribed by physicians, and those that have been introduced recently into the drugs market. It also involves preventive measures and practical and useful notices, such as impact of special foods on some effects of drugs. The course also includes a research project that students prepare about a topic which they choose from a list of proposed subjects. They prepare a written report and deliver an oral presentation summarizing the content. This course is especially aimed at students majoring in nutrition, and contains basic concepts, plus practical recommendations that are useful in the professional field.

NTR447 - NUT447 Pathophysiology of Nutrition Related Diseases 4 cr.
Pre-requisites NUT222 and NTR223 and BCH215
Starting from the definition of the pathophysiology, and dealing with the concept of "nutritional diseases" and discussing the most common nutritional diseases, this course enables students to understand the basic mechanisms of the genesis of these diseases and their clinical manifestations

NTR452 - NUT452 Medical Nutrition Therapy I 2 cr.
Pre-requisites NTR336
Co-requisites NTR475 or NTR447
The course handles the nutritional strategies during metabolic stress and different pathologies that can benefit from a nutritional therapy, specifically pulmonary and neurological diseases, cancer, and HIV. The lab of this course targets the acquisition of the medical terminology, estimation of energy needs of patients and diet composition, as well as an overview of the new international Exchange System.

NTR454 - NUT454 Medical Nutrition Therapy III 2 cr.
Co-requisites NTR478
Pre-requisites NTR447
This course focuses on the medical nutrition therapy of several pathologies affected by nutrition. Bone diseases (osteoporosis, osteomalacia), allergies and food intolerances (celiac disease), anemia and other hematologic diseases that affect or are affected by nutrition, as well as digestive disorders (intestinal, pancreatic, and hepatic) will be discussed. In addition, a physiological, pathological, semiology and diagnostic overview will be presented.

NTR453 - NUT453 Medical Nutrition Therapy II 2 cr.
Pre-requisites NTR447
Co-requisites NTR476
This course will allow students to understand in detail the nutritional aspects of disease and its effect on the body, as well as the role of nutrition in the etiology, prevention and treatment of the following non-communicable conditions: weight management, diabetes, cardiovascular diseases, and renal diseases.

NTR475 - NUT475 Medical Nutrition Therapy I Lab 1 cr.
Co-requisites NTR452
This lab provides case studies in which special diets and recommendations are necessary for the following situations or pathologies: pulmonary diseases, cancer, and AIDS.

NTR476 - NUT476 Medical Nutrition Therapy II Lab 1 cr.
Co-requisites NTR454
This course will allow students to understand in detail the nutritional aspects of disease and its effect on the body, as well as the role of nutrition in the etiology, prevention and treatment of the following

non-communicable conditions: weight management, diabetes, cardiovascular diseases, and renal diseases.

NTR478 - NUT477 Medical Nutrition Therapy III Lab 1 cr.
Co-requisites NTR454
This course focuses on the medical nutrition therapy of several pathologies affected by nutrition. Bone diseases (osteoporosis, osteomalacia), allergies and food intolerances (celiac disease), anemia and other hematologic diseases that affect or are affected by nutrition, as well as digestive disorders (intestinal, pancreatic, and hepatic) will be discussed. In addition, a physiological, pathological, semiology and diagnostic overview will be presented.

NTR510 Research Methodology in Nutrition 3 cr.
The purpose of the first part of the course is to strengthen the knowledge of students in the field of applied statistics, by minimizing the mathematical approach and enhancing the practical and methodological aspects. It presents the main techniques of statistical tests used (descriptive and inferential statistics, explanatory methods and data analysis). An overview is given of the primary methods and practices available in software, including an aid to interpretation of results and fully processed examples, using mainly SPSS statistical software. The second part of the course will develop the skills required to produce research to an advanced level. The course will enable students to enhance their analytical skills, writing and applying research methodology to a problem in the field of nutrition. The course will be organized around lectures and applied work.

NTR512 Advanced Food Service Management 3 cr.
This is an advanced course in food management to complement undergraduate training. It includes all necessary management concepts to effectively direct food establishments (hotels, restaurants, diet centers). This course details managerial and operational principles essential to food service management, such as marketing, finance, human resources and leadership.

NTR514 Advanced Physiology in Nutrition 3 cr.
This course covers the clinical, biological and physiological imbalances and deficiencies in micronutrients (vitamins, minerals and trace elements) and macronutrients (proteins, fat and carbohydrates) with emphasis on their synergies and antagonism actions. The purpose of this course is to enable students to diagnose any disruption in these extremely important nutrients and establish cause and effect between the pathological manifestations, signs and symptoms and malnutrition, in order to provide personalized advice on a balanced and adequate diet to correct the behavior and dietary errors. At the end of this course the students will be able to: offer patients the best food intake balanced by its shortcomings, participate in the management of certain disease states, and encourage all to live better, longer and healthier lives.

NTR516 Nutritional Epidemiology 3 cr.
This is an introductory course to epidemiology in general, with specific application to nutrition. The goals of epidemiology are evaluating the incidence of disease in the population, observing the variation of these frequencies in time and space, known as descriptive epidemiology, and the search for factors associated with the onset of these diseases, which is analytical epidemiology. Epidemiology introduces the students to the problems of screening, bias, public health, ethics and prevention. Nutritional epidemiology focuses primarily on nutritional status and dietary surveys on groups or populations. It has three methods: a descriptive method, an analytical method and intervention trials.

NTR551 Advanced Strategies in Consultation 3 cr.
This course will dissect the different stages of clinical nutrition consultation. It allows students to develop their own clinical approach towards the patient. It includes all the details of an ideal model

of clinical nutrition consultation with examples of practical management of difficult patients and very frequent diseases.

NTR552 Medical Therapeutic Nutrition 3 cr.
This course provides an overview of the different needs for micro and macronutrients in a healthy and an ill state. It aims to explore in depth the care of patients and their therapeutic nutrition and the various means used for this purpose, with theoretical and practical applications for certain diseases or systems.

NTR557 Nutrition Communication Theory and Practice in Nutrition 3 cr.
Students successfully completing this course will gain an understanding of the theory and practice of nutrition communication, and develop practical expertise related to taking action to address the subject. Strong communication skills are vital for dietetics professionals. This course will show students how to take advantage of scientific models, theories and strategies to communicate with clients and peers, convincing them to make more healthy food choices. Moreover, students will learn through activities and case studies to help improve and gain confidence by putting their communication skills into practice.

NTR558 Behavioral and Social Determinants of Health 3 cr.
In public health, social and behavioral sciences deal with behavioral, social and cultural issues related to personal and population health, focusing on health disparities throughout life. Research and practice in this area will lead to the development, implementation and evaluation of policies and programs to promote health and support a healthy environment and healthy living for individuals and populations.

NTR617 Functional Food and Genomics 3 cr.
This course deals with the food/gene frontier. In a nutshell, it answers the following fundamental question: What are the effects of diet on our genome? First of all, this course describes functional foods, their plant, animal or mineral origins and their pharmacological effects in the prevention and treatment of diseases. This course also shows the mechanisms of action by which the cell responds to food carcinogens and pro-oxidant attacks, in contrast to the impact of antioxidants, like many phytochemicals and micronutrients, on DNA and their role in the onset of disease. An important part of this course describes the transformation of nutritional signals into gene expression patterns and epigenetics. The last part includes a discussion on the aspects of personalized nutrition and the concept of food for me.

NTR631 Nutrition and Humanitarian Aid During Emergencies 3 cr.
Emergencies are becoming increasingly complex. As a result, international relief organizations have an increased need for professionals to manage humanitarian actions. Millions of tons of food are distributed to people in different emergency situations. However, malnutrition and micro-nutrient deficiencies are common during humanitarian emergencies. Management of food distribution and nutritional status in a professional environment has become essential. This course will provide the basic and necessary concepts to understand the process of food aid, the assessment of nutritional status of different groups especially the most vulnerable, as well as different methodologies applied in this area.

NTR651 Clinical Nutrition Infant, Maternal and Geriatric 3 cr.
This course is designed to increase knowledge among Master students of the various pathologies in pregnant and lactating women and in the elderly, and their relationship to nutrition. The first part of the course will include clinical cases involving the most frequent nutritional disorders and diseases with an impact on maternal health and child development. Students will learn to select, argue, assess and adjust actions based on dietary and nutritional pediatric conditions and the socio-economic

environment of the child. The therapeutic nutrition education of the child and his family will be thoroughly analyzed. The second part of the course will be devoted to various diseases in the elderly and their nutritional implications, based on reference books and recent articles presented and discussed by students.

NTR652 Diabetes, Dyslipidemia and Obesity 3 cr.
This course, which is already taught in cycle one of Human Nutrition and Dietetics, will be presented in the form of theoretical sessions with a clinical aspect, followed by practical training in the form of medical practice in central obesity and endocrinology.

NTR656 Food Service Strategic Development 3 cr.
This course covers the different service operations including menu preparation, purchasing, production and service. It provides the necessary information in order to manage operational functions in food service, namely menu philosophy and utility, human resources and the marketing role in food service management.

NTR657 Elaboration and Evaluation of Health Programs 3 cr.
Health programs are usually implemented to achieve specific outcomes by performing some type of intervention or service. While evaluations may be performed for a variety of reasons, most are conducted to answer two fundamental questions: Is the program working as intended? And, second, Why is this the case? Evaluations help decision-makers, program managers and other groups to understand the reasons for program performance, and to make informed judgments about improving a program, extending it to other sites, or cutting back or abolishing a program so that resources may be allocated elsewhere. In essence, evaluation is a management tool for administrators, planners, and policy-makers.

NTR658 Public Health in Lebanon 3 cr.
The course focuses on the legal and institutional aspects of public health in Lebanon, related to standardization and food security and to public institutions and international organizations.

NTR688 Seminar in Nutrition 3 cr.
Pre-requisites NTR510 and NTR516
This course will help students to: develop the skills required to read, evaluate and criticize scientific evidence; formulate structured research questions, write a critical analysis of the literature, and use appropriate research design and methods in nutritional sciences; implement skills learned throughout the course to formulate a research proposal; and assume an active and responsible role in learning.

NTR697A Master's Thesis in Nutrition and Public Health 6 cr.
Pre-requisites NTR557 And NTR558 And NTR657 And NTR510 And NTR516 And NTR658 And NTR688
The thesis study is a research project on a topic chosen in agreement with the tutor and approved by the department. The proposal must include the subject's background, purpose, research questions, and methods, preparation of the study, time, statistical analysis, and a bibliography. The paper includes a literature review and research practice. It measures the level of students' knowledge, their capacity for analysis and presentation. The students must submit a final written report with a theoretical part, a practical study, followed by an analytical part, conclusion and recommendations. Students defend their thesis before a jury. They must then also write an article based on the thesis, and present a poster. The time allowed for this study is two semesters, renewable.

NTR699A Master's Thesis in Clinical Nutrition 6 cr.
Pre-requisites NTR551 And NTR552 And NTR651 And NTR510 And NTR514 And NTR652 And NTR516 And NTR688

The thesis study is a research project on a topic chosen in agreement with the tutor and approved by the department. The proposal must include the subject's background, purpose, research questions, and methods, preparation of the study, time, statistical analysis, and a bibliography. The paper includes a literature review and research practice. It measures the level of students' knowledge, their capacity for analysis and presentation. The students must submit a final written report with a theoretical part, a practical study, followed by an analytical part, conclusion and recommendations. Students defend their thesis before a jury. They must then also write an article based on the thesis, and present a poster. The time allowed for this study is two semesters, renewable.

PHY210 General Physics 3 cr.

The objective of this course is the introduction of various laws, principles and physical mechanisms, whose understanding is essential to students in pursuing their studies in all branches of science. This course consists of several independent parts. The first one deals with dynamics, the different types of motion, Newton's laws, and conservation of energy. The second part deals with hydrostatics and fluid dynamics. The third part deals with the thermodynamics, calorimeters, the first principle and the basic transformations, the ideal gas, and thermodynamic cycles. The fourth part concerns the analysis of simple electrical circuits using Kirchhoff laws and the movement of a particle in an electromagnetic field. Finally in the fifth part we talk about relativity, the theory of photons, and the photoelectric effect. Upon completion of this course the students will have acquired sufficient knowledge of several basic principles in physics and be familiar with these topics.

STA515 Statistical Analysis Methods 3 cr.

The purpose of this course is to strengthen the knowledge of students in the field of applied statistics by minimizing the mathematical approach and developing practical and methodological aspects. It presents the main techniques of most known statistical tests (descriptive and inferential statistics, explanatory methods, and data analysis). The course provides an overview and practical techniques in the main methods available in software, and an aid to the interpretation of the results and fully processed examples using the statistical software program SPSS. Most of the themes will be covered by this course, including the analysis of Variance (ANOVA test), comparisons of samples (t-test & Chi - square), single and multiple regression.

STA220 - STS220 Applied Probability and Statistics 3 cr.

This course prepares students for the practical use of probability and statistics in the biomedical field (agronomy, chemistry, biochemistry, nutrition, medicine, etc.). Topics to be covered are: elements of descriptive statistics, population, statistical units, frequency distribution, and characteristics of central tendency and dispersion. The course also covers these aspects in detail: probability and combinatorics, conditional probability and Bayes' formula, applications, discrete and continuous random variables, expectation and moments, the weak law of large numbers, empirical frequencies and basic probability laws (Binomial, Multinomial, Poisson, Normal) and asymptotic behavior, the law of large numbers, sampling and estimation, and an introduction to the use of hypothesis tests, and the Chi-2 contingency table.

TAG632 Quality Systems in Agri-food 3 cr.

Food control includes all business activities to ensure the quality, safety and authenticity of food at all stages from primary production, processing, storage, to marketing and consumption. The course details the quality systems with aspects of food labeling and certification of products, the ISO 22000 which will be compared with other quality systems, and HACCP for integrated management of the sanitary quality.

Faculty of Business and Commercial Sciences

Overview

Founded in 1966, the Faculty of Business and Commercial Sciences is considered as one of the pioneers in business education in the Near-East. As part of USEK, it has dedicated itself, since its creation, to teach students how to administrate organizations, in the scope of sustainable development, while remaining devoted to its three-hundred years tradition of the Lebanese Maronite Order, a heritage conscientiously preserved and incessantly enriched.

In 45 years, we have succeeded in providing local and regional markets with a wide range of specializations under the American Credit System in BBA, MBA, MSc and PhD (the latter being the only PhD in Business that is validated by the Lebanese government). In this scope, it is worth mentioning that all courses are provided both in English and French.

Mission

The Faculty of Business and Commercial Sciences at USEK is committed to offering quality educational programs in various business fields within a student-centered learning environment, continuously supporting its students in achieving their career goals. Through enriching multidisciplinary programs and empowering faculty initiatives, we seek to nurture entrepreneurial spirit and to graduate civically engaged and ethically responsible professionals for the sustainable development of Lebanon and the region.

The Faculty of Business and Commercial Sciences consists of the following programs:

Undergraduate Programs

- Bachelor in Business Administration
  Emphasis:
  - Audit
  - Finance
  - Business Computing
  - Management
  - Marketing
  - Transport and Logistics
- Bachelor in Business Administration - Hotel Management

Graduate Programs

- Master in Business Administration
  Emphasis:
  - Audit
  - Finance
  - Marketing
- Master in Business Administration-Banking Operations and Management
- Master in Business Administration-Management and International Affairs

- Master in Business Administration - Human Resources
- Master in Business Administration - Financial Engineering

Doctoral

- Ph.D. in Business

Administration and Full-time Faculty

Prof. Elie Assaf, Professor, Dean
Dr. Charbel EL Khoury, Assistant Professor, Associate Dean
Dr. Charbel Salloum, Associate Professor, Associate Dean for Research
Dr. DanièleKhalifé-Fraiha, Associate Professor, Associate Dean for Undergraduate Studies, Head of the Finance Department
Dr. Nada Sarkis, Assistant Professor, Associate Dean for Graduate Studies
Rev. Fr. Georges Azzi, Associate Professor, Head of Doctoral Comission
Mrs. Fleur Clara Khalil, Lecturer, Head of the Audit Department
Dr. Badih Baz, Associate Professor, Head of the Business Computing Department
Mrs. Ina Aurelia-Issa, Lecturer, Head of the Hotel Management Department
Dr. Lindos Daou, Assistant Professor, Head of the Management and the Transportation and Logistics Departments
Ms. Charlotte Habib, Lecturer, Head of the Marketing Department
Dr. Hajer Jarrar-Cheikh Ali, Associate Professor, Head of Master Programs
Dr. Mario Sassine, Associate Professor, Head of Master of Research (M.Sc.) Programs
Mr. Ralph Khairallah, Lecturer, Coordinator of the Center for Innovation and Entrepreneurship
Dr. Pascal Lahoud Abou Jaoudeh, Coordinator of the Center for Innovation and Entrepreneurship
Dr. Madonna Salameh-Ayanian, Assistant Professor, Head of the Master Program in HR, Head of Corporate Relations
Mrs. Mirine Maalouf, Lecturer, Head of the Arab Society of Faculties of Business, Economic and Political Sciences
Dr. Léa El Yahchouchi Abi Chaker, Assistant Professor, Head of International Relations at the Faculty of Business and Commercial Sciences
Dr. Michel Karam, Assistant Professor, Faculty Coordinator at RUC
Dr. Elie Bouri, Assistant Professor, Research Coordinator
Mr. André Eid, Assistant Professor
Dr. Antoine Habchi, Associate Professor
Mr. Charles Assouad, Assistant Professor
Mr. Georges Jalkh, Lecturer
Dr. Georges Yahchouchi, Associate Professor
Dr. Joseph Azzi, Assistant Professor
Prof. Nehmé Azoury, Professor

Mrs. Ruba Younes Mhanna, Lecturer
Dr. Selim Osman, Associate Professor
Dr. Zeina Zeidan-Maalouli, Assistant Professor

Programs of Study - Undergraduate Programs

Bachelor in Business Administration (hybrid[i] & Eng.)

Emphasis

- Audit — *Main Campus Kaslik, RUC Zahle and RUC Chekka*
- Finance — *Main Campus Kaslik, RUC Zahle, RUC Chekka and RUC Rmeich*
- Business Computing — *Main Campus Kaslik*
- Management — *Main Campus Kaslik, RUC Zahle, RUC Chekka and RUC Rmeich*
- Marketing — *Main Campus Kaslik*
- Transport and Logistics — *Main Campus Kaslik*

Mission

We aim to equip students with the knowledge and skills that help them contribute with integrity and professionalism to the development of local and regional businesses. Therefore, they are provided with a solid theoretical background, and pushed a step closer to the society and professional field.

Program Educational Objectives

Business graduates will:

1. Use their acquired knowledge and communication skills in business administration;
2. Work professionally and ethically in their business environment;
3. Gain an awareness of entrepreneurship and corporate social responsibility;
4. Respond to technological advancements and changes taking place in the business field.

Program Outcomes

Upon completion of the undergraduate program, graduates should be able to:

a. Apply knowledge of concepts in Audit, Business Computing, Finance, Management, Marketing, and Transport and Logistics;
b. Possess effective written and oral communication skills;
c. Examine the ethical, social and entrepreneurial practices of businesses;
d. Demonstrate ability to pursue diverse careers in business administration and its related fields;
e. Use theoretical learning in real-life business activities;
f. Demonstrate ability for contemporary business decision-making.

Degree Requirements

General Education	**30**

[i] Hybrid: Courses offered in French and/or English

General Education - Civic Engagement	2
General Education - History of Lebanon	3
General Education - Science and Health	3
General Education - Sports	1
General Education - Religious Sciences	3
DRT223 - Business Law	3
CSC204 - Information Technology and Networking	3
ECO222 - Macroeconomics or MGT225 - Foundations of Entrepreneurship	3
ENG240 - English Communication	3
MAT216 - General Mathematics	3
STA220 - Probability and Applied Statistics	3
Common Core	**36**
ACT210 - Financial Accounting I	3
ACT220 - Financial Accounting II	3
BUS211 - Mathematics of Finance	3
BUS303 - Business Planning	3
ECO221 - Microeconomics	3
ENG290 - Business Professional	3
FIN310 - Financial Management	3
FIN315 - Financial Analysis	3
MGT220 - Principles of Management	3
MGT330 - Human Resources Management	3
MIS320 - Quantitative Techniques Applied To Business	3
MKT220 - Principles of Marketing	3
Electives	**9**
ACT225 - Internal Audit	3
ACT320 - Cost Accounting	3
BUS390 - Verbal and Non-Verbal Communication for Business	3
FIN420 -International Finance	3
FIN421 - Financial Markets	3
ITB321 - Database	3
ITB350 - E-Business	3
MGT320 - Organizational Behavior	3
MGT415 - Small Business Management	3
MKT315 - Advertising	3
MKT405 - Media Planning	3
MKT430 - Pricing Strategy	3
TRA310 - Transport and Logistics	3
LCB200 - Introduction to Hospitality Management	3
Emphasis: Audit	
Specialization	**21**
ACT225 - Internal Audit	3
ACT312 - Advanced Accounting	3
ACT320 - Cost Accounting	3
ACT345 - Enterprise Internship	1

ACT410 - Groups Accounting	3
ACT425 - Management Control	3
ACT455 - Enterprise Simulation	2
BUS320 – Taxation	3
Capstone	**3**
ACT330 - External Audit	3
Emphasis: Finance	
Specialization	**22**
BUS320 – Taxation	3
ECO410 - Banking and Finance	3
FIN345 - Enterprise Internship	1
FIN412 - Corporate Finance	3
FIN420 -International Finance	3
FIN421 - Financial Markets	3
FIN425 - Company Valuation	3
FIN430 - Financial Engineering	3
Capstone	**2**
FIN455 - Enterprise Simulation	2
Emphasis: Business Computing	
Specialization	**22**
CSC225 - Business Programming I	3
CSC319 - Technology and Networks Infrastructure	3
CSC325 - Business Programming II	3
CSC359 - Internet Development and Technology	3
CSC407 - Systems Analysis and Design	3
CSC450 - Database Design and Programming	3
ITB321 – Database	3
ITB345 - Enterprise Internship	1
Capstone	**2**
ITB455 - Enterprise Simulation	2
Emphasis: Management	
Specialization	**22**
BUS410 - Operations Research	3
ECO315 - Managerial Economics	3
FIN425 - Company Valuation	3
MGT320 - Organizational Behavior	3
MGT345 - Enterprise Internship	1
MGT405 - Project Management	3
MGT415 - Small Business Management	3
MGT420 - Strategic Planning	3
Capstone	**2**
MGT455 - Enterprise Simulation	2
Emphasis: Marketing	
Specialization	**22**
MKT310 - Consumer Behavior	3
MKT320 - Marketing Research	3

MKT325 - Distribution Strategy and Sales management	3
MKT345 - Enterprise Internship	1
MKT410 - Communication Strategy	3
MKT415 - Brand and Product Management	3
MKT422 - Marketing Services	3
MKT430 - Pricing Strategy	3
Capstone	**2**
MKT455-Enterprise Simulation	2
Emphasis: Transport and Logistics	
Specialization	**22**
BUS475 - Financing Import/Export	3
MGT400 - Supply Chain Management	3
MKT325 - Distribution Strategy and Sales Management	3
TRA310 - Transport and Logistics	3
TRA325 - Commercial Contract and Transport Law	3
TRA335-Introduction to Air Transportation	3
TRA345 - Enterprise Internship	1
TRA440 - Shipping Economics and Management	3
Capstone	**2**
TRA455-Enterprise Simulation	2
Total	**99**

Bachelor in Business Administration - Hotel Management (Eng.)

Mission

The mission of the Hotel Management department is to prepare students for productive and distinguished careers in the hospitality field by providing them with a contemporary educational experience and a unique friendly and ethical culture that strengthen their academic knowledge and practical background, while encouraging their sustainable and social practices.

Program Educational Objectives

Hotel Management graduates will:

1. Use their acquired knowledge and communication skills in Hotel Management;
2. Work professionally and ethically in their hospitality environment;
3. Gain an awareness of entrepreneurship and social responsibility in hospitality;
4. Respond to technological advancements and changes taking place in hospitality.

Program Outcomes

Upon completion of the undergraduate program, graduates should be able to:

a. Apply knowledge of concepts in hotel management and related fields;
b. Demonstrate ability to perform effective analysis and manage efficiently real life situations in the hospitality field;

c. Possess effective written and oral communication skills;
d. Examine the ethical and social practices in the hospitality field;
e. Use precise terminologies related to hospitality, and understand how the hospitality industry differs from other industries;
f. Apply varied and adequate practical and technical hospitality field skills.

Degree Requirements

General Education	**30**
General Education - Civic Engagement	2
General Education - History of Lebanon	3
General Education - Science and Health	3
General Education - Sports	1
General Education - Religious Sciences	3
DRT223 - Business Law	3
CSC204 - Information Technology and Networking	3
ECO222 - Macroeconomics or MGT225 - Foundations of Entrepreneurship	3
ENG240 - English Communication	3
MAT216 - General Mathematics	3
STA220 - Probability and Applied Statistics	3
Common Core	**33**
ACT230 - Hospitality Accounting	3
LCB200 - Introduction to Hospitality Management	3
LCB213 - Hospitality Business Communication	3
LCB220 - Food and Beverage Service Operations	3
LCB226 - Oenology	3
LCB230 - Le Cordon Bleu Kitchen A	3
LCB235 - Le Cordon Bleu Kitchen B	3
LCB255 - Hygiene and Security	3
LCB260A - Internship I: Food and Beverage	3
MGT220 - Principles of Management	3
MGT330 - Human Resources Management	3
Specialization	**24**
LCB221 - Hospitality and Tourism Marketing	3
LCB246 - Hospitality Purchasing Management	3
LCB250 - Food and Beverage Cost Control	3
LCB305 - Food and Beverage Management	3
LCB310 - Catering and Events Management	3
LCB325 - Strategic Management for Hospitality Industry	3
LCB400 - Facilities and Property Development Management	3
LCB441 - Rooms Division Management	3
Capstone	**6**
LCB260B - Internship II: Rooms Division	6
Electives	**6 out of 15**
LCB240 - Bar and Beverage Service Operations	3

LCB410 - Quality Management in Hospitality	3
LCB415 - Hospitality Protocol and Etiquette	3
MGT320 - Organizational Behavior	3
MGT415 - Small Business Management	3
Total	**99**

Graduate Programs

Master in Business Administration (hybrid[i])

Emphasis

- Audit
- Finance
- Marketing

Mission

The program aims to provide students with the advanced tools and skills needed to ethically and successfully manage businesses and reach higher positions in their careers. For that purpose, the program provides students with a comprehensive set of theoretical and applied business activities related to Audit, Finance and Marketing.

Program Educational Objectives

Graduates will:

1. Possess advanced and focused business decision-making abilities;
2. Incorporate the ethical and social aspects into their professional practices;
3. Demonstrate effective research and reporting skills.

Program Outcomes

Upon completion of the program, graduates should be able to:

a. Apply advanced knowledge of concepts in Audit, Finance and Marketing;
b. Analyze difficult business situations and propose the relevant solutions;
c. Appraise the ethical and social conducts of businesses and consider them part of their regular activities;
d. Demonstrate ability to conduct research and develop professional business reports.

Degree Requirements

Common Core	**15**
BUS500 - Quantitative Research Methods	3
BUS689 - Case Study Methodology	3
BUS691 - Thematic Seminar I	1

[i]Hybrid: Courses offered in French and/or English

BUS692 - Thematic Seminar II	1
BUS693 - Thematic Seminar III	1
MGT500 - Organizational Behavior and Change Management	3
MGT520 - Corporate Governance and Business Ethics	3
Specialization	**18**
Emphasis: Audit	
AUD610 - Regulation (CPA)	3
AUD615 - Financial Accounting and Reporting (CPA)	3
AUD620 - Auditing and Attestation (CPA)	3
AUD625 - Business Environment and Concepts (CPA)	3
AUD630 - Internal Auditing Strategy	3
FIN610 - Risk Management	3
Emphasis: Finance	
ECO600 - Macroeconomics and Public Policy	3
FIN600 - Applied Corporate Finance	3
FIN610 - Risk Management	3
FIN640 - Financial Systems and Economic Dynamic	3
FIN655 - Portfolio Management	3
MGT620 - Strategic Management and Decision-Making	3
Emphasis: Marketing*	
MGT640 - Theories and Practices of Negotiation	3
MGT680 - Applied Competitive Strategy	3
MKT530 - Brand Strategy and Communication	3
MKT610 - Applied Research in Marketing	3
MKT650 - Applied Marketing Management	3
MKT660 - International Marketing	3
Capstone	**6**
BUS699A-B - Training and Analytical Report	6
Total	**39**

* *Students admitted to the Master in Business Administration - Marketing and not holding any primary degree in business studies must be enrolled in the following remedial courses in their first semester:* ***RMKT501*** *- Marketing;* ***RMGT501*** *- Management;* ***RACT501*** *- Accounting;* ***RFIN501*** *- Finance.*

Master in Business Administration - Human Resources (Eng.)

Mission

The mission of the HR Master program is to prepare students to operate as effective HR professionals within an international environment. It revolves around the delivery of high level quality teaching by a carefully selected mix of academics and professionals. The program strives to develop and enhance the understanding of HR principles while preparing knowledgeable and ethical individuals to support businesses of all sizes in building their strategic vision.

Program Educational Objectives

Graduates will:

1. Possess advanced knowledge in human resource management;
2. Provide solutions for complex human resources situations;
3. Incorporate the ethical and social aspects into their professional practices;
4. Demonstrate effective reporting skills in human resources and related areas.

Program Outcomes

Upon completion of the program, graduates should be able to:

a. Apply advanced knowledge of concepts in human resources;
b. Demonstrate ability to handle HR problems: identify and evaluate alternative solutions and select the best course of action to effectively set up and run HR departments;
c. Apply ethical and social principles to human resource management processes and activities;
d. Demonstrate ability to handle proper career planning and development;
e. Demonstrate ability to develop professional HR reports and related area.

Degree Requirements

Students admitted to the Master in Business Administration - "Financial Engineering / Human Resources / Marketing / Banking Operations and Management" and not holding any primary degree in business studies must be enrolled in the following remedial courses in their first semester: ***RMKT501*** *- Marketing;* ***RMGT501*** *- Management;* ***RACT501*** *- Accounting;* ***RFIN501*** *- Finance.*

Common Core	**9**
HRM650 - Seminars, Conferences and Group Work	3
MGT520 - Corporate Governance and Business Ethics	3
MGT620 - Strategic Management and Decision-Making	3
Specialization	**24**
HRM515 - Understanding the Business Environment from an HR Viewpoint	3
HRM530 - Attracting and Selecting People	3
HRM540 - Developing People	3
HRM555 - Enhancing People Involvement	3
HRM565 - Mastering the HR Tools	3
HRM580 - Mastering the Legal Context	3
HRM590 - Industrial Relations	3
HRM630 - Introducing the Research Methods and Literature of the HR Field	3
Capstone	**6**
BUS688A - Training and Analytical Report	6
Total	**39**

Master in Business Administration - Banking Operations and Management (Eng.)

Mission

The mission of the graduate program in Banking Operations and Management is to offer banking professionals a high quality program that mixes experience with contemporary education. By doing so, students will be equipped with the appropriate knowledge and skills that contribute to the progression of the Lebanese banking industry.

Program Educational Objectives

Graduates will:

1. Possess advanced knowledge and focused decision-making abilities in banking;
2. Incorporate the ethical and social banking aspects into their professional practices;
3. Demonstrate effective analytical and reporting skills in banking.

Program Outcomes

Upon completion of the program, graduates should be able to:

a. Demonstrate ability to understand the peculiarity of the banking industry and its characteristics;
b. Apply advanced knowledge of concepts in banking;
c. Analyze difficult banking situations and propose the relevant solutions;
d. Appraise the ethical and social conducts in banks and consider them part of their regular activities;
e. Demonstrate ability to analyze particular issues in banking and develop professional reports in this regard.

Degree Requirements

Students admitted to the Master in Business Administration - "Financial Engineering / Human Resources / Marketing / Banking Operations and Management" and not holding any primary degree in business studies must be enrolled in the following remedial courses in their first semester: ***RMKT501*** *- Marketing;* ***RMGT501*** *- Management;* ***RACT501*** *- Accounting;* ***RFIN501*** *- Finance.*

Common Core	**9**
BUS500 - Quantitative Research Methods	3
BUS689 - Case Study Methodology	3
BUS691 - Thematic Seminar I	1
BUS692 - Thematic Seminar II	1
BUS693 - Thematic Seminar III	1
Specialization	**24**
ACT540 - Cost and Managerial Accounting in Banking	3
BAN570 - Front and Back Office Operations	3

BAN590 - Credit - Beginner	3
BAN595 - Credit- Intermediate	3
BAN690 - Treasury Management	3
BAN695 - Legal Compliance and Corporate Governance	3
FIN610 - Risk Management	3
MGT665 - Bank Strategic Management and Decision-Making	3
Capstone	**6**
BUS699A-B - Training and Analytical Report	6
Total	**39**

Master in Business Administration - Financial Engineering (hybrid[i])

Mission

This program provides students with the technical tools and skills required for developing a career in commercial investment and central banks, as well as related organizations. A particular emphasis is given for the implementation of financial models and econometric theories to manage risk and evaluate investment decisions.

Program Educational Objectives

Graduates will:

1. Possess advanced knowledge and focused decision-making abilities in financial engineering;
2. Focus on how to apply mathematical and engineering tools to finance;
3. Demonstrate effective research and reporting skills.

Program Outcomes

Upon completion of the program, graduates should be able to:

a. Apply advanced knowledge of concepts in financial engineering;
b. Analyze and interpret financial data in economy and finance;
c. Undertake market and trading decisions by thinking strategically;
d. Use quantitative and qualitative tools in order to analyze and test their trading strategies;
e. Demonstrate ability to conduct research and develop professional business reports in financial engineering.

Degree Requirements

Students admitted to the Master in Business Administration - "Financial Engineering / Human Resources / Marketing / Banking Operations and Management" and not holding any primary degree

[i]Hybrid: Courses offered in French and/or English

in business studies must be enrolled in the following remedial courses in their first semester: ***RMKT501*** *- Marketing;* ***RMGT501*** *- Management;* ***RACT501*** *- Accounting;* ***RFIN501*** *- Finance.*

Specialization	**30**
FIM510 - Financial Math	3
FIM520 - Quantitative Analysis Applied to Finance	3
FIM590 - Financial Markets and Bondholder Business	3
FIM600 - Conjuncture	3
FIM610 - Technical Analysis	3
FIM635 - Financial Products Engineering	3
FIM640 - Financial Futures and Spread Trading	3
FIM650 - Options Dynamic Assessment	3
FIM670 - Structured Products	3
FIN655 - Portfolio Management	3
Capstone	**9**
BUS689 - Case Study Methodology	3
BUS699A-B - Training and Analytical Report	6
Total	**39**

Master in Business Administration - Management and International Affairs (hybrid[i])

Mission

The mission of this program is to foster a unique set of learning opportunities for graduates to become future leaders. By mastering the essential skills and knowledge related to the management field, students will actively contribute to the management and development of local and international corporations. We will inculcate in them integrity and ethics to meet the needs of the stakeholders.

Program Educational Objectives

Graduates will:

1. Possess advanced knowledge and focused business decision-making abilities;
2. Incorporate the ethical and social aspects into their professional practices;
3. Demonstrate effective reporting and communication skills.

Program Outcomes

Upon completion of the program, graduates should be able to:

a. Apply advanced knowledge of concepts in Management and related business areas;
b. Analyze difficult business situations and propose the relevant solutions;
c. Appraise the ethical and social conducts of businesses and consider them part of their regular activities;

[i]Hybrid: Courses offered in French and/or English

d. Demonstrate ability to deal with the dynamics of the global business environment;
e. Demonstrate reporting and negotiation skills within various contexts.

Degree Requirements

Common Core	**6**
BUS689 - Case Study Methodology	3
BUS691 - Thematic Seminar I	1
BUS692 - Thematic Seminar II	1
BUS693 - Thematic Seminar III	1
Specialization	**36**
HEC510 - Fundamentals of Management	3
HEC520 - Decision Support Model	3
HEC525 - Human Resource Management	3
HEC530 - Marketing	3
HEC540 - Basic Corporate Finance	3
HEC545 - Managerial Economics	3
HEC550 - Accounting Information	3
HEC565 - Leadership and Management Skills	3
HEC570 - Information Systems	3
HEC670 - Management Change	3
HEC675 - Theories and Practices of Negotiations	3
HEC680 - International Management	3
Capstone	**6**
BUS690 - Research Methodology in Business	3
HEC555 - Business Strategy	3
Total	**48**

Programs of Study - Doctoral Programs

PhD in Business (hybrid[i] & Eng.)

Mission

The Ph.D. program in business administration prepares students with sufficient analytical skills for careers in teaching and research. It provides students with an engaging and stimulating research experience in business administration.

Program Educational Objectives

Graduates will:

1. Master a specific set of methods appropriate to their thesis, with the depth needed to produce rigorous researches in business administration;
2. Demonstrate effective and ethical research skills in business administration;

[i]Hybrid: Courses offered in French and/or English

3. Generate studies and researches in business administration.

Program Outcomes

Upon completion of the program, graduates should be able to:

a. Analyze and interpret scientific contributions and research activities in business administration;
b. Identify several theories in business administration;
c. Apply quantitative and qualitative tools in order to analyze and test defined hypotheses;
d. Show integrity, fairness and ethical behavior to support and advance the development of a moral research community in business administration.
e. Conduct and publish scientific manuscripts in business administration.

Course Descriptions

ACT210 Financial Accounting I 3 cr.

Thecourseexplainsthe principles of generalaccountingand relatedapplications,explainshowtorecord businesstransactions,andallowsstudentstoreadand understandfinancialstatements.

ACT220 Financial Accounting II 3 cr.

Pre-requisites ACT210

The course explains in detail the main components of a balance sheet and explains the nature, classification, and treatment of accounting for long term assets, current assets, liabilities and stockholders' equity. The main objective of the course is to provide students with a general knowledge of the preparation of financial statements, in addition to the analysis of the financial figures with the key ratios and comments, and the preparation of the company's cash flow.

ACT225 Internal Audit 3 cr.

Pre-requisites ACT220 And MGT220

This course explains all the procedures and recommendations that provide the safeguarding of assets, reliability and integrity of financial and operational information, and the effectiveness and efficiency of operations designed to improve the performance of an organization. The course allows the participants to obtain an understanding of the concepts, methodologies and tools of internal auditing, to understand the role of internal auditing in identification and evaluation of risks and in improving governance processes of organizations.

ACT230 Hospitality Accounting 3 cr.

Pre-requisites

This course provides a solid introduction to accounting for those students who are required to study hospitality accounting. It is also of benefit to those managers in business, government or industry whose work involves them in dealing with accounting information.

ACT312 Advanced Accounting 3 cr.

Pre-requisites ACT220

This course will teach students how to prepare constitution legal entity accounting transactions, liquidation accounting transactions and any unusual accounting items. The objective of the course is to train the students how to understand financial statements and how to prepare the four statements and disclosures under IFRS.

ACT320 Cost Accounting 3 cr.

Pre-requisites ACT220

This course is intended to explain the role of the management accountant in an organization and to illustrate the different methods of costs and revenue calculation, in addition to the budget preparation and the analysis of variance.

ACT330 External Audit 3 cr.

Pre-requisites ACT312 And ACT320

Financial Statement Auditing is accumulation and evaluation of evidence according to established criteria (ISA's, IFRS, GAAP, accounting policies, etc.). This course is intended to introduce the auditing profession and explain the auditing processes and their application on all the transaction cycles, with the objective to express an opinion on the fair presentation of the financial statements of a company. The course will enable students majoring in auditing to differentiate between

assurance and nonassurance services, type of audits, type of auditing opinions and the preparation of a complete audit file. It will explain the auditing process from planning to closing a meeting.

ACT345 Enterprise Internship 1 cr.

Pre-requisites ACT320

This course allows students to apply knowledge and skills acquired at the University in a real life setting. The main goal is to obtain hands-on experience necessary to qualify for a good entry level position in audit. Moreover, students will learn how to create and write a professional report with emphasis on their experience in the audit industry. The course is thus practical and theoretical in the sense that students will participate in theoretical classes at the University and at the same time partake in a 120 hour training program at a recognized corporate establishment.

ACT410 Groups Accounting 3 cr.

Pre-requisites ACT312 And BUS320

Corporate acquisitions, mergers and the formation of other strategic alliances, and international transactions are staples of today's business environment. The objective of this course is to provide students with an understanding of financial reporting for these complex business transactions and the entities they create. Specific topics include accounting for business combinations, consolidated financial statements, financial reporting for partnerships, and foreign currency transactions. This class is taught from the perspective of a preparer of financial statements (as opposed to a user) and involves a significant amount of technical detail. This course requires students to solve complex problems, use information technology and to communicate clearly and concisely in writing to enable them to prepare consolidated financial statements as per IFRS.

ACT425 Management Control 3 cr.

Pre-requisites ACT320

The course illustrates how costs work and presents some analysis and key performance indicators, in addition to capital budgeting models useful for business decisions. The main objectives include detailed descriptions of cost behavior, pricing decisions, balanced score card, sales variance analysis and capital budgeting decisions. The student will be able to assess the business key performance indicators and handle capital budgeting.

ACT455 Enterprise Simulation - Audit 2 cr.

Pre-requisites ACT312

The objective of this course is to explain the mission and objectives of the International Accounting Standards Board (IASB), the scope of the International Financial Reporting Standards (IFRS), processes for developing IFRS and interpretations, and policies. IFRSs apply to general purpose financial statements and other financial reporting by profitoriented entities; those engaged in commercial, industrial, financial, and similar activities, regardless of their legal form. Moreover entities other than profitoriented businesses may also find IFRSs appropriate. Students will learn to understand how the IASB framework works, some of the standards listed in IFRS, and how the whole conceptual framework and embedded standards work.

ACT540 Cost and Managerial Accounting in Banking 3 cr.

In an environment that has become increasingly very competitive, accurate measurement of returns, performance monitoring and management planning condition the development of banking and financial institutions as well as the decisions of their policymakers. This course reviews all the techniques used in the field of management control and how to use them in a bank context such as profitability per Division/Product/Employee, transfer pricing models and cost control measures.

AUD610 Regulation (CPA) 3 cr.
The main objective of this course is to examine taxation, ethics, professional and legal responsibilities and business law topics, as well as the skills needed to apply that knowledge.

AUD615 Financial Accounting and Reporting (CPA) 3 cr.
This course will cover accounting principles for business enterprises, governmental entities and non-profit organizations, as well as provide the skills needed to apply that knowledge. Through considering questions about the International Financial Reporting Standards (IFRS), the course allows the participants to identify and understand the difference between financial statements prepared on the basis of U.S. GAAP and those prepared on the basis of IFRS.

AUD620 Auditing and Attestation (CPA) 3 cr.
This course will offer knowledge of auditing procedures, auditing standards and other standards related to attest engagements, as well as provide the skills needed to apply that knowledge. The course allows the students to become familiar with the International Auditing and Assurance Board (IAASB) and its role in establishing International Standards on Auditing (ISA).

AUD625 Business Environment and Concepts (CPA) 3 cr.
This course provide participants knowledge of general business environment and business concepts in order to understand the underlying business reasons for, and accounting implications of, business transactions. Questions pertaining to international standards will test students' grasp of globalization in the business environment.

AUD630 Internal Auditing Strategy 3 cr.
The course objective is to deepen knowledge in the field of internal auditing. It also allows students to draft a detailed program related to operational and internal auditing that is applied to the enterprise specific functions or operations, and to understand strategic norms and principles linked to the internal auditing mission.

BAN570 Front and Back Office Operations 3 cr.
The number of banks in Lebanon stands at 71 with more than 1,100 domestic outlets, and yet what do we know about how they conduct their operations? Focusing on the Lebanese experience, the objective of this course is to enable students to understand the peculiarity of the banking business in the most concrete way possible. The course covers topics that include: front office activities in a bank, to help management maximize relationship with customers, by enabling the bank to provide banking services across multiple delivery channels, from branch, ATM and call center to internet and mobile, across a multitude of devices. The course also examines back office operations within a branch or Head Office function, including administration and support personnel, who carry out functions like settlements, clearances, record maintenance, regulatory compliance, and accounting/booking; in addition to new trends in straight through processing mechanisms which reduce operating costs through enhanced automated/system processing, ensuring compliance procedures and improving client service performance. Middle office functions including the monitoring and management of the bank's risk exposures are also explained. In order to manage global market and credit risk through continuous monitoring of set limits, the middle office liaises closely with the front office responsible for trading operations and also with the back office which handles the administration associated with the settlement of trades.

BAN590 Credit - Beginner 3 cr.
Traditionally, lenders have faced credit risk in the form of default by borrowers. To this date, credit risk assessment remains a major concern for lenders worldwide. The more they know about the

creditworthiness of a potential borrower, the greater the chance they can maximize profits, increase market share, minimize risk, and reduce the financial provision that must be made for bad debt. The objective of this course is two-fold. Firstly, it intends to introduce credit risk concepts and key elements to manage and measure risk. On the other hand, it will promote an understanding of the techniques used to measure the financial strength of companies. Students will be introduced to practical analytical methods, as well as all the necessary elements to carry out the full study of a given credit file. This course provides fundamental understanding of the credit risk analysis process and discusses in detail various aspects of financial statement analysis, including ratio and cash flow analysis, among others to help in making better credit-related decisions. It also looks at various non-financial factors such as business plan, industry/sector, top management, etc. that could affect the creditworthiness. However, the complexity, variety and uniqueness of accounting standards and financial statements in banking, plus the requirement for banks to provide the market with ever more detailed information on their activities, double the pressure on the analysts to master a complex set of information and techniques as well as to assess the liquidity and solvency of an institution to determine its value.

BAN595 Credit- Intermediate 3 cr.
Pre-requisites BAN590
Traditionally, lenders have faced credit risk in the form of default by borrowers. To this date, credit risk assessment remains a major concern for lenders worldwide. The more they know about the creditworthiness of a potential borrower, the greater the chance they can maximize profits, increase market share, minimize risk, and reduce the financial provision that must be made for bad debt. The objective of this course is two-fold. Firstly, it intends to introduce credit risk concepts and key elements to manage and measure risk. On the other hand, it will promote an understanding of the techniques used to measure the financial strength of companies. Students will be introduced to practical analytical methods, as well as all the necessary elements to carry out the full study of a given credit file. This course provides fundamental understanding of the credit risk analysis process and discusses in detail various aspects of financial statement analysis, including ratio and cash flow analysis, among others to help in making better credit-related decisions. It also looks at various non-financial factors such as business plan, industry/sector, top management, etc. that could affect the creditworthiness. However, the complexity, variety and uniqueness of accounting standards and financial statements in banking, plus the requirement for banks to provide the market with ever more detailed information on their activities, double the pressure on the analysts to master a complex set of information and techniques as well as to assess the liquidity and solvency of an institution to determine its value.

BAN690 Treasury Management 3 cr.
This course, technical as a whole, deals with bank treasury operations. Therefore, it starts with defining the general principles of bank balances and the main hedging, arbitrage, speculation and interbank loans and borrowings. It addresses risk management and compliance with regulatory standards. The course also visits the area of management of bank treasury operations (Nostro and Vostro accounts, liquidity management) and the area of control of bank treasury operations and the concept of limit-related risks. It provides an overview of the various stakeholders in this market. It reviews trading and investment in fixed-income securities, capital markets' instruments (equities, derivatives) foreign exchange management and risk control, hedging techniques and strategies, management and monitoring of different positions.

BAN695 Legal Compliance and Corporate Governance 3 cr.
With the new set of regulations in place at local and international levels, effective compliance on one hand and corporate governance on the other have become vital to organizational durability and success. Legal compliance is defined today as the process and procedure to ensure that an organization follows relevant laws, regulations and business rules, while corporate governance is

defined as the system (rules, practices and processes) by which the institution is directed and controlled in a manner that ensures accountability, fairness and transparency with all its stakeholders. Pro-active compliance improves productivity and competitiveness and fosters sound relations with local regulators and the international community. Corporate governance essentially involves balancing the interests of the many stakeholders in a company, and provides the framework for attaining its objectives. It encompasses management spheres, from action plans and internal controls to performance measurement and disclosures. This course introduces students to the main aspects of the compliance function. It is aimed at equipping compliance professionals in the financial services industry with basic technical skills and knowledge to achieve the objectives of the compliance function. It teaches the fundamentals of corporate governance from a variety of angles - the board of directors, senior management, investors and customers, the media, the regulators and other stakeholders - and focuses on assessing the effectiveness and execution of governance roles and responsibilities. The objective of this part is to teach students how to achieve a balance and alignment among external and internal controls, risks and competitive constraints.

BUS211 **Mathematics of Finance** **3 cr.**

Pre-requisites BUS210 Or MAT206 Or MAT213 Or MAT310 or MAT216

This course will provide students with knowledge on the funding problems, discount, financial amortization, and bonds, through concrete cases.

BUS303 **Business Planning** **3 cr.**

Pre-requisites MGT220 And MKT220 And FIN310

Generating a business plan needs a methodological approach that provides students with a road map to follow to create new business ideas or develop existing ones. As most businesses seek financial sources, it helps students and future entrepreneurs to introduce potential investors to business opportunities.

BUS320 **Taxation** **3 cr.**

Pre-requisites FIN310

This course allows the participants to obtain an understanding of the concepts, methodologies and tools of the tax system. It will enable them to gain a sufficient knowledge of the government financial organization and an overview of the public economic sector.

BUS390 **Verbal and Non-Verbal Communication for Business** **3 cr.**

Pre-requisites ENG290

This business English language course is a workshop course, which includes mostly taskbased activities, along with theory sessions, team and individual research projects, role playing, questionnaires, team building experiences and team oral presentations. The course teaches practical skills and the rules of conduct needed within the business environment where English is spoken.

BUS410 **Operations Research** **3 cr.**

Pre-requisites MIS320

Operations Research is an art and science at the same time. The art part is acquired through experience, while the science part is based on the mathematical tools of Operations Research (OR). When facing a real life problem the OR practitioner should be able to create a mathematical model that represents his/her problem, and then use mathematical techniques to resolve the model and analyze the optimum solution. The learning objectives of this course include the introduction of optimization thinking and its importance in competitive business management. Also, training on technological tools to solve complex problems will help students in real world applications.

BUS475 Financing Import/Export 3 cr.

Pre-requisites BUS223

The objective of this course is to familiarize students with the basic concepts of the various payment instruments used in the financing of imports and exports in Lebanon and deliberately moving towards banking instruments of international payment and the use made of it. They will be exposed to: documentary credits, standby letters of credit, documentary collections and bank guarantees internationally. The course also visits important issues such as the sales contract, the terms of international sales, checks, bank transfers and commercial papers.

BUS500 Quantitative Research Methods 3 cr.

This course tackles the use of statistical techniques in the elaboration of a methodological protocol. It supposes that students have already completed the course on elementary statistics, statistic tests and poll theory. It mainly aims at joining theoretical thinking to empirical practice. It also summarizes the main actions of the researcher in management and focuses on the meaning of these acts: what does a hypothesis mean? What is a measure? What does the elaboration of a fact mean? What about a model? An important part of this course is assigned to longitudinal data processing.

BUS505 Qualitative Research Methods 3 cr.

This course teaches qualitative methods in business sciences. It also aims to understand the meaning of scientific reasoning and positioning of the researcher in a research approach. The course is based therefore on cross-learning reflections between theory and practice and illustrates the epistemic legitimacy vis-à-vis the qualitative methodological approach.

BUS600 Applied Quantitative Analysis 3 cr.

The quantitative analysis applied in economics and business uses many econometric techniques whose main objective is to help the manager in decision-making. These methods have two advantages: (i) make forecasts (sales, turnovers, profits ...), and (ii) test the relevance of a decision on the running of the organization through statistical tests to validate certain assumptions related to econometric models. These models consider, inter alia, the effect of one or more variables (quantitative or qualitative) called "exogenous or independent variables" on other endogenous variables called explained or dependent. This course also aims to introduce students to the concepts of stationarity, causality, cointegration and panel data too, that are infrequently mentioned in the course of quantitative methods.

Moreover, this material will allow students to use correctly the various statistical data they collect during the thesis writing which must always include an empirical part. It will help them, too, become familiar with the various software including Excel and SPSS. In addition, the empirical analysis is precisely aimed to validate or not the various approaches outlined in the theoretical part of a research work. As such, this course will equip students with expertise on the use of statistics in their future professional environment and enhance their analytical capacity.

BUS650 Responsibility, Ethics and Sustainable Development 3 cr.

The objective of this course is to enable the students comprehend the various ethical and managerial approaches by providing them with insights on the organization as part of the community and the behaviors of the managers have a great impact on the performance of the organization. After completing this course, students will be able to contrast different degrees of social responsibility and ethics in the business world. Furthermore they will be able to generate green culture and conduct ethical decisions in their scope of work.

BUS688A Training and Analytical Report 6 cr.

A professional report should be based on the professional mission of a firm. By mobilizing the knowledge that has been acquired in one or two courses, the report should highlight the capacity

of the student to conduct an analysis in relation to a practical problem. The report should not be limited to a description of the enterprise, but should have a point of view and include an analytical dimension, which promotes solutions, offer recommendations and show adapted measures.

BUS689 Case Study Methodology 3 cr.
This course aims to help, to prepare, to conduct and present a research project, with the help of numerous concrete examples. This course is based on the main stages of the realization of a research project. It is similar to a report of research since the authors' researches are introduced through this course. Not only the book offers guidance and examples to develop a research project but it also serves as a model for the presentation.

BUS690 Research Methodology in Business 3 cr.
This course tackles the main skills allowing the student to understand, assess, conduct and write a research in social sciences in general and business sciences in particular. In fact, the course consists of a general introduction aiming at developing research stakes, foundations and techniques in management sciences, provided that students deepen their reflection.

BUS691 Thematic Seminar I 1 cr.
Business and academic professionals will intervene within the scope of various current events at the level of finance, management and marketing, etc. in order to provide a fully rounded training program.

BUS692 Thematic Seminar II 1 cr.
Business and academic professionals will intervene within the scope of various current events at the level of finance, management and marketing, etc. in order to provide a fully rounded training program.

BUS693 Thematic Seminar III 1 cr.
Business and academic professionals will intervene within the scope of various current events at the level of finance, management and marketing, etc. in order to provide a fully rounded training program.

BUS698A M.Sc. Thesis 9 cr.
In this course the students will choose, plan, implement, write and reveal the content of their scientific research by following a scheme that blends theoretical backgrounds with empirical data.

BUS699A-B Training and Analytical Report 6 cr.
The professional report should be based on a professional mission of a firm. By mobilizing the knowledge that has been acquired in one or two courses, the report should highlight the capacity of the students to conduct an analysis in relation to a practical problem. The report should not be limited to a description of the enterprise, but should have a point of view and include an analytical dimension, which promotes solutions, offers recommendations and shows adapted measures.

CSC204 Information Technology and Networking 3 cr.
This course introduces the basics of the integration of information technology and networking in professional life. Subjects treated include: application software; systems software; system unit; Excel spreadsheets; HTML language; physical architecture of a network; internet; internet services; internet protocols (TCP/IP, HTTP, FTP, SMTP et POP); the IPV4 addressing classes; and applications.

CSC225 Business Programming I 3 cr.
Pre-requisites INF204OrCSC204

This course facilitates the acquisition of a practical method to solve problems using the Visual Basic .NET programming language. Students will be taught methods for problems analysis, structural and detailed conception of solutions, base concepts of pseudo code and flowchart, coding and verification of programs. Topics include: an introduction to Visual Basic .NET language, basic concepts of the language, types, expressions, control structures (selection, repetition), one and two dimensional arrays, strings, functions, and text files. The course is completed by lab workshops.

CSC319 Technology and Networks Infrastructure 3 cr.
Pre-requisites INF204 Or CSC204
This course aims to introduce the basics of computer networks. This studies infrastructures, features and network topologies, transfer techniques, switching, encoding, transmission and routing, the reference model, the protocols of different layers, including deepening the study on the TCP / IP architecture used in the internet.

CSC325 Business Programming II 3 cr.
Pre-requisites CSC225 And ITB321
This course is an introduction to the basic concepts of object-oriented programming. It focuses on the concepts of inheritance, polymorphism, and exception handling. It enables students to acquire a good knowledge in the concepts of event-driven programming and the Windows environment. Topics include applications to databases, new technologies of XML, SQL, and ADO. NET

CSC359 Internet Development and Technology 3 cr.
Pre-requisites CSC225 And ITB321
The main objective of this course is to build database-driven web applications using Visual Studio .NET. Students will learn how to: develop web applications based on the ASP.NET Web Forms model; and program using ADO.NET and SQL Server to provide the site access to the database. It also provides the website proper authorization and authentication using the .NET security model.

CSC407 Systems Analysis and Design 3 cr.
Pre-requisites ITB321
This course introduces students to an analytical framework that involves analyzing organizations as systems, or the process of systematically and objectively gathering information about business systems and subjecting that information to formal analysis. This includes identifying broad organizational goals and supporting business areas and processes, and business process definition and deconstruction.

CSC450 Database Design and Programming 3 cr.
Pre-requisites CSC407
This course aims to design a database based on a specific case study. Students will learn about the database components, including tables, queries, and views, by using Microsoft SQL Server as a tool. In addition, students will learn how to create and maintain database information, including sorting, indexing and relating tables. Furthermore, how data are to be input and retrieved, displayed and manipulated in order to create a useful, efficient, and coherent design. Since this is an application oriented course, the student should be familiar with Microsoft SQL Server.

DRT223 Business Law 3 cr.
The main objective of this course is to provide students a general description of business corporations especially under the Lebanese legal system. We address in particular the laws of merchant, business concern, partnership, and corporations. However, our approach is based on a functional perspective of the law. Thus, we attempt to ask how these legal structures function to produce desired benefits to parties who enter into relationships, or how rules can affect sensible business organization.

ECO221 **Microeconomics** **3 cr.**

Pre-requisites BUS210 Or MAT206 Or MAT213 Or MAT310 Or MAT217 or MAT216

This course gives students an insight into microeconomics, which is a key component to designing and understanding public policy and is an essential tool for managerial decision-making, while offering an understanding of the operation of modern economy.

ECO222 **Macroeconomics** **3 cr.**

This course gives an insight into macroeconomics, portraying the economy as a whole. It is by developing an understanding of fundamental economic terminology, and concepts and principles that we are able to interpret economic changes and their impact on a country's situation.

ECO315 **Managerial Economics** **3 cr.**

Pre-requisites ECO221

Managerial economics is an applied branch of microeconomics. It gives insight on the development of tools and models of analysis assisting managers and consultants with resource allocation, and strategic and tactical decision-making in private and public companies.

ECO410 **Banking and Finance** **3 cr.**

Pre-requisites ECO222

This course aims at expanding knowledge in economics with an emphasis on accounting, financial intermediaries, banking and their public policies.

ECO600 **Macroeconomics and Public Policy** **3 cr.**

This course is designed to provide students with an advanced understanding of macroeconomic concepts and models used in economic and policy analysis. It elaborates on the main macroeconomics topics including national income, money and inflation, unemployment, business cycles and economic growth. The course also discusses government economic policies and their implications.

Some of the questions that we examine include: Why are some countries doing so much better than others? What leads to persistent inflation and how can hyperinflation arise? What are the causes and consequences of global imbalances? What determines exchange rates? What are the causes of business cycle fluctuations and what are their implications for financial markets? What is the role of fiscal and monetary policy?

ENG240 **English Communication** **3 cr.**

Pre-requisites ENG120

This course is designed to upgrade student proficiency in the English language. It offers guidance in critical reading and instructions in writing to develop clear, well organized prose. It emphasizes the writing process with an introduction to rhetorical strategies, such as compare and contrast, cause and effect, and argument, through the integration of the four language skills (listening, speaking, reading and writing).

ENG290 **Business Professional** **3 cr.**

Pre-requisites ENG240

The study of communication theory and its application to business is the main focus of this course. Emphasis is placed on composing basic forms of business communication, including correspondence and reports. Attention is also given to the ethical objectives of communicating in the managerial environment.

FIM510 **Financial Math** **3 cr.**

Due to the important revolution that took place in the financial markets in the past twenty years, new techniques have been presented in this course for trading purposes and have been tested for efficiency and potential profitability in the market. The content of this course will provide students with the methodology that enables them to tackle a variety of econometric models with a direct application in the economy as well as in the financial market and facilitates the comprehension of technical instruments through the application of quantitative methods on the financial markets. To that end, a full range of topics in probabilistic statistics and financial modelling will be addressed, given that financial mathematics is a must for all candidates who want to join dealing rooms as quantitative traders and arbitrageurs. Statistical techniques can be employed to test if and how well securities are correlated and, by implication, how well suited they are for arbitrage and trading. The curriculum includes parametric and non -parametric regression analysis, estimation methodologies, forecasting analysis, as well as high frequency pairs trading techniques.

FIM520 Quantitative Analysis Applied to Finance 3 cr.

The course herein begins with an overview on many financial instruments in terms of pricing, valuation and sensitivity analysis. Then it moves to introducing the notion of risk, in particular the identification and measurement procedures. To that end, it elaborates the value at risk methodology to quantify all types of risks that exist in the financial market for a variety of instruments and structured products, all based on advanced statistical approaches with empirical analysis implemented on excel and Matlab. Subsequently, the Value at risk metric is undertaken on a portfolio level which enables to run inclusive optimization with ideal weights allocation amongst different asset classes trying to weigh up the risk/return perspectives. Finally, it went through Asset -Liability management for banks and financial institutions with more emphasis on Interest Rate, Foreign Exchange and Liquidity Risk.

FIM590 Financial Markets and Bondholder Business 3 cr.

This course emphasizes on the structuring of interest rate based products, in order to understand the sensitivity concepts for hedging purposes. It will handle both duration and convexity in a quantitative approach and their implications on duration neutral strategies. An introduction to short and long term futures is a must to help understand the Basis of fixed income derivatives. A software that prices any collection of cash flows by generating a discount function will be designed and used to replicate bond index trackers.

FIM600 Conjuncture 3 cr.

This course introduce the concept of technical analysis and charting. Studies performed on historical charts show recognizable and tradable patterns that enable the student to put on trades. There will be a special emphasis on Elliott and Gan theory. The course also prepares students to submit the chartered market technicians certificate (CMT).

FIM610 Technical Analysis 3 cr.

This course aims at analyzing historical data in graphs in order to find tendencies, support and resistance points. In addition, pricing and the future evolution of prices will be tackled. Furthermore, tendency indicators and oscillators will be introduced, as well as the Elliott and Gan theory. An introduction to the economic system as a whole and the way it functions is affected by the behavior of interdependent sectors, which will also be addressed in order for the student to understand and highlight the intrinsic links between financial and macroeconomic cycles.

FIM635 Financial Products Engineering 3 cr.

This course aims to cover in depth the techniques of pricing and valuing interest rates swaps using STIRS and FRAs. All swap structures will be tackled by putting forward both method of comparison swap and zero coupon. Finally, we will use the concept of vanilla swap equivalent position to delta hedge a swap book.

FIM640 Financial Futures and Spread Trading 3 cr.

This course will cover the major aspects of financial Futures for hedging, arbitrage, trading strategies and techniques. A special emphasis on directional v/s spread trading will be introduced to deal with Futures spread trades, yield curve spreads and benchmark over benchmark relative values.

FIM650 Options Dynamic Assessment 3 cr.

This course is exclusively dedicated to the study of options; thus, it will enable students to better define option pricing issues within the context of binomia trees and stochastic process. In addition, the course seeks to cover all aspects of implied volatility concepts through the study of cones and surfaces in order to design volatility spread strategies. The dynamic follow up of options portfolio through engaging its Greeks will be stressed on especially for hedge requirements. Acquiring expertise in the valuation of exotic options (barriers, digital, no touch, etc.) is crucial to introduce capital structured notes.

FIM670 Structured Products 3 cr.

This course aims to give the students the ability to identify the risk reward equilibrium through contingent claims, vanilla and exotic products.

A deep understanding of the major options profits will be dealt with in order to give students the ability to combine traditional assets with contingent ones to create customized structured products. Most of the structured notes available in the market will be subject to thorough examination in relation to their structure and profile (Best of; double no touch) ranging from equity linked to FX assets.

FIN310 Financial Management 3 cr.

Pre-requisites BUS211 And STA205 and STA220

Financial management includes all the activities of an organization aimed at planning and controlling the use of cash (money) and assets (property) that are owned by the company to achieve its strategy.

FIN315 Financial Analysis 3 cr.

Pre-requisites ACT220

The evaluation of the health of a business is an essential component of financial analysis. Shareholders, creditors, and managers are questioning the value establishment by the company. Techniques and appropriate methods help them to form their opinion. Consequently, the content of this course follows an approach that is based on the annual accounts, including the study of the income statement, the study of time record, plus the study of changes in positions between two periods.

FIN345 Enterprise Internship 1 cr.

Pre-requisites BUS320

This course allows students to apply knowledge and skills acquired at the University in a real life setting. The main goal is to obtain hands-on experience necessary to qualify for a good entry level position in finance. Moreover, students will learn how to create and write a professional report with emphasis on their experience in the banking and finance industry. The course is thus practical and theoretical in the sense that students will participate in theoretical classes at the University and at the same time partake in a 120 hour training program at a recognized corporate establishment.

FIN412 Corporate Finance 3 cr.

Pre-requisites FIN310

The course will focus on the problems facing a financial manager in any business. In particular, students will examine how to obtain adequate funds to allow a firm to operate, and how to decide on the optimal allocation of funds obtained by the firm. To obtain funds, the financial manager must participate in markets for debt and equity securities. Thus, there will be discussions on how these markets work and how they can be most efficiently used by the firm. In allocating funds, students will learn how to assess the economic benefits of long-lived projects and how to make optimal choices between projects. Students will also spend time developing basic financial tools that will assist them in the decision-making process.

FIN420 International Finance 3 cr.

Pre-requisites BUS211

This course provides a conceptual framework that can be used to understand how recent events have affected the financial environment. Each type of financial market is described with a focus on its utilization by financial institutions, its internationalization, and recent events that have affected it. It will also cover the different economic causes and risk factors of the foreign exchange for enterprises, financial institutions, and households.

FIN421 Financial Markets 3 cr.

Pre-requisites BUS211 or MAT312 or MAH312

This course enables students to understand the concepts, terminology, instruments, and investment strategies when dealing with money. This includes the introduction of the broad and closely related areas of financial markets and investments, including the various tools used to determine the value of different investment vehicles. The risk inherited with investing as well as the risk return tradeoff will be considered. Accordingly, the principles of modern portfolio management, including diversification, will be addressed. Particularly, common stocks will be analyzed and valued using multiple valuation techniques. Within the context of fixed income valuation, the concept of bond duration and the yield curve will be examined. Financial derivatives, including options and futures, will also be considered as a hedging tool in the overall investment strategy. Practical application will be emphasized throughout the course using Thomson Reuters Eikon.

FIN425 Company Valuation 3 cr.

Pre-requisites FIN310

The main aim of this course is to initiate students to the methods and techniques of business valuation; underlining strongly the fact that the business valuation practice is a half art and half science practice. The whole is presented within a context where we can discuss the theoretical implication of a firm's value by different valuation methods, illustrated by case studies aiming at showing students (future managers) what the concepts of business valuation mean in practice, and initiating them to practicing the techniques and the negotiation processes.

FIN430 Financial Engineering 3 cr.

Pre-requisites FIN420 And (STA205 Or BUS317 Or STA220 Or STS205)

The course enables the students to understand the main derivative products traded on financial markets (futures, forward contracts, options and swaps), as well as their use for hedging, speculation and arbitrage. They also acquire practical knowledge on the mechanics of organized markets and learn how to price a derivative: forward price calculation, premium calculation, P&L calculation, and NPV calculation.

FIN455 Enterprise Simulation - Finance 2 cr.

Pre-requisites FIN430

This course focuses on key principles of technical analysis necessary to make successful investment decisions. Individual investors and traders are increasingly recognizing the importance of technical analysis in decision-making. With the advancement of the technical analysis profession, many sophisticated techniques have also developed. This course, which revolves around price analysis, will provide students the basic knowledge to read charts and identify specific patterns and shapes. This includes how to identify the right price to enter and exit the financial markets to maximize profits in several asset classes (FX, equities, bonds, futures, commodities, ETF, etc.).

FIN600 Applied Corporate Finance 3 cr.

In this course, students will acquire more advanced knowledge related to corporate finance main decisions: investment decisions, financing decisions and dividends policies. This course teaches students how to implement these decisions in specific contexts such as SME context (small and medium enterprises) and develops a critical analysis of the concepts and traditional tools of corporate finance.

FIN610 Risk Management 3 cr.

The course aims to provide students with a tangible educational experience that will allow them to acquire the know-how and control of organizational risk management tools and processes. Students will learn how to identify the main risks of a project, estimate their impacts and propose suitable action plans.

FIN640 Financial Systems and Economic Dynamic 3 cr.

The course addresses the unique entrepreneurial experience of conceiving, evaluating, creating, managing, and potentially selling a business. The goal is to provide a solid background with practical application of important concepts applicable to entrepreneurial environment. Entrepreneurial discussions regarding the key business areas of finance, accounting, marketing and management include the creative aspects of entrepreneurship. The course relies on classroom discussion, participation, guest speakers, case analysis, the creation of a feasibility plan, and building a business plan to develop a comprehensive strategy for launching and managing a business. Students will need to draw upon their business education and experience, and apply it to the task of launching a new venture. Students are expected to interact with the business community, advisors, be able to work effectively in teams, and be active participants in classroom discussions and exercises.

FIN655 Portfolio Management 3 cr.

This course covers the various theoretical and practical aspects of the quantitative portfolio management. It sheds light on the implication of theories, notably in the course of “Capitals Market Theory” at the level of investment policies and performance measure. Great attention is given to portfolio management and active strategies. Furthermore, students will be aware of the themes related to investment policies (objectives, constraints), asset allocation, assessment and performance. Global and mandatory management along with the use of derivative products for insurance and coverage objectives will be examined as well.

FIN680 Economic and Financial Theories 3 cr.

The course is based on the analysis and interpretation of scientific articles in economy and finance that relate to Management practices; it explains practically the process of interpreting explicitly theories from research studies and understanding their contribution to the advancement of science in economic and financial theories.

HEC510 Fundamentals of Management 3 cr.

The course explores the economic, political, social and cultural challenges that pertain to any organization, thus introducing participants to the world of the manager. It covers the basic functions of management, namely strategic planning, organizing and structuring, and leading and controlling.

In the process, students will be exposed to the challenges of international and intercultural management, innovation, management of creative enterprises and knowledge management. The course reviews different aspects of existing organizations, such as marketing, finance, accounting and human resources. New issues introduced include sustainable development, corporate social responsibility, corporate ethics and governance.

HEC520 Decision Support Model 3 cr.

The course objective is to present quantitative tools used in practice to support decisions, as well as the management situations to which they apply. Using stylized cases, students will learn to recognize several types of decision-making problems, express them as mathematical models and identify the appropriate techniques to solve them. Special attention is given to prescriptive models, which help identify the best management decisions. At the end of the course, students will have gained a basic knowledge of the main techniques involved for these decision support models. This will allow them to deal with current problems of decision-making with the help of specialized software attached to Microsoft Excel.

HEC525 Human Resource Management 3 cr.

The underlying premise of the course is that Human Resources Management (HRM) is a responsibility shared by both HR specialists and the managers of firms. HRM is viewed as a key component of business strategy and as a potential source of competitive advantage. The course highlights the numerous challenges facing today's firms: growing pressures for continuous productivity improvement, better quality goods and services, more flexible production systems and changing employee expectations. These pressures are straining the traditional HRM model and leading to a realignment of HR practices and the restructuring of relationships among the firm's major players, including executives, managers, employees and unions. This course is designed for managers, as they often do not have access to a human resources department, but must still manage human resources in all activities ranging from planning, recruitment and selection to performance evaluation, compensation and development of competencies.

HEC530 Marketing 3 cr.

Marketing is an applied science built on the foundations of economic, behavioral and management sciences. It is associated with a large number of topics, concepts, theories and examples. The objectives of the course are to demystify the terminology, concepts and theories, to understand and apply marketing management principles, and to develop the analytical and decision skills required in a competitive marketplace. The course will present this material within a systematic framework so that students will be able to link the different subjects and understand the relationships between marketing research, consumer behavior, market segmentation, targeting, product positioning, distribution channels and promotion alternatives.

HEC540 Basic Corporate Finance 3 cr.

The course will focus on the problems a financial manager faces. In particular, students will examine how to obtain adequate funds to allow a firm to operate and how to decide on their optimal allocation. To obtain funds, the financial manager must participate in markets for debt and equity securities. Thus, we will discuss how these markets work and how they can be most efficiently used by the firm. In allocating funds, we will learn how to assess the economic benefits of long lived projects and how to make optimal choices between projects. We will also spend time developing basic financial tools that will assist us in the decision-making process.

HEC545 Managerial Economics 3 cr.

Managers must organize, sell under competitive constraints and make profits. The aim of the course is to shed light on these responsibilities by providing students with an analytical grasp of the conduct of individuals and organizations, based on the incentives and the constraints present in the market

place. Topics covered include market demand, product differentiation, costs, size and design of firms, market economics, and competition; and situations will be examined for each topic covered. Students will have to examine the situation of particular Lebanese firms with respect to the major themes covered in the course.

HEC550 Accounting Information 3 cr.

Managers make decisions based on various sources of information, one of which is the accounting system that produces financial information. The end products of this system are financial statements prepared according to a standardized set of rules. The first part of the course is designed to give students a general knowledge of the most important international standards used in financial reporting. The second part of the course focuses on management accounting. A key role for management accountants is to establish the control systems used to achieve organizational goals and minimize risks. One of the most important of these is budgetary control, a powerful tool that encourages planning, sets milestones, evaluates performance and suggests paths for improvement. The objective of this part of the course is to help students understand the role and functioning of the budget.

HEC555 Business Strategy 3 cr.

Business firms face constant pressure in a rapidly evolving competitive environment. Succeeding in this context requires an understanding of strategies and of the needs to reinvest in the firm's strategic position. Two main objectives are pursued in the course. First, to introduce students to the fundamentals of strategy, for instance its formulation and its implementation. Building on these foundations, the second objective is to gain a thorough understanding of strategy execution. Two approaches will be favored: case studies to illustrate the foundations of business strategy, and a simulation to put students in a position to strategically manage an organization. This simulation allows them to raise issues related to the formulation, implementation and execution of the strategy.

HEC565 Leadership and Management Skills 3 cr.

The course will help students to develop skills required to carry out the activities and responsibilities associated with leading and managing people. The skills that students will learn, practice and develop in this course concern the task of overseeing the work of others. The focus is on the ways a manager can exercise authority and in different contexts; the emphasis is primarily on action and practice. The course addresses the skills required in order to succeed in the following four broad domains: exercising authority, communication skills, political skills and team leadership. Students will be asked to react to concrete situations involving the management of people. Case discussions will be supplemented with practical exercises.

HEC570 Information Systems 3 cr.

The ability to manage and use information in the pursuit of business objectives is an important managerial skill. Developing this skill requires an understanding of information technologies, the competencies and processes used to manage these technologies, such as, the governance of information systems, and the collection, manipulation and analysis of operational data. The course will focus on three critical technologies: data management, integrated systems and business intelligence. Students will examine the management and use of these technologies, their relationships to one another and the responsibilities of managers in their application. Participants will be asked to design the essential elements of an information system to support the implementation of a particular business initiative.

HEC670 Management Change 3 cr.

Contemporary organizations have to deal with rapidly changing environments. The globalization of the economy forces organizations to seriously reconsider the design as well as the deployment of the organization itself. Public as well as private organizations throughout the world are living laboratories of this phenomenon. Confronted with market deregulation, privatization, global competition, achievement of world¬ class practice and rapidly changing technologies, institutions that want to survive in their field must adjust constantly. This adjustment requires that private companies and even state¬-owned companies constantly re-examine the chosen organizational models. They are more and more confronted with reorganizations, new partnerships, out¬ sourcing and all other types of organizational transformation. Moreover, it becomes evident that this redeployment of organizations goes far beyond their simple reconfiguration. It requires that managers of these organizations develop specific competencies concerning the implementation of major changes. These changes often have significant social and political effects, which managers must be able to identify and handle.

HEC675 Theories and Practices of Negotiations 3 cr.

The course is an introduction to negotiation as a management tool used by individuals in and between organizations. It focuses on learning the main models of negotiation. The primary goal of this course is to give an opportunity to critically evaluate current strengths and weaknesses in relation to negotiation so that students can develop a personal toolkit of effective negotiation skills, strategies, and approaches. A related aim is to provide them with a broad intellectual understanding of concepts central to the scientific research on negotiation. In concrete terms, the students will be required to experience negotiation within various contexts.

HEC680 International Management 3 cr.

Students who intend to work in the area of trade and international business development must have some essential points of reference in order to achieve a successful career. This course is intended to provide students with these essential points of reference. As such, its objectives for students are: to understand the international business environment in which firms operate, to evaluate opportunities and challenges faced by firms in the global and competitive environment of prominent emerging markets in which domestic and multinational firms currently operate, to analyze national and international policies with regard to globalization, trade and firm growth, to differentiate between domestic and multinational business strategies, to understand the important place of consensus in international business, and to develop a corporate social responsibility policy in this context. This course will help students achieve these objectives; concrete cases will be presented in order to facilitate their understanding of the fundamental concepts taught in the course.

HRM515 Understanding the Business Environment from an HR Viewpoint 3 cr.

The purpose of this course is to deal with accounting and financial tools for HR while understanding the structure of a profit and loss account, and assessing the impact of accounting decisions in human resources. It is also about introducing students to Enterprise Resource Planning Systems. Furthermore, students will learn the concept of corporate strategy, and how to develop intercultural competences in multicultural teams while thoroughly focusing on organizational knowledge to help create and maintain learning organizations.

HRM530 Attracting and Selecting People 3 cr.

The objective of this course is to show how HR professionals and top managers can construct and maintain a high- performing workforce. Students will learn, within this context, the best practice for attracting and selecting well -qualified talented employees. They will also be introduced to the best ways for achieving strategic objectives and obtaining better and stronger results through people.

HRM540 Developing People 3 cr.

This course encourages students to think strategically about talent and career development, through competencies management and Performance appraisal techniques as used by international companies. The course will also involve a discussion about the range of successful practices and contexts related to the HR corporate Marketing strategy as derived from research and experience. Students will also be given the opportunity to reflect on what is expected from HR practitioners with regards to installing a collaborative culture based on the principles of collective intelligence.

HRM555 Enhancing People Involvement 3 cr.

This course aims to enhance group cooperation, foster collaboration and develop new approaches to team work. It is about getting to know each other by using new approaches, exploring methods of cooperation, stimulating fluidity in team work, and gaining empowerment, freedom, and creativity. It also introduces students to organizational behavior (theory and practice), to leadership and to top team management skills.

HRM565 Mastering the HR Tools 3 cr.

The idea of this course is to discuss and share experiences of HR Information Systems from a user point of view. The HR function is responsible for providing reliable and relevant data in the decision-making process. Future HR managers will have to deal with HRIS on a daily basis, which requires understanding how these systems support HR strategy. Students will also learn how to differentiate between information and knowledge to define organizational learning, and to identify main factors driving companies and society to learn and better manage knowledge.

HRM580 Mastering the Legal Context 3 cr.

This course seeks to provide students with a broad overview of individual and collective labor laws and national legal systems. Within this context, students analyze case studies given by HRDs and lawyers. They are also introduced to negotiation theory, crisis management and social conflicts, and employee relations in Multinational Enterprises. (MNE).

HRM590 Industrial Relations 3 cr.

The objective of this course is to provide a broad overview of the industrial system in Europe, its complexity and evolution, and offers the opportunity for students to run a European work council. It also seeks to help students to negotiate in a group and within a multicultural context. This aspect of the course also encompasses a broad overview of the main issues governed by European Labor Law, such as the Council of Europe and European Union Law.

HRM630 Introducing the Research Methods and Literature of the HR Field 3 cr.

This course aims to help, to prepare, to conduct and present a research project, with the help of numerous concrete examples. This course is based on the main stages of the realization of a research project. It is similar to a report of research since the authors' researches are introduced through this course. Not only the book offers guidance and examples to develop a research project but it also serves as a model for the presentation.

HRM650 Seminars, Conferences and Group Work 3 cr.

This part of the course encompasses several interactive seminars and lectures given by international experts on various themes, with an emphasis on entrepreneurship, compensation and benefits, ethical issues in transnational firms, diversity management in the workplace, and equity practices. Such seminars and lectures will be conducted through group work and discussions with lecturers.

ITB321 Database 3 cr.

Pre-requisites CSC204

This course is dedicated to exploring the characteristics of data to enable students to design a database and use these characteristics to solve common business problems. Students will also learn

how to design database components (tables, forms, queries, reports and macros) by using Microsoft Access as a tool. In addition, they will acquire the skills to create and maintain database information, including sorting, indexing, and relating tables. Students will think about data input and retrieval, and how it is displayed and manipulated in order to create a useful, efficient, and coherent design. Since this is an application oriented course, no access programming code is expected from the students.

ITB345 Enterprise Internship 1 cr.

Pre-requisites CSC325

This course allows students to apply knowledge and skills acquired at the University in a real life setting. The main goal is to obtain hands-on experience necessary to qualify for a good entry level position in information technology. Moreover, students will learn how to create and write a professional report with emphasis on their experience in IT. The course is thus practical and theoretical in the sense that students will participate in theoretical classes at the University and at the same time partake in a 120 hour training program at a recognized corporate establishment.

ITB350 E-Business 3 cr.

Pre-requisites MKT220

This course provides a basic understanding of eBusiness, mainly over the internet. It introduces the types of eBusiness and its various revenue models, and the driving technologies, as well as the driving sociocultural and environmental aspects behind the increase in demand for eBusiness. The course gives students a good foundation in understanding the potential of eBusiness without neglecting the challenges it faces. Both technical and strategic aspects of eBusiness are discussed.

ITB455 Enterprise Simulation - ITB 2 cr.

Pre-requisites CSC450 and CSC359

Increasingly organizational survival and/or efficiency are related to the ability to acquire and maintain excellent information about itself and competing organizations. Information treated as a resource for strategic planning and operational management has a value like other assets in the organization. Once information is placed in the proper perspective, management issues regarding all the departments and units of the entity become strongly handled. More than ever there appears a need for faster access to critical information by all of the decision makers to make better decisions. The impact of information technology (IT) on firms' performance and efficiency has been repeatedly stated. Firms have found opportunities to use IT in products and processes to reduce costs and increase product value, as well as to improve organizational effectiveness, through enhanced coordination, communication and control. It is claimed that these uses have allowed firms to gain competitive advantages over other firms. All levels of management have the burden of insuring that appropriate information systems are in place to bring about a productive profitable organization. Therefore, this course will explore necessary management actions which will ensure that information is available, correct, manipulatable, protected, and archived in proper forms.

LCB200 Introduction to Hospitality Management 3 cr.

This course offers a comprehensive tour of the fascinating areas of the hospitality industry. Some of the topics that will be covered in this course include the concept of service, the lodging industry, the restaurant business, institutional foodservices, tourism, gaming entertainment, leisure and recreation. Students will be introduced to the basic managerial functions and how they relate to the hospitality industry. The course also familiarizes students with career opportunities and introduces them to large hospitality organizations and companies.

LCB213 Hospitality Business Communication 3 cr.

Pre-requisites ENG240

In this course students will apply business communication principles through the creation of effective business documents and oral presentations. This business communication course will also include the study and application of team communication and the use of technology to facilitate the communication process.

LCB220 Food and Beverage Service Operations 3 cr.

Pre-requisites LCB200

This course covers the basic functions of food and beverage services, and introduces students to a servers job, types of establishments, and different types of service. Some current issues, such as embracing diversity, preventing harassment, and maintaining a drugfree work environment are also discussed. The course covers both theoretical and practical aspects of food and beverage services, and apart from attending lectures in the classroom, students will be practicing and participating in real life service.

LCB221 Hospitality and Tourism Marketing 3 cr.

Pre-requisites ENG240

This course describes service marketing as applied in the hospitality and tourism industry, including but not limited to unique attributes of service marketing, consumer orientation, understanding consumers and consumer behavior, market segmentation principles, target marketing, promotion planning and pricing theory and practices.

LCB226 Oenology 3 cr.

The main purpose of this course is to acquaint students with basic knowledge of wine and other spirits. Specifically, they will acquire knowledge about wine making throughout the world, the grape varieties, wine ageing and matching wine with food.

LCB230 Le Cordon Bleu Kitchen A 3 cr.

This practical course aims to introduce the students to the world of culinary food. Therefore, students will learn the basic international food and pastry recipes that enhance that culinary knowhow and integrate them to the world of gastronomy.

LCB235 Le Cordon Bleu Kitchen B 3 cr.

Pre-requisites LCB230

This advanced practical course aims to significantly integrate the students into the culinary domain. In this context, diverse international recipes will be carefully demonstrated with professionalism and art.

LCB240 Bar and Beverage Service Operations 3 cr.

The main purpose of this course is to acquaint students with basic knowledge about beer, cider, mead and sake. It explains the distillation process and the five basic spirits: whisky, gin, vodka, rum and tequila as well as the national drink: arak. Students will learn how to successfully manage a bar and how to avoid squandering.

LCB246 Hospitality Purchasing Management 3 cr.

Pre-requisites LCB200 And ACT230 And MGT220

This course presents a comprehensive introduction to the basic principles of purchasing food, beverages and FFE. Topics include writing product specifications and ordering, supplier selection, store management and negotiations. Emphasis is placed on how to make effective managerial purchasing decisions. The course clarifies the relationship between food specifications, and purchasing methods, while enhancing the organizational skills of students in the administration of a successful purchasing department.

LCB250 **Food and Beverage Cost Control** **3 cr.**

Pre-requisites ACT230

This course provides a fresh and realistic approach to the control and management of resources in the challenging hospitality industry. This creates an immediate awareness within the student that success in the hospitality industry is challenging and that resources must be controlled and used for their intended purposes if an operation is to be successful. This course mirrors the financial aspect of the food and beverage operations, the methods to be used for an efficient control process and the strategies to be adopted when pricing any product.

LCB255 **Hygiene and Security** **3 cr.**

Pre-requisites ENG240

This course aims at shedding light on the areas of food safety, and employee health and safety in the hospitality industry. Students will be prepared to face the challenge of food safety management as this is considered essential in this type of business. More specifically, this course will give the students hygiene and sanitation methods and principles as should be applied in the market and will introduce them to the practical implementation of the current food safety management systems such as HACCP and ISO 22000:2005. Moreover, they will learn the principles related to the health and safety of employees in the workplace so as to make their organization more productive and efficient.

LCB260A **Internship I: Food and Beverage** **3 cr.**

This course allows students to apply knowledge and skills acquired at the University in a real life setting. The main goal is to obtain handson experience necessary to qualify for a good entry-level position in hotel, restaurant, or food service management. Moreover, students will learn how to create and write a professional report with an emphasis on their experience in the hospitality industry. The course is practical and theoretical in the sense that students will participate in theoretical classes at the University and at the same time partake in a training program at a recognized hospitality establishment.

LCB260B **Internship II: Rooms Division** **6 cr.**

Pre-requisites LCB260A

This course allows students to apply knowledge and skills acquired at the University in a real life setting. The main goal is to obtain handson experience necessary to qualify for a good entry-level position in hotel, restaurant, or food service management. Moreover, students will learn how to create and write a professional report with an emphasis on their experience in the hospitality industry. The course is practical and theoretical in the sense that students will participate in theoretical classes at the University and at the same time partake in a training program at a recognized hospitality establishment.

LCB305 **Food and Beverage Management** **3 cr.**

Pre-requisites LCB220AndLCB200

This course offers the essential managerial tools to plan, organize, lead and control an effective and efficient food and beverage operation. Reflecting the financial aspect of the food and beverage operation, this course covers not only the financial management of the food and beverage exercise but also tackles the operational side inclusive of the service, the production and the stock flow cycle. A fresh and realistic approach to facilities management and to the allocation of resources in the challenging hospitality industry is shown to ensure the success of the exercise.

LCB310 **Catering and Events Management** **3 cr.**

Pre-requisites LCB305

This course takes the student step by step through the complicated process of creating and opening a restaurant starting from generating or modifying a restaurant concept, to developing a menu, a staff of personnel and a market plan. In addition, this course is designed to address the complex operation of catering. The focus is on two major areas: the off premises and on premises catering for business functions and the management of large scale and special events. Along the way, the course gives a comprehensive picture of what the restaurant business will be about, and the same for events management.

LCB325 Strategic Management for Hospitality Industry 3 cr.

Pre-requisites LCB221 Or MKT220 And LCB305 And MGT220

This course introduces students to the strategic management process with a focus on the hospitality industry. Students will learn about the external environment and stakeholders, and how these impact on an organization. Moreover, students will become familiar with how to perform an internal analysis of a company, and how to formulate and implement strategies at different levels within the organization. The course will focus on global strategic management issues, and introduce students to topics such as market entry tactics, international market selection, and stakeholder management in foreign environments.

LCB400 Facilities and Property Development Management 3 cr.

Pre-requisites LCB310 And LCB255

This course introduces students to facilities management from concept and feasibility planning to space and architectural design then construction and procurement management. Topics covered include setting appropriate facilities requirements, layout and detailed design, the implementation of properties decisions within a balanced design operations, and the financial framework. Special emphasis is given to preventative maintenance programs, energy management, basic building systems design and operation, and security and control efforts.

LCB410 Quality Management in Hospitality 3 cr.

Pre-requisites MGT220

This course aims at preparing the students to be able to handle the challenge of quality management in the hospitality industry, by enabling them to measure and improve quality as being both, a primary component of, and an important competitive advantage in the hospitality field. More specifically, this course will give the students quality management methods and principles as applied in the market and will teach them how to use practical skills to make their organization more productive and quality oriented.

LCB415 Hospitality Protocol and Etiquette 3 cr.

This course will provide an overview of general protocol and etiquette in the hospitality industry. Students will learn about soft skills and social intelligence, correct behavior, and proper communication techniques as they apply in the real world. The course will also cover topics such as international etiquette, presentations and public speaking, as well as conflict resolution with a focus on the hospitality industry. It is an interactive course in which role plays and class participation are important aspects.

LCB441 Rooms Division Management 3 cr.

Pre-requisites LCB220

This course acquaints the students with the operations and procedures of the rooms division department of a hotel. Some of the topics covered in this course include hotel organization and interdepartmental communications, property management systems, reservations, revenue management, security issues, executive housekeeping, and environmental management and sustainability. The purpose of the course is to enable students to develop knowledge and skills

necessary to control, supervise and manage the front office, housekeeping and security departments within the rooms division of international hotels or resorts.

MAT216 General Mathematics 3 cr.

Pre-requisites MAT110

This course provides students with the solid base they need to be successful in their specialty courses. Topics covered include: function of a real variable, elementary functions, Taylor's expansion, simple integral and methods of integration, differential equations, multivariable functions, continuity, partial derivative, chain rule, differential, introduction to double integrals, methods of integration, Matrix calculus, determinants, and linear systems.

MGT220 Principles of Management 3 cr.

Pre-requisites ENG120

An introductory course explaining the definition of management as a set of activities, including: planning and decision-making, organizing, leading, and controlling, directed at an organization's resources, including the human, financial, physical, and informational, with the aim of achieving organizational goals in an efficient and effective manner.

MGT320 Organizational Behavior 3 cr.

Pre-requisites MGT220

Organizational behavior is the study of actions and attitudes that people exhibit within the organization and their impact on the organization. The effective design and management of organizations require the thoughtful application of knowledge concerning the behavior of people at work.

MGT330 Human Resources Management 3 cr.

Pre-requisites MGT220

This course provides students with the basic principles and theories of human resource management. It expands on the five functions of human resources management: staffing, training and development, safety and health, compensation and benefits, and employee labor relations. This course is the foundation for students majoring in human resource and the course material is translated into practice through relevant discussions of the topic at hand and an analysis of cases, thus requiring a logical integration of learning to the business context. Lectures are used to introduce the key concepts and theories, and articles and cases provide an opportunity to clarify and reinforce students' understanding of the subject.

MGT345 Enterprise Internship 1 cr.

Pre-requisites MGT320

This course allows students to apply knowledge and skills acquired at the University in a real life setting. The main goal is to obtain hands-on experience necessary to qualify for a good entry level position in management. Moreover, students will learn how to create and write a professional report with emphasis on their experience in management. The course is thus practical and theoretical in the sense that students will participate in theoretical classes at the University and at the same time partake in a 120 hour training program at a recognized corporate establishment.

MGT400 Supply Chain Management 3 cr.

Pre-requisites MGT 220 and TRA 310

Logistics and supply chain management is unique and, to some degree, represents a paradox because it is concerned with one of the oldest and also the most newly discovered activities in business. The supply chain system activities of communication, inventory management,

warehousing, transportation, and facility location have been performed since the start of commercial activity. It is difficult to visualize any product that could reach a customer without logistical support. Yet it is only over the last few years that firms have started focusing on logistics and supply chain management as a source of competitive advantage. There is a realization that no company can do any better than its logistics system. This becomes even more important given that product life cycles are shrinking and competition is intense. Logistics and supply chain management today represents a great challenge as well as a tremendous opportunity for most firms.

MGT405 Project Management 3 cr.
Pre-requisites BUS410 And ENG240
This course identifies specific challenges facing the project manager and explains how to address those challenges. It will take the students, step by step, through the life cycle of a project, explaining how projects exist, how they are planned, how they are executed and controlled and how they must be formally closed. It is based on the Project Management Framework Version 4 of the Project Management Institute (PMI).

MGT415 Small Business Management 3 cr.
Pre-requisites MGT220
This course focuses on recognizing a business opportunity, starting or acquiring a business based on the recognized opportunity, and operating that business. Entrepreneurship is necessary not only for students who will become entrepreneurs, but also for individuals working in the increasingly competitive corporate world.

MGT420 Strategic Planning 3 cr.
Pre-requisites FIN425 And MGT220
This course will take the students on a journey where they will learn to analyze a company's business environment, select a strategy, and construct the organization structure necessary to put the strategy into action. The course will allow students to bring together all of their learned functional skills, such as accounting, finance, and marketing, etc., and use them to study organizational problems within the context of real world business case studies.

MGT455 Enterprise Simulation - Management 2 cr.
Pre-requisites MGT420
This course is specifically designed for the upper level undergraduate students in Management. During this course, students will be asked to handle several virtual situations pertaining to international companies in which immediate managerial actions are required.

MGT500 Organizational Behavior and Change Management 3 cr.
Working in and with organizations is not a purely rational action. It also requires learning about how people act in organizations, why they do so and how to predict and manage their behavior. This course will provide students with tools allowing managers to observe systematically the organizational behavior.

MGT520 Corporate Governance and Business Ethics 3 cr.
This course aims at familiarizing students with managerial and financial theories of governance as well as recent developments concerning the responsibilities of administrative bodies at the level of corporate governance. Additionally, it enables the students comprehend the various ethical and managerial approaches by providing them with insights on the organization as part of the community and the behaviors of the managers that have a great impact on the performance of the organization. After completing this course, students will be able to play various roles related to the

effective functioning of the administrative body of several organizations as well as generate ethical and social culture decisions in their scope of work.

MGT580 Essentials of Entrepreneurship and Small Business Management 3 cr.
The course is based on the analysis and interpretation of scientific articles in entrepreneurship that relate to Management practices; it explains practically the process of interpreting explicitly theories from research studies and understanding their contribution to the advancement of science in entrepreneurial management.

MGT605 Human Resources Management and Social Audit 3 cr.
This course explains the role of HRM as the main factor for human capital's improvement within an organization. The course undertakes, as well, staffing activities and actions that help improving knowledge and social conditions in a given organization. More precisely, the strategic function of social audit, as a professional tool for professionalizing HRM, will be addressed from a cross between the themes addressed and the issues of each. Illustrations to students are given through case studies that highlight explanatory themes and practical aspects in the field. Together, case studies and scientific articles will shed light on the approaches adopted by social auditing and indicators mobilized for measuring the efficiency of HRM.

MGT620 Strategic Management and Decision-Making 3 cr.
This course is based on a multidisciplinary approach of strategic management that enables students to understand the decision-making nature in various strategic contexts, formulate and implement affair strategies and integrate functional policies in strategic problems resolution. The course presents the fields activities in which the enterprise seeks to integrate. It also tackles the subject of resources allocation to enable enterprises to preserve a strong and defendable position, and to progress in the sector(s) it currently occupies, or seeks to occupy, with a view to maximize invested capital profitability.

MGT640 Theories and Practices of Negotiation 3 cr.
This course enables the student to acquire the competencies and the basic theoretical and practical techniques needed to be an influential negotiator, and to carry out and manage the negotiation process. This course covers negotiation theories in association with relational models of behavior in negotiations, which have been developed through cognitive and behaviorist theories and the science of decision making. Many exercises, study cases and real simulations will be done in order to apply the theoretical and practical concepts.

MGT665 Bank Strategic Management and Decision-Making 3 cr.
The objective of this course is to bring together the concepts of strategic management and strategic marketing and their application in the local and international banking industry, based on field experience. We will then link them to the process of decision making in the local banking industry. The course covers, in particular strategic planning and its implementation in the bank, profitability improvement, retail banking/commercial banking strategies, and involvement on bank's organizational structure.

MGT680 Applied Competitive Strategy 3 cr.
This course develops students' ability to analyze, formulate, and execute corporate and business strategy by evaluating the competitive and organizational aspects needed to create sustainable competitive advantages for international firms' success. The aim of the course is to develop the competitive strategic thinking of students through the utilization of concepts, models, and tools that facilitates experiential learning between academic theory and managerial practices in any competitive situations.

Finally, this course develops the students' skills to be more systematic, logical, judgmental, complete, critical thinker about competition and competitive strategies.

MGT685 Strategic Management and Enterprise Policy 3 cr.

The course is based on the analysis and interpretation of scientific articles in corporate governance that relate to Management practices; it explains practically the process of interpreting explicitly theories from research studies and understanding their contribution to the advancement of science in corporate governance.

MIS320 Quantitative Techniques Applied to Business 3 cr.

Pre-requisites STA220 Or STA205 Or STA220 Or STS205

Business quantitative methods help students understand the business world better, so they can search for variables, in order to translate them into mathematical models to help solve them. These methods are used to assist managers in decision-making by performing provisions such as sales, sales turnover, and benefits in an uncertain world as well as helping in testing and assessing decisions with respect to the organization's performance. Furthermore, this course considers linear programming techniques and analyzing decisions in uncertain conditions, as well as helping managers maximize short-term and long-term company profit. This course has a prerequisite course of probability and statistics for engineers. By the end of the course students should have knowledge of Excel and SPSS.

MKT220 Principles of Marketing 3 cr.

Pre-requisites ENG211 Or ENG240

This course is designed to help the students learn about and apply the basic concepts and practices of modern marketing as they are used in a variety of settings. It is intended for business students who wish to become the decision-makers of tomorrow at the middle or upper levels of management since it gives students a comprehensive and innovative managerial and practical introduction to marketing.

MKT310 Consumer Behavior 3 cr.

Pre-requisites MKT220 Or LCB221

Consumer behavior reflects numerous social sciences, such as psychology, anthropology, and sociology. In this course, students will discover and learn how perceptions, memory, learning, personality, and attitudes affect consumption behavior, how consumption changes during one's life cycle, and how powerful cultural and subcultural influences are on consumers. From these aspects, marketers can then properly build their brands to appeal to various customers' needs, and to formulate the adequate marketing strategies that ensure consumers satisfactions and loyalties.

MKT315 Advertising 3 cr.

Pre-requisites MKT220

Advertising is an "ideas" industry, which allows marketers and brand custodians to create, position, or reposition their brands. It is a considerable part of most of modern companies, corporations, and brands, being the most visible and immediate point of communication between them and their customers/audiences. Advertising is also a business, but not any kind of business. It is a business full of excitement, fascination, and fun. Today, it constitutes a respected, strategic, and profitable industry. This course is designed to introduce students to advertising, while aiming to provide a firm grounding in its fundamentals. It will show the links between media, society, advertising, and business. It will thoroughly investigate the foundations of advertising and check the media planning process in action, based on true business/media/communication problematics. The course will also explore the business aspects of advertising through a global industry overview, and business transactions of organizations, with illustrations of advertisers and advertising agencies. Finally, the

course will focus on market realities in order to allow the students to have a practical link with business life and bridge the gap between the theoretical aspect and the professional side of advertising.

MKT320 Marketing Research 3 cr.
Pre-requisites MIS320 And MKT310
The purpose of the course is to introduce students to the role of marketing research and to the process of marketing research. The emphasis in this course is on how to actually conceptualize and conduct a marketing research project as well as how to use research as an aid for marketing management decisions. A fundamental skill possessed by successful marketing managers is the ability to obtain and use factual information within the managerial decision-making process.

MKT325 Distribution Strategy and Sales Management 3 cr.
Pre-requisites MKT220
This course is designed to introduce students to issues related to the management of a sales program, the role and responsibilities of sales management, and the relationship of the sales management process to the broader issues of managing demand, the marketing process, as well as the distribution channels. This course will focus on the role of the sales manager in developing and implementing strategic and tactical decisions, and on administrating the sales force operations. Moreover, it focuses on building and maintaining relationships with partners in order to establish an effective distribution network.

MKT345 Enterprise Internship 1 cr.
Pre-requisites MKT325
This course allows students to apply knowledge and skills acquired at the University in a real life setting. The main goal is to obtain hands-on experience necessary to qualify for a good entry level position in marketing. Moreover, students will learn how to create and write a professional report with emphasis on their experience in marketing. The course is thus practical and theoretical in the sense that students will participate in theoretical classes at the University and at the same time partake in a 120 hour training program at a recognized corporate establishment.

MKT405 Media Planning 3 cr.
Pre-requisites MKT220
Today media planning constitutes one of the most respected, strategic, highly sought after, and very well paid professions in advertising. This course is designed to introduce students to this industry, while aiming to provide a firm grounding in its fundamentals. It will describe the links between media, society, advertising, and business. It will thoroughly investigate the foundations of media planning and check the media planning process in action, based on true business/media/communication problematics. The course will also explore the business aspects of media and media planning through a global industry overview, the media transactions organizations, with illustrations of advertisers, advertising agencies and media agencies. Finally, the course will focus on the Lebanese market realities in order to allow the students to have a practical link with business life and to bridge the gap between the theoretical aspect and the professional side of media planning.

MKT410 Communication Strategy 3 cr.
Pre-requisites MKT310
This course details the Integrated Marketing Communications (IMC) within the FMCG and consumer service sectors in addition to the business to business sector. We will explore IMC's role within the marketing process, consumer behavior, the role of ad agencies, creative strategy, advertising, sales promotion, direct marketing, and electronic commerce. The main objective of this course is to help

students understand how different companies communicate with internal and external customers and how communication strategy can facilitate the exchange. By the end of this course, students will have the skills needed to develop an effective communication plan.

MKT415 Brand and Product Management 3 cr.

Pre-requisites MKT220

A brand is a company's most visible (intangible) asset in a market. It is the company's main product connection channel with customers who are searching for value in their purchases. Brands are created in the minds of consumers. This perceived value by a consumer of a brand and product results in brand equity. This course will outline the theories and framework that are used to build and manage a brand for the long term mutual benefits of the consumer and the supplier. Brand equity is the core element of the course and it will be examined through the strategic brand management process, including: positioning, marketing programs, measuring brand performance, and product lines.

MKT422 Marketing Services 3 cr.

Pre-requisites MKT220

The marketing services and retail management course presents an integrated approach to studying services that places marketing issues within a broader general management context. This course is suitable for students who are interested in learning more about the problems and possibilities related to the marketing of service companies, and other service organizations. In addition, it introduces the basics of retail management, which will introduce students to retailing theories, retailing operations, and the vital aspects of retail management at both the strategic and operational level.

MKT430 Pricing Strategy 3 cr.

Pre-requisites MKT220

Price is the most sensitive marketing element in the supplier customer relationship. It has an immediate and direct effect on a company's bottom line, and it's perceived by the customer as a signal of the value of a product offering, thus strongly influencing his/her purchase decisions. The course will introduce the participants to various strategies and steps that are used by companies for pricing their offerings. The notion that "price equals perceived value" is the basis of this course. The process of establishing price and value, and the importance of communication under different product and market conditions, are presented in detail. The framework of the course will follow the concept of the "Pricing Pyramid". Practical examples, through real life case studies, will be employed to assist participants in a deeper understanding of the strategies behind pricing decisions.

MKT455 Enterprise Simulation - Marketing 2 cr.

Pre-requisites MKT410

The main objectives of the course are to explain to students the specific and original marketing contribution to the company's management, and give them the opportunity to use the strategies and apply the main concepts relating to the market analysis, including environment, consumers behavior, demand and segmentation. The second part of the course covers various marketing decisions, namely the ones pertaining to mix marketing variables: product, price, distribution, promotion. The outcome of the course would be the development of a marketing plan for a local business.

MKT530 Brand Strategy and Communication 3 cr.

Brand strategy and communication provide a strategic step-by-step approach about brand creation, innovation, launching, communication and effective management. It represents an interesting balance between theory and cases. This course also emphasizes on internationalization,

globalization, megabrand management and on the interrelationship between the business strategy and the brand strategy.

MKT610 Applied Research in Marketing 3 cr.

The course objective is to present a general review of research and assessment methods that are used by marketing researchers with a view to get fundamental and applied knowledge in marketing. In addition, this course enables students to develop their research work, which should be relevant to the thesis they will complete within their curriculum.

MKT650 Applied Marketing Management 3 cr.

The course mainly aims at allowing students to learn and understand marketing's specific and original contribution within the field of business administration. It also enables students to use and apply the main concepts related to markets assessment: environment, consumer behavior, demand and segmentation. The second part of the course covers the various decisions related to marketing; those linked to marketing variables: product, price, distribution and promotion.

MKT660 International Marketing 3 cr.

This course covers around the basic principles of marketing management, and explains its fundamental role within an international context. Based on the enterprise operational data, the participants set forth an international marketing plan. They conduct a market study, identify the product or service, make any necessary adaptations and establish a price, distribution and promotion strategy according to the product and the nature of the market.

STA220 Probability and Applied Statistics 3 cr.

Pre-requisites MAT213 Or MAT215 Or MAT216 Or MAT218 Or NUT210 Or NTR210 or MAT206

This course prepares students for the practical use of probability and statistics. Topics covered include: elements of descriptive statistics, population, statistical unit, frequency distribution characteristics of central tendency and dispersion. The course explores concepts of probability and combinatorics, conditional probability and Bayes' formula, applications, discrete and continuous random variables, expectation and moments, the weak law of large numbers, empirical frequencies and probabilities customary laws (Binomial, Multinomial, Poisson, Normal) and asymptotic behavior, the law of large numbers, sampling and estimation, an introduction to the use of hypothesis tests, and the Chi2 contingency table.

TRA310 Transport and Logistics 3 cr.

Pre-requisites ENG240

Transport involves the physical movement of products between the providers and the receivers. It is a critical activity, performed, at most stages, in the supply chain process. In pure financial terms it is the second largest element, next to storage, in total distribution costs. Transportation also represents the physical operation's interface with the customer and is often classed as the "ambassadorial" activity of the supply chain. The primary objective of transportation is to deliver the right goods, to the right place, at the right time, in the right condition at the minimum cost.

TRA325 Commercial Contracts and Transport Law 3 cr.

Pre-requisites BUS223

This course provides a thorough understanding of transport-related contracts as well as transport-related insurance covers. In its first part, the course discusses the different parties involved in the transportation industry and the interaction between them that is secured by different types of contracts specific to the industry. In its second part, the course discusses transport insurance covers and their constituents, while explaining how different parties mitigate their risks.

TRA335 Introduction to Air Transportation 3 cr.

Pre-requisites TRA310

This course explores the history, management and future trends in air transportation. It covers the four principal segments of air transportation: major carriers, regional carriers, all-cargo carriers and general aviation. In each segment, the issues of aircraft design, market share, finance, insurance and operations are discussed. The course analyzes the development and application of national and international regulations that impact air transportation. Topics include, cost structure, air fares, flight crews and safety, environmental impacts of aircraft and airports, operating and service characteristics, technological advances, world competition and intermodal operations.

TRA345 Enterprise Internship 1 cr.

Pre-requisites TRA335

This course allows students to apply knowledge and skills acquired at the University in a real life setting. The main goal is to obtain hands-on experience necessary to qualify for a good entry level position in transport. Moreover, students will learn how to create and write a professional report with emphasis on their experience in the transport and logistics industry. The course is thus practical and theoretical in the sense that students will participate in theoretical classes at the University and at the same time partake in a 120 hour training program at a recognized corporate establishment.

TRA440 Shipping Economics and Management 3 cr.

Pre-requisites ECO 221 and TRA 310

The course focuses on the economics of chartering, containerization, ship finance, international trade, political factors and ship manning. It concentrates on the marketing and management area which are so important nowadays for a successful ship management, whether in the liner cargo, bulk cargo or specialized tonnages. The course is essential as it connects the transport sector to the business industry, showing that transportation is a business sector by itself.

TRA455 Simulation Enterprise - Transport 2 cr.

Pre-requisites BUS475

The objective of this course is for students to gain skills and knowledge in all aspects and issues of logistics in a sustainable supply chain. The course offers a broad-based business education to undergraduate students, with a particular focus on transport, distribution, logistics and other transport-related industries and issues. The content covers the basic operations of a freight forwarding agency including types of cargo, trade lanes, terminology and abbreviations, equipment and facilities, and the various relationships that exist between the forwarder, clients, carriers and government agencies.

Faculty of Engineering

Overview

The mission of the Faculty of Engineering at USEK is to provide an inspiring and supportive environment for high quality and effective education; to develop students' creative and critical thinking; to graduate lifelong skilled learners capable of addressing emerging problems in the light of ever-increasing challenges of modern technology; and to empower graduates to pursue successful and productive careers, while emphasizing leadership qualities and commitment to the ethical and professional responsibilities required in their calling at the global level, simultaneously focusing on the needs of Lebanon and the Middle East.

The Faculty of Engineering consists of the following departments/programs:

Department of Biomedical Engineering
- Bachelor of Engineering in Biomedical Engineering
- Master of Science in Biomedical Engineering

Department of Chemical Engineering
- Bachelor of Engineering in Chemical Engineering
- Master of Science in Chemical Engineering

Department of Civil Engineering
- Bachelor of Engineering in Civil Engineering
- Master of Science in Civil Engineering

Department of Computer Engineering
- Bachelor of Engineering in Computer Engineering
- Master of Science in Computer Engineering

Department of Electrical and Electronics Engineering
- Bachelor of Engineering in Electrical and Electronics Engineering
- Master of Science in Electrical and Electronics Engineering

Department of Mechanical Engineering
- Bachelor of Engineering in Mechanical Engineering
- Master of Science in Mechanical Engineering

Department of Telecommunications Engineering
- Bachelor of Engineering in Telecommunications Engineering
- Master of Science in Communications Engineering

Administration and Full-time Faculty

Dr. Barbar Zeghondy, Associate Professor, Dean
Prof. Eng. Joseph Zalaket, Professor, Associate Dean, Head of Computer Engineering Department
Dr. Nancy Zgheib Tabet, Assistant Professor, Head of Chemical Engineering Department
Dr. Charles Yaacoub, Associate Professor, Head of Telecommunications Engineering Department
Eng. Elie Otayek, Lecturer, Head of Civil Engineering Department
Dr. Jad Jelwan, Assistant Professor, Head of Mechanical Engineering Department
Dr. Sandy Rihana, Associate Professor, Head of Biomedical Engineering Department
Dr. Tilda Karkour Akiki, Assistant Professor, Head of Electrical and Electronic Engineering Department
Dr. Adib Akl, Assistant Professor
Eng. Béchara Nehme, Lecturer

Eng. Christine Abdel Nour, Assistant
Dr. Joseph El Assad, Associate Professor
Eng. Marie-Rita Hojeij, Lecturer
Dr. Nemr El Hajj, Assistant Professor
Eng. Samer Wakim, Assistant

Programs of Study - Undergraduate Programs

Bachelor of Engineering in Biomedical Engineering (English)

Accreditation

This program is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org, the global accreditor of college and university programs in applied science, computing, engineering, and engineering technology.

Mission

The mission of the Biomedical Engineering Department is to rigorously prepare students for rewarding careers in the diverse fields of biomedical engineering and the health care industry, or in pursuing continued education in biomedical research or medicine.

Program Educational Objectives

1. Advance the students in their careers through innovation, critical thinking, leadership, life-long learning, proactivity and integrity.
2. Prepare students to succeed in post-graduate studies and industry employment in biomedical engineering or related fields.

Program Outcomes

a. An ability to apply knowledge of mathematics, science, and engineering.
b. An ability to design and conduct experiments, as well as to analyze and interpret data.
c. An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
d. An ability to function on multidisciplinary teams.
e. An ability to identify, formulate, and solve engineering problems.
f. An understanding of professional and ethical responsibility.
g. An ability to communicate effectively.
h. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
i. A recognition of the need for and an ability to engage in lifelong learning.
j. A knowledge of contemporary issues.
k. An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

Degree Requirements

General Education	**22**
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Sports	1

General Education - Religious Sciences	3
ECO350 - Engineering Economics	3
GEN300 - Scientific English	2
GEN301 - Law for Engineers	2
GEN302 - Engineering Ethics	1
GEN410 - Engineering Projects Management	2
Mathematics and Sciences	**32**
CHM212 - General Chemistry	3
CHM270 - Laboratory of General Chemistry	1
GEN250 - Modern Physics	3
GEN270 - Physics Laboratory	1
GEN350 - Mathematics for Engineers	3
GEN428 - Numerical Analysis	3
MAT207 - Algebra for Engineers 1	3
MAT217 - Calculus for Engineers 1	3
MAT227 - Calculus for Engineers 2	3
MAT307 - Algebra for Engineers 2	3
MAT337 - Calculus for Engineers 3	3
STA307 - Probability and Statistics for Engineers	3
Engineering courses	**68**
GBM330 - Biology for Biomedical Engineers	3
GBM340 - Physiology for Biomedical Engineers	3
GBM377 - Biology for Biomedical Engineers Laboratory	1
GBM401 - Introduction to Biomedical Engineering	2
GBM416 - Medical Imaging Systems	3
GBM417 - Health Information System	3
GBM440 - Biophysics and Bioelectricity	3
GBM451 - Medical Instrumentation Design and Development	3
GBM462 - Biomedical Signal Analysis	3
GBM471 - Medical Instrumentation Design and Development Lab	1
GBM472 - Biomedical Signal Analysis Lab	1
GBM480 - Internship I	1
GBM507 - Biocompatibility and Biomaterials of Medical Devices	3
GBM581 - Internship II	1
GBM596 - Final Project I	1
GBM597 - Final Project II	3
GEL211 - Electric Circuits	3
GEL271 - Electric Circuits Lab	1
GEL311 - Logic Design	3
GEL312 - Electric Power Systems	3
GEL313 - Electronics	3
GEL314 - Digital Electronics	2
GEL371 - Electronics Lab	1
GEL372 - Digital Electronics Laboratory	1
GEL425 - Linear Control Systems	3
GEL441 - Electrical Instrumentation Design	3

GEL475 - Electrical Instrumentation Design Lab	1
GEN499 - Seminars and Conferences	0
GIN221 - Introduction to Programming	3
GIN231 - Data Structures and Algorithms	3
GRT420 - Signal Theory	3
Technical Electives	**14 out of 36**
GBM501 - Health and Hospitals Services	1
GBM502 - Biochemistry for Biomedical Engineers	2
GBM503 - Biochemistry for Biomedical Engineers Laboratory	1
GBM505 - Statistics and Clinical Cases	3
GBM509 - Artificial Organs and Rehabilitation Engineering	3
GBM520 - Bioinformatics	3
GBM521 - Bioinformatics Lab	1
GBM530 - Modeling of Physiological Systems	3
GBM531 - Modeling of Physiological Systems Lab	1
GBM532 - Regulation of Medical Devices	1
GBM535 - Optical Medical Imaging	1
GBM536 - Nuclear Medicine and Radiotherapy	2
GBM537 - Design of Medical Equipment	3
GBM538 - Control of Biological and Drug Delivery Systems	3
GBM539 - Control of Biological and Drug Delivery Systems Lab	1
GBM548 - Applied Medical Image Processing	3
GBM549 - Applied Medical Image Processing Lab	1
GBM550 - Hospital and Medical Equipment Planning	3
Approved Faculty Electives - Group 1	**4 out of 12**
GCH310 - Organic Chemistry	3
GCH371 - Organic Chemistry Laboratory	1
GEL430 - Electric Machines	3
GEL473 - Electric Machines Lab	1
GIN300 - Database Systems	3
GIN371 - Database Laboratory	1
Approved Faculty Electives - Group 2	**6 out of 14**
GEL340 - Technical Drawing and Computer Aided Design	1
GEL440 - Electrical Installation Design	2
GIN446 - Web Programming	3
GIN528 - Mobile Devices Programming	2
GMC320 - Dynamics	3
GRT320 - Electrostatics and Magnetism	3
Total	**146**

Bachelor of Engineering in Chemical Engineering (English)

Accreditation

This program is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org, the global accreditor of college and university programs in applied science, computing, engineering, and engineering technology.

Mission

The mission of the Chemical Engineering Department is to ensure an educational environment with high standards, in order to prepare our graduates for excellence in chemical engineering and practice for a changing world; to advance standards of engineering professionalism, ethics and leadership and to provide development, security and safety of chemical engineers as well as an opportunity for lifelong learning and a career.

Program Educational Objectives

Within a few years after graduation, Chemical Engineering graduates will:

1. Become leaders and responsible citizens, and demonstrate broad perspectives regarding ethics, professionalism, safety and social issues in chemical engineering and related disciplines.
2. Be able to develop and improve design processes in order to meet Lebanese market/needs requirements in a cost efficient manner and according to quality standards.

Program Outcomes

a. An ability to apply knowledge of mathematics, science, and engineering.
b. An ability to design and conduct experiments, as well as to analyze and interpret data.
c. An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
d. An ability to function on multidisciplinary teams.
e. An ability to identify, formulate, and solve engineering problems.
f. An understanding of professional and ethical responsibility.
g. An ability to communicate effectively.
h. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
i. A recognition of the need for, and an ability to engage in lifelong learning.
j. A knowledge of contemporary issues.
k. An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

Degree Requirements

General Education	**22**
General Education - Civic Engagement	2
General Education - English Communication	3

General Education - History of Lebanon	3
General Education - Sports	1
General Education - Religious Sciences	3
ECO350 - Engineering Economics	3
GEN300 - Scientific English	2
GEN301 - Law for Engineers	2
GEN302 - Engineering Ethics	1
GEN410 - Engineering Projects Management	2
Mathematics and Sciences	**32**
CHM212 - General Chemistry	3
CHM270 - Laboratory of General Chemistry	1
GEN250 - Modern Physics	3
GEN270 - Physics Laboratory	1
GEN350 - Mathematics for Engineers	3
GEN428 - Numerical Analysis	3
MAT207 - Algebra for Engineers 1	3
MAT217 - Calculus for Engineers 1	3
MAT227 - Calculus for Engineers 2	3
MAT307 - Algebra for Engineers 2	3
MAT337 - Calculus for Engineers 3	3
STA307 - Probability and Statistics for Engineers	3
Engineering courses	**69**
GCH310 - Organic Chemistry	3
GCH347 - Materials Sciences	3
GCH350 - Introduction to Chemical Engineering	2
GCH371 - Organic Chemistry Laboratory	1
GCH410 - Physical Chemistry	3
GCH415 - Applied Organic Chemistry	3
GCH435 - Chemical Kinetics and Reactor Design	3
GCH440 - Environment and Security in Chemical Industry	3
GCH450 - Separation Processes	3
GCH455 - Interfacial Phenomena and Colloids	2
GCH465 - Design of Chemical Reactors	3
GCH470 - Process Design and Control	3
GCH471 - Separation and Spectroscopic Techniques Lab	2
GCH472 - Process Engineering Laboratory	1
GCH480 - Internship I	1
GCH581 - Internship II	1
GCH596 - Final Project I	1
GCH597 - Final Project II	3
GEL211 - Electric Circuits	3
GEL271 - Electric Circuits Lab	1
GEL425 - Linear Control Systems	3
GEN499 - Seminars and Conferences	0
GIN221 - Introduction to Programming	3
GMC320 - Dynamics	3

GMC340 - Thermodynamics	3
GMC430 - Fluid Mechanics	3
GMC435 - Hydraulics	2
GMC451 - Heat Transfer	3
GMC462 - Advanced Transport Phenomena	3
GMC471 - Fluid and Thermal Lab	1
Technical Electives	**15 out of 74**
GCH525 - Plant Design	3
GCH541 - Introduction to Petroleum Engineering	2
GCH542 - Upstream and Downstream Petroleum Industry	3
GCH543 - Drilling Engineering	3
GCH545 - Advanced Chemical Engineering Thermodynamics	3
GCH546 - Mass Transport	3
GCH547 - Advanced Kinetics and Reactor Design	3
GCH548 - Mathematical modeling	3
GCH549 - Unit Integration Design and Control	3
GCH550 - Catalytic Processes	2
GCH551 - Applied Electrochemistry and Corrosion	3
GCH552 - Reservoir Characterization	3
GCH554 - Production Technology	3
GCH555 - Reservoir Simulation	3
GCH556 - Field Development Planning	3
GCH562 - Process Simulation Lab	1
GCH564 - Water and Waste Treatment	3
GCH565 - Food and Pharmaceutical Processes	3
GCH566 - Production and Processing of Metals	3
GCH571 - Process Integration Lab	3
GCH573 - Advanced Process Engineering Lab	1
GCH574 - Properties of Polymers	2
GCH575 - Petroleum Refining Techniques	3
GCH576 - Conversion of Petroleum Products	3
GCH577 - Purification of Petroleum Products	3
GCH578 - Oilfields and Drilling Techniques	2
GCH579 - Analysis of Petroleum Products Lab	1
GMC563 - Fluid Rheology	3
Approved Faculty Electives - Group 1	**3 out of 6**
GIN222 - Applied Programming for Engineers	3
GIN231 - Data Structures and Algorithms	3
Approved Faculty Electives - Group 2	**5 out of 10**
GCH360 - Tools for Chemical Engineering	1
GCH365 - Unit Operations	3
GCH375 - Synthesis and Control of Chemical Processes	1
GCH430 - Instrumentation and Measurement Lab	1
GEL312 - Electric Power Systems	3
GEL373 - Electric Power Systems Laboratory	1
Total	**146**

Bachelor of Engineering in Civil Engineering (English)

Offered in Main Campus Kaslik and in RUC Zahle (only 68 credits in RUC Zahle)

Mission

The mission of the Department of Civil Engineering is to provide quality education to help prepare highly qualified and competitive civil engineers; to develop innovative applications of engineering and scientific research; and to serve the industry, the engineering profession, and the community.

Program Educational Objectives

Within a few years after graduation, Civil Engineering graduates will:

1. Advance in their careers as professional engineers, researchers, educators or entrepreneurs amid technological changes.
2. Demonstrate expertise and leadership in different fields of civil engineering, and use them to contribute to the sustainable development of society.

Program Outcomes

a. An ability to apply knowledge of mathematics, science, and engineering.
b. An ability to design and conduct experiments, as well as to analyze and interpret data.
c. An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
d. An ability to function on multidisciplinary and/or diverse teams.
e. An ability to identify, formulate, and solve engineering problems.
f. An understanding of professional and ethical responsibility.
g. An ability to communicate effectively in both oral and written formats.
h. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
i. A recognition of the need for and an ability to engage in lifelong learning.
j. A knowledge of contemporary issues.
k. An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

Degree Requirements

General Education	**22**
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Sports	1
General Education - Religious Sciences	3
ECO350 - Engineering Economics	3
GEN300 - Scientific English	2
GEN301 - Law for Engineers	2
GEN302 - Engineering Ethics	1
GCV302 - History of Architecture	2

Mathematics and Sciences	**32**
CHM212 - General Chemistry	3
CHM270 - Laboratory of General Chemistry	1
GEN250 - Modern Physics	3
GEN270 - Physics Laboratory	1
GEN350 - Mathematics for Engineers	3
GEN428 - Numerical Analysis	3
MAT207 - Algebra for Engineers 1	3
MAT217 - Calculus for Engineers 1	3
MAT227 - Calculus for Engineers 2	3
MAT307 - Algebra for Engineers 2	3
MAT337 - Calculus for Engineers 3	3
STA307 - Probability and Statistics for Engineers	3
Engineering courses	**72**
GCV301 - Surveying	1
GCV401 - Structural Analysis	3
GCV310 - Reinforced Concrete I	3
GCV320 - Technical Drawings	1
GCV405 - Reinforced Concrete II	3
GCV410 - Geology and Geophysics	3
GCV420 - Soil Mechanics	3
GCV430 - Construction Materials	2
GCV440 - Infrastructures and Roads	3
GCV450 - Architectural Project	1
GCV460 - Management and Site Organization	2
GCV461 - Construction Processes	1
GCV462 - Building Legislation	1
GCV463 - Specifications and Bill of Quantities	1
GCV465 - Foundations and Retaining Walls	3
GCV471 - Soil Mechanics Lab	1
GCV472 - Construction Materials Lab	1
GCV480 - Internship I	1
GCV526 - Building Project	1
GCV581 - Internship II	1
GCV596 - Final Project I	1
GCV597 - Final Project II	3
GEL211 - Electric Circuits	3
GEL271 - Electric Circuits Lab	1
GEN450 - Finite Element Method	3
GEN499 - Seminars and Conferences	0
GIN221 - Introduction to Programming	3
GMC310 - Statics	3
GMC320 - Dynamics	3
GMC330 - Dynamics of Rigid Bodies	3
GMC340 - Thermodynamics	3
GMC430 - Fluid Mechanics	3
GMC435 - Hydraulics	2
GMC440 - Strength of Materials	3
GMC472 - Strength of Materials Lab	1
GMC477 - Hydraulics Lab	1

Technical Electives	17 out of 84
GCV500 - Prestressed Concrete	2
GCV501 - Seismic Design	3
GCV502 - Urban Planning	3
GCV505 - Advanced Structural Analysis	3
GCV510 - Sustainable Construction	3
GCV512 - Bridges	3
GCV514 - Pavement Analysis, Design, and Maintenance	3
GCV515 - Underground Structures	2
GCV516 - Special Structures	2
GCV517 - Offshore Structures	2
GCV518 - Hydraulic Structures	2
GCV521 - Steel and Mixed Structures	3
GCV522 - MEP Systems	2
GCV524 - Finishing	2
GCV525 - Maintenance, Rehabilitation and Retrofitting of Buildings	2
GCV531 - Hydrogeology	2
GCV532 - Rock Mechanics	3
GCV533 – Geographic Information Systems	2
GCV534 - Soil Dynamics	3
GCV535 - Slope Stability, Excavation and Shoring	3
GCV536 - Geotechnics of Roads	3
GCV541 - Waste Water Treatment	3
GCV542 - Management and Economy of Water	3
GCV543 - Irrigation Network	3
GCV544 - Urban Hydraulics	3
GCV550 - Highway and Road Design	3
GCV551 - Transportation Systems and Traffic Analysis	3
GCV552 - Statistical Methods for Transportation Data Analysis	2
GCV553 - Traffic Management Systems	3
GCV554 - Highway Construction	2
GCV555 - Highway Safety	3
GMC441 - Mechanics of Continuous Medium	3
Approved Faculty Electives	**3 out of 6**
GIN222 - Applied Programming for Engineers	3
GIN231 - Data Structures and Algorithms	3
Total	**146**

Bachelor of Engineering in Electrical and Electronics Engineering (English)

Accreditation

This program is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org, the global accreditor of college and university programs in applied science, computing, engineering, and engineering technology.

ABET | Engineering Accreditation Commission

Mission

The mission of the Electrical and Electronics Engineering Department is to prepare electrical and electronic engineering graduates for productive engineering careers in industry, the

governmental sector, sustainable systems or engineering in education by providing them with academic, technical, and interpersonal skills for a continual professional growth.

Program Educational Objectives

Electrical and Electronics Engineering graduates will:

1. Advance in their careers as professional engineers, researchers, educators or entrepreneurs amid technological changes.
2. Demonstrate expertise and leadership in different fields of electrical and electronics engineering, and use them to contribute to the sustainable development of society.

Program Outcomes

a. An ability to apply knowledge of mathematics, science, and engineering.
b. An ability to design and conduct experiments, as well as to analyze and interpret data.
c. An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
d. An ability to function on multidisciplinary teams.
e. An ability to identify, formulate, and solve engineering problems.
f. An understanding of professional and ethical responsibility.
g. An ability to communicate effectively.
h. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
i. A recognition of the need for and an ability to engage in lifelong learning.
j. A knowledge of contemporary issues.
k. An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

Degree Requirements

General Education	**22**
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Sports	1
General Education - Religious Sciences	3
ECO350 - Engineering Economics	3
GEN300 - Scientific English	2
GEN301 - Law for Engineers	2
GEN302 - Engineering Ethics	1
GEN410 - Engineering Projects Management	2
Mathematics and Sciences	**32**
CHM212 - General Chemistry	3
CHM270 - Laboratory of General Chemistry	1
GEN250 - Modern Physics	3
GEN270 - Physics Laboratory	1
GEN350 - Mathematics for Engineers	3
GEN428 - Numerical Analysis	3

MAT207 - Algebra for Engineers 1	3
MAT217 - Calculus for Engineers 1	3
MAT227 - Calculus for Engineers 2	3
MAT307 - Algebra for Engineers 2	3
MAT337 - Calculus for Engineers 3	3
STA307 - Probability and Statistics for Engineers	3
Engineering courses	**72**
GEL211 - Electric Circuits	3
GEL271 - Electric Circuits Lab	1
GEL311 - Logic Design	3
GEL312 - Electric Power Systems	3
GEL313 - Electronics	3
GEL314 - Digital Electronics	2
GEL340 - Technical Drawing and Computer Aided Design	1
GEL371 - Electronics Lab	1
GEL372 - Digital Electronics Laboratory	1
GEL373 - Electric Power Systems Laboratory	1
GEL420 - Nonlinear Electronics	3
GEL421 - Power Electronics	3
GEL425 - Linear Control Systems	3
GEL440 - Electrical Installation Design	2
GEL441 - Electrical Instrumentation Design	3
GEL445 - Microprocessors	3
GEL450 - Electric Machines I	3
GEL455 - Electric Machines II	3
GEL470 - Power Electronics Laboratory	1
GEL471 - Electric Machines I Lab	1
GEL472 - Non Linear Electronics Lab	1
GEL474 - Microprocessors Laboratory	1
GEL475 - Electrical Instrumentation Design Lab	1
GEL476 - Electric Machines II Lab	1
GEL480 - Internship I	1
GEL537 - Advanced Electrical Installations Design	2
GEL558 - Microcontrollers	3
GEL575 - Microcontrollers Lab	1
GEL581 - Internship II	1
GEL596 - Final Project I	1
GEL597 - Final Project II	3
GEN499 - Seminars and Conferences	0
GIN221 - Introduction to Programming	3
GIN231 - Data Structures and Algorithms	3
GRT320 - Electrostatics and Magnetism	3
GRT420 - Signal Theory	3
Technical Electives	**17 out of 34**
GEL521 - Advanced Command Strategies	2
GEL531 - Generation and Transport of Electrical Energy	3

GEL533 - Mechatronics	3
GEL536 - Industrial Maintenance	2
GEL538 - Machines Diagnosis Methods	3
GEL539 - Renewable Energy	3
GEL552 - Robotics	3
GEL556 - Advanced Control	3
GEL560 - Industrial Programming	2
GEL572 - Industrial Programming Lab	1
GEL573 - Renewable Energy Lab	1
GEL574 - Advanced Control Lab	1
GRT421 - Digital Signal Processing	3
GRT432 - Analog and Digital Communications	3
GRT470 - Digital Signal Processing Laboratory	1
Approved Faculty Electives	**3 out of 15**
GEN450 - Finite Element Method	3
GIN314 - Object Oriented Design	3
GMC320 - Dynamics	3
GMC340 - Thermodynamics	3
GRT423 - Waves and Propagation	3
Total	**146**

Bachelor of Engineering in Computer Engineering (English)

Accreditation

This program is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org, the global accreditor of college and university programs in applied science, computing, engineering, and engineering technology.

Mission

The mission of the Computer Engineering Department is to prepare undergraduate and graduate students to pursue successful and productive careers in computer engineering research and industrial practice through a deep understanding of the fundamentals of the field, their application in solving problems and creating products, while emphasizing leadership qualities and commitment to ethical and professional responsibilities; to become accomplished professionals able to meet the continued technological advances in the discipline of Computer Engineering and IT-related areas through lifelong educational pursuits; and to individually contribute in the industrial development which is taking place in Lebanon and the Middle East.

Program Educational Objectives

Computer Engineering graduates will:

1. Advance in their careers as professional engineers, researchers, educators or entrepreneurs amid technological changes.

2. Demonstrate expertise and leadership in different fields of computer engineering, and use them to contribute to the sustainable development of society.

Program Outcomes

a. An ability to apply knowledge of mathematics, science, and engineering.
b. An ability to design and conduct experiments, as well as to analyze and interpret data.
c. An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
d. An ability to function on multidisciplinary and/or diverse teams.
e. An ability to identify, formulate, and solve engineering problems.
f. An understanding of professional and ethical responsibility.
g. An ability to communicate effectively in both oral and written formats.
h. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
i. A recognition of the need for and an ability to engage in lifelong learning.
j. A knowledge of contemporary issues.
k. An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

Degree Requirements

General Education	**22**
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Sports	1
General Education - Religious Sciences	3
ECO350 - Engineering Economics	3
GEN300 - Scientific English	2
GEN301 - Law for Engineers	2
GEN302 - Engineering Ethics	1
GEN410 - Engineering Projects Management	2
Mathematics and Sciences	**32**
CHM212 - General Chemistry	3
CHM270 - Laboratory of General Chemistry	1
GEN250 - Modern Physics	3
GEN270 - Physics Laboratory	1
GEN350 - Mathematics for Engineers	3
GEN428 - Numerical Analysis	3
MAT207 - Algebra for Engineers 1	3
MAT217 - Calculus for Engineers 1	3
MAT227 - Calculus for Engineers 2	3
MAT307 - Algebra for Engineers 2	3
MAT337 - Calculus for Engineers 3	3
STA307 - Probability and Statistics for Engineers	3
Engineering courses	**69**

GEL211 - Electric Circuits	3
GEL271 - Electric Circuits Lab	1
GEL311 - Logic Design	3
GEL313 - Electronics	3
GEL314 - Digital Electronics	2
GEL371 - Electronics Lab	1
GEL372 - Digital Electronics Laboratory	1
GEL420 - Nonlinear Electronics	3
GEL445 - Microprocessors	3
GEL472 - Non Linear Electronics Lab	1
GEL474 - Microprocessors Laboratory	1
GEN499 - Seminars and Conferences	0
GIN221 - Introduction to Programming	3
GIN231 - Data Structures and Algorithms	3
GIN300 - Database Systems	3
GIN311 - Elements of Discrete Mathematics	2
GIN314 - Object Oriented Design	3
GIN321 - Algorithmics	3
GIN371 - Database Laboratory	1
GIN400 - Advanced Database Systems	3
GIN401 - Advanced Database Systems Lab	1
GIN421 - Operating Systems	3
GIN425 - Software Engineering Design	3
GIN446 - Web Programming	3
GIN450 - Advanced Computer Architecture	3
GIN480 - Internship I	1
GIN527 - Distributed Systems	3
GIN581 - Internship II	1
GIN596 - Final Project I	1
GIN597 - Final Project II	3
GRT431 - Network Architecture and Protocols	3
GRT473 - Network Architecture and Protocols Lab	1
Technical Electives	**17 out of 42**
GEL558 - Microcontrollers	3
GEL575 - Microcontrollers Lab	1
GIN431 - Advanced Algorithmics	3
GIN511 - Cryptography and Computer Security	3
GIN520 - Human Machine Interaction	3
GIN522 - Software Verification and Validation	3
GIN524 - Advanced Web Technologies	3
GIN525 - Computer Network Security	3
GIN526 - Planning and Configuration of Computer Networks	3
GIN528 - Mobile Devices Programming	2
GIN532 - Artificial Intelligence	3
GRT531 - Advanced Networks Architectures	3
GRT532 - Advanced Networks Architectures Lab	1

GRT560 - Digital Image Processing	3
GRT573 - Digital Image Processing Lab	1
GRT578 - Advanced Mobile Networks	3
GRT579 - Advanced Mobile Networks Lab	1
Approved Faculty Electives	**6 out of 21**
GEN450 - Finite Element Method	3
GMC320 - Dynamics	3
GMC340 - Thermodynamics	3
GRT320 - Electrostatics and Magnetism	3
GRT420 - Signal Theory	3
GRT421 - Digital Signal Processing	3
GRT423 - Waves and Propagation	3
Total	**146**

Bachelor of Engineering in Mechanical Engineering (English)

Offered in Main Campus Kaslik and in RUC Zahle (only 68 credits in RUC Zahle)

Accreditation

This program is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org, the global accreditor of college and university programs in applied science, computing, engineering, and engineering technology.

Mission

The mission of the Mechanical Engineering Department is to educate our students for professional leadership as creative problem-solvers in a diverse society including conducting research for societal advancement, and engaging with alumni, industry, government, and community partners through outreach activities. In order to produce engineers prepared for success across a range of career paths, our academic program integrates training in engineering principles, critical thinking, hands-on projects, open-ended problem solving, and the essential skills of teamwork, communication, and ethics.

Program Educational Objectives

After a few years from graduation, the Mechanical Engineering graduates will:

1. Demonstrate proficiency in the principles and methods in mechanical engineering through analytical and experimental solving problem.
2. Work in multifunctional and multicultural environments and teams to gain and transfer information using high level communication skills.
3. Become leaders and responsible citizens and demonstrate broad perspectives regarding ethics, professionalism, safety and social issues in mechanical engineering and related disciplines.
4. Understand the importance of professional growth and seek lifelong learning and continuous education.

Program Outcomes

a. An ability to apply knowledge of mathematics, science, and engineering.
b. An ability to design and conduct experiments, as well as to analyze and interpret data.
c. An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
d. An ability to function on multidisciplinary teams.
e. An ability to identify, formulate, and solve engineering problems.
f. An understanding of professional and ethical responsibility.
g. An ability to communicate effectively.
h. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
i. A recognition of the need for, and an ability to engage in lifelong learning.
j. A knowledge of contemporary issues.
k. An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

Degree Requirements

General Education	**22**
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Sports	1
General Education - Religious Sciences	3
ECO350 - Engineering Economics	3
GEN300 - Scientific English	2
GEN301 - Law for Engineers	2
GEN302 - Engineering Ethics	1
GEN410 - Engineering Projects Management	2
Mathematics and Sciences	**32**
CHM212 - General Chemistry	3
CHM270 - Laboratory of General Chemistry	1
GEN250 - Modern Physics	3
GEN270 - Physics Laboratory	1
GEN350 - Mathematics for Engineers	3
GEN428 - Numerical Analysis	3
MAT207 - Algebra for Engineers 1	3
MAT217 - Calculus for Engineers 1	3
MAT227 - Calculus for Engineers 2	3
MAT307 - Algebra for Engineers 2	3
MAT337 - Calculus for Engineers 3	3
STA307 - Probability and Statistics for Engineers	3
Engineering courses	**72**
GEL211 - Electric Circuits	3
GEL271 - Electric Circuits Lab	1
GEL312 - Electric Power Systems	3
GEL373 - Electric Power Systems Laboratory	1

GEL410 - Applied Electronics	2
GEL425 - Linear Control Systems	3
GEN499 - Seminars and Conferences	0
GIN221 - Introduction to Programming	3
GMC310 - Statics	3
GMC320 - Dynamics	3
GMC330 - Dynamics of Rigid Bodies	3
GMC340 - Thermodynamics	3
GMC360 - Mechanical Engineering Drawings	2
GMC420 - Applied Thermodynamics	3
GMC430 - Fluid Mechanics	3
GMC435 - Hydraulics	2
GMC440 - Strength of Materials	3
GMC445 - Metallurgy	3
GMC450 - Theory of Machines	3
GMC451 - Heat Transfer	3
GMC452 - Mechanical Vibrations	3
GMC455 - Manufacturing Techniques	2
GMC461 - HVAC Systems	3
GMC465 - Fluid Mechanics II	2
GMC466 - Internal Combustion Engines	3
GMC470 - Manufacturing and Workshop Lab	1
GMC471 - Fluid and Thermal Lab	1
GMC472 - Strength of Materials Lab	1
GMC480 - Internship I	1
GMC581 - Internship II	1
GMC596 - Final Project I	1
GMC597 - Final Project II	3
Technical Electives	**17 out of 77**
GEL430 - Electric Machines	3
GEL473 - Electric Machines Lab	1
GEL502 - Microprocessor Systems	3
GEL503 - Microprocessor Systems Lab	1
GEL504 - Sensors and Acquisition Systems	2
GEL552 - Robotics	3
GEL556 - Advanced Control	3
GEL574 - Advanced Control Lab	1
GEN450 - Finite Element Method	3
GMC425 - Instrumentation and Measurements for Mechanical Engineers	3
GMC460 - Mechanical Engineering Design	3
GMC462 - Advanced Transport Phenomena	3
GMC501 - Turbomachinery	3
GMC502 - Energy Production	3
GMC504 - Advanced Mechanics of Transfers	2
GMC505 - Refrigeration	2
GMC506 - Hydraulic and Pneumatic Power	2

GMC507 - Finite Volume Method	2
GMC508 - Computational Fluid Dynamics Lab	1
GMC509 - Advanced Energy Systems Lab	1
GMC511 - Advanced Manufacturing Techniques	2
GMC512 - Advanced Manufacturing Techniques Lab	1
GMC513 - Steel Structures Design	3
GMC514 - Acoustics	3
GMC515 - Composite Materials	2
GMC516 - Machinery Design	2
GMC517 - Computational Solid Mechanics Lab	1
GMC519 - Mechatronic Systems Lab	1
GMC525 - CAD/CAM	3
GMC526 - CAD/CAM Lab	1
GMC536 - Air Conditioning	2
GMC539 - Computational Fluid Dynamics	3
GMC541 - Machinery Design	3
GMC555 - Thermal System Design	3
GMC575 - 3D Modeling and Graphics Lab	1
GMC576 - Stability and Control Lab	1
Approved Faculty Electives	**3 out of 6**
GIN222 - Applied Programming for Engineers	3
GIN231 - Data Structures and Algorithms	3
Total	**146**

Bachelor of Engineering in Telecommunications Engineering (English)

Accreditation

This program is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org, the global accreditor of college and university programs in applied science, computing, engineering, and engineering technology.

ABET Engineering Accreditation Commission

Mission

The mission of the Department of Telecommunications Engineering is to develop candidates for the job market and for higher education in telecommunications engineering by providing essential engineering skills through a recognized educational program with an emphasis in signal processing and telecommunications technologies.

Program Educational Objectives

Telecommunications Engineering graduates will:

1. Advance in their careers as professional engineers, researchers, educators or entrepreneurs amid technological changes.
2. Demonstrate expertise and leadership in different fields of telecommunications engineering, and use them to contribute to the sustainable development of society.

Program Outcomes

a. An ability to apply knowledge of mathematics, science, and engineering.
b. An ability to design and conduct experiments, as well as to analyze and interpret data.
c. An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
d. An ability to function on multidisciplinary teams.
e. An ability to identify, formulate, and solve engineering problems.
f. An understanding of professional and ethical responsibility.
g. An ability to communicate effectively.
h. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
i. A recognition of the need for and an ability to engage in lifelong learning.
j. A knowledge of contemporary issues.
k. An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

Degree Requirements

General Education	**22**
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Sports	1
General Education - Religious Sciences	3
ECO350 - Engineering Economics	3
GEN300 - Scientific English	2
GEN301 - Law for Engineers	2
GEN302 - Engineering Ethics	1
GEN410 - Engineering Projects Management	2
Mathematics and Sciences	**32**
CHM212 - General Chemistry	3
CHM270 - Laboratory of General Chemistry	1
GEN250 - Modern Physics	3
GEN270 - Physics Laboratory	1
GEN350 - Mathematics for Engineers	3
GEN428 - Numerical Analysis	3
MAT207 - Algebra for Engineers 1	3
MAT217 - Calculus for Engineers 1	3
MAT227 - Calculus for Engineers 2	3
MAT307 - Algebra for Engineers 2	3
MAT337 - Calculus for Engineers 3	3
STA307 - Probability and Statistics for Engineers	3
Engineering courses	**69**
GEL211 - Electric Circuits	3
GEL271 - Electric Circuits Lab	1

GEL311 - Logic Design	3
GEL312 - Electric Power Systems	3
GEL313 - Electronics	3
GEL314 - Digital Electronics	2
GEL371 - Electronics Lab	1
GEL372 - Digital Electronics Laboratory	1
GEL420 - Nonlinear Electronics	3
GEL445 - Microprocessors	3
GEL472 - Non Linear Electronics Lab	1
GEL474 - Microprocessors Laboratory	1
GEN499 - Seminars and Conferences	0
GIN221 - Introduction to Programming	3
GIN231 - Data Structures and Algorithms	3
GRT320 - Electrostatics and Magnetism	3
GRT420 - Signal Theory	3
GRT421 - Digital Signal Processing	3
GRT423 - Waves and Propagation	3
GRT431 - Network Architecture and Protocols	3
GRT440 - Analog Communications	3
GRT470 - Digital Signal Processing Laboratory	1
GRT473 - Network Architecture and Protocols Lab	1
GRT480 - Internship I	1
GRT540 - Digital Communications	3
GRT545 - Mobile Communications	3
GRT560 - Digital Image Processing	3
GRT570 - Communications Laboratory	1
GRT572 - Mobile Communications Lab	1
GRT573 - Digital Image Processing Laboratory	1
GRT581 - Internship II	1
GRT596 - Final Project I	1
GRT597 - Final Project II	3
Technical Electives	**16 out of 44**
GEL558 - Microcontrollers	3
GEL575 - Microcontrollers Lab	1
GIN450 - Advanced Computer Architecture	3
GIN473 - Applied Programming Lab	1
GIN527 - Distributed Systems	3
GIN528 - Mobile Devices Programming	2
GRT410 - Signals and Systems	3
GRT531 - Advanced Networks Architectures	3
GRT532 - Advanced Networks Architectures Lab	1
GRT541 - Optical Communications	2
GRT542 - Network Modeling	2
GRT543 - Telephony	3
GRT546 - Telecommunications Regulations	1
GRT549 - Security of Fixed and Mobile Networks	3

GRT554 - Antennas, Radars and GPS	3
GRT563 - Video Compression	2
GRT564 - Advanced Communication Systems	3
GRT565 - Information Theory and Coding	3
GRT566 - Advanced Transmission Systems Lab	1
GRT571 - Networks Modeling Laboratory	1
Approved Faculty Electives - Group 1	**4 out of 8**
GEL425 - Linear Control Systems	3
GEL475 - Electrical Instrumentation Design Lab	1
GIN300 - Database Systems	3
GIN371 - Database Laboratory	1
Approved Faculty Electives - Group 2	**3 out of 12**
GIN314 - Object Oriented Design	3
GIN321 - Algorithmics	3
GIN446 - Web Programming	3
GMC320 - Dynamics	3
Total	**146**

Programs of Study - Graduate Programs

Master of Science in Biomedical Engineering

Mission

The Master of Science in Biomedical Engineering program aims to prepare students for advanced study and research in biomedical engineering. The mission of the program is to sculpt engineering with skills of designing, creating, analyzing innovative solutions and knowledge for improving healthcare lifestyle, devices, structures and facilities in Lebanon, the Middle East, and beyond. To achieve our educational mission, we reinforce our students with problem-solving and communication skills, we fortify their ability to think and analyze critically, we strengthen their creative and experimentation skills and we support them to discover the innovative scientific and engineering solutions.

Program Educational Objectives

1. Advance the students in their careers through innovation, critical thinking, leadership, lifelong learning, proactivity and integrity.
2. Prepare students to succeed in post-graduate studies and industry employment in biomedical engineering or related fields.

Program Outcomes

a. Ability to shape careers by critical thinking, leadership and managerial skills combined with innovation and proactivity.
b. Ability to tackle challenges in postgraduate or in industry employment in several biomedical fields.

Degree Requirements

Common Core	**12**
GEN516 - Scientific English	2
GBM600 - Special Topic in Chemical Engineering	3
GBM605 - Statistics and Clinical Cases	3
GBM633 - Biomedical Signal Analysis	3
GBM634 - Biomedical Signal Analysis Lab	1
Specialization Courses – Approved electives	**12 out of 33**
GBM512 - Biochemistry for Biomedical Engineers	2
GBM513 - Biochemistry for Biomedical Engineer Lab	1
GBM517 - Biocompatibility and Biomaterials of Medical Devices	3
GBM518 - Applied Medical Image Processing	3
GBM519 - Applied Medical Image Processing Lab	1
GBM529 - Artificial Organs and Rehabilitation Engineering	3
GBM620 - Bioinformatics	3
GBM612 - Modeling of Physiological Systems	1
GBM613 - Modeling of Physiological Systems Lab	3
GBM621 - Bioinformatics Lab	1
GBM632 - Regulation of Medical Devices	1

GBM636 - Nuclear Medicine and Radiotherapy	3
GBM637 - Design of Medical Equipment	2
GBM638 - Control of Biological and Drug Delivery Systems	3
GBM639 - Control of Biological and Drug Delivery Systems Lab	1
GBM650 - Hospital and Medical Equipment Planning	3
Capstone	**6**
GBM691 - Thesis I	1
GBM692 - Thesis II	5
Total	**30**

Master of Science in Chemical Engineering

Mission

The Master of Science in Chemical Engineering program aims to prepare students for advanced study and research in chemical engineering. The main goal of the program is to provide a solid background of research fundamentals that will help chemical engineers to serve their society through research, education or other advanced activities.

Program Educational Objectives

1. Expand students' knowledge and skills in chemical engineering.
2. Prepare students to succeed in a doctoral program in chemical engineering or related fields.

Program Outcomes

a. Ability to apply advanced level knowledge and skills in chemical engineering and related engineering areas.
b. Ability to ethically conduct applied research and engineering design with professional written and oral communication skills.

Degree Requirements

Common Core	**2**
GEN516 - Scientific English	2
GCH600 - Special Topic in Chemical Engineering	3
GMC520 - Advanced Transport Phenomena	3
Approved electives – (Petroleum OR Industrial Processes)	**16**
Approved electives - Petroleum	**16 out of 31**
GCH535 - Petroleum Refining Techniques	3
GCH540 - Conversion of Petroleum Products	3
GCH620 - Plant Design	3
GCH625 - Process Design and Control	3
GCH640 - Purification of Petroleum Products	3
GCH652 - Reservoir Characterization	3
GCH653 - Drilling Engineering	3
GCH654 - Production Technology	3

GCH655 - Reservoir Simulation	3
GCH656 - Field Development Planning	3
GCH673 - Analysis of Petroleum Products Lab	1
Approved electives - Industrial Processes	**16 out of 30**
GCH530 - Properties of Polymers	2
GCH632 - Water and Waste Treatment	3
GCH642 - Food and Pharmaceutical Processes	3
GCH643 - Production and Processing of Metals	3
GCH676 - Advanced Chemical Engineering Thermodynamics	3
GCH677 - Mass Transport	3
GCH678 - Advanced Kinetics and Reactor Design	3
GCH679 - Mathematical Modeling	3
GCH680 - Unit Integration Design and Control	3
GCH681 - Process Integration Lab	1
GMC544 - Fluid Rheology	3
Capstone	**6**
GCH691 - Thesis I	1
GCH692 - Thesis II	5
Total	**30**

Master of Science in Civil Engineering

Mission

The Master of Science in Civil Engineering program aims to prepare students for advanced study and research in civil engineering. The main goal of the program is to offer civil engineers a solid background of research fundamentals that helps them to serve their society through research, education or other advanced activities.

Program Educational Objectives

1. Expand students' knowledge and skills in civil engineering.
2. Prepare students to succeed in a doctoral program in civil engineering or related fields.

Program Outcomes

a. Ability to apply advanced level knowledge and skills in civil engineering and related engineering areas.
b. Ability to ethically conduct applied research and engineering design with professional written and oral communication skills.

Degree Requirements

Common Core	**2**
GEN516 - Scientific English	2
Specialization Courses	**22**
Specialization Courses – Public Work	
Mandatory Courses	**8**

GEN550 - Finite Element Method	3
CVE600 - Seismic Design	3
CVE601 - Management and Site Organization	2
Approved electives	**14 out of 18**
CVE602 - Urban planning	3
CVE603 - Bridges	3
CVE604 - Pavement Analysis, Design, and Maintenance	3
CVE605 - Special Structures	2
CVE606 - Offshore Structures	2
CVE607 - Highway and Road Design	3
CVE608 - Highway Construction	2
Specialization Courses – Structures and Buildings	
Mandatory Courses	**8**
GEN550 - Finite Element Method	3
CVE600 - Seismic Design	3
CVE601 - Management and Site Organization	2
Approved electives	**14 out of 18**
CVE610 - Prestressed Concrete	2
CVE611 - Advanced Structural Analysis	3
CVE612 - Sustainable Construction	3
CVE613 - Steel and Mixed Structures	3
CVE614 - MEP Systems	2
CVE615 - Finishing	2
CVE616 - Maintenance, Rehabilitation and Retrofitting of Buildings	2
CVE617 - Building project	1
Specialization Courses – Geotechnics	
Mandatory Courses	**8**
GEN550 - Finite Element Method	3
CVE600 - Seismic Design	3
CVE601 - Management and Site Organization	2
Approved electives	**14 out of 18**
CVE620 - Underground Structures	2
CVE621 - Hydrogeology	2
CVE622 - Rock Mechanics	3
CVE623 - Geographic Information Systems	2
CVE624 - Soil Dynamics	3
CVE625 - Slope Stability, Excavation and Shoring	3
CVE626 - Geotechnics of Roads	3
Specialization Courses – Hydraulics	
Mandatory Courses	**8**
GEN550 - Finite Element Method	3
CVE600 - Seismic Design	3
CVE601 - Management and Site Organization	2
Approved electives	**14 out of 18**
CVE605 - Special Structures	2
CVE621 - Hydrogeology	2

CVE630 - Hydraulic Structures	2
CVE631 - Waste Water Treatment	3
CVE632 - Management and Economy of Water	3
CVE633 - Irrigation Network	3
CVE634 - Urban Hydraulics	3
Specialization Courses – Transportation	
CVE602 - Urban Planning	3
CVE604 - Pavement Analysis, Design, and Maintenance	3
CVE607 - Highway and Road Design	3
CVE608 - Highway Construction	2
CVE640 - Transportation Systems and Traffic Analysis	3
CVE641 - Statistical Methods for Transportation Data Analysis	2
CVE642 - Traffic Management Systems	3
CVE643 - Highway Safety	3
Capstone	**6**
CVE691 - Thesis I	1
CVE692 - Thesis II	5
Total	**30**

Master of Science in Computer Engineering

Mission

The Master of Science in Computer Engineering program aims to prepare students for advanced study and research in computer engineering. It provides a strong foundation that is needed to design, develop and use computer systems. The main goal of the program is to offer computer engineers a solid background of research fundamentals that helps them to serve their society through research, education or other advanced activities.

Program Educational Objectives

1. Expand students' knowledge and skills in computer engineering.
2. Prepare students to succeed in a doctoral program in computer engineering or related fields.

Program Outcomes

a. Ability to apply advanced level knowledge and skills in computer engineering and related engineering areas.
b. Ability to ethically conduct applied research and engineering design with professional written and oral communication skills.

Degree Requirements

Common Core	**12**
GEN516 - Scientific English	2
GIN540 - Advanced Database Systems	3
GIN541 - Advanced Database Systems Lab	1

GIN600 - Special Topic in Computer Engineering	3
GIN624 - Distributed Systems	3
Specialization Courses – Approved electives	**12 out of 28**
GEL559 - Microcontrollers	3
GEL577 - Microcontrollers Lab	1
GIN510 - Advanced Computer Architecture	3
GIN550 - Cryptography and Computer Security	3
GIN612 - Software Verification and Validation	3
GIN622 - Computer Network Security	3
GIN623 - Planning and Configuration of Computer Networks	3
GIN625 - Mobile Devices Programming	2
GIN632 - Artificial Intelligence	3
GRT635 - Advanced Networks Architectures	3
GRT673 - Advanced Networks Architectures Lab	1
Capstone	**6**
GIN691 - Thesis I	1
GIN692 - Thesis II	5
Total	**30**

Master of Science in Electrical and Electronics Engineering

Mission

The mission of the Master of Science in Electrical and Electronics Engineering is to prepare professionals for advanced careers in private and public sectors and/or doctoral studies related to electrical and electronics engineering.

Program Educational Objectives

1. Develop creative solutions to problems and conceive innovative approaches in developing and designing complex electrical and electronic circuits, devices and systems.
2. Prepare students to succeed in a doctoral program in electrical and electronics engineering or related fields.

Program Outcomes

a. Ability to apply advanced level knowledge and skills in electrical and electronics engineering and related engineering areas.
b. Ability to ethically conduct applied research and engineering design with professional written and oral communication skills.

Degree Requirements

Common Core	**2**
GEN516 - Scientific English	2
Specialization	**10**
GEL600 - Special Topic in Electrical and Electronics Engineering	3
GEL620 - Advanced Control	3

GEL631 - Generation and Transport of Electrical Energy	3
GEL671 - Advanced Control lab	1
Approved electives	**12**
GEL553 - Robotics	3
GEL559 - Microcontrollers	3
GEL577 - Microcontrollers Lab	1
GEL621 - Advanced Command Strategies	2
GEL622 - Industrial Programming	2
GEL632 - Renewable Energy	3
GEL633 - Mechatronics	3
GEL636 - Industrial Maintenance	2
GEL638 - Machines Diagnosis Methods	3
GEL672 - Industrial Programming Lab	1
GEL673 - Renewable Energy Lab	1
Capstone	**6**
GEL691 - Thesis I	1
GEL692 - Thesis II	5
Total	**30**

Master of Science in Mechanical Engineering

Mission

The Master of Science in Mechanical Engineering program provides a graduate program leading to a professional mechanical engineering degree with a concentration in solid mechanics, thermal mechanics and mechatronics. The Department of Mechanical Engineering has active research interests in the following areas: composites and structured materials, computational fluid dynamics and heat transfer, advanced manufacturing, machinery design, control theory, design of thermal systems, knowledge-based engineering systems, noise control and vibration, robotics and automation, nano/micro system modeling, design and fabrication and sustainable energy.

Program Educational Objectives

The objectives of the Master's Program in Mechanical Engineering are to teach students strategies, methods and techniques to:

1. Practice mechanical engineering in support of the design of engineered systems through the application of the fundamental knowledge, skills, and tools of mechanical engineering.
2. Enhance their skills through formal education and training, independent inquiry, and professional development.
3. Successfully pursue graduate degrees at the Ph. D. level.

Program Outcomes

a. Determine a span of knowledge and fundamental application of mechanical engineering and related engineering areas.

b. Demonstrate a depth of knowledge in a chosen focus area of mechanical engineering or related areas, and an ability to work independently to complete a thesis.

Degree Requirements

Common Core	**2**
GEN516 - Scientific English	2
Specialization Courses	**22**
Specialization Courses – Mechatronics	
Mandatory Courses	**12**
GEL620 - Advanced Control	3
GEL642 - Microprocessor Systems	3
GEL671 - Advanced Control Lab	1
GEL677 - Microprocessor Systems Lab	1
GMC660 - Mechatronic Systems	3
GMC674 - Mechatronic Systems Lab	1
Approved electives	**10 out of 20**
GEL530 - Electric Machines	3
GEL553 - Robotics	3
GEL570 - Electric Machines Lab	1
GMC640 - Hydraulic and Pneumatic Power	2
GMC661 - Orbital Mechanics	3
GMC662 - Biomechanics of Human Movement	3
GMC665 - Smart Materials	3
GMC675 - 3D Modeling and Graphics Lab	1
GMC676 - Stability and Control Lab	1
Specialization Courses – Thermal Mechanics	
Mandatory Courses	**12**
GMC607 - Renewable Energy Systems	3
GMC608 - Renewable Energy Systems Lab	1
GMC639 - Computational Fluid Dynamics	3
GMC655 - Thermal Mechanical Design	3
GMC670 - Advanced Energy Systems Lab	1
GMC671 - Computational Fluid Dynamics Lab	1
Approved electives	**10 out of 15**
GMC543 - Energy Production	3
GMC550 - Turbomachinery	3
GMC609 - Micro and Nanoscale Fluid Mechanics	3
GMC617 - Statistical Thermodynamics	3
GMC635 - Refrigeration	2
GMC675 - 3D Modeling and Graphics Lab	1
Specialization Courses – Solid Mechanics	
Mandatory Courses	**12**
GEN550 - Finite Element Method	3
GMC545 - Advanced Manufacturing Techniques	2
GMC612 - Advanced Manufacturing Techniques Lab	1
GMC625 - CAD/CAM	3

GMC626 - CAD/CAM Lab	1
GMC673 - Computational Solid Mechanics Lab	1
GMC675 - 3D Modeling and Graphics Lab	1
Approved electives	**10 out of 21**
GMC542 - Machinery Design	3
GMC546 - Continuum Mechanics	3
GMC616 - Design for Pressure Vessels, Piping and Pipeline	3
GMC622 - Steel Structures Design	3
GMC630 - Acoustics	3
GMC653 - Mechanics of Fracture and Fatigue	3
GMC663 - Advanced Strength of Materials and Applied Elasticity	3
Capstone	**6**
GMC691 - Thesis I	1
GMC692 - Thesis II	5
Total	**30**

Master of Science in Communication Engineering

Mission

The mission of the Master of Science in Communications Engineering program is to expand students' knowledge and skills and prepare them to succeed in doctoral programs in communications engineering or related fields.

Program Educational Objectives

Within a few years from graduation, graduates will:

1. Advance in their careers as highly skilled professional engineers, researchers, educators or entrepreneurs amid technological changes.
2. Demonstrate expertise and leadership in different fields of communications engineering and contribute to the development of the telecommunications sector.

Program Outcomes

a. Ability to apply advanced level knowledge and skills in signal processing, telecommunications, and related engineering areas.
b. Ability to ethically conduct applied research and engineering design with professional written and oral communication skills.

Degree Requirements

Common Core	**13**
GEN516 - Scientific English	2
GRT600 - Special Topic in Computer Engineering	3
GRT555 - Mobile Communications	3
GRT575 - Mobile Communications Lab	1
GRT631 - Digital Image Processing	3
GRT671 - Digital Image Processing Lab	1
Specialization Courses – Approved electives	**11 out of 27**

GRT548 - Security of Fixed and Mobile Networks	3
GRT551 - Optical Communications	2
GRT552 - Network Modeling	2
GRT553 - Telephony	3
GRT557 - Information Theory and Coding	3
GRT576 - Network Modeling Lab	1
GRT632 - Antennas, Radars and GPS	3
GRT633 - Advanced Communication Systems	3
GRT634 - Video Compression	2
GRT635 - Advanced Networks Architectures	3
GRT672 - Advanced Transmission Systems Lab	1
GRT673 - Advanced Networks Architectures Lab	1
Capstone	**6**
GRT691 - Thesis I	1
GRT692 - Thesis II	5
Total	**30**

Course descriptions

CHM212 **General Chemistry** **3 cr.**

The purpose of this course is to present a general outline on chemistry. Through this course chemistry is introduced in its various aspects: the structure of the atom, the various models, and the properties of the elements in the periodic table; various chemical bonds, the Lewis structure, VSEPR rules; thermochemistry, thermodynamics and chemical equilibrium; kinetic chemistry, reactions rate orders, the Arrhenius law; solutions chemistry, acids and bases and various acid-base equilibrium; complexation, liquid solid equilibrium and solubility product; and Oxydoreduction titration and electrochemical cells.

CHM270 **Laboratory of General Chemistry** **1 cr.**
Pre-requisites CHM212 Or CHE212 Or CHM210 Or CHE210

The general chemistry laboratory aims to develop different skills for the practical application of theoretical knowledge of general chemistry. Techniques to be learned: preparation and dilution of solutions, experimental verification of the Nernst equation, realization of different types of acid-base and redox titration by volumetric, calorimetric, pH-metric or potentiometric monitoring, and the study of solubility and precipitation reactions and characterization of ions present in a given matrix. The goal of the lab course is to ensure that students are capable of understanding the chemical concepts and to carry out experiments safely and carefully in the laboratory, to obtain data accurately and to manipulate the data correctly.

ECO350 **Engineering Economics** **3 cr.**

This course presents the theory and application of the fundamentals of Engineering Economy and the methodology of economic decision analysis. Students will be required to learn the theoretical foundations of various principles of economic analysis and how they can be applied to solve problems encountered in industry and business.

GBM330 **Biology for Biomedical Engineers** **3 cr.**
Co-requisites GBM377

This course aims to introduce concepts of molecular biology, cell biology, biochemistry, and genetic engineering to biomedical engineering students. The topics include an introduction to the cell, organelles and cytoskeleton, DNA, membrane structure and transport, cell communication, cell cycle control, cell death, citric acid cycle, ATP production and electron transport/oxidative phosphorylation. In addition, the course will discuss the basis of the development of certain important diseases such as cancer, diabetes and mechanisms of therapeutic intervention.

GBM340 **Physiology for Biomedical Engineers** **3 cr.**
Pre-requisites GBM330 And GBM377

This course sets the basic concepts for future interfacing between engineering and physiology. It is designed to provide Biomedical Engineering graduate students with the fundamental physiological principles, processes and regulatory mechanisms of the major organ functions in the body. Throughout the course the students will learn about the contribution of both the body's organs and systems to maintaining the internal environment relatively constant, i.e., homeostasis, which is necessary for all cells and organs to function normally. Particular emphasis is given to the nervous, musculoskeletal, cardiovascular, respiratory, digestive, excretory, and endocrine systems.

GBM377 **Biology for Biomedical Engineers Laboratory** **1 cr.**
Co-requisites GBM330

This course provides students with the correct use of the optical microscope, in order to understand the way the cells of the human body work separately and together, and to familiarize the students with the

basic concepts of cellular structure. It is also a way to practice observation with details of many kinds of tissues of the human body.

GBM401 **Introduction to Biomedical Engineering** **2 cr.**
Pre-requisites GBM340

Working specifically within the framework of biomedical engineering applications, this course provides the fundamentals of biomedical engineering. The students will learn about a general approach of the different disciplines in biomedical engineering, such as biomechanics and rehabilitation engineering, biomedical imaging, neuronal engineering, and health planning, and design in medical devices. Important resources including the BMES student society and career-building will be presented.

GBM416 **Medical Imaging Systems** **3 cr.**
Pre-requisites GBM440

This course describes the main and advanced techniques in medical imaging. It will cover various techniques for acquiring medical images: Ultrasound imaging, Magnetic Resonance Imaging, conventional radiology and CT scanner.

GBM417 **Health Information Systems** **3 cr.**
Pre-requisites GBM416

This course provides students with the basics of health information systems. They will assess the basics of standards and protocols used in health information systems. They will learn the methods of archiving and data communications of digital medical images of the PACS. They will become familiar with the new challenges of telemedicine and e-health systems. Based on these they will develop projects concerning medical data archiving and management used in hospital, clinics, and medical technical maintenance industries.

GBM440 **Biophysics and Bioelectricity** **3 cr.**
Pre-requisites GBM340

This course covers a number of topics in physics, including principles of light and radiation, acoustic waves, electricity and magnetism, in order for students to understand the physiological performances of a living cell and its interactions with the environment. The aim is to introduce students to these essential physiological processes that occur every day in our life by focusing on new developments and technologies related to this field.

GBM451 **Medical Instrumentation Design and Development** **3 cr.**
Pre-requisites GEL441 And GBM440
Co-requisites GBM471

This course provides students with knowledge of the electrophysiological methods including ECG, EEG, EMG, defibrillator and cardiac pacemaker. It covers the different measurement techniques for respiration and circulation, the methods for intensive monitoring, and imaging techniques, emphasizing ultrasound. Supporting instrumentation, such as the incubator, respirator, anesthesia machine and dialysis machine, will also be covered.

GBM462 **Biomedical Signal Analysis** **3 cr.**
Pre-requisites GRT420 And GBM451
Co-requisites GBM472

This course covers a number of topics in acquisition and processing of biomedical signals. It introduces the basics of digital signal processing then develops the different methodologies used in cardiological signal processing, neuronal signal processing, ultrasound signal processing, molecular and bio signal processing from the theory to the clinical diagnosis.

GBM471 **Medical Instrumentation Design and Development Lab** **1 cr.**
Pre-requisites GEL475 And GBM451

This laboratory provides students with the basics of medical instrumentation. They will have hands-on experience with biosensors, bio filters, and bio amplifiers, and they will explore the design of medical devices such as ECG, blood pressure monitoring and others. The students will be able to acquire and measure a medical signal, using a microcontroller (example: Arduino uno, Atmega) and design the algorithm behind the sensing and the actuating parts.

GBM472 **Biomedical Signal Analysis Lab** **1 cr.**
Pre-requisites GRT420 And GBM471
Co-requisites GBM462

This lab covers a number of topics in the acquisition and processing of biomedical signals. The students will learn the required knowledge to acquire and process different biomedical data. It covers the different methodologies used in cardiological signal processing, neuronal signal processing, ultrasound signal processing, molecular and bio signal processing from the theory to the clinical diagnosis.

GBM480 **Internship I** **1 cr.**

In order to register for this course, the students first spend a minimum of two months experience in the industry, in a hospital or in a company, and live a real working experience in the field of practice that they have chosen. Afterwards, the students have to present their "job" and what they learned from it in a well-structured and well-written scientific report.

GBM501 **Health and Hospitals Services** **1 cr.**
Pre-requisites GBM401

This course introduces the students to health systems in the world and gives them insight of different economic, social and ethical aspects. The course covers principles of management and hospital management in particular.

GBM502 **Biochemistry for Biomedical Engineers** **2 cr.**
Pre-requisites GCH310
Co-requisites GBM503

This course is devoted to the study of the relationship between structure, interaction and function of fundamental cell macromolecules (proteins, sugars, lipids, nucleic acids). It will also present the usual biochemical techniques useful to the engineer from the purification of these macromolecules to detection and quantification (application, optimization, and limitations). Mechanisms and enzymatic kinetics (industrial applications of enzymes) as well as the major metabolic pathways (catabolism, anabolism and energy storage) will be discussed. It also explores protein engineering (proteins, chimeras, and induced kinetic/thermodynamic changes) and DNA engineering (cloning, PCR, RT - PCR).

GBM503 **Biochemistry for Biomedical Engineers Laboratory** **1 cr.**
Pre-requisites GCH371
Co-requisites GBM502

This laboratory provides students with the basic biochemistry methods used to extract, detect or quantify the macromolecules of the cell. Students will use spectrophotometry, liquid chromatography, gas chromatography, and thin layer chromatography. DNA extraction, its amplification by PCR and qualification by horizontal electrophoresis will also be conducted as well as genetic transformation.

GBM505 **Statistics and Clinical Cases** **3 cr.**

Pre-requisites STA307 and GBM401

The course provides students with the statistics skills that are applied to clinical and medical data. Topics include descriptive statistics, theoretical and statistical distributions, statistical estimation methods and hypothesis testing, parametric and non-parametric tests, analysis of variance (ANOVA) and covariance (ANCOVA). Statistical data, models and analysis will be applied to real data sets. The SPSS computer program will be used to perform analysis. Clinical case studies and real case studies will be implemented during this course

GBM507 **Biocompatibility and Biomaterials of Medical Devices** **3 cr.**

Pre-requisites GBM401 And GBM440

This course includes 23 lectures augmented with slides, and is completed with four workshop sessions where the students are required to deliver a written report. At total of three evaluation sessions are scheduled, plus a test at the eighth week, and one final exam.

GBM509 **Artificial Organs and Rehabilitation Engineering** **3 cr.**

Pre-requisites GBM507

This course covers the basics of artificial organs, their functionality and how they could help in the This course covers the basics of artificial organs, their functionality and how they could help in rehabilitation. Rehabilitation engineering and use of artificial organs concerns the application of engineering analysis and design expertise to overcome organ failure and disabilities and improve quality of life. Students will learn about heart assist devices, liver artificial support, hybrid organs, bio-membranes – artificial kidneys, and selected aspects of tissue engineering (regenerative medicine – is it a future of artificial organs?). A range of disabilities and assistive technologies will be investigated. The relationship between engineering innovation, the engineering design process, the human-technology interface, and the physical medicine and rehabilitation medical community will be explored.

GBM512 **Biochemistry for Biomedical Engineers** **2 cr.**

Co-requisites GBM513

This course is devoted to the study of the relationship between structure, interaction and function of fundamental cell macromolecules (proteins, sugars, lipids, nucleic acids). It will also present the usual biochemical techniques useful to the engineer from the purification of these macromolecules to detection and quantification (application, optimization, and limitations). Mechanisms and enzymatic kinetics (industrial applications of enzymes) as well as the major metabolic pathways (catabolism, anabolism and energy storage) will be discussed. The course also covers protein engineering (protein chimeras and induced kinetic/thermodynamic changes) and DNA engineering (cloning, PCR, RT - PCR).

GBM513 **Biochemistry for Biomedical Engineers Lab** **1 cr.**

Co-requisites GBM512

This laboratory provides students with the basic biochemistry methods used to extract, detect or quantify the macromolecules of the cell. Students will use spectrophotometer, liquid chromatography, gas chromatography, and thin layer chromatography. DNA extraction, its amplification by PCR and qualification by horizontal electrophoresis will also be conducted as well as genetic transformation.

GBM517 **Biocompatibility and Biomaterials of Medical Devices** **3 cr.**

This course gives the students an overview of biomaterial sciences. It covers different biomaterials used in the medical domain. It describes the structures and the proper properties of biomaterials and their biocompatibility properties emphasizing the different clinical usage in the human organism

GBM518 **Applied Medical Image Processing** **3 cr.**
Co-requisites GBM519

The course will give students a good understanding and design principles for several effective techniques used for medical image processing. The course covers the main sources of medical imaging data (CT, MRI, PET, and ultrasound). Students will learn the fundamentals behind image processing and analysis methods and algorithms with an emphasis on biomedical applications. They will learn medical image reconstruction and multi modalities medical image registration.

GBM519 **Applied Medical Image Processing Lab** **1 cr.**
Co-requisites GBM518

The laboratory will give students a good understanding and design principles for several effective techniques used for medical image processing. The course covers the main sources of medical imaging data (CT, MRI, PET, and ultrasound). Students will learn the fundamentals behind image processing and analysis methods and algorithms with an emphasis on biomedical applications. They will learn medical image reconstruction and multi modalities medical image registration.

GBM520 **Bioinformatics** **3 cr.**
Pre-requisites GBM417 And GIN231
Co-requisites GBM521

This course provides students with an introduction to genomics, the information flow in biology, exploring DNA sequence data, the experimental approach to genome sequence data, and genome information resources. It then goes on to describe: functional proteomics (protein sequence and structural data, protein information resources and secondary databases); computation genomics (internet basics, biological data analysis and application, sequence and databases, NCBI model, file format, Perl programming, bioperl, introduction and an overview of the human genome project); sequence alignment and database search (protein primary sequence analysis, DNA sequence analysis, pair wise sequence alignment, FASTA algorithm, BLAST, multiple sequence alignment, DATA base searching using BLAST and FASTA); and structural databases (small molecules databases, protein information resources, protein databank, genebank, swissport, and enterz).

GBM521 **Bioinformatics Lab** **1 cr.**
Co-requisites GBM520

The purpose of this lab is to introduce students to use of computers to solve biological problems. The following will be included: use of the LINUX operating system; use of the PERL programming language for bioinformatics analysis; and use of bioinformatics programs on a desktop computer (local, BLAST, REPEATMASKER, CLUSTALW).

GBM529 **Artificial Organs and Rehabilitation Engineering** **3 cr.**

This course covers the basics of artificial organs, their functionality and how they could help in the rehabilitation of patients. Rehabilitation engineering and artificial organs are the application of engineering analysis and design expertise to overcome organ failure and disabilities and improve quality of life.

GBM530 **Modeling of Physiological Systems** **3 cr.**
Pre-requisites GBM340 And GEL425
Co-requisites GBM531

This course provides the students with the basics of physiological models and basic biofeedback in medicine. It introduces them to the importance of cardiac modeling and respiratory modeling. The students will be able to understand and analyze respiratory anomalies in modeling and simulation and design. They will be aware of the artificial pancreas, anesthesia machine and the different control loops found in the medical devices.

GBM531 **Modeling of Physiological Systems Lab** **1 cr.**
Co-requisites GBM530
This laboratory describes the modeling and the control of biological, biomedical and drug delivery systems used in biomedical, chemical and pharmaceutical engineering. This course covers a set of models, pharmacy-kinetics, and a set of simulations and dynamic behaviors of typical plants, and feedback controller designs. This laboratory is delivered in Matlab, Mathematica, LabVIEW and other software.

GBM532 **Regulation of Medical Devices** **1 cr.**
Pre-requisites GBM401
Medical devices, essential for patient care, are currently one of the fastest growing industries in the world. However, the dramatic increase in faulty medical devices that were able to enter the market over recent decades has caused Medical Devices Policy to become increasingly important. Governments and international organizations started putting in place regulations for the safe and appropriate design, use and disposal of these products. The aim of this course is to provide an overview of international medical device regulations. Country-specific regulatory requirements for the USA, EU, and Canada etc. are mentioned and students will learn the general requirements for Risk Management (ISO 14971), Quality Management (ISO 13485) and the CE marking of products.

GBM535 **Optical Medical Imaging** **1 cr.**
Pre-requisites GEL441 AND GBM451 AND GBM416
The objective of this course is to provide students with a fundamental overview in classical and modern optics, as well as principles and functions of different Biomedical Optical Devices, and to emphasize the state-of-the-art topics related to the application of lasers and endoscopy in medicine.

GBM536 **Nuclear Medicine and Radiotherapy** **2 cr.**
Pre-requisites GBM440
This course covers the basics of Nuclear Medicine Imaging, Gamma Camera principles including modern digital designs, SPECT, coincidence imaging principles, PET instrumentation, radionuclide and X-ray CT transmission scanning techniques.

GBM537 **Design of Medical Equipment** **3 cr.**
Pre-requisites GBM416 And GBM451 And GEL312
This course is designed to educate students about medical devices design and concentrates on the diagnostic modalities fundamentals in addition to hardware design. It is divided into two parts: the aim of the first part is to provide an overview of the design life cycle of medical equipment and to present the essential procedures and methodologies required by medical engineers and designers to develop and release new efficient products to the market; and the aim of the second part is to describe the typical system requirements for the design of medical devices and to be able to understand each system's functionality.

GBM538 **Control of Biological and Drug Delivery Systems** **3 cr.**
Pre-requisites GBM340 And GEL425
Co-requisites GBM539
This course describes the modeling and the control of biological, biomedical and drug delivery systems used in biomedical and pharmaceutical engineering. The control of biological and drug-delivery systems is critical to providing a long and healthy life to millions of people worldwide. In living systems, maintenance of homeostasis is credited to several mechanisms (positive and negative feedback loops).This course covers the basics of mathematical modeling and controls of biological, chemical and pharmaceutical systems, in order that the students will be able at the end to design control-release

devices, to control drug delivery rate, to design feedback controllers such as infusion control in vasoactive drugs, in gaze control systems, in insulin infusion and others.

GBM539 Control of Biological and Drug Delivery Systems Lab 1 cr.
Co-requisites GBM538
This laboratory describes the modeling and the control of biological, biomedical and drug delivery systems used in biomedical, chemical and pharmaceutical engineering. This course covers a set of models, pharmacy-kinetics, and a set of simulations and dynamic behaviors of typical plants, and feedback controller designs. This laboratory is delivered in Matlab, Mathematica, LabVIEW and other software.

GBM548 Applied Medical Image Processing 3 cr.
Pre-requisites GBM462
Co-requisites GBM549
The course will give students a good understanding of the design principles for several effective techniques used for medical image processing. The course covers the main sources of medical imaging data (CT, MRI, PET, and ultrasound). Students will learn the fundamentals behind image processing and analysis methods and algorithms with an emphasis on biomedical applications. They will learn medical image reconstruction and multi modalities medical image registration.

GBM549 Applied Medical Image Processing Lab 1 cr.
Co-requisites GBM548
The laboratory will give students a good understanding of the design principles for several effective techniques used for medical image processing. The course covers the main sources of medical imaging data (CT, MRI, PET, and ultrasound). Students will learn the fundamentals behind image processing and analysis methods and algorithms with an emphasis on biomedical applications. They will learn medical image reconstruction and multi modalities medical image registration.

GBM550 Hospital and Medical Equipment Planning 3 cr.
Pre-requisites GEL440
The course covers the basics of hospital and medical equipment planning. The different topics include: reading and designing maps, electro-mechanical legends, mapping and planning of the different hospital departments (Emergency, Operating Department, Intensive Care Unit, Medical Laboratory, Radiology, Anesthetic). Applied projects will be discussed and designed in an interactive classroom environment.

GBM581 Internship II 1 cr.
In order to register for this course, the students first spend a minimum of two months experience in the industry, a company, or a hospital and live a real experience in the field of practice that they have chosen. Afterwards, the students must present their “job” and what they learned from it in a well-structured and well-written scientific report.

GBM596 Final Project I 1 cr.
This course pushes the students to demonstrate preparedness to start their careers as professional engineers by undertaking an investigation of a research topic relevant to the profession and by appraising its practical experience. The research topic will give the students the opportunity to marshal the relevant knowledge and skills from various courses and laboratories of the program and apply them to the investigation of an approved research topic and then to produce a report of a professional standard.

GBM597 Final Project II 3 cr.
Pre-requisites GBM596
This course pushes the students to demonstrate preparedness to start their careers as professional engineers by undertaking an investigation of a research topic relevant to the profession and by appraising its practical experience. The research topic and applied developed product or study will give the student

the opportunity to marshal the relevant knowledge and skills from various courses and laboratories of the program and apply them to the investigation of an approved research topic and then to produce a report of a professional standard. This course requires the students to exhibit/develop a proactive approach to manage, orient and present a project.

GBM600 **Special Topic in Biomedical Engineering** **3 cr.**

GBM605 **Statistics and Clinical Cases** **3 cr.**

The course provides students with the statistics skills that are applied to clinical and medical data. Topics include descriptive statistics, theoretical and statistical distributions, statistical estimation methods and hypothesis testing, parametric and non-parametric tests, analysis of variance (ANOVA) and covariance (ANCOVA). Statistical data, models and analysis will be applied on real data sets. The SPSS computer program will be used to perform analysis. Clinical case studies and real case studies will be implemented during this course

GBM612 **Modeling of Physiological Systems** **1 cr.**
Co-requisites GBM613

This course provides the students with the basics of physiological models and basic biofeedback in medicine. It introduces them to the importance of cardiac modeling and respiratory modeling. The students will be able to understand and analyze respiratory anomalies in modeling and simulation and design. They will be aware of the artificial pancreas, anesthesia machine and the different control loops found in medical devices.

GBM613 **Modeling of Physiological Systems Lab** **3 cr.**
Co-requisites GBM612

The students will be able to design, simulate, implement and control physiological models and medical devices in the laboratory sessions and deliver projects (cardiac, respiratory, functional electrical stimulation, robotic hand and others).

GBM620 **Bioinformatics** **3 cr.**
Co-requisites GBM621

This course provides students with an introduction to genomics, the information flow in biology, exploring DNA sequence data, the experimental approach to genome sequence data, and genome information resources. It then goes on to describe: functional proteomics (protein sequence and structural data, protein information resources and secondary databases); computation genomics (internet basics, biological data analysis and application, sequence and databases, NCBI model, file format, Perl programming, bioperl, introduction and an overview of the human genome project); sequence alignment and database search (protein primary sequence analysis, DNA sequence analysis, pair wise sequence alignment, FASTA algorithm, BLAST, multiple sequence alignment, DATA base searching using BLAST and FASTA); and structural databases (small molecules databases, protein information resources, protein databank, genebank, swissport, and enterz).

GBM621 **Bioinformatics Lab** **1 cr.**
Co-requisites GBM620

The purpose of this lab is to introduce students to use of computers to solve biological problems. The following will be included: use of the LINUX operating system; use of the PERL programming language for bioinformatics analysis; and use of bioinformatics programs on a desktop computer (local, BLAST, REPEATMASKER, CLUSTALW).

GBM632 Regulation of Medical Devices 1 cr.

Medical devices, essential for patient care, are currently one of the fastest growing industries in the world. However, the dramatic increase in faulty medical devices that were able to enter the market over the last decades has caused Medical Devices Policy to become increasingly important. Governments and international organizations started putting in place regulations for the safe and appropriate design, use and disposal of these products. The aim of this course is to provide an overview of international medical device regulations. Country-specific regulatory requirements for the USA, EU, and Canada etc. are mentioned and students will learn the general requirements for Risk Management (ISO 14971), Quality Management (ISO 13485) and the CE marking of products.

GBM633 Biomedical Signal Analysis 3 cr.

Co-requisites GBM634

This course covers a number of topics in acquisition and processing of biomedical signals. It explains the basics of digital signal processing then develops the different methodologies used in cardiological signal processing, in neuronal signal processing, in ultrasound signal processing, and in molecular and bio signal processing, from the theory to the clinical diagnosis.

GBM634 Biomedical Signal Analysis Lab 1 cr.

Co-requisites GBM633

This lab covers a number of topics in acquisition and processing of biomedical signals. The students study the required knowledge to acquire and process different biomedical data. It covers the different methodologies used in cardiological signal processing, in neuronal signal processing, in ultrasound signal processing, and in molecular and bio signal processing, from the theory to the clinical diagnosis.

GBM636 Nuclear Medicine and Radiotherapy 3 cr.

This course covers the basics of Nuclear Medicine Imaging, Gamma Camera principles including modern digital designs, SPECT, coincidence imaging principles, PET instrumentation, radionuclide and X-ray CT transmission scanning techniques.

GBM637 Design of Medical Equipment 2 cr.

This course is designed to educate students about medical devices design and concentrates on the diagnostic modalities fundamentals in addition to hardware design. It is divided into two parts: the aim of the first part is to provide an overview of the design life cycle of medical equipment and to present the essential procedures and methodologies required by medical engineers and designers to develop and release new efficient products to the market; and the aim of the second part is to describe the typical system requirements for the design of medical devices and to be able to understand each system's functionality.

GBM638 Control of Biological and Drug Delivery Systems 3 cr.

Co-requisites GBM639

This course describes the modeling and the control of biological, biomedical and drug delivery systems used in biomedical and pharmaceutical engineering. The control of biological and drug-delivery systems is critical to providing a long and healthy life to millions of people worldwide. In living systems, maintenance of homeostasis is credited to several mechanisms (positive and negative feedback loops). This course covers the basics of mathematical modeling and control of biological, chemical and pharmaceutical systems, in order that the students will be able at the end to design control-release devices, to control drug delivery rate, to design feedback controllers such as infusion control in vasoactive drugs, in gaze control systems, in insulin infusion and others.

GBM639 **Control of Biological and Drug Delivery Systems Lab** **1 cr.**
Co-requisites GBM638

This laboratory describes the modeling and the control of biological, biomedical and drug delivery systems used in biomedical, chemical and pharmaceutical engineering. This course covers a set of models, pharmacy-kinetics, and a set of simulations and dynamic behaviors of typical plants, and feedback controller designs. This laboratory will be delivered in Matlab, Mathematica, LabVIEW, E-Health Kits and other software.

GBM650 **Hospital and Medical Equipment Planning** **3 cr.**

The course covers the basics of hospital and medical equipment planning. The different topics include: reading and designing maps, electro-mechanical legends, mapping and planning of the different hospital departments (Emergency, Operating Department, Intensive Care Unit, Medical Laboratory, Radiology, Anesthetic). Applied projects will be discussed and designed in an interactive classroom environment.

GBM691 **Thesis I** **1 cr.**

GBM692 **Thesis II** **5 cr.**
Pre-requisites GBM691

GCH310 **Organic Chemistry** **3 cr.**
Pre-requisites CHM212 Or CHE212
Co-requisites GCH371

The aim of the course is to give students a basic knowledge of the nomenclature, the molecular structures and the reaction mechanisms of organic chemistry, as well as methods of organic synthesis. The following topics are covered: the structure of organic molecules, the geometry of organic molecules, stereoisomerism, the electronic structure of molecules, reactions and their mechanisms, nomenclature, alkanes, alkenes, alkynes, aromatic hydrocarbons, derivatives halogens, aldehydes, ketones and carboxylic acids.

GCH347 **Materials Sciences** **3 cr.**
Pre-requisites CHM212 Or CHE212

This course introduces fundamental concepts in materials science. The main purpose of this course is to provide a good understanding of materials science and engineering. Topics covered include: an introduction to materials science, atomic structure and interatomic bonding, crystalline structure, crystal defects, diffusion, phase diagrams, mechanical properties of metals, ceramics, polymers and composite materials, corrosion and degradation of materials.

GCH350 **Introduction to Chemical Engineering** **2 cr.**
Pre-requisites CHM212 And MAT217

This course deals with the following topics : it starts with flow sheet symbols and drawings, followed by the mass and energy balances for steady-state reacting and non-reacting systems; composition variables and mass and energy flow rates; material balances in non-reacting systems and in systems with one or more chemical reactions; degree of freedom analysis for non-reacting and reacting systems; enthalpy of chemical reaction, heats of formation, heat capacities, dew points and bubble points; and numerous examples with process flow sheets to illustrate each topic. The students will learn to draw a flow sheet and construct it to solve chemical balance equations around multi-unit systems, and then extend this to other units.

GCH360 **Tools for Chemical Engineering** **1 cr.**
Co-requisites GCH350

Engineering graphics, also known as drafting, is the act and discipline of composing plans that visually communicate how something functions or has to be constructed. Drafting is the visual language of industry and engineering. This course is an introduction to students of the basic standard for drawing technique, including sizing and folded drawing. The drawing technique emphasizes how to draw an object graphically, and projection point from surface and arch lines, and projection drawing from different points of view. It also helps student to draw and design using AUTOCAD.

GCH365 **Unit Operations** **3 cr.**
Pre-requisites GCH350

Students will be introduced to the principles governing the transport of momentum (fluid flow), energy (heat transfer) and mass transfer in chemical engineering. They will then apply these principles to simple systems and reinforce the application of the general differential balance equations to steady problems, and become familiar with the solutions of unsteady state.

GCH371 **Organic Chemistry Laboratory** **1 cr.**
Pre-requisites CHM270
Co-requisites GCH310

This course provides students with the principal techniques in organic chemistry. The experiments concern many examples of reactions, having a particular relevance to industrial organic chemistry.

GCH375 **Synthesis and Control of Chemical Processes** **1 cr.**
Pre-requisites GCH435 And (GCH355 Or GCH350)
Co-requisites GCH465 And GEL425

In this lab students will learn about process control using computer simulation. They will develop mathematical models of chemical processes by writing unsteady state mass and energy balances, and examine transient response of closed loop sampled data systems. Analysis and design of sampled data controllers, digital PI and PID controllers are also covered.

GCH410 **Physical Chemistry** **3 cr.**
Pre-requisites CHM212 And MAT217

This course covers the following topics: real gas (intermolecular interactions, molecular collisions, the critical temperature, the real gas state's equation, gases liquefaction); the first principle of thermodynamics (definition of enthalpy, enthalpy of formation, enthalpy of chemical transformations); the second principle of thermodynamics (entropy, spontaneous transformation, the Gibbs energy, the equilibrium reactions); the equilibrium phase change (phase diagrams, properties of non-electrolytes, phase diagrams of mixtures); fundamental links between electrochemistry and thermodynamics redox reaction, and electrochemical affinity electrode potential.

GCH415 **Applied Organic Chemistry** **3 cr.**
Pre-requisites GCH310

This course looks at the organic chemistry industry. Topics covered include: major sources of raw materials (coal, oil and petrochemistry); classification of oils; fractional distillation of petroleum; the olefins; oxidized derivatives of ethylene; benzene hydrocarbons; production and processing; synthetic polymers; and the detergents.

GCH430 **Instrumentation and Measurement Lab** **1 cr.**

Pre-requisites GEL211 And GEL425

The aim of this lab is to provide information about the types of sensors used in chemical engineering. The sensors will be used in the chain acquisition-instrumentation. An introduction of LABVIEW is also presented.

GCH435 **Chemical Kinetics and Reactor Design** **3 cr.**

Pre-requisites GCH350 And GCH365 And (GCH410 or GCH412)

Chemical reaction engineering is a combination of chemical kinetics and design and analysis of reactors to apply and optimize the desired reaction. A thorough understanding of the numerical aspects of chemical kinetics is fundamental to designing and selecting the appropriate chemical reactor for the studied system. This course presents first the kinetics of homogeneous and heterogeneous systems, then kinetic rate expressions are developed and integrated for simple reactions, and multiple reaction systems. Adsorption isotherms may be introduced to develop kinetic rate expressions for heterogeneous catalytic systems. The course then proceeds with chemical reactor design of ideal, isothermal and non-isothermal reactors. The basic steady-state design principles and equations of different ideal reactors models (discontinuous, Continued Stirred Tank Reactor CSTR and plug flow) are covered. Selectivity is introduced to increase the yield of the desired product. The course discusses reactor safety through non-steady-state reactors. Throughout this course, the principles are illustrated using examples taken from organic chemistry, industrial, and/or catalytic reactions in the liquid phase and gaseous phase.

GCH440 **Environment and Security in Chemical Industry** **3 cr.**

Pre-requisites GCH350

This aim of this course is to provide to students conceptual and practical tools to preserve the quality of the environment and avoid accidents in the industry. Topics covered include risks and environmental indicators of air pollution, water and soil quality criteria and standards, methods and procedures for characterizing environments. Also examined are risk analysis, evaluation procedures, fault tree analysis, risk reduction and preventive remedies levels, corrective and curative.

GCH450 **Separation Processes** **3 cr.**

Pre-requisites GCH365 And (GCH410 or GCH412)

Co-requisites GMC451

The main topics discussed in this course represent the core unit operations in the engineering fields. Beginning with the distillation process (atmospheric and vacuum distillations, rectification), the graphic method of McCabe Thiele is thoroughly discussed and applied with material balance equations. In the Liquid–Liquid Extraction process (binary and ternary mixtures and diagrams), McCabe Thiele methods are used to estimate the total number of theoretical successive extractions. The course then looks at filtration: the different types of filtrations and the mechanisms occurring and the parameters to control to achieve it. There is a detailed examination of deep bed filtration and cake filtration. Decantation operations will also be introduced.

GCH455 **Interfacial Phenomena and Colloids** **2 cr.**

Pre-requisites GCH410 And GCH435

This course examines the factors underlying interfacial phenomena and focuses on the thermodynamics of surfaces, structural aspects, and electrical phenomena. Some applications are discussed in the domains of emulsion, detergency, foams, fluidization, sedimentation, nucleation, wetting, adhesion, flotation, and electrophoresis.

GCH465 **Design of Chemical Reactors** **3 cr.**

Pre-requisites GCH435 And GCH450 And (GCH355 or GCH350)

This course deals with the interpretation of the evolution of different systems (with one reactor or multiple reactors), the ideal reactor designs and the possible shifts from ideal behaviors, the effect of transport phenomena in reactive systems, the definition of steady state and stability analysis. Another part will deal with reactor optimization, analysis of heterogeneous reactors and an introduction on industrial reactive system simulation and modeling.

GCH470 **Process Design and Control** **3 cr.**

Pre-requisites GEL425 And GCH435

A course covering the concepts of feedback control systems in the chemical and process industry. The course involves dynamic modeling, design and analysis of dynamic control systems.

GCH471 **Separation and Spectroscopic Techniques Lab** **2 cr.**

Pre-requisites GCH310

This module provides an overview of the current methods of analysis in diverse sectors such as the chemical and food industries, medical analysis laboratories, and environmental sciences. The idea is to connect the practical aspects of each studied method to its basic scientific concepts. Students will learn good laboratory practice through this module as well as the various separation methods (different chromatographic techniques) and spectroscopic techniques (IR, UV, NMR, fluorescence, atomic absorption and emission).

GCH472 **Process Engineering Laboratory** **1 cr.**

Pre-requisites GCH450

This laboratory offers to the students the opportunity to use all the essential knowledge to design, explore and optimize many basic operations. During this laboratory, the students will study the effect of corrosion on metals and desalting water by ion exchange columns. The students will use chemical reactors (tubular, continuous and discontinuous), and will learn how to control temperature, pressure and flows (manually and using digital programs). Another part of this lab deals with a deep bed filtration apparatus to study the pressure drop.

GCH480 **Internship I** **1 cr.**

In order to register for this course, the students first spend a minimum of two months experience in the industry or a company and live a real life experience in the field of practice that they have chosen. Afterwards, the students present their “job” and what they learned from it in a well-structured and well-written scientific report.

GCH525 **Plant Design** **3 cr.**

Pre-requisites GCH465

This is the chemical engineering capstone design course, where we put together all that students have learned previously into a coherent project(s). This unit requires the students to undertake a major design task utilizing the knowledge gained throughout the chemical engineering course.

GCH530 **Properties of Polymers** **2 cr.**

Synthetic polymers have become an integral part of our lives and can be found in many every day and advanced materials: rubber tires, bullet-proof vests, paints, fibers, contact lenses, drug delivery vehicles and many others. This course investigates these natural and man-made materials. Students will explore how these materials are synthesized, evaluated, and their commercial applications. They will also review important properties that these materials possess, including their molecular, physical, chemical, thermal, mechanical, and electrical properties. Students will be introduced to the methods of preparation of advanced polymer structures, such as block, star and brush copolymers, semi-conducting and

biodegradable polymers. Finally, the forming techniques for plastics (compression molding, injection molding) and the different parameters leading to the degradation of polymers will also be covered.

GCH535 Petroleum Refining Techniques 3 cr.

The objective of the course is to give students a working knowledge in the field of oil refining and gas. It will develop the following themes: oil exploration; oilfields; crude oil - production and global reserves; petroleum; analysis methods for gaseous, liquid and solid derivatives of oil; standards for testing petroleum products; and fractional distillation.

GCH540 Conversion of Petroleum Products 3 cr.

The objective of the course is to inform students about the chemistry and converting technology of petroleum fractions in order to obtain commercial petroleum products. The main technological units studied are: thermal cracking, catalytic cracking, catalytic reforming, alkylation, isomerization, obtaining sulfur, obtaining hydrogen and the synthesis of MTBE.

GCH541 Introduction to Petroleum Engineering 2 cr.

Pre-requisites GCH415

This course will give an overview of the oil and gas value chain starting from the exploration stage till the marketing stage. An introductory level of knowledge will be gained by students on subjects such as petroleum geology, formation evaluation, drilling engineering, reservoir engineering, production engineering and surface facilities engineering.

GCH542 Upstream and Downstream Petroleum Industry 3 cr.

Pre-requisites GCH541 or GCH578

This course will cover various petroleum engineering disciplines within the upstream phase of the oil and gas industry. An intermediate level of knowledge will be gained by students on subjects such as petroleum geology, formation evaluation, well testing, reservoir simulation, well performance and production management. Students will go through practical exercises of what they learnt in theory on respective modules of Ecrin Software developed by KAPPA Engineering.

GCH543 Drilling Engineering 3 cr.

This course presents the basics of drilling operations. Students will learn to visualize what is taking place down hole. They will go through all drilling steps and techniques and will understand how upstream services interact with the overall drilling process.

GCH545 Advanced Chemical Engineering Thermodynamics 3 cr.

Efficient separation operations and many other chemical processes depend on a thorough understanding of the properties of gaseous and liquid mixtures. This course will interpret, correlate, and predict thermodynamic properties used in mixture-related phase-equilibrium calculations. Basic statistical mechanical principles and intermolecular forces will be discussed, and applied to the correlation and prediction of thermodynamic properties and phase equilibria. Statistical thermodynamics will be shown to work with classical thermodynamics, molecular physics, and physical chemistry to solve real-world problems.

GCH546 Mass Transport 3 cr.

Students will learn about the mathematical description of mass transport processes, including analytical solutions for steady state, transient, and multi-dimensional diffusion.

This course explores a wide range of mass transfer behavior for binary and multicomponent systems that are encountered in chemical engineering. Special attention will be given to developing mathematical solutions to common steady and transient mass transfer problems, with an emphasis on understanding the physical implications of such systems. Fick's law, flux definitions, constitutive equations, and conservation equations will be developed. Steady and transient mass transfer by diffusion will be

analyzed in detail along with convective mass transfer, mass transport in flowing media, and free convection. Models will also be developed for mass transfer with simultaneous homogeneous or heterogeneous reaction and simultaneous heat and mass transfer. Attention is also given to the development of boundary layer theory and correlations for mass transfer by forced convection. Special topics may include: membrane separation processes, drug delivery and controlled release, and adsorption separations.

GCH547 Advanced Kinetics and Reactor Design 3 cr.

This course is a study of chemical kinetics and mechanisms in complex homogeneous and heterogeneous reaction systems, and the design and analysis of chemical reactors for such systems.
The course covers the science and engineering of reactive chemical systems. Ideal reactors are modeled. The theory of chemical reactions in the gas phase from fundamental physical chemical principles is introduced. Reacting systems are identified and analyzed at the level of elementary steps, including single, chain and catalytic reactions. Mathematical models for heterogeneous reactions, including associated mass transfer limitations, are also developed.

GCH548 Mathematical Modeling 3 cr.

Students will examine the formulation and solution of mathematical models of a range of chemical processes with an emphasis on differential balances and incorporation of uncertainty.
This course introduces a range of analytical and numerical methods for the solution of mathematical equations encountered in chemical engineering. Topics are motivated by and presented in the context of physical phenomena encountered in chemical engineering industrial and research problems. The accuracy and computational complexity of each approach, along with their potential modes of failure, are highlighted. Attention is also given to interpretation and handling of uncertainty in the context of different problems. MATLAB is used in the course as a vehicle for teaching basic programming technique and the use of commercial numerical packages.

GCH549 Unit Integration Design and Control 3 cr.

Reactive distillation is an excellent example of process innovation and intensification. In this course we introduce reactive distillation process design and control, starting with the steady-state design of an ideal quaternary system, steady-state design of real chemical systems, and control of ideal systems. Students will also learn about hybrid and non-conventional systems. By the end of the course students should be able to design and control at least one reactive distillation process.

GCH550 Catalytic Processes 2 cr.
Pre-requisites GCH415

Catalysis improves the speed and selectivity of chemical reactions, and allows the production of reactions under optimized conditions (room temperature, atmospheric pressure). The aim of the course is to give students a basic knowledge of the catalysis technology: homogeneous catalysis, heterogeneous catalysis, enzyme catalysis (biocatalysis), and photocatalysis. The different steps to synthesize a catalyst, different catalytic processes, such as the typical refinery processes of cracking, alkylation, reforming, hydrotreating, and petrochemical processes such as epoxidation, ammonia synthesis, and prevention of pollution such as vehicle emissions (SCR of NOx and NOx trap) will be discussed in detail.

GCH551 Applied Electrochemistry and Corrosion 3 cr.
Pre-requisites GCH410 And GCH347

This course aims to introduce the fundamentals of electrochemistry for understanding electrochemical processes involving charge transfer and their applications, looking at accumulators and corrosion.

GCH552 Reservoir Characterization 3 cr.

This course will cover various petroleum engineering disciplines within the upstream phase of the oil and gas industry. An intermediate level of knowledge will be gained by students on subjects such as petroleum

geology, formation evaluation, well testing, reservoir simulation, well performance and production management. Students will go through practical exercises of what they learnt in theory on respective modules of Ecrin Software developed by KAPPA Engineering.

GCH554 Production Technology 3 cr.

This course covers three topics: reservoir production concepts (drive mechanisms, material balance equation, production technology); well performance; and production analysis (production analysis theory, practical exercises on the Topaze Module of Ecrin Software).

GCH555 Reservoir Simulation 3 cr.

This course covers the topic of reservoir simulation. It teaches students how to build a static and dynamic reservoir model. Bases of reservoir engineering are reviewed and students will be taught how to set up a conceptual model, create various types of grids, input petrophysical parameters and run a numerical model

GCH556 Field Development Planning 3 cr.

This course covers the subject of field development planning. It teaches the fundamentals of writing a development plan. It combines both knowledge of subsurface and surface aspects in order to design a development plan up to taking a decision on optimal exploitation and development scenarios.

GCH562 Process Simulation Lab 1 cr.

Pre-requisites GCH450

This laboratory offers to the students the opportunity to use the ProSim program, a computer-based process simulator, to study different industrial processes. These include: the dehydration of natural gas, LPG recovery, bioethanol production plant, naphthalene separation, heterogeneous extractive distillation, biofuel production plant, production of ethanol and production of cyclohexane.

GCH564 Water and Waste Treatment 3 cr.

Pre-requisites GCH450

The course covers principles of treatment of domestic and industrial water, waste water and sludge. It also includes: unit operations in water and waste water treatment (physical, chemical and biological unit operations for water treatment and pollution control problems); industrial waste water treatment (characteristics, methods of in-plant control, application of various biological, chemical, and physical processes in practical water pollution control systems); drinking water (treatment and public health issues); fundamentals and applications of drinking water treatment processes, interactions among treatment processes, source water quality, and public health issues.

GCH565 Food and Pharmaceutical Processes 3 cr.

Pre-requisites GCH450

Students will learn about food and pharmaceutical processes, specifically: food and medication analysis and quality control; food safety and new product development; regulations, quality assurance, production; and evaluation of both food and pharmaceuticals processes.

GCH566 Production and Processing of Metals 3 cr.

Pre-requisites GCH347 And (GCH410 or GCH412)

In this course, students will be introduced to metallurgy unit operations (pyrometallurgical and hydrometallurgical facilities), the description of unit operations (Mass and Energy Balance, thermodynamics, kinetics), the steel industry (blast furnace, conversion processes, alternative processes), the metallurgy of non-ferrous metals (copper, zinc, lead, reagent metals: aluminum, titanium), and metal recycling.

GCH573 **Advanced Process Engineering Lab** **1 cr.**
Pre-requisites GCH472

This laboratory offers to the students the opportunity to use advanced knowledge of some operation units and their use in applications in the chemical engineering field. It deals with: gas-liquid absorption, ultrafiltration, multi-function distillation, vacuum ebulliometer, distillation; batch and continuous column; absorption with and without chemical reaction; water cooler; and reverse osmosis. Experiments will also deal with the applications of some operation units in food processing (e.g. driers, tray, rotary, spray).

GCH571 **Process Integration Lab** **3 cr.**

This course will cover the advanced level of process integration and pinch problem theory. It will introduce the newest technologies applied in that field. Students will use first principles, and simulators (such as heat) in order to design a process integration network for both chemical and petrochemical selected processes.

GCH574 **Properties of Polymers** **2 cr.**
Pre-requisites GCH415 And GCH347

Synthetic polymers have become an integral part of our lives and can be found in many every day and advanced materials: rubber tires, bullet-proof vests, paints, fibers, contact lenses, drug delivery vehicles and many others. This is a course that investigates these natural and man-made materials. We explore how these materials are synthesized, evaluated, and what their commercial applications are. We also review important properties that these materials possess, including their molecular, physical, chemical, thermal, mechanical, and electrical properties. Students will be introduced to the methods of preparation of advanced polymer structures, such as block, star and brush copolymers, semi-conducting and biodegradable polymers. Finally, the forming techniques for plastics (compression molding, injection molding) and the different parameters leading to the degradation of polymers will also be covered. At the end of this course, students will know all the details concerning polymer structures, the characteristics, application and processing of polymers, the structure and synthesis of new polymer materials used in different research areas, the different forming techniques for plastics, and all the factors responsible for the degradation of polymers.

GCH575 **Petroleum Refining Techniques** **3 cr.**
Pre-requisites GCH415

The objective of the course is to give students a working knowledge in the field of oil refining and gas. It will develop the following themes: oil exploration; oilfields; crude oil - production and global reserves; petroleum; analysis methods for gaseous, liquid and solid derivatives of oil; standards for testing petroleum products; and fractional distillation.

GCH576 **Conversion of Petroleum Products** **3 cr.**
Pre-requisites GCH415

The objective of the course is to inform students about the chemistry and converting technology of petroleum fractions in order to obtain commercial petroleum products. The main technological units studied are: thermal cracking, catalytic cracking, catalytic reforming, alkylation, isomerization, obtaining sulfur, obtaining hydrogen and the synthesis of MTBE.

GCH577 **Purification of Petroleum Products** **3 cr.**
Pre-requisites GCH415

This course covers the following: desalting of crude oil; purification of gases, solvents, and fuels; purification of lubricating oils; precipitation of asphalt vacuum residue by propane; extraction of aromatic hydrocarbons from lubricating cuts by extractive solvents; dewaxing; finishing treatments applied to

lubricating oils and paraffin; preparation of bitumen; classification of refineries; and production and distribution utilities in petroleum refineries.

GCH578 Oilfields and Drilling Techniques 2 cr.
Pre-requisites GCH415
This course covers the fundamentals of oil and gas, volumetric parameters of reservoirs, material balances, Darcy's law and the continuity equation, the current lines, models and testing of wells, reservoir properties, rocks and homogeneous and multiphase fluid flow, relative permeability, and compressibility. This course also presents the methods and equipment of drilling techniques. It examines exploration methods: geological and geophysical (gravity, magnetic, electrical and telluric) and seismic; the eruption of the wells and the pressure drops, drilling fluids, penetration, rotary drilling techniques; getting well production, transportation of crude oil, ecological and economic aspects of drilling damage.

GCH579 Analysis of Petroleum Products Lab 1 cr.
Pre-requisites GCH575 Or GCH576 Or GCH577
This laboratory introduces various methods of analysis by using sophisticated instruments and analytical equipment to determine various physical properties of crude, natural gas, petroleum products and petro-chemicals. Through this module students will learn the theoretical principles and experimental procedures for quantitative estimation.

GCH581 Internship II 1 cr.
In order to register for this course, the students first spend a minimum of two months experience in the industry or a company and live a real life experience in the field of practice that they have chosen. Afterwards, the students present their “job” and what they learned from it in a well-structured and well-written scientific report.

GCH596 Final Project I 1 cr.
This course pushes the students to demonstrate preparedness to start their careers as professional engineers by undertaking an investigation of a research topic relevant to the profession and by appraising its practical experience. The research topic will give the students the opportunity to marshal the relevant knowledge and skills from various courses and laboratories of the program and apply them to the investigation of an approved research topic and then to produce a report of a professional standard.

GCH597 Final Project II 3 cr.
Pre-requisites GCH596
This course pushes the students to demonstrate preparedness to start their careers as professional engineers by undertaking an investigation of a research topic relevant to the profession and by appraising its practical experience. The research topic and applied developed product or study will give the students the opportunity to marshal the relevant knowledge and skills from various courses and laboratories of the program and apply them to the investigation of an approved research topic and then to produce a report of a professional standard. This course requires students to exhibit/develop a proactive approach to manage, orient and present a project.

GCH600 Special Topic in Chemical Engineering 3 cr.

GCH620 Plant Design 3 cr.
This is the chemical engineering capstone design course, where we put together all that students have learned previously into a coherent project(s). This unit requires the students to undertake a major design task utilizing the knowledge gained throughout the chemical engineering course.

GCH625 Process Design and Control 3 cr.

A course covering the concepts of feedback control systems in the chemical and process industry. The course involves dynamic modeling, design and analysis of dynamic control systems.

GCH632 Water and Waste Treatment 3 cr.

This course covers the following topics: physico-chemical water treatment, such as micro straining, flocculation, sedimentation, filtration, disinfection, precipitation, removal of iron and manganese, adsorption, stabilization, thickening and sludge dewatering; waste treatment systems, such as characterization and quantification, reduction and recycling, manufacturing-derived waste, composting, incineration, combustion and pyrolysis, types of incinerators, waste and air emissions, landfill, energy recovery and pollution control.

GCH640 Purification of Petroleum Products 3 cr.

Pre-requisites GCH540

This course covers: desalting of crude oil; purification of gases, solvents, and fuels; purification of lubricating oils; precipitation of asphalt vacuum residue by propane; extraction of aromatic hydrocarbons from lubricating cuts by extractive solvents; dewaxing; finishing treatments applied to lubricating oils and paraffin; preparation of bitumen; classification refineries; and production and distribution utilities in petroleum refineries.

GCH642 Food and Pharmaceutical Processes 3 cr.

The objective of this course is for students to understand the role played by chemical engineers in these branches of industry, become familiar with all unit operations used by the food and pharmaceutical industries, and to develop the ability to integrate all scientific and technical knowledge among the food and pharmaceutical engineering processes. Topics covered by this course are: drying processes, axis conditioning and humidification, extraction, crystallization, filtration, evaporation and distillation, cooling, stirring, mixing, extrusion cooking, mechanical operations (milling, screening, etc.), membrane and chromatographic separations, biological processes, handling and storage of granules and powders.

GCH643 Production and Processing of Metals 3 cr.

This course covers the following topics: unit operations of metallurgy (pyrometallurgical and hydrometallurgical plants), description of unit operations (material and energy balances, thermodynamic description, kinetic description), steel (high furnace processes, processes converters, alternative methods), metallurgy of non-ferrous metals (copper, zinc, lead, reactive metals: aluminum, titanium), metal recycling.

GCH652 Reservoir Characterization 3 cr.

This course will cover various petroleum engineering disciplines within the upstream phase of the oil and gas industry. An intermediate level of knowledge will be gained by students on subjects such as petroleum geology, formation evaluation, well testing, reservoir simulation, well performance and production management. Students will go through practical exercises of what they learnt in theory on respective modules of Ecrin Software developed by KAPPA Engineering.

GCH653 Drilling Engineering 3 cr.

This course presents the basics of drilling operations. Students will learn to visualize what is taking place down hole. They will go through all drilling steps and techniques and will understand how upstream services interact with the overall drilling process.

GCH654 Production Technology 3 cr.

This course covers three topics: reservoir production concepts (drive mechanisms, material balance equation, production technology); well performance; and production analysis (production analysis theory, practical exercises on the Topaze Module of Ecrin Software).

GCH655 Reservoir Simulation 3 cr.

This course covers the topic of reservoir simulation. It teaches students how to build a static and dynamic reservoir model. Bases of reservoir engineering are reviewed and students will be taught how to set up a conceptual model, create various types of grids, input petrophysical parameters and run a numerical model.

GCH656 Field Development Planning 3 cr.

This course covers the subject of field development planning. It teaches the fundamentals of writing a development plan. It combines both knowledge of subsurface and surface aspects in order to design a development plan up to taking a decision on optimal exploitation and development scenarios.

GCH673 Analysis of Petroleum Products Lab 1 cr.

Pre-requisites GCH535 Or GCH540 Or GCH640

This laboratory introduces various methods of analysis by using sophisticated instruments and analytical equipment to determine various physical properties of crude, natural gas, petroleum products and petro-chemicals. Through this module students will learn the theoretical principles and experimental procedures for quantitative estimation.

GCH676 Advanced Chemical Engineering Thermodynamics 3 cr.

Efficient separation operations and many other chemical processes depend on a thorough understanding of the properties of gaseous and liquid mixtures. This course will interpret, correlate, and predict thermodynamic properties used in mixture-related phase-equilibrium calculations. Basic statistical mechanical principles and intermolecular forces will be discussed, and applied to the correlation and prediction of thermodynamic properties and phase equilibria. Statistical thermodynamics will be shown to work with classical thermodynamics, molecular physics, and physical chemistry to solve real-world problems.

GCH677 Mass Transport 3 cr.

Students will examine the mathematical description of mass transport processes, including analytical solutions for steady state, transient, and multi-dimensional diffusion.

This course explores a wide range of mass transfer behavior for binary and multicomponent systems that are encountered in chemical engineering. Special attention will be given to developing mathematical solutions to common steady and transient mass transfer problems, with an emphasis on understanding the physical implications of such systems. Fick's law, flux definitions, constitutive equations, and conservation equations will be developed. Steady and transient mass transfer by diffusion will be analyzed in detail along with convective mass transfer, mass transport in flowing media, and free convection. Models will also be developed for mass transfer with simultaneous homogeneous or heterogeneous reaction and simultaneous heat and mass transfer. Attention is also given to the development of boundary layer theory and correlations for mass transfer by forced convection. Special topics may include: membrane separation processes, drug delivery and controlled release, and adsorption separations.

GCH678 Advanced Kinetics and Reactor Design 3 cr.

This course is a study of chemical kinetics and mechanisms in complex homogeneous and heterogeneous reaction systems, and the design and analysis of chemical reactors for such systems.

The course covers the science and engineering of reactive chemical systems. Ideal reactors are modeled. The theory of chemical reactions in the gas phase from fundamental physical chemical principles is introduced. Reacting systems are identified and analyzed at the level of elementary steps, including single, chain and catalytic reactions. Mathematical models for heterogeneous reactions, including associated mass transfer limitations, are also developed.

GCH679 Mathematical Modeling 3 cr.

Students will study the formulation and solution of mathematical models of a range of chemical processes with an emphasis on differential balances and incorporation of uncertainty. This course introduces a range of analytical and numerical methods for the solution of mathematical equations encountered in chemical engineering. Topics are motivated by and presented in the context of physical phenomena encountered in chemical engineering industrial and research problems. The accuracy and computational complexity of each approach, along with their potential modes of failure, are highlighted. Attention is also given to interpretation and handling of uncertainty in the context of different problems. MATLAB is used in the course as a vehicle for teaching basic programming technique and the use of commercial numerical packages.

GCH680 Unit Integration Design and Control 3 cr.

Reactive distillation is an excellent example of process innovation and intensification. In this course we introduce reactive distillation process design and control, starting with the steady-state design of an ideal quaternary system, steady-state design of real chemical systems, and control of ideal systems. Students will also learn about hybrid and non-conventional systems. By the end of the course students should be able to design and control at least one reactive distillation process.

GCH681 Process Integration Lab 1 cr.

This course will cover the advanced level of process integration and pinch problem theory. It will introduce the newest technologies applied in that field. Students will use first principles, and simulators (such as heat) in order to design a process integration network for both chemical and petrochemical selected processes.

GCH691 Thesis I 1 cr.

GCH692 Thesis II 5 cr.
Pre-requisites GCH691

GCV301 Surveying 1 cr.
Pre-requisites MAT337 And GCV320

Surveying may be defined as the art of making measurements of the relative positions of natural and manmade features on the earth's surface and the presentation of this information either graphically or numerically. On completion of this course the surveying students will be able to demonstrate competency in the following areas: explain the meaning of a number of common terms used in surveying and mapping; utilize horizontal and vertical references; prepare and apply the use of survey field notes; use the theory of measurements, linear measurements, angles, topographic surveys; construct alignment sheets for construction design; construct a topographic map utilizing horizontal and vertical values.

GCV302 History of Architecture 2 cr.
Pre-requisites LFR120 Or ENG120

Based mainly on the architectural timeline, the course focuses on the construction periods, their key events, their most important buildings, technical inventions, socio-historical contexts, and symbolic meanings. It locates the most important milestones in the discipline and gives the students a

comprehensive global view of architecture evolution, its technical and esthetical correlation as well as its connection with other disciplines.

GCV310 **Reinforced Concrete I** **3 cr.**
Pre-requisites GCV401
Students completing this course will be able to explain and apply the principles of reinforced concrete; assign and assess proper dead, live and other structural loads; have the capability to design and analyze reinforced concrete beams, slabs, columns, and footings for flexure, shear and axial loads using ACI standard (ACI 318); use and understand the functionality of the design and analyze reinforced concrete elements using design software; coordinate, elaborate and work in a team during the group course project; and finally the students will be able to write a group project report and present parts of the results in front of the class.

GCV320 **Technical Drawings** **1 cr.**
The objective of these practical workshops is to initiate the students in the use of AutoCAD software. In the early stages they will learn about the fundamental operations that are sufficient to achieve technical drawings in 2D. The students thereafter become more proficient in using AutoCAD for the objective of realizing projects in civil engineering. We insist on the tools and the available modules (management of project, insertion of block of components, realization of report) permitting a fast realization of projects and plans of electric facilities.

GCV401 **Structural Analysis** **3 cr.**
Pre-requisites GMC440
Upon completion of this course the students will be able to: identify the types of structures (beams, frames, arches, trusses) and describe their behavior; determine, according to the codes, different design loads to be considered in the design of structures; calculate the support reactions and internal forces and draw diagrams of these efforts for statically indeterminate structures; calculate the rotations and displacements suffered by the structures; factor in loads and load combinations; and design according to the National Building Codes. The course also examines the calculation of complex truss arches and frames; calculation of deflections by the Energy methods and virtual work method; influence lines; and calculation of indeterminate structures (beams, trusses and frames) using the three moments (Clapeyron) method.

GCV405 **Reinforced Concrete II** **3 cr.**
Pre-requisites GCV310
This course covers the analysis and design of the bond, development lengths, and splices; slender columns, and biaxially bent columns; wall footings, concentrically and eccentrically loaded single column footings, and combined footings; staircases; bearing walls; cantilever retaining walls; one way and two way slab design; an introduction to seismic resistance and shear wall design.

GCV410 **Geology and Geophysics** **3 cr.**
Pre-requisites GMC440
This course introduces the students to the earth as a dynamic planet, and provides basic knowledge of the various processes shaping the earth's surface and interior. Students will thus have specific knowledge of the theories and principles governing the natural systems. It will also enable them to understand how humans affect their natural environment and vice versa. This course also introduces the concepts of geophysical investigations, mapping and satellite image interpretation.

GCV420 **Soil Mechanics** **3 cr.**
Pre-requisites GMC440
This course aims to introduce the students to the fundamentals of soil mechanics parameters which will be useful for the design of geotechnical components. It includes all basic requirements needed by the

students in order to classify soil type, to define the related parameters, the soil resistance and to evaluate the soil behavior when it may be subjected to external stresses.

GCV430 **Construction Materials** **2 cr.**
Pre-requisites GMC440

This course will familiarize students with the basic construction materials used in the building construction process such as aggregates, cement, concrete, steel, wood and ceramics. The fundamental principles of the behavior, physical and engineering properties of various common civil engineering materials will be introduced. Students learn about material and product manufacturing techniques and how they relate to mechanical and non-mechanical properties of the various materials. Resulting from this course, students will gain a comparative knowledge of material properties and possible applications in construction.

GCV440 **Infrastructures and Roads** **3 cr.**
Pre-requisites GCV430 And GCV320

This course covers: transportation functions; transportation systems, including land, air, and marine modes; transportation system elements, including traveled way, vehicle, controls, and terminals; techniques of transportation system planning, design, and operation.

GCV450 **Architectural Project** **1 cr.**
Pre-requisites GCV302 And GCV320

It is essential for civil engineers to acquire the basic skills to conduct architecture projects (concept, development, and drawings). This course prepares students to properly understand, read and develop architectural plans, helping them coordinate on projects with architects in the future.

GCV460 **Management and Site Organization** **2 cr.**
Pre-requisites GCV405

This course considers the responsibilities for planning, organizing, monitoring, controlling and administering groups of staff, e.g. site manager.

GCV461 **Construction Processes** **1 cr.**
Pre-requisites GCV450

This course will introduce students to onsite construction operations, with a focus on construction methods, equipment, and safety considerations. It will also train students to consider alternative solutions, which includes selection of the most suitable equipment and methods for the operations at hand. Case examples are introduced to familiarize students with good construction practice. Topics include site preparation and earthwork, wood frame, masonry, concrete formwork, shoring and underpinning work excavation at depth, and design, assembly and dismantling of temporary construction works. The course also aims at introducing students to soft skills, including teamwork and communication skills.

GCV462 **Building Legislation** **1 cr.**
Pre-requisites GCV450

This course defines the regulations and the relevant requirements to be achieved and provided in order to get the construction permit from the Lebanese authorities (Urbanism Agency) based on the construction law and the OEA law.

GCV463 **Specifications and Bill of Quantities** **1 cr.**
Pre-requisites GCV450

A course on the structure of construction documents and their interrelationships, bidding requirements, general and particular contract conditions, administrative and procedural requirements for construction,

technical specifications, breakdown structure and BOQ, construction cost estimation processes, and unit rates determination and pricing.

GCV465 **Foundations and Retaining Walls** **3 cr.**
Pre-requisites GCV310 And GCV420
This course aims to cover site investigations; evaluation of data from field and laboratory tests; estimation of stresses in soil masses; and proceeding with applications of principles of soil mechanics in the determination of bearing capacity and settlement of spread footings, mats, single piles, and pile groups. In parallel, this course aims to show the basic principles for the determination of the lateral stresses to be adopted in the calculation of the retaining systems and proceeding with some applications to calculate the stability of the retaining walls. This course includes all basic requirements needed by the students in order to be capable of designing the different types of foundation and retaining systems.

GCV471 **Soil Mechanics Lab** **1 cr.**
Pre-requisites GCV420
This course aims to introduce the students to the fundamentals of laboratory testing of soil. It includes laboratory teaching to familiarize students with standard soil testing techniques which are considered as a must for the determination of soil parameters needed to design the geotechnical components.

GCV472 **Construction Materials Lab** **1 cr.**
Pre-requisites GCV430
This course aims to introduce the students to the fundamentals of laboratory testing of construction materials. They will make measurements of behavior of various materials used in civil engineering among many tests, provide physical observations, introduce experimental procedures and common measurement equipment, and gain exposure to a variety of established material testing techniques. A dual approach characterizes these experiments: discovery/control of equipment and measurement/interpretation.

GCV480 **Internship I** **1 cr.**
The objective of this course is to introduce the students to the real work of the engineer on the site project and to the real work in the consultant engineering offices.

GCV500 **Prestressed Concrete** **2 cr.**
Co-requisites GCV405
This course describes the design methods and the material characteristics of the prestressed elements, prestress losses, working strength design procedures, composite construction, ultimate flexural strength and behavior, shear design, continuous prestressed concrete members, and a case study/project.

GCV501 **Seismic Design** **3 cr.**
Pre-requisites GEN450
Co-requisites GCV405
This course examines: the nature of earthquake ground motion; seismic hazard evaluation in engineering practice; response analysis of structures and effect of soil conditions on structural response and behavior under earthquake ground motion; design of structures under earthquake loading. There is also an introduction to the UBC, IBC and PS standards.

GCV502 **Urban Planning** **3 cr.**
Pre-requisites GCV440
This course presents concepts, methods, and techniques that are used for urban planning and treats the urban area as a system for the purpose of planning infrastructure (e.g., transportation, water supply, waste water disposal).

GCV505 **Advanced Structural Analysis** **3 cr.**
Pre-requisites GCV401

This course covers: the analysis of statically indeterminate structures by flexibility (force) and stiffness methods; an introduction to the direct stiffness method, Cross method; influence lines for indeterminate structures; computer structural analysis applications; project building modeling and assessment; And an introduction to the non-linear analysis**, P-Δ** analysis.

GCV510 **Sustainable Construction** **3 cr.**
Pre-requisites GCV430 And GCV450

The aim of this course is to provide an introduction to the principles of green building, including water, energy, resource efficiency, and waste reduction. It also looks at how to implement greenhouse gas emission management principles, such as emission reduction goals, accounting techniques and standards, and comprehensive emissions reduction plans and evaluation of the building performance according to LEED standards. The students will be able to analyze energy audits, conservation measures, codes and standards, and daylight simulation/modeling tools for various building types.

GCV512 **Bridges** **3 cr.**
Co-requisites GCV405

This course discusses: types of bridges; influence lines; loads and their distribution on bridges; serviceability of bridges; methods of design of bridge deck, superstructure, and substructure. Standards and norms (i.e AASHTO) are also included.

GCV514 **Pavement Analysis, Design, and Maintenance** **3 cr.**
Pre-requisites GCV440

Students will be introduced to: traffic analysis, environmental conditions, soil and drainage; material characterization and mix design; structural design; maintenance and rehabilitation; pavement monitoring; and pavement management systems.

GCV515 **Underground Structures** **2 cr.**
Pre-requisites GEN450
Co-requisites GCV405

This course covers: an introduction to tunneling with its geological aspects; tunneling methods in soft and rock ground; drilling and blasting; ground treatment in tunneling; design and supports; rock reinforcement, concrete and shotcrete linings.

GCV516 **Special Structures** **2 cr.**
Pre-requisites GEN450
Co-requisites GCV405

Special structures are true three-dimensional representations of our equilibrium equations and affirmations of our analytical techniques, design standards and construction practice. They include many types of structures, such as space frames or grids, cable and strut and tensegrity, self-erecting and deployable, cable net, tension membrane, lightweight geodesic domes, folded plates, and thin shells.

GCV517 **Offshore Structures** **2 cr.**
Pre-requisites GEN450
Co-requisites GCV405

Students will learn about the design of offshore platforms (introduction, fixed and floating platforms); case studies and general features, elements of hydrodynamics and wave theory, fluid structure interaction, steel, concrete and hybrid platforms; design criteria; environmental loading (wind, wave and current loads after installation); stability during towing; foundations (site investigations, piled foundation,

foundations for gravity structures); behavior under dynamic loading; static and dynamic analysis of platforms and components; dynamic response in deterministic and in deterministic environment; codes of practice, analysis of fixed platform and semisubmersible related topics.

GCV518 **Hydraulic Structures** **2 cr.**
Pre-requisites GEN450
Co-requisites GCV405
This course covers closed conduit flow, water distribution systems, transient analysis, open channel flow, flood control, culvert hydraulics, and design of various hydraulic structures.

GCV521 **Steel and Mixed Structures** **3 cr.**
Pre-requisites GCV310
This course examines loads on structures, philosophies of design (LRFD versus ASD), behavior, analysis, and design (according to AISC) of tension members, bolted connections, welded connections, compression members, and beams. An introduction to composite section and mixed structure design is also given.

GCV522 **MEP Systems** **2 cr.**
Pre-requisites GMC340 And GEL211 And GCV450
This course will allow students to learn about Mechanical, Electrical, Plumbing, and Fire (MEP) systems in buildings. A special coordination and planning system is needed to minimize delays and interferences. This course will enable students to understand these systems and also to schedule, estimate and coordinate them within the general construction process.

GCV524 **Finishing** **2 cr.**
Pre-requisites GCV430 And GCV320
Finishes and materials introduces the building materials and finishes used in interior and exterior applications in the context of their environmental impact, their implications for human health and safety, and their potential contribution to the design of architectural elements. This course teaches students to explore the diversity of interior building and finishing materials, and provides the technical vocabulary and scientific concepts associated with procedures used for their fabrication, testing and evaluation.

GCV525 **Maintenance, Rehabilitation and Retrofitting of Buildings** **2 cr.**
Pre-requisites GCV310
This is a course that explores the assessment of materials and structural deficiency using field test or analytical methods, repair and strengthening materials, strengthening and repair techniques, strengthening of structural members in flexure, shear and axial load, and upgrading of gravity load designed buildings for earthquake load resistance.

GCV526 **Building Project** **1 cr.**
Pre-requisites GCV462 and Special Approval
This course provides the common rules to be applied in order to achieve a successful building project. Coordination between different disciplines will be attempted.

GCV531 **Hydrogeology** **2 cr.**
Pre-requisites GCV410
This course will provide a basic understanding of the physical and chemical aspects of hydrogeology. The emphasis will be on low temperature groundwater and groundwater surface water systems. This course includes a module on hydrogeology of geothermal systems, volcanoes, etc. This course will address the occurrence, movement, and reaction of water within the earth's subsurface. We will emphasize the

evaluation of flow directions and rates, calculation of hydraulic properties, and processes controlling the composition of ground water.

GCV532 **Rock Mechanics** **3 cr.**
Pre-requisites GEN450 And GCV420
This course provides general analytical tools and experimental methods that are used in rock mechanics. Theoretical topics covered in the lectures include fundamental concepts of stresses and strains, the linear elastic constitutive model of rocks, failure modes and models of rocks, fracture mechanisms and models of rocks, inelastic behavior of rocks, and seismic waves.

GCV533 **Geographic Information Systems** **2 cr.**
This is an introductory course on Geographic Information Systems (GIS) and their applications in the planning and engineering fields, alternatives in computer based graphics, data concepts and tools, network data management and planning applications, and implementation issues. This course satisfies the departmental requirements in all graduate engineering programs.

GCV534 **Soil Dynamics** **3 cr.**
Pre-requisites GCV501
Students will study: the geotechnical considerations of earthquake engineering and foundation vibrations; seismic surveying; ground motion during earthquakes; determination of soil properties for ground response analysis; dynamic properties of soils; soil structure interaction effects; soil liquefaction; dynamic analysis of earth dams; settlements resulting from earthquakes; lateral earth pressures during earthquakes; and foundation vibrations.

GCV535 **Slope Stability, Excavation and Shoring** **3 cr.**
Pre-requisites GCV465

Students will learn about the design and construction of earth and rockfill dams, seepage problems, flow nets, seepage control, soil compaction and stabilization, computer analysis of slope stability, factor of safety, and measures taken to limit and accommodate settlements.

GCV536 **Geotechnics of Roads** **3 cr.**
Pre-requisites GCV465
This course covers advanced techniques in geomechanics, looking at subsurface exploration and soil investigation for the roads, as well as ground improvement techniques under the roads.

GCV541 **Waste Water Treatment** **3 cr.**
A course that examines the quality and treatment methods of water and waste water, and testing for physical, chemical, and biological parameters.

GCV542 **Management and Economy of Water** **3 cr.**
This course provides an introduction to water resource management challenges and the many complex factors that contribute to them. Some topics that will be discussed are water supply concerns given population growth and increasing demand, uncertainty in light of climate change, water quality issues stemming from point and nonpoint sources of pollution and from a lack of sanitation, and the geopolitics surrounding bulk water exports and sharing trans-boundary waters. Approaches for addressing water-related issues will be explored, including conceptual frameworks like Integrated Water Resource Management (IWRM) and the human right to water, and management tools like pricing and privatization.

GCV543 **Irrigation Network** **3 cr.**
Pre-requisites GCV502

This course will introduce students to: source materials for irrigation projecting, hydrological, climatic, geological and hydrogeological; preparation of irrigation constructions, standardization, construction documentation; investment goals; preparation documentation, projecting task; documentation of real type of constructions; projecting of soil unit; proposal of irrigation detail, proposal of water distribution, its flow capacity and dimension of pipe network; application of linear programming for optimization of pipe network; reviewing of irrigation equipment characteristics from the viewpoint of suitability for plants and soil; and drawing documentation of an operational project, its realization.

GCV544 **Urban Hydraulics** **3 cr.**
Pre-requisites GMC435

The aim of the course is to study the hydrology and drainage requirements of urban areas. Throughout the course, we introduce the effects of urbanization on the hydrological cycle, and develop basic methods of hydrological analysis including rainfall runoff models and flood frequency analysis. We review the basics of rainfall analysis and hydraulics, and apply this to storm, foul and combined sewer design. We explore sewer flow and quality models, storm water management and the increasing influence of sustainability principles.

GCV550 **Highway and Road Design** **3 cr.**
Pre-requisites GCV440

This course examines: the contemporary road design approach; the speed parameter; design consistency; 3-D design controls; esthetic road design criteria; energy and environmental impacts of highway design; design for heavy vehicles and powered two wheelers; at grade unsignalized intersections; roundabouts; interchanges; standards and practices in Lebanon.

GCV551 **Transportation Systems and Traffic Analysis** **3 cr.**
Pre-requisites GCV550

Students will learn about: transportation planning; the four step method; discrete choice models in transportation systems analysis ; intermodal transport; freight and logistics; project evaluation and cost-benefit analysis; traffic flow characteristics; traffic flow models; highway capacity and level of service.

GCV552 **Statistical Methods for Transportation Data Analysis** **2 cr.**
Pre-requisites STA307 And GCV551

The course explains: data management and data editing; descriptive and exploratory statistics; probability models and statistical inference; multivariate statistics; and statistical learning methods.

GCV553 **Traffic Management Systems** **3 cr.**
Pre-requisites GCV550

The course contents are: an introduction to Intelligent Transportation Systems; traffic surveillance methods; automatic vehicle identification systems; advanced traveler information systems; active traffic management; traffic flow-metering; incident management; GIS technologies and applications; and traffic flow simulation.

GCV554 **Highway Construction** **2 cr.**
Pre-requisites GCV550

Students will be introduced to: project management; health and security at work; construction of tunnels and underground structures; construction of bridges; construction of road structures, pavements, hydraulic structures, and retaining walls; automation in construction; standards and practices in Lebanon.

GCV555 **Highway Safety** **3 cr.**

Pre-requisites GCV550

The course covers these essential topics: safety issues in the Mediterranean area; the role of the driver-vehicle-road-environment system in highway safety; crash data; safety performance functions; the empirical Bayes method; crash modification factors; safety performance based highway design; metwork screening; diagnosis; selection of countermeasures; economic appraisal and prioritization; road safety impact assessment; road safety audits; road safety inspections; and network safety management based on road safety inspections.

GCV581 **Internship II** **1 cr.**

The objective of this course is to carry out professional training and experience in a civil engineering environment, either in a consultant office or on a construction site.

GCV596 **Final Project I** **1 cr.**

A major project in engineering analysis, design, development or research carried out by individual or groups of students and a faculty research supervisor. The objective is to provide an opportunity to develop initiative, self-reliance, creative ability and engineering judgment. A project proposal, an interim report, and an oral presentation are required.

GCV597 **Final Project II** **3 cr.**

Pre-requisites GCV596

This course provides the students with the opportunity to learn how to apply engineering design principles in a major group design project. While working on the projects, the students will learn how to effectively plan, schedule, search for data and information, communicate and cooperate in a team environment.

CVE600 **Seismic Design** **3 cr.**

This course examines the nature of earthquake ground motion; seismic hazard evaluation in engineering practice; response analysis of structures and effect of soil conditions on structural response and behavior under earthquake ground motion; design of structures under earthquake loading; and an introduction to the UBC, IBC and PS standards

CVE601 **Management and Site Organization** **2 cr.**

This course considers the responsibilities for planning, organizing, monitoring, controlling and administering groups of staff, e.g. site manager.

CVE602 **Urban Planning** **3 cr.**

This course presents concepts, methods, and techniques that are used for urban planning and treats the urban area as a system for the purpose of planning infrastructure (e.g., transportation, water supply, waste water disposal).

CVE603 **Bridges** **3 cr.**

This course discusses: types of bridges; influence lines; loads and their distribution on bridges; serviceability of bridges; and methods of design of bridge deck, superstructure, and substructure. Standards and norms (i.e. AASHTO) are also included.

CVE604 **Pavement Analysis, Design, and Maintenance** **3 cr.**

Students will be introduced to: traffic analysis, environmental conditions, soil and drainage; material characterization and mix design; structural design; maintenance and rehabilitation; pavement monitoring; and pavement management systems.

CVE605 Special Structures 2 cr.

Special structures are true three-dimensional representations of our equilibrium equations and affirmations of our analytical techniques, design standards and construction practices. They include many types of structures, such as: space frames or grids; cable-and-strut and tensegrity, self-erecting and deployable; cable net; tension membrane; lightweight geodesic domes; folded plates; and thin shells.

CVE606 Offshore Structures 2 cr.

Students will learn about: the design of offshore platforms (introduction, fixed and floating platforms); case studies and general features (elements of hydrodynamics and wave theory) - fluid structure interaction; steel, concrete and hybrid platforms; design criteria; environmental loading (wind, wave and current loads after installation); stability during towing; foundations (site investigations); piled foundations; foundations for gravity structures; behavior under dynamic loading; static and dynamic analysis of platforms and components; dynamic response in deterministic and in-deterministic environment; codes of practice; and analysis of fixed platform and semisubmersible related topics.

CVE607 Highway and Road Design 3 cr.

This course examines: the contemporary road design approach; the speed parameter; design consistency; 3-D design controls; esthetic road design criteria; energy and environmental impacts of highway design; design for heavy vehicles and powered two wheelers; at-grade unsignalized intersections; roundabouts; interchanges; and standards and practices in Lebanon.

CVE608 Highway Construction 2 cr.

Students will be introduced to: project management; health and security at work; construction of tunnels and underground structures; construction of bridges; construction of road structure, pavements, hydraulic structures, and retaining walls; automation in construction; and standards and practices in Lebanon.

CVE610 Prestressed Concrete 2 cr.

This course describes the design methods and the material characteristics of the prestressed elements; prestress losses; working strength design procedures; composite construction; ultimate flexural strength and behavior; shear design; and continuous prestressed concrete members. There will also be a case study/project.

CVE611 Advanced Structural Analysis 3 cr.

This course covers the analysis of statically indeterminate structures by flexibility (force) and stiffness methods; an introduction to the direct stiffness method, Cross method; influence lines for indeterminate structures; computer structural analysis applications; project building modeling and assessment; and an introduction to the non-linear analysis, P-Δ analysis.

CVE612 Sustainable Construction 3 cr.

The aim of this course is to provide an introduction to the principles of green building, including water, energy, resource efficiency, and waste reduction. It also looks at how to implement greenhouse gas emission management principles, such as emission reduction goals, accounting techniques and standards, and comprehensive emissions reduction plans and evaluation of the building performance according to LEED standards. The students will be able to analyze energy audits, conservation measures, codes and standards, and daylight simulation/modeling tools for various building types.

CVE613 Steel and Mixed Structures 3 cr.

This course examines: loads on structures; philosophies of design (LRFD versus ASD); behavior, analysis, and design (according to AISC) of tension members; bolted connections; welded connections;

compression members; and beams. An introduction to composite section and mixed structure design is also given.

CVE614 MEP Systems 2 cr.
This course will allow students to learn about Mechanical, Electrical, Plumbing, and Fire (MEP) systems in buildings. It is required for special coordination and planning to minimize delays and interferences. This course will enable students to understand these systems and also to schedule, estimate and coordinate them within the general construction process.

CVE615 Finishing 2 cr.
Finishing and materials introduces the building materials and finishes used in interior and exterior applications in the context of their environmental impact, their implications for human health and safety, and their potential contribution to the design of architectural elements. This course teaches students to explore the diversity of interior building and finish materials, and provide the technical vocabulary and scientific concepts associated with procedures used for their fabrication, testing and evaluation.

CVE616 Maintenance, Rehabilitation and Retrofitting of Buildings 2 cr.
This is a course on assessment of materials and structural deficiency using field test or analytical methods; repair and strengthening materials; strengthening and repair techniques; strengthening of structural members in flexure, shear and axial load; and upgrading of gravity load-designed buildings for earthquake load resistance.

CVE617 Building Project 1 cr.
This course provides the common rules to be applied in order to achieve a successful building project. Coordination between different disciplines will be attempted.

CVE620 Underground Structures 2 cr.
This course covers: an introduction to tunneling with its geological aspects; tunneling methods in soft and rock ground; drilling and blasting; ground treatment in tunneling; design and supports; rock reinforcement, concrete and shotcrete linings.

CVE621 Hydrogeology 2 cr.
This course will provide a basic understanding of the physical and chemical aspects of hydrogeology. The emphasis will be on low temperature groundwater and groundwater-surface water systems. This course includes information on hydrogeology of geothermal systems and volcanoes. This course will address the occurrence, movement, and reactions of water within the earth's subsurface. We will emphasize the evaluation of flow directions and rates, calculation of hydraulic properties, and processes controlling the composition of ground water.

CVE622 Rock Mechanics 3 cr.
This course provides general analytical tools and experimental methods that are used in rock mechanics. Theoretical topics covered in the lectures include: fundamental concepts of stresses and strains, linear elastic constitutive model of rocks, failure modes and models of rocks, fracture mechanisms and models of rocks, inelastic behavior of rocks, and seismic waves.

CVE623 Geographic Information Systems 2 cr.
This is an introductory course on Geographic Information Systems (GIS) and their applications in the planning and engineering fields, alternatives in computer-based graphics, data concepts and tools, network data management and planning applications, and implementation issues. This course satisfies the departmental requirements in all graduate engineering programs.

CVE624 Soil Dynamics 3 cr.

Students will study: the geotechnical considerations of earthquake engineering and foundation vibrations; seismic surveying; ground motion during earthquakes; determination of soil properties for ground response analysis; dynamic properties of soils; soil structure interaction effects; soil liquifaction; dynamic analysis of earth dams; settlements resulting from earthquakes; lateral earth pressures during earthquakes; and foundation vibrations.

CVE625 Slope Stability, Excavation and Shoring 3 cr.

Students will learn about: the design and construction of earth and rockfill dams; seepage problems, flow nets, seepage control, soil compaction and stabilization; computer analysis of slope stability, factor of safety; and measures taken to limit and accommodate settlements.

CVE626 Geotechnics of Roads 3 cr.

This course covers advanced techniques in geomechanics, subsurface exploration and soil investigation for roads, and ground improvement techniques under roads.

CVE630 Hydraulic Structures 2 cr.

This course covers closed conduit flow, water distribution systems, transient analysis, open channel flow, flood control, culvert hydraulics, and design of various hydraulic structures.

CVE631 Waste Water Treatment 3 cr.

A course that examines the quality and treatment methods of water and wastewater, and testing for physical, chemical, and biological parameters.

CVE632 Management and Economy of Water 3 cr.

This course provides an introduction to water resource management challenges and the many complex factors that contribute to them. Some topics that will be discussed are: water supply concerns given population growth and increasing demand, uncertainty in light of climate change, water quality issues stemming from point and nonpoint sources of pollution and from a lack of sanitation, and the geopolitics surrounding bulk water exports and sharing trans-boundary waters.
Approaches for addressing water-related issues will be explored, including conceptual frameworks like Integrated Water Resource Management (IWRM) and the human right to water, and management tools like pricing and privatization.

CVE633 Irrigation Networks 3 cr.

This course will introduce students to: source materials for irrigation projects (hydrological, climatic, geological and hydro-geological); preparation of irrigation constructions (standardization, construction documentation); investment goal; preparation documentation, projecting task; documentation of real type of constructions; projecting of soil unit; proposal of irrigation detail (proposal of water distribution, its flow capacity and dimension of pipe network); application of linear programming for optimization of pipe network; reviewing of irrigation equipment characteristics from viewpoint of suitability for plants and soil; and drawing documentation of operational project, its realization.

CVE634 Urban Hydraulics 3 cr.

The aim of the course is to study the hydrology and drainage requirements of urban areas. Throughout the course, we introduce the effects of urbanization on the hydrological cycle; develop basic methods of hydrological analysis including rainfall-runoff models and flood frequency analysis. We review the basics of rainfall analysis and hydraulics, and apply this to storm, foul and combined sewer design. We explore sewer flow and quality models, storm water management and the increasing influence of sustainability principles.

CVE640 **Transportation Systems and Traffic Analysis** **3 cr.**

Students will learn about: transportation planning; the four step method; discrete choice models in transportation systems analysis; intermodal transport; freight and logistics; project evaluation and cost-benefit analysis; traffic flow characteristics; traffic flow models; highway capacity and level of service.

CVE641 **Statistical Methods for Transportation Data Analysis** **2 cr.**

The course explains: data management and data editing; descriptive and exploratory statistics; probability models and statistical inference; multivariate statistics; and statistical learning methods.

CVE642 **Traffic Management Systems** **3 cr.**

The course contents are: an introduction to Intelligent Transportation Systems; traffic surveillance methods; automatic vehicle identification systems; advanced traveler information systems; active traffic management; traffic flow-metering; incident management; GIS technologies and applications; and traffic flow simulation.

CVE643 **Highway Safety** **3 cr.**

The course covers these essential topics: safety issues in the Mediterranean area; the role of the driver-vehicle-road-environment system in highway safety; crash data; safety performance functions; the empirical Bayes method; crash modification factors; safety performance based highway design; network screening; diagnosis; selection of countermeasures; economic appraisal and prioritization; road safety impact assessment; road safety audits; road safety inspections; and network safety management based on road safety inspections.

CVE691 **Thesis I** **1 cr.**

CVE692 **Thesis II** **5 cr.**
Pre-requisites CVE691

GEL211 **Electric Circuits** **3 cr.**
Co-requisites GEL271 And MAT227

This course presents the basics of electric circuits' analysis: introduction to theory, circuit variables and elements (dependent and independent voltage and current sources, resistors, inductors, capacitors); basic analysis and design of resistive circuits and different analysis techniques (Node-Voltage analysis, Mesh-Current analysis, source transformations, Thevenin's and Norton's equivalent, maximum power transfer, and Superposition methods); an introduction to capacitance, inductance, and mutual inductance; current-voltage relation; RC, RL and RLC circuits analysis (natural and step responses). Topics also include ideal operational amplifiers circuit simplification, steady-state and transient analysis, phasors, frequency response, Kirchhoff's laws and Thevenin's and Norton's equivalent represented in the frequency domain, Laplace transform and an introduction to Transfer functions.

GEL271 **Electric Circuits Lab** **1 cr.**
Co-requisites GEL211

This course presents the basics of electric circuits' analysis: introduction to theory, circuit variables and elements (dependent and independent voltage and current sources, resistors, inductors, capacitors); basic analysis and design of resistive circuits and different analysis techniques (Node-Voltage analysis, Mesh-Current analysis, source transformations, Thevenins and Nortons equivalent, maximum power transfer, and Superposition methods); an introduction to capacitance, inductance, and mutual inductance; current-voltage relation; RC, RL and RLC circuits analysis (natural and step responses). Topics

also include ideal operational amplifiers circuit simplification, steady-state and transient analysis, phasors, frequency response, Kirchhoffs laws and Thevenins and Nortons equivalent represented in the frequency domain, Laplace transform and an introduction to Transfer functions.

GEL311 **Logic Design** **3 cr.**
Pre-requisites GIN221

This course introduces first the different binary representations and the conversion methods to go from one representation to the other. Then, the signed and unsigned numbers as well as the floating numbers are proposed. The standard representation as well as the canonical form of the expressions are then proposed. The second part presents the electric components and gates needed to implement such expressions. The third part shows the simplification methods used to get simplified expressions and the main reasons to do them. Note that some design examples will be discussed in this course to enable the students to analyze the design and implementation phases from an engineering point of view. Added to that, two software packages will be used during the learning phase: the VHDL code that helps to program for the needed circuits and systems, and LogicCircuit to implement a particular circuit and to compare the obtained results with the alternatives.

GEL312 **Electric Power Systems** **3 cr.**
Pre-requisites GEL211

This course introduces the concepts of sinusoidal steady-state analysis. Then, a frequency analysis of RLC resonant circuits is performed. For balanced three-phase electric circuit analysis, current, voltage, and power, as well as power factor compensation, are calculated. The Per-Unit System and harmonics in Three-Phase Systems are also explained. Then, special cases of unbalanced three-phase electric circuits are studied with the method of symmetrical components. Finally, an overview of magnetic theory is presented and the single-phase transformer explained.

GEL313 **Electronics** **3 cr.**
Pre-requisites GEL211
Co-requisites GEL371

This course begins with an introduction of the physics of semiconductors and of the p-type and n-type semiconductors. Then, we introduce the PN junction, the diode, the Zener diode, their equivalent electrical models and their applications (rectifying circuits, limiting and clamping circuits, voltage regulators, etc.). The second part of this course examines the bipolar transistors in both NPN and PNP configurations. We define the different functioning modes (blocked, linear and saturated) and then we study the DC aspect of these transistors considering different biasing circuits. Afterwards, we do an AC analysis of the BJT amplifier circuits studying the small signal models, the current gain, the voltage gain, the input and output impedances. We finally study all three amplification configurations in common base, common emitter and common collector as well as in multi-stage amplifiers. The last part of this course addresses the subject of MOSFET transistors (the p-channel and the n-channel, depletion-type and enrichment-type), defining different functioning modes and their corresponding models in DC and in small signals.

GEL314 **Digital Electronics** **2 cr.**
Pre-requisites GEL311
Co-requisites GEL372

Students will study: the design and implementation of sequential systems (Moore and Mealy machine); Finite State Machine (FSM); digital integrated circuits; an introduction to programmable logic elements (ROM, PAL and PLA); an introduction to the different types of memory (RAM, ROM); and the analog to digital and digital to analog conversion method and its applications.

GEL340 **Technical Drawing and Computer Aided Design** **1 cr.**
Pre-requisites GEL211

The objective of the practical work of this course is to initiate students to technical drawing and to the use of AutoCAD software. It is a first-time course about learning fundamentals sufficient enough to achieve reading and composing technical drawings in 2D and 3D. Students are initiated to perform free hand sketching, multiviews, section views, and building architecture drawing. In addition, students are introduced to advanced CAD software like AutoCAD Electrical and Revit.

GEL371 **Electronics Lab** **1 cr.**
Pre-requisites GEL271
Co-requisites GEL313

First, we remind the students of the measuring devices and we introduce Multisim software. Then, students study the characteristics of different types of diodes and circuits. The characteristics of the bipolar junction transistor and the phototransistor are elaborated as well as the characteristics of the FET and MOSFET. Different configurations of transistor-based circuits are also analyzed. The work is simulated with Multisim and an electronic project ends the course.

GEL372 **Digital Electronics Laboratory** **1 cr.**
Co-requisites GEL314

This laboratory consists of first an introduction to logic gates, and function implementation using logic gates and logic circuits, second an introduction to VHDL language, as well as using it for function implementation, and third function implementation using the Xilinx card.

GEL373 **Electric Power Systems Laboratory** **1 cr.**
Pre-requisites GEL312

The course introduces first PSim software, then the RLC resonant circuits. Single-phase circuits are implemented: currents, voltages, powers, power factors are measured and simulated. Boucherot Theorem and power factor compensation are applied. Balanced three-phase circuits are then analyzed and simulated along with the Two-Wattmeter method and Delta-To-Wye transformation. Unbalanced three-phase circuits are also studied, measured and simulated with PSIM software. Determination of the elements of the equivalent circuit model of a single-phase transformer is also applied.

GEL410 **Applied Electronics** **2 cr.**
Pre-requisites GEL211

This course covers the following topics: diodes; Zener diodes; bipolar transistors (BJT); amplifiers; sampling of analog signals; combinational logic circuits (OR, AND, NOT, XOR, Boolean algebra, Karnaugh diagrams); decoders; encoders; multiplexers; demultiplexers; comparators; adders; subtractors; arithmetic logic units; and converters ADC/DAC.

GEL420 **Nonlinear Electronics** **3 cr.**
Pre-requisites GEL313
Co-requisites GEL472

Students will learn about: operational amplifiers (ideal and real models, linear operation (op-amp) and nonlinear operation (comparator, circuit Hysteresis, etc.)); function generators (square wave and triangular wave generator); sinusoidal oscillator circuits (LC and RC) and Phase Locked Loop (PLL) circuits; and filters design (low-pass, high-pass, band pass and stop band) .

GEL421 **Power Electronics** **3 cr.**
Pre-requisites GEL312 And GEL420
Co-requisites GEL470

Many devices require the use of electrical energy in various forms, hence the need for electrical power converters. After a short introduction to power electronics, basic electronic components are explained (diodes, transistors, thyristors). A recall of periodic non-sinusoidal signals and mathematical approach of circuits is performed. Different types of converters are studied: converters AC/DC (rectifiers), DC/AC (inverter), AC/AC (AC voltage controller), and DC/DC (choppers). Studies of the desired outputs of these circuits as well as undesired components such as harmonics and ripple are made.

GEL425 **Linear Control Systems** **3 cr.**
Pre-requisites GEN428

This course is designed to provide the student with the fundamental principles of the control of dynamic systems. It covers the following topics: linear system modelling (electrical systems, mechanical systems, electro-mechanical systems); transfer function and state space modelling; time response of first order and second order linear systems and error calculation; frequency response, Bode and Nichols diagrams, Nyquist diagram; system stability technics (Routh, Nyquist, placement of poles and zeros of the closed loop); root locus analysis; system behavior in frequency domain (phase and gain margins, robustness); correction of linear systems, P, PI, PD and PID corrections; and lead and lag correctors. Note that most of these topics are to be implemented on Matlab.

GEL430 **Electric Machines** **3 cr.**
Pre-requisites GEL410
Co-requisites GEL473

This course covers the following: structure and function; magnetic circuit of a DC machine; DC generators (classification and characteristics); DC motors (classification and characteristics); synchronous machines (construction and principle of operation); synchronous generator characteristics; synchronous motor characteristics; asynchronous motor (construction, principle of operation and characteristics).

GEL440 **Electrical Installation Design** **2 cr.**
Pre-requisites GEL340 And GEL312

This course is an initiation to electric design. The students will be introduced to the basic electric systems installed in a building: lighting, power, earthing, lightning protection. By the end of the course, the students will be able to implement these systems in a typical apartment and/or office area.

GEL441 **Electrical Instrumentation Design** **3 cr.**
Pre-requisites GEL314 And GEL313
Co-requisites GEL475

The aim of this course is to provide working engineers with the necessary skills and knowledge relevant to the process control and instrumentation industry. The students will be able to understand a whole acquisition system, and be able to design a process industry control from the sensor to the actuator.

GEL445 **Microprocessors** **3 cr.**
Pre-requisites GEL314

This course introduces basic computer architecture and assembly language programming. The Intel 8088 and 8086 microprocessors are considered as a practical example. After describing the software architecture of the microprocessor, the instruction set (assembly language), addressing modes and machine language are then presented. Input/output types and interfaces are then discussed. Interrupts are explained in the last part.

GEL450 **Electric Machines I** **3 cr.**
Pre-requisites GEL312 And GRT320
Co-requisites GEL471

The students will be introduced to: structure and function; magnetic circuit of a DC machine; DC generators (classification and characteristics); DC motors (classification, operating characteristics, torque, mechanical, braking characteristics); single and three phase transformer (construction and principle of operation, non-load mode, coupling index, short-circuit mode, load operation, parallel operation of transformers).

GEL455 **Electric Machines II** **3 cr.**
Pre-requisites GEL450
Co-requisites GEL476

This course covers: synchronous machines (construction and principle of operation); synchronous generator characteristics; synchronous motor characteristics; asynchronous motor (construction, principle of operation and characteristics); stepper motor (construction, principle of operation and characteristics).

GEL470 **Power Electronics Laboratory** **1 cr.**
Co-requisites GEL421

Many devices require the use of electrical energy in various forms, hence the need for electrical power converters. Different types of converters are studied: converters AC/DC (rectifiers), DC/AC (inverter), AC/AC (AC voltage controller), and DC/DC (choppers). Tests and simulations related to the desired outputs of these circuits as well as undesired components such as harmonics and ripple are made.

GEL471 **Electric Machines I Lab** **1 cr.**
Pre-requisites GEL373
Co-requisites GEL450

The aim of the practical work is the implementation of the various theoretical concepts learned in the course. Simulation problems and practical examples will be studied.

GEL472 **Non Linear Electronics Lab** **1 cr.**
Co-requisites GEL420

We introduce first the linear and non-linear operational amplifiers and we calculate the offset voltage and offset current. Then we implement different types of op amp circuits and we thoroughly study low pass, high pass, band pass and stop pass active filters of different orders. Many other applications are implemented like log and anti-log circuits, comparators, Schmitt trigger, stable and astable multivibrators, oscillators and the Phase-Locked Loop (PLL).

GEL473 **Electric Machines Lab** **1 cr.**
Co-requisites GEL430

The aim of the practical work is the implementation of the various theoretical concepts learned in the course (DC generators and motors, synchronous generators, synchronous and asynchronous motors). Simulation problems and practical examples will be studied.

GEL474 **Microprocessors Laboratory** **1 cr.**
Pre-requisites GEL445

The aim of the practical work is the implementation of the instruction set of a microprocessor, loops, arithmetic and logical operations and input-output ports.

GEL475 **Electrical Instrumentation Design Lab** **1 cr.**

Co-requisites GEL441

This laboratory introduces the properties of different sensors. Students will learn to use a computer as a measuring instrument for physical quantities such as light, temperature and others. Students will first learn to use LabView as a graphical programming tool. Then, the data acquisition board is introduced. Once familiar with LabView and the acquisition board, students will develop multiple acquisition and monitoring applications in order to measure different physical quantities.

GEL476 **Electric Machines II Lab** **1 cr.**

Pre-requisites GEL471

Co-requisites GEL455

The aim of the practical work is the implementation of the various theoretical concepts learned in the course. Simulation problems and practical examples will be studied.

GEL480 **Internship I** **1 cr.**

In order to register for this course, the students first spend a minimum of two months experience in the industry or a company and live a real experience in the field of practice that they have chosen. Afterwards, the students present their “job” and what they learned from it in a well-structured and well-written scientific report.

GEL502 **Microprocessor Systems** **3 cr.**

Pre-requisites GEL410

Co-requisites GEL503

This course introduces basic computer architecture and assembly language programming. The Intel 8088 and 8086 microprocessors are considered as a practical example. Software architecture of the microprocessor, the instruction set (assembly language), addressing modes and machine language are then presented. Input/output types and interfaces are then discussed. Interrupts are explained. Moreover, we introduce the microcontroller families: Motorola, Intel, Microchip. We study the internal resources and programming of Microchip PIC microcontrollers, as well as developing multiple practical applications.

GEL503 **Microprocessor Systems Lab** **1 cr.**

Co-requisites GEL502

The main objective of this course is to apply different microcontroller topics and peripherals, introduced using the assembly language, physically. To do so, the EasyPic6 board is used along with the MikroBasic program to write down the program. A simulator and a conversion to assembly language are found within this program.

GEL504 **Sensors and Acquisition Systems** **2 cr.**

Pre-requisites GEL410

The aim of this course is to provide working engineers with the necessary skills and knowledge relevant to the process control and instrumentation industry. The students will be able to understand a whole acquisition system, and be able to design a process industry control from the sensor to the actuator.

GEL521 **Advanced Command Strategies** **2 cr.**

Pre-requisites GEL425

In this course we will be studying Neural Network Multi-Layer-Perceptron Network (MLP) and Radial-Basis-Function (RBF) in detail as well as learning algorithms. After, we will describe some of the control methods using neural networks. Then comes the fuzzy logic (principles and fuzzy logic control) and the integration of fuzzy methods in neural networks. Then we study the Kalman and the Wiener-Hopf filters.

GEL530 **Electric Machines** **3 cr.**
Co-requisites GEL570

This course covers the following: structure and function; magnetic circuit of a DC machine; DC generators (classification and characteristics); DC motors (classification and characteristics); synchronous machines (construction and principle of operation); synchronous generator characteristics; synchronous motor characteristics; asynchronous motor (construction, principle of operation and characteristics).

GEL531 **Generation and Transport of Electrical Energy** **3 cr.**
Pre-requisites GEL455

This course is designed to provide the students with the fundamental principles of electric energy production and distribution. Energy production is examined first. Several types of power stations are presented and compared. Then energy transmission is studied. Finally, particular attention is paid to the study of alternators and transformers (modelling and construction), that are the main electrical components involved in the process of energy production and transmission.

GEL533 **Mechatronics** **3 cr.**
Pre-requisites GEL455

Mechatronics is a design philosophy involving a complete integration of mechanical engineering, electronics, control theory and computer engineering in order to design a product. It is based on an interdisciplinary approach involving many disciplines concurrently and allowing flexibility and adaptability by replacing some mechanical functions by electronic processing. After introducing basic elements of a mechatronic system, the course presents methods of modelling, analyzing and controlling engineering systems based on modern technologies and allowing the students to follow an interdisciplinary approach starting from the earliest stages of the design.

GEL536 **Industrial Maintenance** **2 cr.**
Pre-requisites GEL455

In recent years, industrial maintenance has seen many significant advances, due to a number of factors, such as sophisticated equipment, and severity norms on safety and security equipment. This course is designed to provide the students with the fundamental principles of industrial maintenance, and it covers the following topics: maintenance function, system failures, corrective and preventive maintenance, dependence, cost reliability, organization and control.

GEL537 **Advanced Electrical Installation Design** **2 cr.**
Pre-requisites GEL440

This course is in continuity with the previous course GEL440 Electrical Installations. It covers the following systems: phone systems, data, fire systems, intrusion, videophone, video monitoring, access control, distribution TV systems, sound systems, and home automation systems.

GEL538 **Machines Diagnosis Methods** **3 cr.**
Pre-requisites GEL455 And GEL421 And GRT420

This course is designed to present the methods of electrical machines diagnosis in industry, and it covers the following topics: faults of rotating machines and their diagnostics; modelling the faults of stator, rotor and winding in the electrical machine; close loop diagnosis of an asynchronous machine; observer based fault diagnosis; thermal supervision of rotating machines (asynchronous machine); and diagnosis using neural network methods. Each method will be described and presented with an application.

GEL539 **Renewable Energy** **3 cr.**
Pre-requisites GEL455
Co-requisites GEL573
The course introduces the different sources of renewable energy: solar energy, wind energy, water energy, biomass energy. It also provides the fundamental concepts of power grid and microgrid integration using green energy sources. For each application, exercises and design problems are given throughout the course. Students' oral presentations also play a major role in understanding contemporary issues and the impact of engineering solutions in a global, economic, environmental, and societal context.

GEL552 **Robotics** **3 cr.**
Pre-requisites GEL425
By the end of this course the students must be able to imagine and describe the motion of any robot. They will learn the skills to be able to analyze the velocities, singularities and force transmissions involved.

GEL553 **Robotics** **3 cr.**
By the end of this course the students must be able to imagine and describe the motion of any robot. They will learn the skills to be able to analyze the velocities, singularities and force transmissions involved.

GEL556 **Advanced Control** **3 cr.**
Pre-requisites GEL425
Co-requisites GEL574
The purpose of this course is providing an in-depth study of the numerical control of sampled systems, including a detailed study of non-linear systems.

GEL558 **Microcontrollers** **3 cr.**
Pre-requisites GEL445
Co-requisites GEL575
The purpose of this course is to provide an introduction to microcontroller families: Motorola, Intel, Microchip. We will be studying the internal resources and programming of Microchip PIC microcontrollers, as well as developing multiple practical applications.

GEL559 **Microcontrollers** **3 cr.**
Co-requisites GEL577
The purpose of this course is to provide an introduction to microcontroller families: Motorola, Intel, Microchip. We will be studying the internal resources and programming of Microchip PIC microcontrollers, as well as developing multiple practical applications.

GEL560 **Industrial Programming** **2 cr.**
Pre-requisites GEL558
Co-requisites GEL572
In this course, we will study PLCS in detail as well as how to use them and their programming methods. A detailed study of Grafcet, Ladder and Programmable Controllers will be presented. Then we familiarize students with the fieldbus CAN, I2C, MODBUS and Ethernet Industrial.

GEL570 **Electric Machines Lab** **1 cr.**
Co-requisites GEL530
The aim of the practical work is the implementation of the various theoretical concepts learned in the course. Simulation problems and practical examples will be studied.

GEL572 **Industrial Programming Lab** **1 cr.**
Co-requisites GEL560
This lab covers: IEC 61131-3 programming using Beckhoff's TwinCAT (System Manager, PLC control and ADS); the development of Human Machine interfaces; and the application to power measurement, stepper motors and servomotors.

GEL573 **Renewable Energy Lab** **1 cr.**
Co-requisites GEL539
In this laboratory, students will learn the sizing, the installation, the characteristics, and the optimum design of each renewable energy source and system. We will focus on photovoltaic panels, solar water heaters, wind turbines, and fuel cells.

GEL574 **Advanced Control Lab** **1 cr.**
Co-requisites GEL556
The main objective of this lab is to apply different topics learned in the basic control system course and the advanced one using Matlab and Simulink. Also, some new topics are introduced such as the identification, the calculation of the PID controller, the idea of fractional calculus applied to the generalized PID controller and much more.

GEL575 **Microcontrollers Lab** **1 cr.**
Pre-requisites GEL474
Co-requisites GEL558
The main objective of this course is to apply different microcontroller topics and peripherals, introduced using the assembly language, physically. To do so, the EasyPic6 board is used along with the MikroBasic program to write down the program. A simulator and a conversion to assembly language are found within this program.

GEL577 **Microcontrollers Lab** **1 cr.**
Co-requisites GEL559
The main objective of this course is to apply different microcontroller topics and peripherals, introduced using the assembly language, physically. To do so, the EasyPic6 board is used along with the MikroBasic program to write down the program. A simulator and a conversion to assembly language are found within this program.

GEL581 **Internship II** **1 cr.**
In order to register for this course, the students first spend a minimum of two months experience in the industry or a company and live a real practical experience in the field of practice that they have chosen. Afterwards, the students present their "job" and what they learned from it in a well-structured and well-written scientific report.

GEL596 **Final Project I** **1 cr.**
This course pushes the students to demonstrate readiness to start their careers as professional engineers by undertaking an investigation of a research topic relevant to the profession and by appraising its practical experience. The research topic will give the students the opportunity to marshal the relevant knowledge and skills from various courses and laboratories of the program and apply them to investigate an approved research topic and then produce a report of professional standard.

GEL597 **Final Project II** **3 cr.**
Pre-requisites GEL596
This course pushes the students to demonstrate readiness to start their careers as professional engineers by undertaking an investigation of a research topic relevant to the profession and by appraising its

practical experience. The research topic and applied developed product or study will give the students the opportunity to marshal the relevant knowledge and skills from various courses and laboratories of the program and apply them to investigate an approved research topic and then produce a report of professional standard. This course requires the students to exhibit/develop a proactive approach to manage, orient and present a project.

GEL600 **Special Topic in Electrical and Electronics Engineering** **3 cr.**

GEL620 **Advanced Control** **3 cr.**
Pre-requisites GRT561 Or GEL510
Co-requisites GEL671
The purpose of this course is to provide an in-depth study of the numerical control of sampled systems, including a detailed study of nonlinear systems with Microcontroller Based Applications.

GEL621 **Advanced Command Strategies** **2 cr.**
In this course we will be studying neural networks using the Multi-Layer-Perceptron Network (MLP) and Radial-Basis-Function (RBF) in detail, as well as Learning Algorithm. After, we will describe some of the control methods using neural networks. Then comes the fuzzy logic (principles and fuzzy logic control) and the integration of fuzzy methods in neural networks. Then we study the Kalman and the WienerHopf filters.

GEL622 **Industrial Programming** **2 cr.**
Pre-requisites GEL559
Co-requisites GEL672
In this course, we will study PLCS in detail as well as how to use them and their programming methods. A detailed study of Grafcet, Ladder and Programmable Controllers will be presented. After we familiarize students with the fieldbus CAN, I2C, MODBUS and Ethernet Industrial.

GEL631 **Generation and Transport of Electrical Energy** **3 cr.**
Pre-requisites GEL554
This course is designed to provide students with the fundamental principles of electric energy production and distribution. Several types of power stations are presented and compared. The process of energy transmission is studied next. Finally, a particular attention is paid to the alternators and transformers (modelling and construction), that are the main electrical components involved in the process of energy production and transmission.

GEL632 **Renewable Energy** **3 cr.**
Pre-requisites GEL554
Co-requisites GEL673
The course introduces the different sources of renewable energy: solar energy, wind energy, water energy, biomass energy. It also provides the fundamental concepts of power grid and microgrid integration using green energy sources. For each application, exercises and design problems are given throughout the course. Students' oral presentations play a major role in understanding contemporary issues and the impact of engineering solutions in a global, economic, environmental, and societal context.

GEL633 **Mechatronics** **3 cr.**
Pre-requisites GEL554
Mechatronics is a design philosophy involving a complete integration of mechanical engineering, electronics, control theory and computer engineering in order to design a product. It is based on an interdisciplinary approach involving many disciplines concurrently and allowing flexibility and adaptability

by replacing some mechanical functions by electronic processing. After introducing basic elements of a mechatronic system, the course presents methods of modelling, analyzing and controlling engineering systems based on modern technologies and allowing the students to follow an interdisciplinary approach starting from the earliest stages of the design.

GEL636 Industrial Maintenance 2 cr.

In recent years, industrial maintenance has seen many significant advances. This is due to many factors, including sophisticated equipment and severity norms on safety and security equipment. This course is designed to provide students with the fundamental principles of industrial maintenance, and it covers the following topics: maintenance function, system failures, corrective and preventive maintenance, dependently, cost reliability, organization and control.)

GEL638 Machines Diagnosis Methods 3 cr.

Pre-requisites GEL554 And GRT561

This course is designed to present the methods of electrical machines diagnosis in the industries. It covers the following topics: faults of rotating machines and their diagnostics; modelling the faults of stator, rotor and winding in the electrical machine; closed loop diagnosis of asynchronous machine; observer based fault diagnosis; thermal supervision of rotating machines (asynchronous machine); and diagnosis using neural network methods. Each method will be described and presented with an application.

GEL642 Microprocessor Systems 3 cr.

Co-requisites GEL677

The purpose of this course is to provide an introduction to microcontroller families: Motorola, Intel, Microchip. We will be studying the internal resources and programming of Microchip PIC microcontrollers, as well as developing multiple practical applications.

GEL671 Advanced Control Lab 1 cr.

Co-requisites GEL620

The main objective of this lab is to apply different topics learned in the basic control system course and the advanced one using Matlab and Simulink. Also, some new topics are introduced, such as the identification, the calculation of the PID controller, the idea of fractional calculus applied to the generalized PID controller and much more.

GEL672 Industrial Programming Lab 1 cr.

Co-requisites GEL622

Students will learn about IEC 611313 programming using Beckhoff's TwinCAT (System Manager, PLC control and ADS); development of human machine interfaces using InduSoft; and the application to power measurement, stepper motors and servomotors.

GEL673 Renewable Energy Lab 1 cr.

Co-requisites GEL632

In this laboratory, students will learn the sizing, the installation, the characteristics, and the optimum design of each renewable energy source and system. We will focus on photovoltaic panels, solar water heaters, wind turbines, and fuel cells.

GEL677 Microprocessor Systems Lab 3 cr.

Co-requisites GEL642

The main objective of this course is to apply different microcontroller topics and peripherals, introduced using the assembly language, physically. To do so, the EasyPic6 board is used along with the MikroBasic program to write down the program. A simulator and a conversion to assembly language are found within this program.

GEL691 **Thesis I** **1 cr.**

GEL692 **Thesis II** **5 cr.**
Pre-requisites GEL691

GEN250 **Modern Physics** **3 cr.**
Pre-requisites MAT227
Co-requisites GEN270
The course covers principles and concepts of relativity, quantum mechanics and their applications. The following topics will be covered along with their applications: the failure of classical physics; the special theory of relativity; the particle properties of electromagnetic radiation; the wave properties of particles; the Schr and ouml; dinger equation; the Rutherford-Bohr model of the atom and the hydrogen atom in wave mechanics.

GEN270 **Physics Laboratory** **1 cr.**
Pre-requisites GEN250
Tell me, I'll forget. Show me, I may remember. But, involve me, and I'll understand. Chinese proverb. The laws of physics are based on experimental and observational facts. Laboratory work is therefore an important part of a course in general physics, helping students develop skills in fundamental scientific measurements and increasing understanding of the physical concepts. It is valuable for students to experience the difficulties of making quantitative measurements in the real world and to learn how to record and process experimental data.

GEN300 **Scientific English** **2 cr.**
Pre-requisites ENG240
This course is designed to give students the opportunity to enhance their writing abilities and develop their critical thinking. It is also designed to provide rigorous training in advanced reading, critiquing, synthesizing and researching. It attempts to help students achieve greater competency in reading, writing, reflection, and discussion, emphasizing the responsibilities of written inquiry and structured reasoning. Students are expected to investigate questions that are at issue for themselves and their audience and for which they do not already have answers. In other words, this course should help students write about what they have learned through their research rather than simply write an argument supporting one side of an issue or another. In addition, students deliver one oral power point presentation based on their writings.

GEN301 **Law for Engineers** **2 cr.**
This course is designed to provide students with fundamental knowledge of legal principles and terminology, to understand the basic foundations and theories of law, and to explain the legal concepts and terminology in substantive areas of law (i.e., Contract Law, Liability Law, Labor Law, Commercial Law, etc.) It is also designed to help prepare engineering students for careers in fields which are impacted by the law and to demonstrate an understanding of the interaction between the fields of law and the application of laws and legal strategy in engineering. This course will also help engineering students to understand their rights and responsibilities as a contractor (application of Contract Law), an employee (application of Labor Law) and as a partner (application of Commercial Law).

GEN302 **Engineering Ethics** **1 cr.**
This course studies the theories of rational justification, of the moral judgments and the relationship between the concept of liberty, and the concept of responsibility, while covering the basic principles of deontology of an engineer's profession.

GEN350 **Mathematics for Engineers** **3 cr.**
Pre-requisites MAT227 And MAT307 And MAT337

The main objective of this course is to complete the knowledge of mathematics for the student engineer. It mainly covers the following themes: functions of a complex variable; analytical functions; Cauchy-Riemann conditions; harmonic functions; Cauchy integrals formulae; Taylor series; singular points; inverse Laplace transformation; special functions (Gamma and Beta functions); Bessel function; orthogonal functions (Tchebychev, Legendre, Hermite, Laguerre); and discrete-time Markov Chains.

GEN410 **Engineering Projects Management** **2 cr.**
Pre-requisites GEN350 or GCH400

This course covers the basics of project management where students learn what project management involves and how to approach it successfully and why a plan is so important to the success of a project and how to implement risk management successfully in each phase of the project. We define all tools and techniques for planning and controlling. We cover the major subject areas of the topic of quality of project management and provide valuable information. This course is essential for future engineers working in industrial environments needing to gain a recognized qualification within project management. This course prepares students to apply proven methodologies to projects within their individual fields.

GEN428 **Numerical Analysis** **3 cr.**
Pre-requisites MAT227 And MAT307 And GIN231 or GIN222

The purpose of this course is to provide numerical concepts and methods needed by students to solve different engineering problems. Topics covered include: resolution of non-linear equations; numerical integration; data approximation and interpolation and numerical resolution of differential equations. Many numerical methods are implemented and tested using Matlab software.

GEN450 **Finite Element Method** **3 cr.**
Pre-requisites GEN428

The objective of this course is to analyze real world structural mechanics problems using the finite element method. The mathematical roots of FEA will be covered extensively in this course, on which nearly all structural analysis software is built. The course will provide for the specific challenges of engineers across all mechanical disciplines (aerospace, manufacturing, mechanical and mechatronic). Also, this course provides deep insight into the operation of finite element analysis software by training the students to implement a detailed FE study including planning, modelling, meshing, solving, evaluating results and validating against real world data.

GEN499 **Seminars and Conferences** **0 cr.**

Each semester, the Faculty of Engineering organizes several seminars and conferences in which leading figures in the professional and academic world target future engineers with a speech presenting scientific, technical, and/or industrial topics, etc. and showing them the various aspects of the engineering profession.

GEN516 **Scientific English** **2 cr.**

The English 516 is designed for students working on their thesis. It gives them the opportunity to enhance their writing abilities and develop their critical thinking. It is designed to provide rigorous training in advanced reading, critiquing, synthesizing and researching. It attempts to help students achieve greater competency in reading, writing, reflection, and discussion emphasizing the responsibilities of written inquiry and structured reasoning. Students are expected to investigate questions that are at issue for themselves and their audience and for which they do not already have answers. In other words, this course should help students write about what they have learned through their research rather than simply write an argument supporting one side of an issue or another. In addition, students deliver one oral powerpoint presentation based on their writings.

GEN550 **Finite Element Method** **3 cr.**

This course introduces the finite element method and presents the need for comprehensive evaluation and checking when interpreting results. It covers basic theory; modelling, meshing and analyzing component models for stresses, deflections, temperatures and vibrations under operating conditions and loads; treatment of boundary conditions and restraints; and examples of good practice for safe and effective application in using ANSYS software.

GIN221 **Introduction to Programming** **3 cr.**

This introductory course in programming enables engineering students to learn the methods of rigorous software development solutions in the object-oriented paradigm. The course is supplemented by laboratory sessions for the application of programming concepts studied in the Eclipse integrated development environment.

GIN222 **Applied Programming for Engineers** **3 cr.**

Pre-requisites GIN221

This course emphasizes problem solving, algorithms, and an introduction to object-oriented programming. By the end of this course, students will be able to: break down computational problems into a series of easily managed steps; process data and perform input and output operations on it; implement, test, and debug a designed solution to a problem in Java, Matlab or the C language; and demonstrate a good understanding of libraries and use them for program development.

GIN231 **Data Structures and Algorithms** **3 cr.**

Pre-requisites GIN221

The first part of this course introduces some concepts of object-oriented programming as well as recursion as a programming technique. In the second part, the following data structures are studied: static arrays, dynamic arrays, linked lists, stacks, queues and trees. In addition, an introduction to computational complexity is introduced in this course which allows for making a reasonable comparison between the different implementations of the above data structures.

GIN300 **Database Systems** **3 cr.**

Pre-requisites GIN 231

Co-requisites GIN371

Students will study: the architecture and functions of a DBMS; database design (conceptual model, logical and physical models); the Entity-Relationship model; relational model and integrity constraints; relational algebra; SQL language (Data Definition Language (DDL) and Data Manipulation Language (DML)); functional dependencies, normalization and normal forms; and an introduction to PL/SQL language (triggers, stored procedures and functions). The concepts studied in this course will be applied in dedicated laboratory sessions (GIN371).

GIN311 **Elements of Discrete Mathematics** **2 cr.**

Pre-requisites MAT207 And GIN221

This course presents different topics in discrete mathematics useful in engineering. It includes: numerical sets and divisibility, concepts in number theory, proof methods, recurrence relations, discrete functions, big O and Theta concepts, algorithms analysis, prop, and predicates logic, elements of graph theory, introduction to language theory, regular languages, finite automaton, types of grammars, and Chomsky classification.

GIN314 **Object Oriented Design** **3 cr.**

Pre-requisites GIN231

This course covers: the fundamental concepts of object-oriented programming (classes, objects, abstraction, encapsulation, inheritance, polymorphism, dynamic links, inter-classes relations, inter-

objects communication); object-oriented modeling and design using UML (Unified Modeling Language); design patterns (their intent, applicability (including benefits and drawbacks), structure and implementation); advanced object-oriented programming needed in implementation of certain patterns (in Java (dynamic class loading, static blocks, interfaces, inner class tricks) and in C++ (abstract base classes, virtual functions, private and public multiple inheritance mixtures)); use of OCL (Object Constraint Language); and use of UML modeling tools (AgroUML, Visio, etc.).

GIN321 **Algorithmics** **3 cr.**
Pre-requisites GIN231

Students will study: asymptotic notation, time and space complexities; solving recurrences; trees (traversing methods, balanced trees (AVL and red-black trees), heaps); advanced sorting algorithms, methods of linear sort; hashing (open and closed hashing); graphs (traversal in depth-first and breadth-first, finding of spanning trees and shortest paths); Huffman coding.

GIN371 **Database Laboratory** **1 cr.**
Co-requisites GIN300

This laboratory covers the SQL language: Data Definition Language (DDL) and Data Manipulation Language (DML). Oracle PL/SQL is used to code, test, and implement stored procedures, functions, triggers, and packages. Relational database projects will be built using PL/SQL. A brief overview of other DMBS (MS SQL Server, MS Access, MySQL) is also given.

GIN400 **Advanced Database Systems** **3 cr.**
Pre-requisites GIN300 And GIN321
Co-requisites GIN401

The objective of this course is to study the advanced paradigms of database management systems. The content of this course consists of four main parts: the first part introduces advanced concepts of DBMS such as query optimization, concurrency control and recovery; the second part presents the distributed DBMS, detailing the architecture of these systems in order to identify their different types such as client/server DBMS, distributed DBMS, federated DBMS and multi-DBMS, and finally focuses on the fragmentation and data allocation in distributed databases; the third part presents the analytical databases, specifically data warehouses, explaining the difference between online analytical processing (OLAP) and online transactional processing (OLTP), the ETL process (extraction, transformation and loading) of these warehouses and their logical and physical modeling; the fourth part introduces OODBMS and ORDBMS, their creation and manipulation using respectively the OQL and SQL3 languages.

GIN401 **Advanced Database Systems Lab** **1 cr.**
Co-requisites GIN400

This laboratory will study more advanced features of databases in design, administration, security and multi-user application. Topics include database scripting, database transaction, database security, database maintenance, data warehouses and distributed databases.

GIN421 **Operating Systems** **3 cr.**
Pre-requisites GIN321

The course covers the fundamental concepts of operating systems, emphasizing single-machine systems. These concepts include processes, threads, process synchronization, CPU scheduling, memory management, file and I/O management, and user program execution. Popular operating systems (e.g., UNIX, LINUX, and Windows) are used to illustrate implementation of these concepts.

GIN425 **Software Engineering Design** **3 cr.**
Pre-requisites GIN314

This course is a presentation of software engineering principles, methodologies and metrics. The topics of software engineering process and quality are presented in an integrative approach, stressing software improvements through measurements of software products and processes. The Unified Modeling Language (UML) is used throughout the course. Topics covered are software development process, domain analysis, object-oriented programming, software reuse, client-server framework, design patterns, user interfaces, dynamic modeling, software architecture, software testing, software quality, risk analysis and cost estimation.

GIN431 **Advanced Algorithmics** **3 cr.**
Pre-requisites GIN321

This course introduces different families of algorithms that help students to design, analyze, and implement pertinent solutions for classical problems. It includes methods related to number theory, dynamic programming, linear sorting, backtracking, matrix multiplication, string search, and probabilistic algorithms. In addition, this course introduces basic results in calculability: Turing-Church thesis, undecidability, halting problem, P and NP classes, NP-complete and NP-hard problems.

GIN446 **Web Programming** **3 cr.**
Pre-requisites GIN300

This course aims to cover key concepts, technologies and skills in server-side and client-side Web programming, including HTML5, CSS, JavaScript, .Net, PHP and MySQL, session management, as well as XML, DTD and DOM. After the completion of this course, students will be able to develop a Web system using a particular Web programming language with dynamic and interactive contents. Students will learn the Web programming concepts and techniques via lectures, lab sessions and development projects. There will be an oral presentation of all term assignments and a final project demonstration. Students will be judged and graded on preparation and presentation skills as well as content and also on effective writing style and grammatical correctness. Course content changes frequently to incorporate new Internet technologies.

GIN450 **Advanced Computer Architecture** **3 cr.**
Pre-requisites GEL445

This course first reviews general computer architecture and presents the concept of cache memory and pipelining in single processor systems. Multiprocessing systems are then discussed, starting with a global overview to tackle the next advanced topics of interconnection networks, shared memory and cache coherence, abstract models and algorithms for multiprocessor systems, the parallel virtual machine and message passing.

GIN473 **Applied Programming Lab** **1 cr.**
Pre-requisites GIN231

This laboratory allows engineering students to create applications that address real problems. It complements their knowledge with intensive sessions covering event-driven and object-oriented programming. It covers topics such as Rapid Application Development (RAD), Create-Read-Update-Delete (CRUD) development and Graphical User Interface (GUI). The technologies covered are Visual Basic.net, Windows platform, and the development environment is MS Visual Studio.

GIN480 **Internship I** **1 cr.**

In order to register for this course, the students first spend a minimum of two months experience in the industry or a company and live a real practical experience in the field of practice that they have chosen. Afterwards, the students present their “job” and what they learned from it in a well-structured and well-written scientific report.

GIN510 **Advanced Computer Architecture** **3 cr.**

This course first reviews general computer architecture and presents the concept of cache memory and pipelining in single processor systems. Multiprocessing systems are then discussed, starting with a global overview to tackle the next advanced topics: interconnection networks, shared memory and cache coherence, abstract models and algorithms for multiprocessor systems, the parallel virtual machine and message passing.

GIN511 **Cryptography and Computer Security** **3 cr.**

Pre-requisites GRT431

The objectives of this course are to provide cryptographic and information security topics and algorithms, such as symmetric key and public key encryptions, block and stream ciphers, message authentication, program and OS security as well as network and Web security.

GIN520 **Human Machine Interaction** **3 cr.**

Pre-requisites GIN425

This course provides students with an introduction to the Human Machine Interface, and the hardware, software and operating environments in use in various fields. The students will then study the psychopathology of everyday things – complexity of modern devices; human-centered design; fundamental principles of interaction; psychology of everyday actions- how people do things; the seven stages of action and three levels of processing; human error; goal directed design; implementation models and mental models; beginners, experts and intermediates – designing for different experience levels; understanding users; modeling users – personas and goals; the Graphical User Interface (GUI) (general design principles); benefits; popularity of graphics; concept of direct manipulation; advantages and disadvantages; characteristics of GUI; characteristics of Web UI; design guidelines (perception, Gesalt principles, visual structure, reading is unnatural, color, vision, memory, six behavioral patterns, recognition and recall, learning, factors affecting learning, time); interaction styles; menus; windows; device based controls, screen based controls; communication (text messages, feedback and guidance, graphics, icons and images, colors).

GIN522 **Software Verification and Validation** **3 cr.**

Pre-requisites GIN425

This course offers a survey of and training in software testing, verification and validation techniques used in the industry today, as both large and smaller software systems. Students will become acquainted with the trending software testing/verification tools, approaches, and practices.

GIN524 **Advanced Web Technologies** **3 cr.**

Pre-requisites GIN446

This course covers the following: dynamic web applications (client-side and server-side scripting and databases); study of Web related e-commerce technologies; e-commerce workflow and transactions; advanced web technologies (AJAX, semantic web, data mining, RWD, MVC); Service-oriented Architecture (SOA) and cloud computing; Web services and APIs - implementation and management of e-commerce technologies; website management issues (cybersecurity); mobile commerce; e-commerce marketing models; search engine optimization and social networking; cloud computing deployment models for e-commerce; e-commerce interoperability processes as part of a business system; merchant services and payment process integration.

GIN525 **Computer Network Security** **3 cr.**

Pre-requisites GRT431

The purpose of this course is to introduce the principles of security in fixed and mobile networks. The course starts with an introduction to information security concepts, security services and security mechanisms. In the second part, we discuss the concepts of symmetric and asymmetric cryptography,

the hash function and the signature and key sharing procedures and we apply these concepts to secure the data communication using the SSL and the IPSec protocols. In the third part, we discuss security in wireless networks, intrusions and filtering mechanisms through the use of firewalls. Finally, we discuss security management and risk management concepts.

GIN526 **Planning and Configuration of Computer Networks** **3 cr.**
Pre-requisites GRT431

This course covers: the design process of computer networks; requirements and specifications; the main problems; modeling of the network design; design and topological expansion; location of equipment; computer networks at multiple levels; design of computer networks and traffic with standards of performance, reliability and quality of service; allocation of resources in computer networks; case studies; protocols and operation of switches and routers; design of networks, including the choice of technologies, protocols and equipment; configuration of switches and routers (wired and wireless); structured cabling; network operating systems; telephony and voice over IP; network management (management performance, configurations and faults in networks); and virtualization.

GIN527 **Distributed Systems** **3 cr.**
Pre-requisites GRT431

The objective of this course is to explain the principles of distributed systems and their different hardware and software architectures. The concepts discussed are: C/S and P2P architectures, inter-process communication, distributed file system, sockets programming, calling procedures and methods remotely (RPC and RMI), CORBA architecture, time synchronization in distributed systems, logical time, coordination algorithms, mutual exclusion, cloud computing, grid computing, clusters, and an introduction to parallel programming.

GIN528 **Mobile Devices Programming** **2 cr.**
Pre-requisites GIN446 Or GIN473

This course focuses on research and projects in the area of programming mobile devices with an emphasis on the Android platform. The main themes of the course revolve around the design of applications for mobile devices with unique challenges: user interface, mobile-specific technologies, and the importance of performance. Android SDK has its own interesting aspects to learn: the multi-touch model, accelerometer, and other important API receive significant attention. Students will learn the concepts of development applicable to any type of mobile environment: iOS, BlackBerry, Symbian, Windows Phone.

GIN532 **Artificial Intelligence** **3 cr.**
Pre-requisites STA307 And GIN321

This course covers the techniques used to design intelligent computer systems using the recent artificial intelligence (AI) techniques. Topics include intelligent agents, problem solving by searching, informed search and exploration, constraint satisfaction problems, knowledge representation and reasoning, planning, uncertain knowledge and reasoning and Machine Learning. The course also discusses advanced AI applications such as natural language processing, computer games, and robotics.

GIN540 **Advanced Database Systems** **3 cr.**
Co-requisites GIN541

The objective of this course is to study the advanced paradigms of database management systems. The content of this course consists of four main parts. The first part introduces advanced concepts of DBMS such as query optimization, concurrency control and recovery. The second part presents the distributed DBMS. It details the architecture of these systems in order to identify their different types such as client/server DBMS, distributed DBMS, federated DBMS and multi-DBMS. It finally focuses on the fragmentation and data allocation in distributed databases. The third part presents the analytical databases, specifically data warehouses. It explains the difference between the online analytical

processing (OLAP) and online transactional processing (OLTP), the ETL process (extraction, transformation and loading) of these warehouses and their logical and physical modeling. The fourth part introduces OODBMS and ORDBMS, their creation and manipulation using respectively the OQL and SQL3 languages.

GIN541 Advanced Database Systems Lab 1 cr.
Co-requisites GIN540
This laboratory will study more advanced features of databases in design, administration, security and multi-user application. Topics cover database scripting, database transactions, database security, database maintenance, data warehouse and distributed databases.

GIN550 Cryptography and Computer Security 3 cr.
The objectives of this course are to provide cryptographic and information security topics and algorithms, such as symmetric key and public key encryptions, block and stream ciphers, message authentication, program and OS security as well as network and Web security.

GIN581 Internship II 1 cr.
In order to register for this course, the students first spend a minimum of two months experience in the industry or a company and live a real practical experience in the field of practice that they have chosen. Afterwards, the students present their "job" and what they learned from it in a well-structured and well-written scientific report.

GIN596 Final Project I 1 cr.
This course pushes the students to demonstrate readiness to start their careers as professional engineers by undertaking an investigation of a research topic relevant to the profession and by appraising its practical experience. The research topic will give the students the opportunity to marshal the relevant knowledge and skills from various courses and laboratories of the program and apply them to investigate an approved research topic and then produce a report of professional standard.

GIN597 Final Project II 3 cr.
Pre-requisites GIN596
This course pushes the students to demonstrate readiness to start their careers as professional engineers by undertaking an investigation of a research topic relevant to the profession and by appraising its practical experience. The research topic and applied developed product or study will give the students the opportunity to marshal the relevant knowledge and skills from various courses and laboratories of the program and apply them to investigate an approved research topic and then produce a report of professional standard. This course requires students to exhibit/develop a proactive approach to manage, orient and present a project.

GIN600 Special Topic in Computer Engineering 3 cr.

GIN612 Software Verification and Validation 3 cr.
This course covers the following topics: validation of a software product by testing its complete integration; preconditions, post-conditions and invariants; use of models in software development; test and verification of software; audit programs by symbolic execution; predicate logic of first-order; Hoare logic; and development of correct programs built from templates.

GIN622 Computer Network Security 3 cr.
Pre-requisites GIN550
The purpose of this course is to introduce the principles of security in fixed and mobile networks. The course starts with an introduction to information security concepts, security services and security mechanisms. In the second part, we discuss the concepts of symmetric and asymmetric cryptography,

the hash function and the signature and key sharing procedures and we apply these concepts to secure the data communication using the SSL and the IPSec protocols. In the third part, we discuss security in wireless networks, intrusions and filtering mechanisms through the use of firewalls. Finally, we discuss security management and risk management concepts.

GIN623 **Planning and Configuration of Computer Networks** **3 cr.**
Pre-requisites GIN622

Students will study: computer network planning process; requirements and specifications; modeling of the main network planning problems; topological design and expansion;location of equipment; computer networks at several levels; design of computer networks and routing traffic with performance, reliability and quality of service QOS; resource allocation in computer networks; case studies; protocols and operation of switches and routers; network design including the choice of technologies, protocols and equipment; configuration of switches and routers (wired and wireless); structured cabling; network operating systems; telephony and VoIP; network management (performance management, configuration and faults in networks); and virtualization.

GIN624 **Distributed Systems** **3**
Pre-requisites GIN550

The objective of this course is to explain the principles of distributed systems and their different hardware and software architectures. The concepts discussed are: C/S and P2P architectures, inter-process communication, distributed file systems, sockets programming, calling procedures and methods remotely (RPC and RMI, CORBA architecture), time synchronization in distributed systems, logical time, coordination algorithms, mutual exclusion, cloud computing, grid computing, clusters, and an introduction to parallel programming.

GIN625 **Mobile Devices Programming** **2 cr.**

Students will learn about programming mobile devices with an emphasis on the environment and the Android platform. This course focuses on research and projects. The main themes of the course revolve around the design of applications for mobile devices with unique challenges (user interface, mobile-specific technologies), and the importance of performance. The Android SDK has its own interesting aspects to learn. The multi-touch model, accelerometer, and other important API receive significant attention. Students will learn the concepts of development applicable to any type of mobile environment: iOS, BlackBerry, Symbian, Windows Phone.

GIN632 **Artificial Intelligence** **3 cr.**

This course covers the techniques used to design intelligent computer systems using the recent artificial intelligence (AI) techniques. Topics include intelligent agents, problem solving by searching, informed search and exploration, constraint satisfaction problems, knowledge representation and reasoning, planning, uncertain knowledge and reasoning and Machine Learning. The course also discusses advanced AI applications such as natural language processing, computer games, and robotics.

GIN691 **Thesis I** **1 cr.**

GIN692 **Thesis II** **5 cr.**
Pre-requisites GIN691

GMC310 **Statics** **3 cr.**
Pre-requisites MAT217

The course covers fundamental concepts of mechanics relating to forces acting on rigid bodies. It includes problems involving actions and reactions on structures and machines in two and three dimensions, shear

and moment diagrams, centroids, center of mass/gravity, moments of inertia, friction, dry friction and friction forces on screws. There is also an introduction to the principle of virtual work.

GMC320 **Dynamics** **3 cr.**
Co-requisites MAT227
This course presents the fundamentals of engineering dynamics. It covers the following topics: kinematics of a particle (absolute and relative motion, description of motion in various systems of coordinates); kinetics of a particle; force and acceleration (Newton's second law of motion); work and energy (principle of conservation of energy); impulse and momentum (conservation of linear momentum).

GMC330 **Dynamics of Rigid Bodies** **3 cr.**
Pre-requisites MAT307 And GMC310 And GMC320
Dynamics of rigid bodies is a sub-branch of the general field of study known as engineering mechanics. It is very closely related to—and often combined with—the study of statics, which you encountered in GMC 310, with the study of the Mechanics Engineering Dynamics GMC 320 where we have covered the dynamics of particles. In this subject, we will thus study accelerated motion of rigid bodies. We will then take a step towards the more realistic engineering problems by considering the size, shape, and orientation of objects as they accelerate. We term this type of motion "Rigid Body Motion." We begin, with the kinematics of rigid bodies, looking first at the rotational motion of objects. We will then introduce the possibility that objects can move (and accelerate) by translating and rotating at the same time. Furthermore, GMC 330 covers many of the three-dimensional kinematics and kinetics of rigid body principles. Finally, an introduction to vibrational motion, or what happens when objects oscillate about a neutral state, will be covered.

GMC340 **Thermodynamics** **3 cr.**
Pre-requisites CHM212 Or CHE212
This course is designed to provide a fundamental understanding of the transformation of thermal energy and the behavior of its physical quantities. Such transformation is the conversion of heat into work. Engineers are generally interested in studying systems and how they interact with their surroundings. Its use becomes indispensable in our society.

GMC360 **Mechanical Engineering Drawings** **2 cr.**
Technical drawing is the professional language used in the mechanical engineering world. The purpose of this course is to teach students the standards of drawing, how to draw projection views, perspective views, and section views using a 3D model. Students will be able to place the dimensions as well as the tolerances on their drawings. The drawings will be performed on paper and on a computer aided design program (2D, 3D).

GMC420 **Applied Thermodynamics** **3 cr.**
Pre-requisites GMC340
This course is the second part of Thermodynamics. It prepares the students to analyze and design preliminary thermodynamic plants by applying and examining the following concepts: the generation of electric power using steam and gas power plants; refrigeration and air conditioning and heat pumps; cogeneration facilities; gas turbines and their use in the aerospace industry; gas mixtures and psychrometrics; reacting mixtures and combustion.

GMC425 **Instrumentation and Measurements for Mechanical Engineers** **3 cr.**
Pre-requisites GEL410
A course on the general concepts of measurement systems; classification of sensors and sensors types; interfacing concepts; data acquisition, manipulation, transmission, and recording; introduction to LABVIEW; applications; and a team project on design, and implementation of a measuring device.

GMC430 **Fluid Mechanics** **3 cr.**
Pre-requisites GMC340
Co-requisites MAT337

This course provides a concise and clear presentation of fundamental topics in fluid mechanics, which deals with energy transportation by a fluid. These topics concern the development and application of control volume and differential form analysis and applications of fluid flows. Topics include fundamental concepts, basic equations in integral form for a control volume, introduction to differential analysis of fluid motion, potential flow, incompressible flow, and internal and external viscous flows including boundary layer concepts.

GMC435 **Hydraulics** **2 cr.**
Pre-requisites GMC430

This course deals with basic concepts of hydraulics, namely, the continuity, energy and momentum equations. This includes hydrostatics, internal viscous with application of Bernoulli equation and losses. Further, it covers physical modeling (dimensionless analysis and similarities), hydraulic pumps, and turbines.

GMC440 **Strength of Materials** **3 cr.**
Pre-requisites MAT227 And GMC310
Co-requisites GMC472

This course presents the theory and application of the fundamentals of mechanics of materials: stress and strain; tension, compression, and shear; Hooke's law, Mohr's circle, combined stresses, strain-energy; beams, columns, shafts, and continuous beams; deflections, shear and moment diagrams; thin-walled structures, buckling and columns and energy methods (Castiglianos).

GMC441 **Mechanics of Continuous Medium** **3 cr.**
Pre-requisites GMC330

Continuum mechanics carries out the principles that apply to both solid and fluid mechanics. This subject provides advanced treatment of the fundamental, unifying concepts of the mechanics of continua in order to simplify further study in specialized fields such as aerodynamics, mechanics of viscous fluids, elasticity, plasticity, and continuum damage mechanics. The topics covered in this course are divided into two parts. The first part will cover advanced solid mechanics (in 25 lectures): stress and strains in 3-D, Cauchy formula, principal stress, hydrostatic stress, deviatoric stress, stress transformations, Mohr circle, octahedral shear stress, strain energy densities, theories of failure, beam on elastic foundations, bending of curved beams, and the theory of elasticity. The second part will cover advanced topics in fluid dynamics (in 10 lectures): fundamental principles of conservation, Reynolds transport theorem, conservation of mass, conservation of linear momentum (Navier-Stokes equation); conservation of energy; the general scalar transport equation; classification of partial differential equations and physical behavior, and approximate solutions of differential equations.

GMC445 **Metallurgy** **3 cr.**
Pre-requisites (CHM212 Or CHE212) and GMC440

The objective of this course is to give students basic knowledge about the available materials (ferrous and non-ferrous), the principles of material selection, and how to find suitable materials for their design projects based on the mechanical properties, and the choice of appropriate heat treatment procedure. Also covered will be the knowledge of welding procedures, focusing on the most common welding procedures for construction and maintenance.

GMC450 **Theory of Machines** **3 cr.**

Pre-requisites GMC440

Mechanical engineers come across many machines. Therefore, the knowledge of various mechanisms, power transmission, linkages and dynamical forces are offered in this subject. The study of kinematics is concerned with understanding relationships between the geometry and the motions of the parts of a machine. The overall objective of this course is to learn how to analyze the motions of mechanisms, and design mechanisms to give desired motions. This course includes relative motion analysis, design of gears, gear trains, cams and linkages, graphical and analytical analysis of position, velocity and acceleration, clutches, brakes and dynamometers. Students will be able to understand the concepts of displacement, velocity and acceleration of a simple mechanism, drawing the profile of cams and its analysis, gear kinematics with gear train calculations, theory of friction, clutches, brakes and dynamometers.

GMC451 **Heat Transfer** **3 cr.**

Pre-requisites GMC430

The objective of this course is to extend the knowledge of thermodynamics and fluid analysis by considering the rates of the heat transfer modes, namely, conduction, convection, and radiation and their applications. Thus, the course will cover steady and transient heat conduction, extended surfaces, external and internal forced convection of laminar and turbulent flows, natural convection, heat exchanger principles, thermal radiation, view factors and radiation exchange between diffuse and gray surfaces. Further, numerical simulations in one and two-dimensional problems will be developed.

GMC452 **Mechanical Vibrations** **3 cr.**

Pre-requisites GMC330

This course covers the following topics: basic definitions; single degree of freedom systems (equations of motion, undamped and damped vibrations, free and forced vibrations, response of systems to external excitations, vibration isolation); two degrees of freedom systems (equations of motion, coordinate transformation, principal coordinates, vibration modes, torsional vibration); and an introduction to multi-degrees of freedom systems.

GMC455 **Manufacturing Techniques** **2 cr.**

Pre-requisites GMC445

Co-requisites GMC470

Students will study the techniques of traditional machining (lathing, sharpening, drilling, milling and rectifying), the materials of cutting tools used for machining, the main parameters of machining and their influences on the quality of finished products, the life time of tools and the speed of production. Also covered are the different types of machine tools and their domain of use according to the dimensions, and quantities of pieces to be fabricated.

GMC460 **Mechanical Engineering Design** **3 cr.**

Pre-requisites GMC445

The objective of this course is to introduce machinery design for the students. They will learn the broadest aspects of engineering design, and will have a solid knowledge of how to present a methodology for solving a machine component problem, taking into account the safety factor, ecology and social significance. Also, this course covers the structural integrity of any mechanical machinery components, theories of failure, reliability analysis, selection of materials, stability, impact, fatigue and fracture mechanics and surface damage assessment.

GMC461 **HVAC Systems** **3 cr.**

Pre-requisites GMC451

This course is intended to introduce the sanitary, plumbing and heating systems applied in the construction field. For the heating aspect, it prepares the students to become familiar with the

preliminary rules and standards for analyzing, calculating and designing a complete hot water heating system with all its components, ranging from the mechanical room equipment to the distribution piping networks and ending with the heat emitters. For the sanitary and plumbing systems it aims to provide the know-how to design and calculate the cold, hot, hot water return, waste, sewage and storm systems with all necessary equipment as pumps, cold storage tanks, hot water heaters, valves, pipe sizing and layouts.

GMC462 **Advanced Transport Phenomena** **3 cr.**
Pre-requisites GMC451

The course provides a theoretical and practical basis for understanding and quantifying mass, momentum and energy transport motivated by examples and applications relevant to environmental engineering problems. Both molecular and macroscopic principles will be discussed highlighting unifying principles underlying transport processes and properties. Students will develop proficiency in problem formulation, making simplifying assumptions, and using a range of analytical and numerical solution methods. Coupled transport processes will be explored primarily through self-study as part of class project requirements.

GMC465 **Fluid Mechanics II** **2 cr.**
Pre-requisites GMC430

This course has two parts. The first is devoted to the study of compressibility effects in gas flows: the speed of sound, adiabatic and isentropic steady flow, isentropic flow with area changes, normal-shock wave, the operation of converging and diverging nozzles, two-dimensional supersonic flow, and Prandtl-Meyer expansion waves. The second part concerns the effects of viscosity, concept of boundary layer, effects of pressure gradient on the boundary layer, and finally the turbulence and its modeling.

GMC466 **Internal Combustion Engines** **3 cr.**
Pre-requisites GMC451

The design of the internal combustion engine is highly empirical science. This course is intended to demonstrate the application of engineering sciences applied to internal combustion engines, both spark-ignition and compression-ignition. Such applications include stoichiometry and thermochemistry of air-fuel mixtures, predictions of chemical equilibrium, heat transfer, fluid flow, and friction, lubrication processes relevant to ICE design, performance, efficiency, emissions, fuel requirements, air-pollution, fuel cost, and others.

GMC470 **Manufacturing and Workshop Lab** **1 cr.**
Co-requisites GMC455

Students will apply the techniques of traditional machining (lathing, sharpening, drilling, milling and rectifying), looking at the choice of the appropriate materials for cutting tools, the sharpening of the lathing cutting tools and how to prepare the technical sheet of machining. They will also apply some techniques and positions for MMA welding.

GMC471 **Fluid and Thermal Lab** **1 cr.**
Pre-requisites GMC435 And GMC451

The objective of this laboratory is to show the students different experiments in thermal sciences. The students will investigate the laws and theories of thermodynamics, fluid mechanics, and heat transfer using diverse methods of measurements including limitations and boundaries of each theory.

GMC472 **Strength of Materials Lab** **1 cr.**
Co-requisites GMC440

This course starts with a brief introduction about the safety procedures of the lab. Reliability of measurements and statistical analysis for experimental data is provided to the students. They will also study: verification of theoretical models through testing; trusses, tension test (stress-strain diagram,

determination of yield strength, ultimate strength, modulus of elasticity, percentage elongation and percentage reduction in areas); buckling test; hardness tests; impact tests; parabolic arc; and suspension bridges.

GMC477 **Hydraulics Lab** **1 cr.**
Co-requisites GMC435
The objective of this laboratory is to show the students different experiments in fluids and hydraulics sciences. The students will investigate the laws and theories of thermodynamics, fluid mechanics, and hydraulics using diverse methods of measurements including limitations and boundaries of each theory.

GMC480 **Internship I** **1 cr.**
This training enables the students to face new challenging engineering practice in the real world. Further, this training permits the students to discover how to meet desired needs within realistic constraints such as economic, environmental, social, ethical, manufacturability, and sustainability. The students will communicate effectively and have an understanding of professional and ethical responsibility, and the impact of engineering solutions. The students will, at the end of their training session, submit a report for evaluation.

GMC501 **Turbomachinery** **3 cr.**
Pre-requisites GMC451
This course is aimed at introducing the students to the basic principles of modern turbomachinery. Emphasis will be placed on steam and gas turbine applications and design. Therefore, applications of the principle of the fluid mechanics, thermodynamics and aerodynamics to design and analysis of turbines, pumps and compressors will be covered.

GMC502 **Energy Production** **3 cr.**
Pre-requisites GMC420
Students will learn about the generation of electric power using fossil and wind energy sources, power plant thermal cycle analysis, cogeneration and combined cycles, wind energy and capacity, economics, operations, and design of electric power stations.

GMC504 **Advanced Mechanics of Transfers** **2 cr.**
Pre-requisites GMC451
This course covers the classical and numerical techniques applied to the solution of steady and transient conduction and convection problems. Multidimensional steady state and transient problems are considered. Duhamel's theorem, complex variable solutions, error function and Laplace Transform solution to PDE are further considered to solve conduction problems. Laminar and turbulent heat transfer flows in ducts and boundary layers are further considered.

GMC505 **Refrigeration** **2 cr.**
Pre-requisites GMC451
The course covers the following: a review of thermodynamics principles; fundamentals of heat and mass transfer; theoretical and actual vapor compression cycles; food storage conditions; main components (compressor, condenser, evaporator, expansion valves); refrigerants; cooling load calculation for refrigeration.

GMC506 **Hydraulic and Pneumatic Power** **2 cr.**
Pre-requisites GMC504
Students will study the systems and the basic components that make up these systems, both hydraulic and pneumatic. Emphasis is placed on understanding the language and graphical symbols associated with fluid power and the performance characteristics of system components.

GMC507 **Finite Volume Method** **2 cr.**
Pre-requisites GMC465
Co-requisites GMC508

This course is a straightforward introduction to the practical details involved in computational activity for numerical heat transfer and fluid flow analysis. Intended as an introduction to the field, the course emphasizes physical significance rather than mathematical manipulation, and carries a description of the numerical method to the point where students can begin to write and test computer programs using Matlab. Beginning with consideration of heat conduction, the course discusses the interaction of convection and conduction leading to analysis of the procedure for fluid flow calculation.

GMC508 **Computational Fluid Dynamics Lab** **1 cr.**
Co-requisites GMC507 Or GMC539

This course aims to introduce students to the following industrial software used in computational fluid dynamics: GAMBIT (mesh generation), FLUENT (calculation) and Tecplot (results post-processing). Different exercises covering the different branches of fluid mechanics (incompressible, compressible, turbulence, two phase, 2D and 3D, unsteady) and heat transfer are treated numerically.

GMC509 **Advanced Energy Systems Lab** **1 cr.**
Pre-requisites GMC502

The course covers domestic water heating systems, domestic boilers, simple compression refrigeration cycle, test stand for single cylinder engines, oil and fuel internal combustion engines, gas turbine, hydraulic and pneumatic systems.

GMC511 **Advanced Manufacturing Techniques** **2 cr.**
Pre-requisites GMC455 And GMC470
Co-requisites GMC512

The objective of this course is to expand on the preliminary industrial development and show the students how to design, and work on the planning, scheduling, and control of manufacturing systems with emphasis on information flow and decision-making within the field of manufacturing. Additionally, the course is designed to present to students a number of interpersonal skills and competencies necessary for a sustained career in manufacturing such as system simulation, simulation models of manufacturing systems and system performance under different production planning and control policies.

GMC512 **Advanced Manufacturing Techniques Lab** **1 cr.**
Co-requisites GMC511

The objective of this course is to provide an integrated treatment of the analysis and applications of advanced manufacturing techniques. The theory of GMC 511 is reviewed to control machines numerically. Algorithms are developed to program NC machines. The lab work includes operation of machines to demonstrate the programming skills using the LabView software.

GMC513 **Steel Structures Design** **3 cr.**
Pre-requisites GMC440 And GEN450

The objective of this course is to introduce the students to the design philosophy, structural analysis and basis of codes of practice (i.e. ASME and BS). They will examine the design of steel components, local buckling, cross-section classification, design of tension members, compression members, beams and beam-columns. Also covered will be the design of steel connections, general consideration of bolts and welds, analysis and design of connections. At the end of this course students will have sufficient knowledge about the behavior of steel structures and how to design structural steel members and connections.

GMC514 **Acoustics** **3 cr.**
Pre-requisites GMC330 And GMC452

The objective of this course is to introduce the students to acoustics and noise. It constitutes a self-contained and practically useful body of knowledge in the field of acoustics. Important matters such as the measurement of sound and the effect of noise on people are considered. This course covers advanced topics too, such as: the three dimensional wave equation; solutions to the three dimensional wave equation; the monopole sound source; sound power; acoustic levels; energy density on a room; reverberation time; Statistical Absorption coefficient; steady state room acoustics; transmission loss; effective intensity in a diffuse field; composite transmission loss; noise levels outside enclosures; and transmission loss characteristics.

GMC515 **Composite Materials** **2 cr.**
Pre-requisites GMC445

The objective of this course is to introduce the students to structural mechanics and applications of composite materials. Topics covered: anisotropic materials; laminated composites; buckling and dynamics; strength and failure; inter-laminar stresses; de-lamination; design considerations. Students will acquire knowledge on advanced composite materials, such as: macro-mechanics of a lamina, micro-mechanical analysis of a lamina, analysis of laminates, failure analysis of laminates and design of laminated composite structures.

GMC516 **Machinery Design** **2 cr.**
Pre-requisites GMC450

This is an advanced course on modeling, design, integration and best practice for use of machine elements such as bearings, springs, gears, cams and mechanisms. Modeling and analysis of these elements is based upon extensive application of physics, mathematics and core mechanical engineering principles (solid mechanics, fluid mechanics, manufacturing, estimation, computer simulation, etc.).

GMC517 **Computational Solid Mechanics Lab** **1 cr.**
Pre-requisites GEN450

The course is designed for students in order to improve their understanding and training needed to solve problems using computational methods to better understand the fundamental principles on which computer simulations are based. Students will learn to develop and implement their own material constitutive models for deformation and failure using commercially available finite element codes more effectively. Experimental validation will be also discussed in this course.

GMC519 **Mechatronic Systems Lab** **1 cr.**
Pre-requisites GEL503

Mechatronics is a design philosophy involving a complete integration of mechanical engineering, electronics, control theory and computer engineering in order to design a product. It is based on an interdisciplinary approach involving many disciplines concurrently and allowing flexibility and adaptability by replacing some mechanical functions by electronic processing. The lab is a concrete proof of the importance of the interdisciplinary approach by applying instrumentation concepts and mechanical control using a PLC with its human to machine interface.

GMC520 **Advanced Transport Phenomena** **3 cr.**

The course provides a theoretical and practical basis for understanding and quantifying mass, momentum and energy transport motivated by examples and applications relevant to environmental engineering problems. Both molecular and macroscopic principles will be discussed, highlighting the unifying principles underlying transport processes and properties. Students will develop proficiency in problem formulation, making simplifying assumptions, and using a range of analytical and numerical solution

methods. Coupled transport processes will be explored primarily through self-study as part of class project requirements.

GMC525 **CAD/CAM** **3 cr.**
Pre-requisites GMC360 and GMC460
Co-requisites GMC526
An introductory course that demonstrates the integration of Computer-Aided-Design (CAD) and Computer-Aided-Manufacturing (CAM). This is a study of modern prototyping and machining methods, teaching the use of specific software for converting 2D and 3D CAD drawing geometry directly into toolpath information used to drive numerically controlled turning and milling machines.

GMC526 **CAD/CAM Lab** **1 cr.**
Co-requisites GMC525
3D geometric modeling, STL file generation – reverse engineering, computer aided part programming, multi-axial machining in CNC machining.

GMC536 **Air Conditioning** **2 cr.**
Pre-requisites GMC451
This course is intended to introduce the air conditioning systems applied in the construction field. The first part covers the calculation procedure and methodology for determining the air conditioning load necessary for the studied application; the second part introduces and discusses the humid air evolution on the psychrometric chart to finally select the required and suitable air conditioning unit.

GMC539 **Computational Fluid Dynamics** **3 cr.**
Pre-requisites GMC465
Co-requisites GMC508
This course is a straightforward introduction to the practical details involved in computational activity for numerical heat transfer and fluid flow analysis. Intended as an introduction to the field, the course emphasizes physical significance rather than mathematical manipulation, and carries a description of the numerical method to the point where students can begin to write and test computer programs using Matlab. Beginning with consideration of heat conduction, the course discusses the interaction of convection and conduction leading to analysis of the procedure for fluid flow calculation.

GMC541 **Machinery Design** **3 cr.**
Pre-requisites GMC460
This is an advanced course on modeling, design, integration and best practices for use of machine elements such as bearings, springs, gears, cams and mechanisms. Modeling and analysis of these elements is based upon extensive application of physics, mathematics and core mechanical engineering principles (solid mechanics, fluid mechanics, manufacturing, estimation, computer simulation, etc.).

GMC542 **Machinery Design** **3 cr.**
This is an advanced course on modeling, design, integration and best practices for use of machine elements such as bearings, springs, gears, cams and mechanisms. Modeling and analysis of these elements is based upon extensive application of physics, mathematics and core mechanical engineering principles (solid mechanics, fluid mechanics, manufacturing, estimation, computer simulation, etc.).

GMC543 **Energy Production** **3 cr.**
This course covers: the generation of electric power using fossil and wind energy sources; power plant thermal cycle analysis; cogeneration and combined cycles; wind energy and capacity; economics, operations, and design of electric power stations.

GMC544 Fluid Rheology 3 cr.

The objective of this course is to introduce the fundamentals of fluid-structure interaction (FSI) by a sequence of gradually complex problems. In the process, basics of fluid mechanics, wave hydrodynamics, floating system dynamics, and vibrations are also covered. Topics covered include linear wave theory, linear and nonlinear oscillators, potential flow methods, wave force prediction methods, vortex-induced vibration and seakeeping.

GMC545 Advanced Manufacturing Techniques 2 cr.

Pre-requisites GMC612

The objective of this course is to expand on the preliminary industrial development and expose the student to design, planning, scheduling, and control of manufacturing systems with emphasis on information flow and decision-making within the field of manufacturing. Additionally, the course is designed to introduce students to a number of interpersonal skills and competencies necessary for a sustained career in manufacturing such as system simulation, simulation models of manufacturing systems and system performance under different production planning and control policies.

GMC546 Continuum Mechanics 3 cr.

Continuum mechanics carries out the principles that are mutual to both solid and fluid mechanics. This course provides advanced treatment of the fundamental, unifying concepts of the mechanics of continua in order to simplify further study in specialized fields such as aerodynamics, mechanics of viscous fluids, elasticity, plasticity, and continuum damage mechanics. The topics covered are devided into two parts. The first part will cover the advanced solid mechanics (in 25 lectures): stress and strains in 3-D – Cauchy formula, Principal Stress, hydrostatic stress, deviatoric stress, stress transformations, Mohr circle, octahedral shear stress, strain energy densities, theories of failure, beam on elastic foundations, bending of curved beams, and the theory of elasticity. The second part will cover the advanced topics in fluid dynamics (in 10 lectures): fundamental principles of conservation, Reynolds transport theorem, conservation of mass, conservation of linear momentum (Navier-Stokes equation), conservation of energy, general scalar transport equation, classification of partial differential equations and physical behavior, and approximate solutions of differential equations.

GMC550 Turbomachinery 3 cr.

This course is aimed to introduce students to the basic principles of modern turbomachinery. Emphasis will be placed on steam and gas turbine applications and design. Therefore, applications of the principles of fluid mechanics, thermodynamics and aerodynamics to design and analysis of turbines, pumps and compressors will be covered.

GMC555 Thermal System Design 3 cr.

Pre-requisites GMC451

This course is designed to develop the heat transfer and fluid dynamics fundamentals into an integrated thermodynamic scheme, and give the students an opportunity to design a mechanical engineering thermal system by solving complex problems associated with energy engineering economy, manufacturing, sustainable design and optimization of energy efficiency for thermal and fluid systems encountered in mechanical engineering work.

GMC563 Fluid Rheology 3 cr.

Pre-requisites GCH430

The objective of this course is to introduce the fundamentals of fluid-structure interaction (FSI) by a sequence of gradually complex problems. In the process, basics of fluid mechanics, wave hydrodynamics, floating system dynamics, and vibrations are also covered. Topics covered include linear wave theory, linear and nonlinear oscillators, potential flow methods, wave force prediction methods, vortex-induced vibration and seakeeping.

GMC575 **3D Modeling and Graphics Lab** **1 cr.**
Pre-requisites GMC541
Students will learn about product development and design processes and methods, including product specifications, concept development, engineering drawings, design for prototyping, and manufacturing. This course also covers the fundamentals of 3D modeling, basic manufacturing processes, engineering design, proof of concept, rapid prototyping, assembly model, assembly drawing, manufacturing process planning, electromechanical assembly, and testing and troubleshooting electromechanical systems.

GMC576 **Stability and Control Lab** **1 cr.**
Pre-requisites GMC330 and GEL425
This course teaches the students the principles of robot dynamics through different computer simulation and experimental applications, and highlights the problems of controlling a robot motion. Static and dynamic stability and response characteristics are defined. Motion qualities of a robot, and disturbances affecting its motion, are to be tested and analyzed in the lab with stability and related sensor systems.

GMC581 **Internship II** **1 cr.**
This is a training course done in industry. It enables the students to discover the working world to meet desired needs within realistic constraints such as economic, environmental, social, ethical, manufacturability, and sustainability. The students will communicate effectively and have understanding of professional and ethical responsibility, and the impact of engineering solutions. The students will, at the end of their training session, submit a report to be evaluated by a departmental committee.

GMC596 **Final Project I** **1 cr.**
This course encourages the students to demonstrate preparedness to start their careers as professional engineers. This is done by investigating a research topic relevant to the profession and, further, by assessing its practical experience. The research topic will give students the opportunity to apply knowledge and skills from various courses and laboratories throughout the investigation of an approved research topic.

GMC597 **Final Project II** **3 cr.**
Pre-requisites GMC596
This course encourages the students to demonstrate preparedness to start their careers as professional engineers. This is done by investigating a research topic relevant to the profession and, further, by assessing its practical experience. The research topic will give students the opportunity to apply knowledge and skills from various courses and laboratories throughout the investigation of an approved research topic.

GMC607 **Renewable Energy Systems** **3 cr.**
Co-requisites GMC608
This course deals with topics in renewable energy system technology from a mechanical engineering point of view. The full spectrum of alternative and renewable energy is introduced and analyzed, including methods of integrating these solutions in society in order to fulfill requirements for energy services in a sustainable way. The principles, possibilities, and limits of alternative and renewable energy are covered.

GMC608 **Renewable Energy Systems Lab** **1 cr.**
Co-requisites GMC607
This course is designed to give the students hands-on experience with carrying out energy audit measurements. Application will be based on residential and commercial buildings. Topics included are: energy audit instrumentation and measurement devices; indoor air quality; and the saving potential associated with several energy conservation measures as applied to buildings.

GMC609 Micro and Nanoscale Fluid Mechanics 3 cr.

Students will study the fundamentals of micro-scale flows and microfabrication. The course also includes design of microfluidic components and a few applications of microfluidic systems. The fundamentals of fluid flows at micro-scale including intermolecular forces, low Re flows, slip theory, capillary flows and electrokinetics are discussed. The principles of microfabrication with silicon and polymer substrates are illustrated. Theory and design of various microfluidic components including micro pumps, micromixers, micro valves are also covered.

GMC612 Advanced Manufacturing Techniques Lab 1 cr.

Co-requisites GMC545

The objective of this course is to provide an integrated treatment of the analysis and applications of advanced manufacturing techniques. The theory of GMC 511 is reviewed to control machines numerically. Algorithms are developed to program NC machines. The lab work includes operation of machines to demonstrate programming skills using the LabView software.

GMC616 Design for Pressure Vessels, Piping and Pipelines 3 cr.

In this course, students will study: methods for determining stresses; terminology and ligament efficiency; stresses in a circular ring, cylinder; dilation of pressure vessels; membrane stress; analysis of vessels; cylindrical, spherical and, conical heads; thermal stresses; discontinuity stresses in pressure vessels; design of tall cylindrical self-supporting process columns; supports for short vertical vessels; stress concentration at a variable thickness transition section in a cylindrical vessel, about a circular hole, elliptical openings; Theory of Reinforcement; pressure vessel design; piping loads; primary, secondary, sustained loads, occasional loads, static and dynamic loads; piping stresses (primary, secondary); stresses acting in a pipe due to internal pressure; stresses acting in a pipe due to pipe weight.

GMC617 Statistical Thermodynamics 3 cr.

This course covers the following topics: Boltzmann statistics; ensembles; classical statistical thermodynamics; partition functions; virial expansions; Debye-Hückel theory for electrolytes; grid-based models for liquids; the Bragg-William approximation; molecular dynamics; Monte Carlo simulations; Brownian dynamics; Lagrangian and Hamiltonian functions; Extended Lagrangian methods; simulations in different ensembles; force fields for molecules, liquids and solids; many-body and polarization models; superpositios and free energy; and simulations in the bulk of surfaces, polymers and colloids.

GMC622 Steel Structure 3 cr.

The objective of this course is to introduce the students to the design philosophy, structural analysis and basis of codes of practice (i.e. IS, EN, AS and BS). They will examine the design of steel components, local buckling, cross-section classification, design of tension members, compression members, beams and beam-columns. Also covered will be the design of steel connections, general consideration of bolts and welds, analysis and design of connections. At the end of this course students will have sufficient knowledge about the behavior of steel structures and how to design structural steel members and connections.

GMC625 CAD/CAM 3 cr.

Co-requisites GMC626

An introductory course that demonstrates the integration of Computer-Aided-Design (CAD) and Computer-Aided-Manufacturing (CAM). This is a study of modern prototyping and machining methods, teaching the use of specific software for converting 2D and 3D CAD drawing geometry directly into toolpath information used to drive numerically controlled turning and milling machines.

GMC626 CAD/CAM Lab 1 cr.
Co-requisites GMC625
3D geometric modeling, STL file generation – reverse engineering, computer aided part programming, multi-axial machining in CNC machining.

GMC630 Acoustics 3 cr.
The objective of this course is to introduce the students to acoustics and noise. It constitutes a self-contained and practically useful body of knowledge in the field of acoustics. Important matters such as the measurement of sound and the effect of noise on people are considered. This course covers advanced topics too, such as: the three dimensional wave equation; solutions to the three dimensional wave equation; the monopole sound source; sound power; acoustic levels; energy density in a room; reverberation time; Statistical Absorption coefficient; steady state room acoustics; transmission loss; effective intensity in a diffuse field; composite transmission loss; noise levels outside enclosures; and the transmission loss characteristic.

GMC635 Refrigeration 2 cr.
This course provides a review of thermodynamics principles. It then looks at: the fundamentals of heat and mass transfer; theoretical and actual vapor compression cycles; food storage conditions; main components (compressor, condenser, evaporator, expansion valves); refrigerants; and cooling load calculation for refrigeration.

GMC639 Computational Fluid Dynamics 3 cr.
Co-requisites GMC671
This course is a straightforward introduction to the practical details involved in computational activity for numerical heat transfer and fluid flow analysis. Intended as an introduction to the field, the course emphasizes physical significance rather than mathematical manipulation, and carries a description of the numerical method to the point where students can begin to write and test computer programs using Matlab. Beginning with consideration of heat conduction, the course discusses the interaction of convection and conduction leading to analysis of the procedure for fluid flow calculation.

GMC640 Hydraulic and Pneumatic Power 2 cr.
Co-requisites GMC625
This course examines the systems and the basic components that make up these systems, both hydraulic and pneumatic. Emphasis is placed on understanding the language and graphical symbols associated with fluid power and the performance characteristics of system components.

GMC653 Mechanics of Fracture and Fatigue 3 cr.
Students will learn about the principles of fracture mechanics, methods and practice used to safeguard structures against fracture and fatigue failures, and damage tolerance analysis of structures that are pertinent in the design of advanced structures such as aerospace and automobile structural components.

GMC655 Thermal Mechanical Design 3 cr.
In this course, creative decisions and design in thermodynamics and heat transfer integrated concepts, laws, and methodologies from thermal sciences are used to analyze, model, and design energy systems and to predict system performance for fixed designs. Students will study: the analysis, modeling, and design of representative subsystems; analysis and modeling of thermal and fluid systems; evaluation of system performance; consideration of system economics; capital and operating cost estimation; and system design optimization.

GMC660 Mechatronic Systems 3 cr.
Co-requisites GMC674
This course covers the areas of technology on which successful mechatronic system designs are based: physical modeling, from design model to truth model, and mathematical modeling of dynamic multidisciplinary physical systems; analysis of mathematical models through analysis and computer simulation; Magnetic Levitation System, Balancing Robot/Segway Human Transporter; Inverted Pendulum Systems (Translational, Rotary, Planetary Gear); Coulomb friction, gear backlash, unmodeled resonances; Hydraulically Balanced Beam System; and mechatronic industrial case studies.

GMC661 Orbital Mechanics 3 cr.
Students will study the two-body problem, earth-satellite operations, reentry dynamics, space environments, interplanetary trajectories, numerical simulations, and work on a design project.

GMC662 Biomechanics of Human Movement 3 cr.
This course covers the following topics: skeletal anatomy and mechanics; muscle anatomy and mechanics; theory and application of electromyography; motion and force measuring equipment and techniques; and inverse dynamics modeling of the human body.

GMC663 Advanced Strength of Materials and Applied Elasticity 3 cr.
The course covers the following topics: analysis of stress, strain and material properties, problems in elasticity, failure criteria, bending of beams, torsion of prismatic bars, numerical methods, application of energy methods, and plastic behavior of materials.

GMC665 Smart Materials 3 cr.
Students will learn about the structure and physical properties of smart materials used in electrical engineering. Properties of materials and structures will be discussed in the broader external conditions of use with the presentation of selected technologies. The following topics will also be explored: areas of application of intelligent systems; nanostructures, gels, coatings, LB films, electrochromic sol-gel coatings, PH indicators, indicating chemical materials, hybrid and composite systems; metallic and nonmetallic materials with shape memory principles and applications; active and passive vibration damping, such as sensors for airbags, acoustic transducers, precision pointing devices, miniature ultrasonic motors, injectors; degradation mechanisms in different types of materials and durability tests.

GMC670 Advanced Energy Systems Lab 1 cr.
This lab covers the advanced topics in air conditioning, refrigeration and heating technology. It prepares graduate engineers to install and maintain climate control systems, to work with mechanical, electrical and electronic components that deal with heating and cooling equipment. After completing this lab, students will be able to find work with contractors, utility companies, office buildings, plants and more.

GMC671 Computational Fluid Dynamics Lab 1 cr.
Co-requisites GMC639
This course aims to introduce students to the following industrial software used in computational fluid dynamics: GAMBIT (mesh generation), FLUENT (calculation) and Tecplot (results post-processing). Different exercises covering the different branches of fluid mechanics (incompressible, compressible, turbulence, two phase, 2D and 3D, unsteady) and heat transfer are explored numerically.

GMC673 Computational Solid Mechanics Lab 1 cr.
The course is designed for students in order to improve their understanding and training needed to solve problems using computational methods to better understand the fundamental principles on which computer simulations are based. Students will learn to develop and implement their own material

constitutive models for deformation and failure using commercially available finite element codes more effectively. Experimental validation will be also discussed in this course.

GMC674 Mechatronic Systems Lab 1 cr.
Co-requisites GMC660

Mechatronics is a design philosophy involving a complete integration of mechanical engineering, electronics, control theory and computer engineering in order to design a product. It is based on an interdisciplinary approach involving many disciplines concurrently and allowing flexibility and adaptability by replacing some mechanical functions by electronic processing. The lab is a concrete proof of the importance of the interdisciplinary approach by applying instrumentation concepts and mechanical control using a PLC with its human to machine interface.

GMC675 3D Modeling and Graphics Lab 1 cr.

This lab will cover product development and design processes and methods, including product specifications, concept development, engineering drawings, design for prototyping, and manufacturing. Students will also experience the fundamentals of 3D modeling, basic manufacturing processes, engineering design, proof of concept, rapid prototyping, assembly modeling, assembly drawing, manufacturing process planning, electromechanical assembly, and the testing and troubleshooting of electromechanical systems.

GMC676 Stability and Control Lab 1 cr.

This course teaches the students the principles of robot dynamics through different computer simulation and experimental applications, and highlights the problems of controlling a robot motion. Static and dynamic stability and response characteristics are defined. Motion qualities of a robot, and disturbances affecting its motion, are to be tested and analyzed in the lab with stability and related sensor systems.

GMC691 Thesis I 1 cr.

GMC692 Thesis II 5 cr.
Pre-requisites GMC691

GRT320 Electrostatics and Magnetism 3 cr.
Pre-requisites MAT337

Students will learn about frictional electricity, charges and their conservation, Coulomb's law, static electric fields, Gauss's law, divergence, Poisson's and Laplace's equations, capacitance calculations, electric currents, resistance calculations, Ohm's law, static magnetic fields, Biot-Savart law, Faraday's law, electromagnetic induction, inductance calculations, and Maxwell's equations.

GRT410 Signals and Systems 3 cr.
Pre-requisites GEN350

This course considers continuous and discrete-time signals and systems. System modeling and analysis in time and frequency domains are studied. Covered topics include LTI systems and convolution, Fourier series, Fourier transform (continuous, DTFT, DFT, FFT), analog to digital conversion, the sampling theorem, Z-transform, correlations and spectral densities.

GRT420 Signal Theory 3 cr.
Pre-requisites GEN350 And STA307

This course aims at analyzing continuous deterministic signals and LTIS systems. Students are first introduced to the Fourier series. Fourier transform, correlations and spectral densities are studied next.

Random signals, random processes, filtering of stationary stochastic processes and Hilbert transform are introduced as well.

GRT421 **Digital Signal Processing** **3 cr.**
Pre-requisites GRT420 And GEN428

The course starts with a study of the sampling theory, followed by an analysis of discrete-time signals and systems. The Z-Transform and its applications are then studied. Frequency analysis of signals and systems is then considered, followed by the Discrete Fourier Transform and the Fast Fourier Transform. The course ends with the synthesis techniques of digital filters.

GRT423 **Waves and Propagation** **3 cr.**
Pre-requisites GRT320

This course covers fundamental concepts of electromagnetic waves, Maxwell's equations, propagation of plane waves in lossless and lossy media, Poynting vector, waves incident on conducting and dielectric boundaries, theory and application of transmission lines, matching, Smith Chart, and theory of hollow waveguides with application to rectangular waveguides.

GRT431 **Network Architecture and Protocols** **3 cr.**
Pre-requisites GEL311 And GIN231
Co-requisites GRT473

The purpose of this course is to give a strong and clear basis regarding technical characteristics of networks and their functioning. Reference models of the network architectures OSI and TCP/IP will be described. Then, we will detail the different levels of this architecture. In brief, we will look at transmission basics, protocols for link control and media access control, network equipment, Ethernet and IP networks, routing, transport protocols and application protocols for the Internet.

GRT432 **Analog and Digital Communications** **3 cr.**
Pre-requisites GRT421

This course introduces communication systems basics, starting with analog communication systems (AM, FM, etc.) and completing the study with digital communications (digital modulations, multiple access techniques, etc.)

GRT440 **Analog Communications** **3 cr.**
Pre-requisites GRT420 And GEN428

Students will explore analysis of signals and systems, the Hilbert Transform, the linear modulation techniques, angle modulation, and noise in modulation systems.

GRT470 **Digital Signal Processing Laboratory** **1 cr.**
Co-requisites GRT421

The aim of this practical work is the implementation of the various theoretical concepts learned in the course: Z-Transform, Discrete Fourier Transform (DFT), Discrete Time Fourier Transform (DTFT), Fast Fourier Transform (FFT), filtering methods, etc.

GRT473 **Network Architecture and Protocols Lab** **1 cr.**
Co-requisites GRT431

The purpose of this lab is to apply the information given in the course using different approaches: configuration of network equipment and network installation, network supervising and troubleshooting using different tools, then performance evaluation. For that, we will mainly use network specialized simulators like CISCO Packet Tracer and the Wireshark software used for packets capture and protocol analysis. In brief, we will look at some protocols from application layer (HTTP, DNS), TCP protocol, ARP protocol, Ethernet network, static and dynamic routing protocols and VLAN.

GRT480 **Internship I** **1 cr.**

After spending one to two months in a company, living the real-world professional experience outside the academic environment of the university, the students enroll in this course and submit a report containing all they have learnt, the difficulties faced, and the correlation with the courses studied.

GRT531 **Advanced Networks Architectures** **3 cr.**
Pre-requisites GRT431
Co-requisites GRT532

This course covers the following topics: internal routing protocols (RIP, OSPF, EIGRP); external routing protocol (BGP4), evolution; architecture of IP multicast and group management protocol (IGMP) and multicast routing protocols (DVMRP, PIM-SM, PIM-DM); IP networks multi-service, IP and Quality of Service (QoS); DiffServ and differentiated quality of service, architecture; IntServ, architecture and protocols; voice and telephony over IP; Optical IP/MPLS and GMPLS (architecture, main concepts, traffic engineering); METRO Ethernet; VPN services evolution; VPN architectures (layer 2 and layer 3); mobility in IP networks (internet and private); mobility mechanisms in IPv4 networks; IPv6 basic mechanisms; Mobile IPv6; Hierarchical Mobile IP (HMIP); handover mechanisms based on IPv6; overlay networks (caches, CDN and peer-to-peer).

GRT532 **Advanced Networks Architectures Lab** **1 cr.**
Co-requisites GRT531

This lab will give students practical experience in advanced routing techniques, IP Multicast, IP and Quality of Service, voice and telephony over IP, VPN, mobility mechanism in IP networks, basic IPv6 mechanisms, and peer-to-peer networks.

GRT540 **Digital Communications** **3 cr.**
Pre-requisites GRT440 And GRT421
Co-requisites GRT570

This course starts with an overview of stochastic processes. Signal digitization (PCM) and line coding are then considered. Digital modulations (ASK, PSK, FSK, M-ary modulations, etc.), matched filtering, and system performance evaluation are then studied. Advanced topics (e.g. spread spectrum) are then introduced.

GRT541 **Optical Communications** **2 cr.**
Pre-requisites GRT423 And GRT540

In this course, optical communication systems are first introduced. Optical fibers are studied next (step-index, graded-index, multimode, single-mode) as well as signal propagation and degradation. Optical sources (LASER, LED) and receivers (PIN, APD) are then discussed, with the probabilistic theory behind receiver operation. Finally, the design of a complete optical communication system is considered, taking into account attenuation, error probability, SNR, power constraints, etc.

GRT542 **Network Modeling** **2 cr.**
Pre-requisites GRT431
Co-requisites GRT571

This course examines network modeling of information transfer, telephone networks, land mobile systems and satellites. There is also simulation of different layers of systems and exchange protocols.

GRT543 **Telephony** **3 cr.**
Pre-requisites GRT540

Students will study establishment of calls, traffic study and design of telephony systems, switching systems, signaling, CS7, ISDN networks, PDH and SDH hierarchies, intelligent networks, and voice over IP.

GRT545 **Mobile Communications** **3 cr.**
Pre-requisites GRT540
Co-requisites GRT572
This course provides an introduction to mobile communications, wireless transmission, medium access control, cellular radio systems, ATM architecture, Wireless LANs, mobile IP, and mobile TCP.

GRT546 **Telecommunications Regulations** **1 cr.**
Pre-requisites GRT540
The aim of this course is to introduce telecom engineer students to the evolution of telecom markets, the drivers of telecom regulations, and the impact on the telecom sector at a national level. The course will provide the students with an opportunity to understand the market drivers for the telecom sector, the key stakeholders, the investors' prospective, and be able to benchmark and compare different models.

GRT548 **Security of Fixed and Mobile Networks** **3 cr.**
The purpose of this course is to introduce the principles of security in fixed and mobile networks. The course starts with an introduction to information security concepts, security services and security mechanisms. In the second part, we discuss the concepts of symmetric and asymmetric cryptography, the hash function and the signature and key sharing procedures and we apply these concepts to secure the data communication using the SSL and the IPSec protocols. In the third part, we discuss security in wireless networks, intrusions and filtering mechanisms through the use of firewalls. Finally, we discuss security management and risk management concepts.

GRT549 **Security of Fixed and Mobile Networks** **3 cr.**
Pre-requisites GRT431
The purpose of this course is to introduce the principles of security in fixed and mobile networks. The course starts with an introduction to information security concepts, security services and security mechanisms. In the second part, we discuss the concepts of symmetric and asymmetric cryptography, the hash function and the signature and key sharing procedures and we apply these concepts to secure the data communication using the SSL and the IPSec protocols. In the third part, we discuss security in wireless networks, intrusions and filtering mechanisms through the use of firewalls. Finally, we discuss security management and risk management concepts.

GRT551 **Optical Communications** **2 cr.**
In this course, optical communication systems are introduced. Optical fibers are studied next (step-index, graded-index, multimode, single-mode) as well as signal propagation and degradation. Optical sources (LASER, LED) and receivers (PIN, APD) are then discussed, with the probabilistic theory behind receiver operation. Finally, the design of a complete optical communication system is considered, taking into account factors such as attenuation, error probability, SNR, and power constraints.

GRT552 **Network Modeling** **2 cr.**
Co-requisites GRT576
This course looks at network modeling of information transfer, telephone networks, land mobile systems and satellites, and the simulation of different layers of systems and exchange protocols.

GRT553 **Telephony** **3 cr.**
Students will learn about the establishment of calls, traffic study and design of telephony systems, switching systems, signalling (CS7), ISDN networks, PDH and SDH hierarchies, intelligent networks, and voice over IP.

GRT554 **Antennas, Radars and GPS** **3 cr.**

Pre-requisites GRT423

This course covers antenna and radar principles. It starts with the fundamental parameters of antennas, then moves on to the radiation integral used for antenna analysis. Detailed analysis of wire antennas and antenna arrays will be presented next. After the antenna part is done, the course tackles some radar topics like the Radar equation, Radar Cross Section (RCS) of simple and complicated targets, range and Doppler ambiguity in pulse radar, probability of detection and probability of false alarm. A GPS overview will be covered at the end of the term.

GRT555 **Mobile Communications** **3 cr.**

Co-requisites GRT575

This course covers the following topics: an introduction to mobile communications; wireless transmission, medium access control, cellular radio systems; ATM architecture; Wireless LANs; Mobile IP; and Mobile TCP.

GRT557 **Information Theory and Coding** **3 cr.**

This course starts with an overview of information theory: discrete and continuous sources, source coding and channel coding theorems, channel matrix, channel capacity, Kraft inequality, lossless coding. Then, we study linear block codes and cyclic codes. Convolutional codes are then considered, including trellis diagrams, Viterbi decoding, etc. Turbo-codes are also studied (concatenation, interleaving, iterative decoding algorithms). We end with an introduction to LDPC codes.

GRT560 **Digital Image Processing** **3 cr.**

Pre-requisites GRT421

Co-requisites GRT573

This course consists of an introduction to digital image processing as well as video compression. The first part covers image acquisition, sampling, and quantization, gray scale image transforms, histogram processing, spatial filtering, 2D Fourier transform, filtering in the frequency domain, image degradations, enhancement techniques, and mathematical morphology. The second part introduces video coding: spatial and temporal sampling, motion estimation and compensation, transforms (KLT, DCT, and wavelets), differential coding and predictive coding (intra and inter frames).

GRT563 **Video Compression** **2 cr.**

Pre-requisites GRT560

This course introduces video coding concepts with emphasis on the H.264 standard. Advanced topics such as distributed video coding, multiview coding, and unequal error protection are also discussed.

GRT564 **Advanced Communication Systems** **3 cr.**

Pre-requisites GRT540

This course aims at introducing advanced topics in communication to telecommunications engineering students. Students are first introduced to detection theory. Synchronization and equalization techniques are studied next. Fading channels are introduced, with emphasis on practical channel models and applications in the wireless world. The topics covered next are multicarrier systems, diversity techniques and MIMO systems.

GRT565 **Information Theory and Coding** **3 cr.**

Pre-requisites GRT540

This course starts with an overview of information theory: discrete and continuous sources, source coding and channel coding theorems, channel matrix, channel capacity, Kraft inequality, lossless coding. Then, we study linear block codes and cyclic codes. Convolutional codes are then considered, including trellis

diagrams and Viterbi decoding. Turbo-codes are also studied (concatenation, interleaving, iterative decoding algorithms). We end by an introduction to LDPC codes.

GRT566 **Advanced Transmission Systems Lab** **1 cr.**
Pre-requisites GRT554 And GRT543 And GRT541
This lab provides practice work for: antenna theory, fiber optics and telephony communications; antenna gain, polarization, impedance; fiber optic characteristics, laser diode, PIN; telephone systems, signaling, transmitter-receiver, TDM, PCM.

GRT570 **Communications Laboratory** **1 cr.**
Co-requisites GRT540
Students will experience practice work for analogue communications (AM and FM modulations, SSB, noise) and digital communications (ASK, PSK and FSK modulations, matched filtering).

GRT571 **Networks Modeling Laboratory** **1 cr.**
Co-requisites GRT542
The aim of the practical work is the implementation of the various theoretical concepts of networks modeling and processing. Problems and practical examples are examined using the ns simulator and the Matlab software.

GRT572 **Mobile Communications Lab** **1 cr.**
Co-requisites GRT545
The purpose of this lab is to provide an introduction to mobile communications, starting with an introduction to the simulator ns-2. Then we study wireless transmissions, medium access protocols, cellular networks, WLAN, mobile IP, TCP in wireless environments, and some other mobile applications.

GRT573 **Digital Image Processing Lab** **1 cr.**
Co-requisites GRT560
This lab consists of application of the concepts learned in the digital image processing and video compression course. The first part consists of an introduction to the image processing toolbox in MATLAB. Afterwards, image processing techniques will be studied, and spatial and frequency domain filtering, image restoration, as well as color image processing. Finally, a video signal will be studied.

GRT575 **Mobile Communications Lab** **1 cr.**
Co-requisites GRT555
The purpose of this lab is to provide an introduction to mobile communications, starting with an introduction to the simulator ns-2. Then we study wireless transmissions, medium access protocols, cellular networks, WLAN, mobile IP, TCP in wireless environments, and some other mobile applications.

GRT576 **Network Modeling Lab** **1 cr.**
Co-requisites GRT552
The aim of the practical work is the implementation of the various theoretical concepts of networks modeling and processing. Problems and practical examples are examined using the ns simulator and the Matlab software

GRT578 **Advanced Mobile Networks** **3 cr.**
Pre-requisites GRT431
Co-requisites GRT579
This course is an introduction to mobile communications, wireless transmission, medium access control, cellular radio systems, ATM architecture, Wireless LANs, mobile IP, and mobile TCP.

GRT579 **Advanced Mobile Networks Lab** **1 cr.**
Co-requisites GRT578
The purpose of this lab is to provide an introduction to mobile communications, starting with an introduction to the simulator ns-2. Then we study wireless transmissions, medium access protocols, cellular networks, WLAN, mobile IP, TCP in wireless environments, and some other mobile applications.

GRT581 **Internship II** **1 cr.**
After spending one to two months in a company, living the real-world professional experience outside the academic environment of the university, the students enroll in this course and submit a report containing all that has been learnt, the difficulties faced, and the correlation with the courses studied.

GRT596 **Final Project I** **1 cr.**
This course is the first half of the Final Year Project that each student must succeed in to obtain the engineering degree. The students are required to select a topic in telecommunications engineering or a related field, perform bibliographic study and propose solutions for further investigations.

GRT597 **Final Project II** **3 cr.**
Pre-requisites GRT596
This course is the second half of the Final Year Project that each student must succeed in to obtain the engineering degree. The students are required to develop advanced studies on the topic selected in the course GRT596, finalize the proposed solutions and submit a detailed report of all the work done.

GRT600 **Special Topic in Telecommunications** **3 cr.**

GRT631 **Digital Image Processing** **3 cr.**
Co-requisites GRT671
This course consists of an introduction to digital image processing as well as video compression. The first part covers image acquisition, sampling, and quantization, gray scale image transforms, histogram processing, spatial filtering, 2D Fourier transform, filtering in the frequency domain, image degradations, enhancement techniques, and mathematical morphology. The second part introduces video coding: spatial and temporal sampling, motion estimation and compensation, transforms (KLT, DCT, and wavelets), differential coding and predictive coding (intra and inter frames).

GRT632 **Antennas, Radars and GPS** **3 cr.**
This course covers antenna and Radar principles. It starts with the fundamental parameters of antennas, then moves on to the radiation integral used for antenna analysis. Detailed examination of wire antennas and antenna arrays will be presented next. After the antenna part is done, the course tackles some radar topics like the Radar equation, Radar Cross Section (RCS) of simple and complicated targets, Range and Doppler ambiguity in pulse radar, probability of detection and probability of false alarm. A GPS overview will be covered at the end of the term.

GRT633 **Advanced Communication Systems** **3 cr.**
This course aims at introducing advanced topics in communications to Telecommunications Engineering students. Students are first introduced to detection theory. Synchronization and equalization techniques are studied next. Fading channels are introduced, with emphasis on practical channel models and applications in the wireless world. The topics covered next are multicarrier systems, diversity techniques and MIMO systems.

GRT634 **Video Compression** **2 cr.**
Pre-requisites GRT631
This course introduces video coding concepts with emphasis on the H.264 standard. Advanced topics such as distributed video coding, Multiview coding, and unequal error protection are also discussed.

GRT635 **Advanced Networks Architectures** **3 cr.**
Co-requisites GRT673
Students will study: internal routing protocols (RIP, OSPF, EIGRP); external routing protocol (BGP4), evolution; architecture of IP multicast and group management protocol (IGMP) and multicast routing protocols (DVMRP, PIM-SM, PIM-DM); IP networks multi-service, IP and Quality of Service (QoS); DiffServ and differentiated quality of service, architecture; IntServ, architecture and protocols; voice and telephony over IP; Optical IP/ MPLS and GMPLS (architecture, main concepts, traffic engineering); METRO Ethernet; VPN services evolution; VPN architectures (layer 2 and layer 3); mobility in IP networks (Internet and private); mobility mechanisms in IPv4 networks; IPv6 basic mechanisms; mobile IPv6; Hierarchical Mobile IP (HMIP); handover mechanisms based on IPv6; and overlay networks (caches, CDN and peer-to-peer).

GRT671 **Digital Image Processing Lab** **1 cr.**
Co-requisites GRT631
This lab consists of an application of the concepts learned in the digital image processing and video compression course. The first part consists of an introduction to the image processing toolbox in MATLAB. Afterwards, image processing techniques will be studied, spatial and frequency domain filtering, image restoration, as well as color image processing. Finally, a video signal will be studied.

GRT672 **Advanced Transmission Systems Lab** **1 cr.**
Pre-requisites GRT551 And GRT553 And GRT632
This lab provides experience of: practical work for antenna theory, fibre optics and telephony communications; antenna gain, polarization, impedance; fibre optic characteristics, laser diode, PIN; telephone systems, signaling, transmitter-receiver, TDM, PCM.

GRT673 **Advanced Networks Architectures Lab** **1 cr.**
Co-requisites GRT635
Students will experience advanced routing techniques, IP Multicast, IP and Quality of Service, voice and telephony over IP, VPN, the mobility mechanism in IP networks, basic IPv6 mechanisms, and peer-to-peer networks.

GRT691 **Thesis I** **1 cr.**

GRT692 **Thesis II** **5 cr.**
Pre-requisites GRT691

MAT207 **Algebra for Engineers 1** **3 cr.**
The course aims at providing the necessary tools and the mathematical maturity for engineers, for the design and analysis of abstract mathematical models. Subjects covered: complex numbers, logic and proofs, propositional calculus, sets and mappings, relations and ordered sets, an introduction to algebraic structures, groups, rings and fields, polynomials, counting, finite and transfinite cardinals.

MAT217 **Calculus for Engineers 1** **3 cr.**

The course covers integration methods to compute integrals and improper integrals. We will study the infinite series, Taylor expansion, Parametric curves and Polar curves, and double integrals.

MAT227 **Calculus for Engineers 2** **3 cr.**

Pre-requisites **MAT217**

This course teaches basic theory and techniques of Ordinary Differential Equations (ODEs). Topics include: solution of non-linear first-order ODE's; linear ODE's, especially second order with constant and variable coefficients; delta functions, convolution, and Laplace transform methods; power series and resolution of differential equations using power series; real and complex Fourier series; and an introduction to partial differential equations.

MAT307 **Algebra for Engineers 2** **3 cr.**

Pre-requisites MAT207

The main objective of this course is to continue the study of algebra, covering mainly linear systems and matrices, matrix algebra, inverses, Gauss elimination, elementary matrices, computing inverses, determinants, vector spaces, definition and examples of spaces and subspaces, linear independence, basis and dimension, change of basis, linear applications, reduction of an endomorphism, eigenvalues, eigenvectors, characteristic polynomial, solving linear systems of differential equations, diagonalization and applications, bilinear and quadratic forms, Gauss method, scalar and cross product, Euclidean and Hermitian spaces, Gram-Schmidt Orthogonalization process, geometric transformations.

MAT337 **Calculus for Engineers 3** **3 cr.**

Pre-requisites MAT217

The main objective of this course is to continue the study of calculus, covering mainly parametric and polar curves, three dimensional analytic geometry, differentiation and integration of functions of several variables, and vector calculus. Line integrals, and Green's theorem are also covered.

STA307 **Probability and Statistics for Engineers** **3 cr.**

Pre-requisites MAT217

This course aims to provide students with the most common concepts of probability theory and statistical inference, with a unique balance between theory and methodology. Interesting relevant applications using real data will be used to show how the concepts and methods can be applied to solve problems in the different fields of engineering in practice.

Faculty of Fine and Applied Arts

Overview

The Faculty of Fine and Applied Arts was established in 1974. Its objective is to orient young people towards a brilliant future, while its mission consists of the development of creativity and human potential. The programs offered by the Faculty enable students to acquire a cultural education, in addition to competence that will enable them to be distinguished in their discipline. The diversity of the proposed programs promotes interactivity in multidisciplinary research workshops and provides them with a high level of dynamism. Curricula are regularly updated according to the requirements of the professional situation.

During the period of studies, students will develop analytical minds, and creative skills, as well as the ability to adapt to any change; qualities that have become unavoidable in the world of business. The Faculty follows a development plan that combines, on the one hand, classic teaching methods with the latest technologies, and on the other hand, theory with practice. It has a cooperation network with various local and international academic institutions: exchange programs, participation in seminars and common projects.

The Faculty of Fine and Applied Arts consists of the following departments/programs:

Department of Architecture

- Bachelor and Master in Architecture (Combined program)

Department of Interior Design

- Bachelor of Arts in Design and Applied Arts
- Master in Interior Architecture

Department of Sacred Art

- Bachelor of Arts in Sacred Art
- Master of Arts in Sacred Art
- Ph.D. in Sacred Arts

Department of Graphic Design and Advertising

- Bachelor of Arts in Graphic Design
- Master in Graphic Design
- Bachelor of Arts in Advertising
- Master in Advertising

Department of Visual and Performing Arts

- Bachelor of Arts in Visual and Performing Arts - Audio-Visual: Multimedia
- Bachelor of Arts in Visual and Performing Arts – Photography
- Bachelor of Arts in Visual and Performing Arts - Cinema and Television
- Bachelor of Arts in Visual and Performing Arts - Theater
- Master in Performing Arts
- Master in Visual Arts – Cinema
- Ph.D. in Visual and Performing Arts

Administration and Full-time Faculty

Dr. Paul Abi Khattar Zgheib, Associate Professor, Dean
Mr. Robert Karam, Assistant Professor, Associate Dean
Dr. Joseph Nasr, Associate Professor, Head of the Doctoral Commission, Head of Interior Design Department
Rev. Fr. Abdo Badwi, Associate Professor, Head of Sacred Art Department
Prof. Antoine Fichfich, Professor, Head of Architecture Department
Mr. Maroun Kosseifi, Assistant Professor, Head of Graphic Design and Advertising Department
Mr. Joseph Chemaly, Associate Professor, Head of Visual and Performing Arts Department
Mr. Antoine Younan, Assistant Professor, Course Coordinator for the Architecture Department
Mrs. Eliane Noujaim Moughabghab, Lecturer, Course Coordinator for the Architecture Department
Mrs. Hala Moubarak, Lecturer, Course Coordinator for the Interior Design Department
Mr. Jean-Claude Bassil, Lecturer, Course Coordinator for the Graphic Design and Advertising Department
Dr. Lena Saadé Gebran, Assistant Professor, Theater Program Coordinator
Mrs. Odile EL Khoury, Assistant Professor, Events Coordinator at the Faculty of Fine and Applied Arts
Rev. Fr. Abdallah Badaoui, Lecturer
Mr. Andrew Keith Baker, Assistant Professor
Rev. Fr. Antoine Abou Rahal, Assistant Professor
Mr. Bechara Mouannes, Assistant Professor
Mr. Charles Bteiche, Assistant Professor
Mr. Elias Tohmé, Associate Professor
Mr. Joseph Zaarour, Assistant Professor
Dr. Michel Chalhoub, Associate Professor
Mr. Richard Khalil, Lecturer
Dr. Victor Takchi, Associate Professor
Mr. Zafer Sleiman, Assistant Professor

Bachelor and Master in Architecture (Combined Program) - Hybrid[i]

Offered in Main Campus Kaslik and in RUCs Zahle and Chekka

The Master in Architecture is a combined program of undergraduate and graduate studies that requires students to earn 193 credits in order to graduate. However, students are eligible to obtain the Bachelor of Science in Architectural Studies while completing the 138 credits.

Mission

The mission of the Master in Architecture program is to prepare students for a profession as an architect by offering undergraduate and graduate courses that provide them with an educational experience in architectural Design, architectural history and theory, structures and materials, building technology, vernacular and regional studies, with a strong focus on heritage preservation and social and environmental responsibility.

Program Educational Objectives

1. The Master in Architecture program qualifies its graduates to become registered professional architects and allows them to grow into active members of different civil societal bodies through ethical and social engagements that improve the livelihood of their communities.
2. Graduates will be able to have leading professional roles as both entrepreneurs and efficient members of projects that are larger and in more complex architectural settings.
3. In addition to conceptual design, execution, site development and management, graduates will be able to employ their architectural education to adapt and evolve existing requirements by engaging in heritage preservation and restoration, scenography, building technology, urban planning, landscape and sustainable architecture, and development in a professional and ethical manner.
4. Graduates will be able to lead teams as well as be effective team members who can work and communicate effectively with diverse team members to identify and solve problems and make responsible recommendations.

Program Outcomes

a. Students will be able to interact between different components (social, theoretical, cultural, and contextual) in the process of design thinking, and communicate clearly with the appropriate tools and media.
b. Students will be able to comprehend that projects can be built both by respecting the environmental charts and by transmitting technical information.
c. Students will be able to gather and comprehend the essential value of research within the design process, analyzing and evaluating the different options related to the predesign issues, and synthesizing the different scenarios related to different analysis in

[i] Hybrid: Courses offered in French and/or English

integrating architectural solutions. Solutions must respond to different environmental issues.

d. Students will be able to understand the typical career path of an architect and the means of progressing. They will recognize and preserve the valuable role of different partners and disciplines by the application of legal codes, professional responsibilities, and ethical values.

Degree Requirements

General Studies - Undergraduate	**36**
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Science and Health	6
General Education - Sports	1
General Education - Religious Sciences	3
ARS430 - Traditional Religious Architecture	3
AVP203 - Introduction to Photography	3
ECO222 - Macroeconomics	3
DAA250 - Sketching	3
DAA241 - General History of Art	3
MAT216 - General Mathematics	3
General Studies - Graduate	**9**
HUM610 - Professional Ethics and Social Behavior	3
SOC201 - Introduction to Sociology	3
SOC210 - Introduction to Anthropology	3
Professional Studies - Undergraduate	**95**
ARCH205 - Basic Design I	2
ARCH210 - Technical Drawing	2
ARCH215 - 2-3D Representation Skills	2
ARCH225 - Basic Design II	2
ARCH230 - Architecture Analysis and Perception	4
ARCH220 - Vernacular Architecture	4
ARCH235 - Strength of Materials I	3
ARCH310 - History and Culture of Architecture I	3
ARCH315 - CAAD	2
ARCH320 - Structural Design	2
ARCH330 - Building Technologies	2
ARCH335 - Strength of Materials II	3
ARCH340 - Reinforced Concrete I	3
ARCH345 - Architecture Design Studio I	6
ARCH350 - Architecture Design Studio II	6
ARCH405 - Architecture Schematic I	2
ARCH410 - History and Theory of Architecture II	3
ARCH420 - Sanitary and Mechanical Equipment's	2
ARCH425 - Electrical and Lighting	2
ARCH440 - Reinforced Concrete II	3
ARCH445 - Design Studio III	6
ARCH450 - Design Studio IV	6

ARCH455 - Architecture Schematic II	2
ARCH460 - Urbanism I	3
ARCH465 - Urbanism II	3
ARCH470 - Standards, Codes and Building Laws	2
ARCH475 - Construction Document and Internship	3
ARCH485 - Design Studio V	6
ARCH490 - Final Design Studio	6
Professional Studies - Graduate	**34**
ARCH505 - Architecture Research Methodology	3
ARCH510 - Theory and Critic of Contemporary Architecture	3
ARCH540 - Graduation Project Thesis	3
ARCH545 - Professional Internship	1
ARCH570 - Master Architecture Design Studio I	6
ARCH580 - Master Architecture Design Studio II	6
ARCH670 - Senior Project I	6
ARCH680A - Senior Project II - A	6
ARCH680B - Senior Project II - B	0
Required Optionals - Professional Practice - Graduate	**3 out of 9**
ARCH370 - Building Planning and Scheduling	2
ARCH535 - Working Documents for Project Management	3
FIN501 - Essential of Finance	3
Required Optionals - Research Workshop - Graduate	**6 out of 21**
ARCH610 - City, Landscape and Territory Workshop	3
ARCH615 - Architecture and New Technologies Workshop	3
ARCH620 - Sustainable Architecture Workshop	3
ARCH630 - Built Heritage Workshop	3
ARCH635 - Archeology and Restoration Workshop	3
ARCH640 - Aesthetic Theorizing and Poetics of Architecture	3
AVS625 - Architecture, Visual Arts and Communication Workshop	3
Student Chosen Optional - Undergraduate	**7**
AGP410 - Infographic	2
ARCH325 - Virtual Reality in Architecture	2
ARCH355 - Geographic Information Systems	2
ARCH360 - Soil Mechanics	2
ARCH365 - Safety and Physical Disability Regulations	2
ARCH430 – Stereotomy	2
ARCH435 - Acoustics and Insulation	2
ARCH480 - Building Modeling and Information	2
ARCH482 – Surveying	2
ARCH484 - Landscape Architecture	3
ARCH486 - Architectural Heritage Buildings	3
ARCH487 - Intercultural Contexts Studies	3
Student Chosen Optional - Graduate	**3**
ARCH515 - Complex Buildings Structural Systems	3
ARCH520 - Intelligent Buildings	3
ARCH530 - Architecture Detailing	3
ARCH645 - Intercultural Architecture	3
Total	**193**

Programs of Study - Undergraduate Programs

Bachelor of Arts in Design and Applied Arts (Hybrid[i])

Offered in Main Campus Kaslik and in RUCs Zahle and Chekka

Mission

The mission of the Bachelor in Design and Applied arts is to establish an educational and creative environment that rigorously prepares and equips the students for their professional careers where they can find a balance between the needs of humans and the environment. This mission will be accomplished through a balanced and broad curriculum that offers both general and professional courses taught by the Department's distinguished faculty.

Program Educational Objectives

1. Graduates will be able to use the various tools and knowledge based in the field of design (drawing, color, perspective, scale model).
2. Graduates will be able to develop the diversity of relationships between humans and their environment, as well as developing their intuition and creativity with the rigor of thought.
3. Graduates will be able to use design tools to a professional standard, ensuring compliance with the different formal components and construction aspects of the project.

Program Outcomes

a. Students will be able to use their artistic training, to target and enhance communication in the project.
b. Students will be able to use their technical training related to IT certification in the project.
c. Able to apply their technical skills to use of new materials.
d. Able to select new techniques.
e. Able to use specific skills to shape their cultural development, related to space and object (interior design, and product design).
f. Students will engage in research that leads to a final project.
g. Able to contribute to a project and reflect on lessons learned.
h. Able to contribute their professionalism to a project in terms of planning.
i. Able to contribute their professionalism to a project in terms of realization of the plan.
j. Able to put into practice the knowledge and skills gained during the program in real projects.
k. Able to constantly update their skills and work with others to share in multidisciplinary dialogue.

[i] Hybrid: Courses offered in French and/or English

Degree Requirements

General Education	**30**
General Education - Arts and Humanities	3
General Education - Behavioral and Social Sciences	3
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Quantitative Reasoning	3
General Education - Science and Health	6
General Education - Sports	1
General Education - Religious Sciences	3
DAA241 - General History of Art	3
Common Core	**16**
ARC222 - CAD I (Computer Aided Architectural Design)	2
ARC322 - CAD II (Computer Aided Architectural Design)	2
ARCH205 - Basic Design I	2
ARCH210 - Technical Drawing	2
ARCH215 - 2-3D Representation skills	2
ARCH230 - Architecture Analysis and Perception	4
ARS213 - Chromatology	2
Specialization	**56**
DAA208 - Foundations of Architecture and Design	4
DAA211 - Sketching and Drawing I	2
DAA212 - Sketching and Drawing II	2
DAA303 - Drafting I	2
DAA332 - Technology of Materials	2
DAA340 - History of Furniture and Design	3
DAA342 - History of Art and Architecture I	3
DAA371 - Project Studio I (Didactic Project)	6
DAA372 - Project Studio II (Process of Design)	6
DAA430 - Mastery of Interior Atmospherics	3
DAA434 - Internship	1
DAA442 - History of Art and Architecture II	3
DAA452 - Technology of Furniture (wood)	3
DAA453 - Design Studio I	2
DAA454 - Design Studio II	2
DAA471 - Project Studio III	6
DAA472 - Project Studio IV (BA project)	6
Electives	**6 out of 43**
AGP251 - Painting	2
AGP410 - Infographic	2
ARCH225 - Basic Design II	2
ARS211 - Ceramic I	2
ARS214 - Mosaic I	2
ARS314 - Stained Glass I	2

ARS316 - Engraving I	2
ARS431 - Architecture and Planning of Religious Edifices	3
ARS445 - Cultural Properties	3
DAA209 - Volume I	2
DAA213 - Volume II	2
DAA216 - Plastic Expressions	2
DAA304 - Drafting II	2
DAA312 - Sketching and Drawing III	2
DAA330 - Elements of Construction Projects	2
DAA412 - Sketching and Drawing IV	2
DAA431 - Textiles	2
DAA432 - Detail in Interior Design Projects	2
DAA433 - Equipment and Services	3
PHO464 - Architecture Photography	2
Total	**108**

Bachelor of Arts in Sacred Art (Hybrid[i])

Mission

Courses of the Department of Sacred Art are available exclusively at the main campus of Kaslik. The richness of the Syro-Antiochean heritage, its cultural diversity and the need to carry out necessary restorations and make the discipline better known, led to the foundation of the Department of Sacred Art, which cooperates with various Faculties and Institutes of USEK, while also maintaining contact with similar institutes in local and foreign universities.

Program Educational Objectives

1. Graduates will be able to carry out iconography projects (design and execution).
2. Contribute to restoration of icons and paintings.
3. Carry out stained glass projects (design and execution).
4. Carry out mosaics projects (design and execution).
5. Conduct pottery and ceramics projects (design and execution).
6. Perform liturgical design and styling.
7. Undertake engraving projects (design and execution).
8. Carry out research, use documentation and conduct teaching assignments.

Program Outcomes

a. An ability to apply technical skills in applied arts.
b. An ability to restore icons according to ancient traditional techniques.
c. An ability to understand, describe and analyze a sacred artwork.
d. An ability to create new sacred artwork projects.

[i] Hybrid: Courses offered in French and/or English

e. An ability to identify and compare the different artistic ecclesiastical traditions.
f. An ability to produce documentation on a subject related to sacred art.

Degree Requirements

General Education	**30**
General Education - Behavioral and Social Sciences	3
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Quantitative Reasoning	3
General Education - Science and Health	6
General Education - Sports	1
General Education - Religious Sciences	3
ARS216 - Introduction to Artistic Expressions	3
DAA241 - General History of Art	3
Common Core	**14**
ARS213 - Chromatology	2
DAA211 - Sketching and Drawing I	2
DAA212 - Sketching and Drawing II	2
DAA312 - Sketching and Drawing III	2
DAA342 - History of Art and Architecture I	3
DAA442 - History of Art and Architecture II	3
Specialization	**54**
ARS201 - Iconography I	3
ARS202 - Iconography II	3
ARS205 - Restoration I	3
ARS206 - Restoration II	3
ARS210 - Mural Painting (Fresco)	2
ARS211 - Ceramic I	2
ARS214 - Mosaic I	2
ARS220 - Color Chemistry	2
ARS233 - Apocrypha and Icons	2
ARS234 - Syriac Language and Calligraphy	2
ARS240 - History of the Christian Iconography	3
ARS241 - Theology of the Icon	2
ARS243 - Historical Geography of the Syro-Antiochian World	2
ARS244 - Iconographic Greek	2
ARS245 - 245 Bible and Iconographic Tradition	2
ARS302 - Iconography III	3
ARS303 - Liturgical Design	2
ARS314 - Stained Glass I	2
ARS316 - Engraving I	2
ARS330 - Research Methodology in Sacred Art	2
ARS340 - Iconographic Hagiography	2
ARS341 - Christian Archeology	3
ARS301 - Bachelor Project + Research Note	3

Electives	6 out of 23
ARS212 - Ceramic II	2
ARS215 - Mosaic II	2
ARS221 - Computer-Aided Drawing	2
ARS222 - Anatomy and Iconographic Drawing Style	3
ARS246 - Christian Aesthetics	2
ARS315 - Stained Glass II	2
ARS317 - Engraving II	2
ARS321 - Photography	2
ARS431 - Architecture and Planning of Religious Edifices	3
ARS445 - Cultural Properties	3
Total	**104**

Bachelor of Arts in Graphic Design (English)

Offered in Main Campus Kaslik and in RUCs Zahle and Chekka

Mission

The Department of Graphic Design offers its students an education in the visual arts as an integral part of a comprehensive educational experience. Our bachelor program offers intense, professional education in the esthetics and theories of the visual arts. Additionally, students will be trained in the skills and intellectual awareness that are the basis for a future of creative and professional achievement in the graphic design field as: print design supervisor, graphic designer, product designer, packaging designer, typographer, interactive designer, etc.

Program Educational Objectives

1. Graduates will be able to demonstrate fluency in industry standard software applications, be able to design effectively in a variety of media and formats, and therefore building on technical skills and practical abilities.
2. Demonstrate working knowledge of the elements and principles of design, and their appropriate application within the context of a given design or communication problem; working effectively on creative solutions within timeframe constraints and conceptual and cultural challenges.
3. Assemble a quality portfolio demonstrating a range of creative strategies and effective original solutions within communication and visual design contexts making them stand out in a competitive market.

Program Outcomes

a. Students will experiment and create art works, in a variety of media (drawing, painting, sculpture, ceramics, printmaking, video, and computer graphics), based on a range of individual and collective experiences.

b. Develop their own ideas and images through the exploration and creation of artworks based on themes, semiotics, signifiers and events.
c. Reveal through their own artwork an understanding of how art media and techniques influence their creative decisions.
d. Identify and use, in individual and group experiences, some of the roles and means for designing, producing, and exhibiting art works.

Degree Requirements

General Education	**30**
General Education - Arts and Humanities	3
General Education - Behavioral and Social Sciences	3
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Quantitative Reasoning	3
General Education - Science and Health	6
General Education - Sports	1
General Education - Religious Sciences	3
DAA241 - General History of Art	3
Common Core	**26**
AGP210 - Typography I	3
AGP211 - Typography II	3
AGP220 - Communication and Persuasion	3
AGP221 - Introduction to Advertising	3
AGP222 - Introduction to Computer Graphics	2
AGP223 - Intermediate Computer Graphics	2
AGP224 - Advanced Computer Graphics	2
AGP225 - Basic Animation	2
ARCH205 - Basic Design I	2
ARS213 - Chromatology	2
DAA211 - Sketching and Drawing I	2
Specialization	**20**
ARG303 - Graphic Design Drafting	2
ARG310 - Typography Creation	3
ARG312 - Grid and Modules	2
ARG313 - Illustration I	2
ARG331 - Art Direction	2
ARG342 - History of Graphic Design	3
ARG400 - Packaging Design	2
ARG412 - 3D Animation	2
ARG431 - Printing and Production	2
Electives	**8 out of 36**
AGP252 - Mixed Media	2
AGP310 - Comics	2
AGP325 - Web Design I	2

AGP350 - Critical Thinking	3
AGP410 - Infographic	2
AGP444 - History of Contemporary Art	2
ARG411 - Arabic Calligraphy	2
ARG437 - Conception and Writing	2
ARS314 - Stained Glass I	2
ARS316 - Engraving I	2
AUV245 - Survey of Media	3
AVC204 - Introduction to Contemporary Cinema	3
DAA212 - Sketching and Drawing II	2
FLM353 - Film Authors I	2
PUB320 - Communication, Perception and Behavior	2
THT280 - Introduction to Acting	3
Capstone	**24**
ARG370 - Graphic Design I	6
ARG380 - Graphic Design II	6
ARG470 - Graphic Design III	6
ARG490 - Graphic Design Final Project	6
Total	**108**

Bachelor of Arts in Advertising (English)

Offered in Main Campus Kaslik and in RUCs Zahle and Chekka

Mission

The advertising degree program aims at teaching students creative, lateral thinking, enhanced by technical and practical execution, while remaining within the framework of strategy, time, brief, cultural and social constraints. Students will be able to stand out in a competitive market and be able to showcase their abilities persuasively, as copywriters, art directors, producers, communication specialists, and in related media fields such as TV.

Program Educational Objectives

1. Advertising graduates will be able to work as art directors, creative directors, copywriters, and finalizers.
2. They will be able to foresee and execute a communication strategy, study the competition and marketing of a product or a service, do a market analysis and media planning.
3. They will be able to use digital, video, and online media for an efficient and flawless execution of the concept and idea best adapted to the product or service at hand.

Program Outcomes

a. Students will produce and strategize a new marketing strategy for a product or service.

b. Choose and assess the media necessary for attaining cost-effectively the objectives set by the client, be they through online, print or a combination of media, in addition to originating new marketing procedures.
c. Produce concepts compatible with the strategy at hand.
d. Be able to follow up the details and technical executions of the campaign and assess its practical impacts.

Degree Requirements

General Education	**30**
General Education - Arts and Humanities	3
General Education - Behavioral and Social Sciences	3
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Quantitative Reasoning	3
General Education - Science and Health	6
General Education - Sports	1
General Education - Religious Sciences	3
DAA241 - General History of Art	3
Common Core	**26**
AGP210 - Typography I	3
AGP211 - Typography II	3
AGP220 - Communication and Persuasion	3
AGP221 - Introduction to Advertising	3
AGP222 - Introduction to Computer Graphics	2
AGP223 - Intermediate Computer Graphics	2
AGP224 - Advanced Computer Graphics	2
AGP225 - Basic Animation	2
ARCH205 - Basic Design I	2
ARS213 - Chromatology	2
DAA211 - Sketching and Drawing I	2
Specialization	**20**
PUB303 - Advertising Drafting	2
PUB314 - Copywriting I	2
PUB324 - Advertising Concept and Strategy	2
PUB332 - Storyboard	2
PUB421 - Media Planning	2
PUB425 - Copywriting II	2
PUB430 - Advertising Photography	2
PUB435 - Radio Spot	3
PUB442 - History of Advertising and Media	3
Capstone	**24**
PUB370 - Advertising Design I	6
PUB380 - Advertising Design II	6
PUB470 - Advertising Design III	6

PUB490 - Advertising Design Final Project	6
Electives	**8 out of 36**
AGP252 - Mixed Media	2
AGP310 - Comics	2
AGP325 - Web Design I	2
AGP350 - Critical Thinking	3
AGP410 - Infographic	2
AGP444 - History of Contemporary Art	2
ARG411 - Arabic Calligraphy	2
ARG437 - Conception and Writing	2
ARS314 - Stained Glass I	2
ARS316 - Engraving I	2
AUV245 - Survey of Media	3
AVC204 - Introduction to Contemporary Cinema	3
DAA212 - Sketching and Drawing II	2
FLM353 - Film Authors I	2
PUB320 - Communication, Perception and Behavior	2
THT280 - Introduction to Acting	3
Total	**108**

Bachelor of Arts in Visual and Performing Arts - Audio-Visual: Multimedia (English)

Mission

The department of visual arts is founded on the belief that art is a fundamental force in national and international culture, and that one of the primary standards by which societies are judged is the quality, creative freedom, critical insight, and formal and technical innovation of the visual art they produce.

The mission of the department of visual and performing arts is to provide students with the best possible education in the field of visual and performing arts. The department has a long distinguished history of forming artists of the highest caliber. A full-time faculty of working artists in conjunction with a diverse cross-section of accomplished visiting artists collaborate to foster an environment where the unique talents and perspectives of individual students can merge and flourish.

Program Educational Objectives

1. Graduates from the Bachelor program will work successfully as professional members of the media industry. They should be able to work in a broad range of fields in the media that involve screenwriting, directing, editing, recording and designing sound, production, photojournalism, commercial and artistic photography, television, advertising, web and mobile applications.

2. Graduates will have the ability to produce their own personal work whether it be fiction film, experimental film, drama, news, TV commercials, documentary film, animated films, still photography, and websites.
3. Graduates will have the ability to function and communicate effectively in the field of media as well as work as ethical and social individuals in society at large.

Program Outcomes

a. Students will have an understanding of major cultural and esthetic movements that have developed throughout history and their influence on art in general and visual media in particular (cinema, TV, photography, and web).
b. Understand the concept of visual media as an art form focusing on the essentials of style and language in order to communicate ideas.
c. Understand the basics of a number of analytical methods and their application to a variety of visual productions.
d. Understand of the essential components that constitute images (still, moving, and computer generated) by manipulating such elements as optical devices, framing, composition, and lighting.
e. Demonstrate an ability to use the technical tools of the various disciplines of the visual arts including directing, producing, editing, cinematography, production design, acting, writing, and sound.
f. Acquire knowledge of visual effects processes, including basic compositing, green screen with live action integration, motion capture, digital effects animation (2D, 3D), rendering, layout, and coloring.
g. Demonstrate an ability to produce and direct different types of visual media (fiction, experimental, drama, news, TV ads, documentary, still photography, websites, and animation).
h. Function effectively on an individual as well as a group level in order to produce a communicative visual product.

Degree Requirements

General Education	**30**
General Education - Behavioral and Social Sciences	6
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Quantitative Reasoning	3
General Education - Science and Health	3
General Education - Sports	1
General Education - Religious Sciences	3
DAA241 - General History of Art	3
PHO224 - Introduction to Photography	3
Common Core	**9**

AGP210 - Typography I	3
TLV351 - Introduction to Editing	3
TLV431 - Sound Techniques	3
Specialization	**51**
AUV204 - Introduction to Graphic Tools	3
AUV223 - Digital Illustration	3
AUV240 - Introduction to Interactive Design	3
AUV245 - Survey of Media	3
AUV323 - Multimedia and Web Page	3
AUV334 - Special Effects	3
AUV335 - Digital Page Layout	3
AUV342 - Design Web Page	3
AUV361 - Introduction to Graphic Design	3
AUV410 - Animated Cartoons	3
AUV425 - Interface Design	3
AUV433 - Art Direction	3
AUV438 - Digital Video Production	3
AUV449 - Introduction to 3D Animation	3
AUV451 - Sound Design	3
AUV457 - Digital Photographic Production	3
AUV461 - Advanced Graphic Design	3
Capstone	**3**
AUV470 - Final Project	3
Electives	**9 out of 15**
AUV441 - Technical English	3
AUV536 - Animation 3DII	3
PHO225 - Advanced Black and White	3
PHO235 - Introduction to Photography Story-telling	3
TLV352 - Advanced Editing	3
Total	**102**

Bachelor of Arts in Visual and Performing Arts – Photography (Hybrid[i])

Mission

The department of visual arts is founded on the belief that art is a fundamental force in national and international culture, and that one of the primary standards by which societies are judged is the quality, creative freedom, critical insight, and formal and technical innovation of the visual art they produce.

The mission of the department of visual and performing arts is to provide students with the best possible education in the field of visual and performing arts. The department has a long distinguished history of forming artists of the highest caliber. A full-time faculty of working artists in conjunction with a diverse cross- section of accomplished visiting artists

[i] Hybrid: Courses offered in French and/or English

collaborate to foster an environment where the unique talents and perspectives of individual students can merge and flourish.

Program Educational Objectives

1. Graduates of the Bachelor program will work successfully as professional members of the media industry. They should be able to work in a broad range of fields in the media that involve screenwriting, directing, editing, recording and designing sound, production, photojournalism, commercial and artistic photography, television, advertising, web and mobile applications.
2. Graduates will have the ability to produce their own personal work, whether it be fiction film, experimental film, drama, news, TV commercials, documentary film, animated films, still photography, and websites.
3. Graduates will have the ability to function and communicate effectively in the field of media as well as work as ethical and social individuals in society at large.

Program Outcomes

a. Students will gain an understanding of major cultural and esthetic movements that have developed throughout history and their influence on art in general and visual media in particular (cinema, TV, photography, and web).
b. Understand the notion of visual media as an art form focusing on the essentials of style and language in order to communicate ideas.
c. Understand the basics of a number of analytical methods and their application to a variety of visual productions.
d. Understand the essential components that constitute images (still, moving, and computer generated) by manipulating such elements as optical devices, framing, composition, and lighting.
e. Demonstrate an ability to use the technical tools of the various disciplines of the visual arts including directing, producing, editing, cinematography, production design, acting, writing, and sound.
f. Acquire knowledge of visual effects processes including basic compositing, green screen with live action integration, motion capture, digital effects animation (2D, 3D), rendering, layout, and coloring.
g. Demonstrate an ability to produce and direct different types of visual media (fiction, experimental, drama, news, TV ads, documentary, still photography, websites, and animation).
h. Function effectively on an individual as well as a group level in order to produce a communicative visual product.

Degree Requirements

General Education	**30**
General Education - Behavioral and Social Sciences	6

General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Quantitative Reasoning	3
General Education - Science and Health	3
General Education - Sports	1
General Education - Religious Sciences	3
DAA241 - General History of Art	3
THT280 - Introduction to Acting	3
Common Core	**14**
AGP222 - Introduction to Computer Graphics	2
AUV334 - Special Effects	3
PHO225 - Advanced Black and White	3
PHO226 - Introduction of Image Technology	3
PHO235 - Introduction to Photography Story-telling	3
Specialization	**46**
AUV457 - Digital Photographic Production	3
PHO240 - History of Photography	3
PHO261 - Photography Project I	3
PHO320 - Color Photography	3
PHO321 - Large Format Photography	3
PHO322 - Advanced Image Technology	3
PHO347 - Photography Project II	3
PHO430 - Advanced Photography Storytelling	3
PHO442 - Copyright and Law	3
PHO447 - Photography Project III	3
PHO460 - Portrait Photography	2
PHO461 - Fine Arts Photography	2
PHO462 - Commercial Photography	2
PHO463 - Landscape Photography	2
PHO464 - Architecture Photography	2
PHO465 - Photojournalism	2
PHO466 - Fashion Photography	2
PHO467 - Early Photography Processes	2
Capstone	**3**
PHO470 - Final Project	3
Electives	**9 out of 15**
AGP223 - Intermediate Computer Graphics	2
AGP224 - Advanced Computer Graphics	2
AUV204 - Introduction to Graphic tools	3
PHO360 - Technical Seminar	2
THT425 - Acting for the Camera	3
TLV435 - Video Technology	3
Total	**102**

Bachelor of Arts in Visual and Performing Arts - Cinema and Television (English)

Mission

The department of visual arts is founded on the belief that art is a fundamental force in national and international culture, and that one of the primary standards by which societies are judged is the quality, creative freedom, critical insight, and formal and technical innovation of the visual art they produce.

The mission of the department of visual and performing arts is to provide students with the best possible education in the field of visual and performing arts. The department has a long distinguished history of forming artists of the highest caliber. A full-time faculty of working artists in conjunction with a diverse cross- section of accomplished visiting artists collaborate to foster an environment where the unique talents and perspectives of individual students can merge and flourish.

Program Educational Objectives

1. Graduates from the Bachelor program will work successfully as professional members of the media industry. They should be able to work in a broad range of fields in the media that involve screenwriting, directing, editing, recording and designing sound, production, photojournalism, commercial and artistic photography, television, advertising, web and mobile applications.
2. Graduates will have the ability to produce their own personal work, whether it be fiction film, experimental film, drama, news, TV commercials, documentary film, animated films, still photography, and websites.
3. Graduates will have the ability to function and communicate effectively in the field of media as well as work as ethical and social individuals in society at large.

Program Outcomes

a. Students will gain an understanding of major cultural and esthetic movements that have developed throughout history and their influence on art in general and visual media in particular (cinema, TV, photography, and web).
b. Understand the notion of visual media as an art form focusing on the essentials of style and language in order to communicate ideas.
c. Understand the basics of a number of analytical methods and their application to a variety of visual productions.
d. Understand the essential components that constitute images (still, moving, and computer generated) by manipulating such elements as optical devices, framing, composition, and lighting.

e. Demonstrate an ability to use the technical tools of the various disciplines of the visual arts including directing, producing, editing, cinematography, production design, acting, writing, and sound.
f. Acquire knowledge of visual effects processes including basic compositing, green screen with live action integration, motion capture, digital effects animation (2D, 3D), rendering, layout, and coloring.
g. Demonstrate an ability to produce and direct different types of visual media (fiction, experimental, drama, news, TV ads, documentary, still photography, websites, and animation).
h. Function effectively on an individual as well as a group level in order to produce a communicative visual product.

Degree Requirements

General Education	**30**
General Education - Behavioral and Social Sciences	6
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Quantitative Reasoning	3
General Education - Science and Health	3
General Education - Sports	1
General Education - Religious Sciences	3
PHO224 - Introduction to Photography	3
THT280 - Introduction to Acting	3
Common Core	**36**
FLM240 - History of American Cinema	3
FLM241 - History of European Cinema	3
FLM316 - Introduction to Scriptwriting	3
FLM317 - Introduction to Film Directing	3
FLM319 - Introduction to Cinematography	3
FLM322 - Film Language	3
PHO225 - Advanced Black and White	3
PHO226 - Introduction of Image Technology	3
PHO235 - Introduction to Photography Story-telling	3
TLV351 - Introduction to Editing	3
TLV352 - Advanced Editing	3
TLV431 - Sound Techniques	3
Specialization - option: Cinema	
Mandatory	**24**
AUV451 - Sound Design	3
FLM321 - Advanced Cinematography	3
FLM344 - Theory and Aesthetics of Film	3
FLM416 - Advanced Scriptwriting	3
FLM417 - Advanced Directing	3
FLM441 - Sound Theory of Film	3

FLM473 - Silent Film	3
FLM474 - Experimental Film	3
Capstone	**3**
FLM470 - Final Project	3
Electives	**9 out of 39**
FLM475 - Documentary Film	3
TLV307 - Writing for Television	3
TLV420 - Television Production	3
TLV435 - Video Technology	3
TLV461 - Commercials for Television	3
TLV462 - Television Control Room	3
TLV463 - Music Video	3
TLV464 - Drama for Television	3
AUV334 - Special Effects	3
FLM353 - Film Authors I	2
FLM210 - Music of Film	3
FLM242 - Film Genre	2
FLM330 - Theory of Light in the Cinema	2
THT425 - Acting for the Camera	3
Specialization - option: Television	
Mandatory	**24**
FLM475 - Documentary Film	3
TLV307 - Writing for Television	3
TLV420 - Television Production	3
TLV435 - Video Technology	3
TLV461 - Commercials for Television	3
TLV462 - Television Control Room	3
TLV463 - Music Video	3
TLV464 - Drama for Television	3
Capstone	**3**
TLV470 - Final Project	3
Elective	**9 out of 36**
AUV451 - Sound Design	3
FLM321 - Advanced Cinematography	3
FLM344 - Theory and Aesthetics of Film	3
FLM416 - Advanced Scriptwriting	3
FLM417 - Advanced Directing	3
FLM441 - Sound Theory of Film	3
FLM473 - Silent Film	3
FLM474 - Experimental Film	3
FLM210 - Music of Film	3
FLM242 - Film Genre	2
FLM330 - Theory of Light in the Cinema	2
THT425 - Acting for the Camera	3
TLV416 - Television News	2
Total	**102**

Bachelor of Arts in Visual and Performing Arts – Theater (Hybrid[i])

Mission

The department of visual arts is founded on the belief that art is a fundamental force in national and international culture, and that one of the primary standards by which societies are judged is the quality, creative freedom, critical insight, and formal and technical innovation of the visual art they produce.

The mission of the department of visual and performing arts is to provide students with the best possible education in the field of visual and performing arts. The department has a long distinguished history of forming artists of the highest caliber. A full-time faculty of working artists in conjunction with a diverse cross- section of accomplished visiting artists collaborate to foster an environment where the unique talents and perspectives of individual students can merge and flourish.

Program Educational Objectives

1. Graduates will acquire specific knowledge about the history of theater and shows, theories and practices of the scene and become familiar with the news of contemporary performance and new forms of expression in this field.
2. Develop the acuity of judgment both in terms of creation and in the receiving plan.
3. Acquire multiple stage technical performance.
4. Learn to implement all the means to produce a complex spectacle, whether of body or voice, text (create, write or adaptation), or representation (choice of scenic place, creation a set design, implementation of sound, light or insertion of photographic or cinematographic images).

Program Outcomes

a. Students will be familiar with the types of spectacles and literary and scenic components. They will have to distinguish a spectacular kind of a subgenre, and to recognize the aesthetic trend to which it relates.
b. Analyze methodically both a literary (read) and scenic dramatic work (presented on stage), identify scenic choice of directors, and to critically study on a show.
c. Perform in shows of various kinds (theatrical play, play on camera, puppet animation, mime show, clown show and dancing etc.).
d. Design a show, draw up the specifications for its production, plan rehearsals, recognize the difficulties it may be facing, identify possible solutions to the problems of implementation, team work and finally to mount a single show.

[i] Hybrid: Courses offered in French and/or English

Degree Requirements

General Education	**30**
General Education - Behavioral and Social Sciences	6
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Quantitative Reasoning	3
General Education - Science and Health	3
General Education - Sports	1
General Education - Religious Sciences	3
PHO224 - Introduction to Photography	3
THT280 - Introduction to Acting	3
Specialization Courses	**62**
FLM210 - Music of Film	3
PHO442 - Copyright and Law	3
RCH220 - Set Design Workshop	3
THT200 - Introduction to Voice Mastering	3
THT210 - Body expression	3
THT215 - History of Theater	3
THT220 - History of Directing in Theater	3
THT310 - Dramaturgy	3
THT315 - Wardrobe and Design	3
THT320 - Advanced Acting	3
THT325 - Directing the Play	3
THT335 - Theatrical Critical Studies	3
THT340 - Dramatic Writing for Theater	3
THT345 - Mime Workshop	3
THT405 - Performance and Contemporary Art	3
THT420 - Sound and Lighting Workshop	3
THT425 - Acting for the Camera	3
THT430 - Theater of Puppets	3
THT435 - Theatrical Production	3
THT448 - Play Analysis	3
THT470 - Final Project	3
Elective Courses	**10 out of 20**
FLM240 - History of American Cinema	3
FLM242 - Film Genre	2
FLM353 - Film Authors I	2
PHO235 - Introduction to Photography Story telling	3
PSY214 - Developmental Psychology	3
THT305 - Advanced Voice Mastering	2
THT415 - Puppets & Theater for Children	3
TLV232 - Make-up for films	2
Total	**102**

Programs of Study - Graduate Programs

Master in Interior Architecture (Hybrid[i])

Offered in Main Campus Kaslik and in RUC Zahle

Mission

The mission of the Master in Interior Design is to prepare students to enter the field as skilled designers, creative thinkers, professional leaders and responsible citizens. The Department seeks to cultivate students who acknowledge their responsibilities to the safety and wellbeing of the public and the environment and who can lead a multifaceted professional life. The syllabus integrates knowledge and appreciation of architectural and design theory with ethical, responsible, and entrepreneurial practice.

Program Educational Objectives

1. Graduates will be able to master the creative design of and plan the management of a project.
2. They will be able to support a project with an expertise based on innovation and multidisciplinary.
3. They will be able to work in teams to achieve large scale projects in partnership with specialized professionals and professional firms.

Program Outcomes

a. Students will be able to create layout and design projects, related to domestic, cultural and professional behavior of the human being.
b. Students will be able to address the design methodology and the representation of the project through their own perceptions.
c. Students will be able to analyze research documentation and produce a proper summary to communicate and argue a solution within the framework of the project.
d. Students will be able to set up a professional project which gives them the opportunity to be in contact with the professional reality, their integration into working life in the future and integration into multidisciplinary teams.

Degree Requirements

Specialization	**30**
ADI501 - Thematic Studio: Design I	6
ADI502 - Thematic Studio: Design II	6
ADI520 - Design Modeling in 3D	3
ADI540 - Research Methodology in Design	3
ADI551 - History and Contemporaneity of Architecture and Design	3
ADI600 - Research Seminar in Design	3
ADI607 - Thematic Studio: Preliminary Design	6

[i] Hybrid: Courses offered in French and/or English

Capstone	**6**
ADI608A - Supervised Project	6
Electives	**6 out of 27**
ADI650 - Descriptive/Coordination and Follow up of Building Sites	3
ADI654 - Environment Planning and Landscape Design	3
ADI656 - Approaches: Quality/ Creation/ Innovation	3
DES621 - Design and Communication	3
DES622 - Design and Craftsmanship	3
DES623 - Industrial Design	3
SCE613 - Clothing and Theatre Costumes	3
SCE620 – Scenography	3
SCE623 - Places and Spaces of Exhibition	3
Total	**42**

Master of Arts in Sacred Art (Hybrid[i])

Mission

Courses of the Department of Sacred Art are available exclusively at the main campus of Kaslik. The richness of the Syro-Antiochean heritage, its cultural diversity and the need to carry out necessary restorations and make the discipline better known, led to the foundation of the Department of Sacred Art, which cooperates with various Faculties and Institutes of USEK, while also maintaining contact with similar institutes in local and foreign universities.

Program Educational Objectives

1. Graduates will be able to conduct advanced research on iconography and sacred art
2. Graduates will be able to work in the teaching field.

Program Outcomes

a. Students will develop an ability to contribute to the conservation of national heritage.
b. Organize a global and reliable documentation of the Church of Antioch.
c. Promote research on the Church of Antioch.
d. Encourage advanced studies on local artists and heritage.
e. An ability to carry out advanced research on the local and oriental iconography.

Degree Requirements

Specialization	**24**
ARS501 - Syro-Antiochian Topography	3
ARS506 - Contemporary Iconography	3
ARS508 - Thematic Seminar I (Iconographic)	3
ARS509 - Thematic Seminar II (Methodology)	3

[i] Hybrid: Courses offered in French and/or English

ARS540 - Christian Typologies	3
ARS543 - History of Art in Lebanon	3
ARS608 - Thematic Seminar III (Historical)	3
ARS609 - Thematic Seminar IV (Oriental, Non-oriental, Non-Christian Iconography)	3
Capstone	**6**
ARS680A - Dissertation	6
Electives	**6 out of 15**
ARS502 - Conferences Cycle	3
ARS510 - Compared Architectures	2
ARS511 - Arts and Crafts- Minor Arts	2
ARS512 - Religious Sites (in Lebanon)	2
ARS513 - Chronology and Construction Techniques	3
ARS514 - Iconography IV	3
Total	**36**

Master in Graphic Design (English)

Mission

The mission of the Masters in Graphic Design is to provide multidisciplinary training that begins with the study and collection of data and its analysis, then the market, the creative process, the realization of graphic design and analysis of practical, social, financial, and cultural constraints for the purposes of developing the most compatible and cost-efficient solutions to the graphic and conceptual problem at hand. Online, print, installation and video are aimed at as media to best showcase the artistic and esthetic solutions proposed.

Program Educational Objectives

1. Graduates will have learnt the history of graphics social media and the importance that graphics play in the branding sector, providing the students with conceptual, historical and cultural landmarks.
2. Interpret abstract imagining concepts based on visual research and psychological fields sociological. Understand how graphics work in real life situations and vary across cultures and contexts.
3. Demonstrate an ability to integrate and realize a design idea in several types of social media and in an increasingly multicultural world. Also, understand the role of the global economy, taking into account all factors in countries with different cultures while assessing semiotics and signifiers in the implementation.

Program Outcomes

a. Students will be able to use a series of manuals and tools, at both intellectual and technical level, to make creative, relevant, and socially-compatible graphic executions.

b. Formulate and apply concepts in the professional field of graphic design through an appropriate visual expression, used in professional and social media in print and online.
c. Learn to analytically criticize their concept and that of others without prejudice and prior bias.
d. Show an understanding of the field of graphics (ATL and BTL) and the related field of artistic professions and gain knowledge in the field to avoid duplicating previous concepts/executions.

Degree Requirements

Common Core	**9**
AGP503 - Online Advertising	3
AGP510 - Graphic Design and Advertising Thesis	3
AGP601 - New Media	3
Common Core - Electives	**6 out of 18**
ARG607 - Thematic Illustration	3
ARG610 - Museography	3
ARG611 - Advanced Animation	3
ARG612 - Silkscreen	3
TLV560 - Digital Editing and Animation	3
FLM640 - Film and the other Arts	3
Specialization	**21**
ARG504 - Typography in Motion	4
ARG505 - Exhibition Display	3
ARG506 - Mobile Application Design	4
ARG602 - BTL Design	4
ARG605 - Art and Modernity	3
ARG606 - Installation Art	3
Capstone	**6**
ARG680A - Final Project I	6
Total	**42**

Master in Advertising (English)

Mission

The mission of the master program in advertising is to enrich, educate and shape the students, to enhance their innate talents in addition to giving them new vistas to explore. The program aims to provide them with technical and conceptual know-how that will make them compatible with competitive market requirements in an ever-evolving and challenging industry.

Program Educational Objectives

1. Graduates will have learnt the history of advertising and communication, specifically the emergence of mass media and new media and their repercussions in the economic and commercial sectors.
2. Use abstract concepts based on marketing facts and figures, or psychological and social findings, and understand propaganda techniques and persuasive arguments.
3. Use copywriting creatively yet without ambiguity in Arabic, English and French, in the best possible way to execute a campaign in different media in a world which is more and more multicultural. Also, be able to analyze the economic implications and cycles and come up with socially and culturally compatible campaigns.

Program Outcomes

a. Students will be able to use manual and digital tools to originate, execute and diffuse ideas and campaigns of high conceptual and practical standards.
b. Create and execute concepts in the advertising domain through an esthetic interpretation compatible with advertising standards applicable in the domain.
c. Learn to efficiently criticize their concept and that of others without bias.
d. Show understanding of the advertising process (ATL and BTL), in addition to complementary fields (TV writing, video editing, etc.).

Degree Requirements

Common Core	**9**
AGP503 - Online Advertising	3
AGP510 - Graphic Design and Advertising Thesis	3
AGP601 - New Media	3
Common Core Electives	**6 out of 15**
FLM537 - Screenwriting for Film and Television	3
FLM620 - Theory of Sound in Films	3
FLM640 - Film and the other Arts	3
TLV516 - Documentary Writing	3
TLV560 - Digital Editing and Animation	3
Specialization	**21**
PUB504 - Advanced Arabic Copywriting	4
PUB505 - Advanced French Copywriting	4
PUB506 - Advanced English Copywriting	4
PUB604 - Media Strategy	3
PUB605 - Commercial and Cultural Environment	3
PUB608 - Propaganda and Critical Analysis	3
Capstone	**6**
PUB680A - Final Project I	6
Total	**42**

Master in Performing Arts (Hybrid[i])

Mission

The department of visual arts is founded on the belief that art is a fundamental force in national and international culture, and that one of the primary standards by which societies are judged is the quality, creative freedom, critical insight, and formal and technical innovation of the visual art they produce.

The mission of the department of visual and performing arts is to provide students with the best possible education in the field of visual and performing arts. The department has a long distinguished history of forming artists of the highest caliber. A full-time faculty of working artists in conjunction with a diverse cross- section of accomplished visiting artists collaborate to foster an environment where the unique talents and perspectives of individual students can merge and flourish.

Program Educational Objectives

1. Graduates from the Master program will work successfully as professional members of the theatrical production process. They should be able to work in a broad range of positions involving tasks such as writing a scenario, directing, acting, and production.
2. Graduates will have the ability to produce their own personal pieces of theater.
3. Graduates will have the ability to function and communicate effectively in the field of theater as well as work as ethical and social individuals in society at large.

Program Outcomes

a. Students will acquire knowledge of critical and theoretical methodologies and their application to theater.
b. Demonstrate in critical essays and oral presentations an ability to analyze films via a variety of theoretical perspectives while using the critical vocabulary and methodologies of the discipline.
c. Develop a thorough understanding of the fundamental disciplines inherent in theater including acting, producing, directing, lighting, and sound.
d. Generate and develop ideas for theater that include writing from personal experience, and translating these ideas via acting, directing and technical excellence.
e. Function effectively on an individual as well as a group level in order to produce a communicative theatrical product.

Degree Requirements

Common Core	**3**
AVS500 - Methodology	3

[i] Hybrid: Courses offered in French and/or English

Electives	27 out of 36
THT506 - Modern Theatricalism	3
THT510 - Arab Theater	3
THT512 - Greek Theater	3
THT517 - Practicum in Dramaturgy	3
THT521 - Theory and Criticism	3
THT542 - Manuscript Analysis	3
THT615 - Aesthetics of Theater	3
THT616 - Authors and Genres in Theater	3
THT619 - Literary Adaptation	3
THT620 - Scenic Design Workshop	3
THT630 - Semiology of Theater	3
THT662 - Directing as Theory and Practice	3
Capstone	**6**
AVS680A - Directed Individual Studies I	6
Total	**36**

Master in Visual Arts – Cinema (English)

Mission

The department of visual arts is founded on the belief that art is a fundamental force in national and international culture, and that one of the primary standards by which societies are judged is the quality, creative freedom, critical insight, and formal and technical innovation of the visual art they produce.

The mission of the department of visual and performing arts is to provide students with the best possible education in the field of visual and performing arts. The department has a long distinguished history of forming artists of the highest caliber. A full-time faculty of working artists in conjunction with a diverse cross- section of accomplished visiting artists collaborate to foster an environment where the unique talents and perspectives of individual students can merge and flourish.

Program Educational Objectives

1. Graduates from the Master program will work successfully as professional members of the film production process. They should be able to work in a broad range of positions involving tasks such as writing a scenario, directing, editing, recording and designing sound, and production.
2. Graduates will have the ability to produce their own personal fiction films.
3. Graduates will have the ability to function and communicate effectively in the field of cinema as well as work as ethical and social individuals in society at large.

Program Outcomes

a. Students will acquire knowledge of critical and theoretical methodologies and their application to film.

b. Demonstrate in critical essays and oral presentations an ability to analyze films via a variety of theoretical perspectives while using the critical vocabulary and methodologies of the discipline.
c. Develop a thorough understanding of the fundamental disciplines inherent in motion picture including acting, producing, directing, writing, cinematography, editing, and sound.
d. Generate and develop ideas for film that include writing from personal experience, and translating these ideas via visual and aural acuity and technical excellence.
e. Function effectively on an individual as well as a group level in order to produce a communicative cinematic product.

Degree Requirements

Common Core	**3**
AVS500 - Methodology	3
Specialization	**12**
FLM620 - Theory of Sound in Films	3
FLM630 - Seminar in Film Theory	3
FLM640 - Film and the other Arts	3
FLM650 - Film Authors	3
Capstone	**6**
AVS680A - Directed Individual Studies I	6
Electives	**15 out of 33**
FLM517 - Lighting Workshop for Film	3
FLM537 - Screenwriting for Film and Television	3
FLM551 - Film Design and Special Effects	3
FLM559 - Direction of Actors for Film and TV	3
FLM560 - Practices in Contemporary Arts	3
FLM617 - Advanced Lighting Workshop for Film	3
FLM618 - Cinematography and Directing	3
FLM619 - Advanced Digital Directing	3
FLM634 - Advanced Screenwriting	3
FLM675 - Advanced Fiction Workshop	3
THT623 - Acting for Camera	3
Total	**36**

Programs of Study – Doctoral Programs

Ph.D. in Sacred Arts (Hybrid[i])

Mission

The mission of the Ph.D. program in the Department of Sacred Art is to offer postgraduate students, through various seminars, the ability to perfect their research skills and critical thinking in the field of Sacred Arts, in order to contribute to the enrichment of the history of the artistic local heritage.

Program Objectives

1. PHD holder will be able to conduct and publish scientific research.
2. PHD holder will be able to classify, organize, and exploit their research sources.
3. PHD holder will be able to teach within the Higher education field.

Degree Requirements

Specialization	**60**
Ph.D. Seminars by Doctoral College	15
Ph.D. Dissertation	45
Total	**60**

Ph.D. in Visual and Performing Arts (Hybrid[i])

Mission

The Ph.D. program in visual and performing arts challenges the traditionally conceived borders between creative and critical practice. The program enables potential dialogue between creative practice and theoretical knowledge as related forms of intellectual work and provides the conditions for students to realize a wide range of possible projects, including those that exist across the traditional divides of critical studies and production. Focusing on a diverse range of cultural production that includes cinema, television, video art, performing art, the Ph.D. program participants interrogate the historical, aesthetic, political, ideological, and technological aspects of these media forms across a range of international contexts, investigating their points of connection and convergence as well as their relationship to broader cultural and historical change. The program thus prepares students for intellectually informed creative practice as well as theoretical and critical production in a range of environments, not limited to traditional academic contexts.

Integrating critical and creative practice: In our research and teaching, we explore the intersections of what have been, or have become, separated modes in our field of media

[i] Hybrid: Courses offered in French and/or English

studies: theory and practice. We seek to nurture dialogue between creative practice and scholarly inquiry as related forms of intellectual work.

Working across media: Our approach to media studies and media production incorporates a range of technologies and platforms, stressing their historical and intertextual relationships.

Pursuing new modes of social and political engagement: Media literacy, broadly defined, is an essential component of participation in our increasingly mediated lives. A new generation of media makers and media interpreters has the power to re-shape the world.

Fostering global cultural citizenship: Making and studying media today necessitates a global and historical perspective. By thinking and working across boundaries of nation, culture and identity, we are creating new forms of knowledge and new media forms that respect and investigate differences of race, class, gender, sexuality and nation.

Program Educational Objectives

Upon program completion, graduates will:

1. Be prepared for employment in research/faculty.
2. Engage in and promote evidence-based practices through the application of rigorous methodology.
3. Link education research to policy and practice.
4. Provide leadership in the field by developing an independent line of ethical and culturally responsive research.
5. Contribute to development of the next generation of scholars.
6. Be able to influence school policy and reform.

Program Outcomes

Students who earn a Ph.D. in visual and performing arts will gain the skills, knowledge, and understanding that will enable them to:

a. Demonstrate knowledge of video and/or digital media production.
b. Demonstrate critical thinking and analytical skills appropriate to doctoral work in to the discipline of film and digital media.
c. Demonstrate research skills appropriate to doctoral work in the discipline of film and digital media.
d. Demonstrate scholarly writing skills appropriate to doctoral work in the discipline of film and digital media

Degree Requirements

Specialization	**60**
Ph.D. Seminars by Doctoral College	15
Ph.D. Dissertation	45
Total	**60**

Course Descriptions

ADI501 **Thematic Studio: Design I** **6 cr.**

Conversion/Heritage. The current century will focus primarily on transforming the built heritage of the previous century and thus developing intervention strategies for existing buildings. The introduction of new functional programs involves difficult choices requiring knowledge of the morphology and typology of existing buildings as well as historical knowledge and technical skills. Theme: Product Design - the workshop takes as a starting point the creation of a chair in order to go through all the dimensions of design and mass production (the chair as a means of questioning form, use, production processes and the object as a cultural sign). Theme: Scenography - analyzing the creative process in the context of an ongoing project, reporting on research and the relationship between the dramatic text and set design.

ADI502 **Thematic Studio: Design II** **6 cr.**
Prerequisites ADI501

Venues/cultural space. Through these two themes, the workshop addresses the study of the interior spaces of complex collective programs involving cultural venues. The workshop is supplemented by the acquisition of data, leading to the integration of mechanical equipment in the project while respecting public safety. Theme: Product Design - the conditions for sustainable development, the interaction of the object and its environment (private, public or urban) and the semantics of shape are the three interwoven themes of this workshop. Theme: Design and Costume Design - this course relates firstly to designing stage sets for opera, theater, dance and musicals, and secondly to the installation of spaces for exhibitions in the field of events and performance.

ADI520 **Design Modeling in 3D** **3 cr.**

The course introduces the students to the world of virtual reality and simulation and mainly those of architectural spaces, objects, their geometric components, materials and virtual lighting. Walks and animation in real time allow students to monitor the implementation and impact of the project.

ADI540 **Research Methodology in Design** **3 cr.**

Introduction to the methodology of scientific research applied to design. Logic and scientific reasoning are at the heart of teaching, standards, steps and processes of all academic research. The application of the methodology is made on a choice of themes developed during the semester.

ADI551 **History and Contemporaneity of Architecture and Design** **3 cr.**

Capture, interpret and project: theories and thoughts at work in architecture and design. Given in the form of a seminar, this course attempts to capture current news in architecture and design by relating it to past history, in order to understand how design is displaced, transposed, reversed or rewritten in present and future projects.

ADI600 **Research Seminar in Design** **3 cr.**
Prerequisites ADI540

The seminar develops research related themes: the students must choose their problem and then decide their solutions, creating an end of study supervised personal project. They are also required to create a bibliography related to their investigations and attempt to answer all questions arising from the chosen subject. Thus, the seminar has both theoretical and experimental dimensions, allowing the students to build analyticals and research their own methodological tools.

ADI607 **Thematic Studio: Preliminary Design** **6 cr.**
Prerequisites ADI600 and ADI501 and ADI502

The objective of the workshop is to allow students to build analytical skills and reflect on a chosen topic related to a professional field (interior design, product design, scenography). The reflection is

developed under the guidance of a supervisor and is presented in the form of a draft project accompanied by a thesis and defended before a jury. Students are encouraged to undertake research, to question, experiment, challenge preconceived ideas and create solutions adapted to current issues.

ADI608A **Supervised Project** **6 cr.**
Prerequisites ADI607
The supervised student project represents the development of the proposals given in the thematic design studio III, in the fields of interior design, product design or scenic design. At the end of the semester the students defend their project in front of a jury.

ADI650 **Descriptive/Coordination and Follow up of Building Sites** **3 cr.**
A comprehensive description by trades accompanies tender documents allowing for quicker acquisition of anticipated prices. This covers: tenders, comparative analysis, the creation of a preliminary schedule of work, coordination and monitoring of projects, the organization of meetings (as requested by the client and/or companies), informing clients and creating business reports related to specific sites, followed by delivery of the site to the client and the community.

ADI654 **Environment Planning and Landscape Design** **3 cr.**
This course is related to components of landscaping. It is organized around three themes: the concept of the ecosystem, history of gardens and the organization of circulation.

ADI656 **Approaches: Quality/Creation/Innovation** **3 cr.**
Success depends on the integration of different approaches in order to improve the strategy of the company, including: customer focus, leadership, involvement of personnel and continuous improvement. This comes at a time when increasingly different approaches are used in the quality assurance systems of enterprises.

AGP210 **Typography I** **3 cr.**
In this course students will become aware of typography as a part of daily life, and they will learn about the different contexts and manipulation of the letters which make texts more legible whatever their format is and their ultimate purpose (reading, posters, screens, etc.).

AGP211 **Typography II** **3 cr.**
Prerequisites (AGP101 Or AGP210)
The course explores letters in their different contexts, and introduces the idea of a typographic grid and the hierarchy of use of typography in different ways. Equilibrium and balance are explored on empty pages, and harmonious solutions are offered to fill them.

AGP220 **Communication and Persuasion** **3 cr.**
The course details the importance of creating a strategy and the steps required to construct an effective communication to reach a marketing plan and to transpose them within the realm of creative advertising.

AGP221 **Introduction to Advertising** **3 cr.**
The course offers a deeper understanding of advertising through an academic definition focusing on theory and the strategies it uses, its psychological impact which enables it to persuade a specific target audience, and then to be able to specify the best media to use to achieve optimal communication results.

AGP222 **Introduction to Computer Graphics** **2 cr.**
This course shows students how to produce professional-looking graphics for web or print with Adobe Illustrator software. Through practical exercises, they will become fluent in the premier

program for line art, logos, vector graphics and quick page layout, as well as methods and efficient techniques to keep work clean and professional all while saving time and remaining within budget constraints.

AGP223 Intermediate Computer Graphics 2 cr.

This course teaches students how to use Adobe Photoshop to perform many different image processing techniques. The students will learn how to use several tools for selecting parts of images, and applying several filters and effects in order to create professional looking illustrations compatible with market requirements.

AGP224 Advanced Computer Graphics 2 cr.

Prerequisites AGP223 Or AGP322

In this course, the students will learn advanced techniques in Photoshop, especially what is needed to create and innovate in the fields of advertising and graphics. With these techniques, the students will be able to retouch and recreate new approaches in the wide field of picture treatment.

AGP225 Basic Animation 2 cr.

Prerequisites AGP222

This course will teach the basics of the After Effects CS application package. The students will learn about the world of 2D motion graphics, compositing and visual effects. Prerequisites are: completion of the Adobe Photoshop Basic Skills 1 and 2 courses, a general graphics background, and experience with Adobe Illustrator, and/or Premiere would be helpful.

AGP251 Painting 2 cr.

Introductory workshop for painting and aesthetic perception principles. It is a series of exercises on different painting techniques, mixtures, contrast, color schemes, as well as colors, shades, intensity and harmony, from still life, photos or reproduction of works.

AGP252 Mixed Media 2 cr.

The purpose of this course is to teach students the basics of painting on paper and canvas, and how to choose the topic in correlation with the composition. Collage, gouache, aquarelle, pastel and acrylic and oil are the techniques used in this course.

AGP310 Comics 2 cr.

Prerequisites ARI211 Or DAA211

Comics are an art unto themselves which blend many talents. In this course students will receive their initiation to the techniques of comics which will allow them to apply these skills to other fields such as advertising, communication, cinema, and animation.

AGP325 Web Design I 2 cr.

Prerequisites AGP223 Or AGP322

In a world relying more and more on the power of the net, web design is a must outlet for graphic design. The course will enable students to make a window showcase site and, ideally, to create a fully-functional interactive one.

AGP350 Critical Thinking 3 cr.

Trying to stop the creative stagnation of students, this course, as its name indicates tries to integrate a polyvalent and flexible platform that answers to the problematics that come up throughout the semester, going through the technological evolution and its impact on the notion of creation within advertising and graphics. This combination within all its parameters, presents itself under the shape of a workshop where « critical thinking » plays an important role of the motor within communication. This requires the integration of people able to merge the academic and professional life. The themes of this workshop change depending on advertising and graphics, new technologies and the solutions

that emerge.

AGP410 Infographic 2 cr.
In this course, the students will learn to manipulate images on software to be applied in architecture and to implement them in the real world of urban and/or rural spaces.

AGP444 History of Contemporary Art 2 cr.
This course explores developments in the visual arts in Europe and America from 1889 till today. The major Modernist and Contemporary artists and movements that sought to revolutionize vision, culture, and experience, from Impressionism to Digital works, will be considered.

AGP503 Online Advertising 3 cr.
The advertising industry has experienced significant transformations in recent years as digital, social media and interactivity have changed the shape of media and advertising. This course will explore the effects and impact of digital media in advertising, how to understand users, and explore different modes of delivery for advertising and methods of audience measurement within an online, mobile and social media environment.

AGP510 Graphic Design and Advertising Thesis 3 cr.
Writing a thesis is essential for academic development and fulfillment. It is inconceivable that students would graduate without having written a solid, extensive and very critical academic work which would be compliant with international standards. The end result of the course will be a long paper on a topic related to their graduation field which would discuss a new angle for an established topic.

AGP601 New Media 3 cr.
The course will explore the implications of new media on culture, business and other major industries. The esthetic possibilities for a society invaded by social media, smart phones, video and digital cameras, computer interfaces, search engines, and video games will be analyzed and their convergence/divergence from 'traditional' media. Through discussion, reading, screenings, and creative experiments, we will critically reflect on everyday new media practices, such as surfing, sharing, uploading, emerging technologies, and their historical origins to understand changing relations of the human- computer interaction (HCI).

ARC222 CAD I (Computer Aided Architectural Design) 2 cr.
Prerequisites ARC210 Or ARCH210
Design and develop 2D and 3D architectural drawings using standard CAD software and in accordance with industry standards, used widely in industry.

ARC322 CAD II (Computer Aided Architectural Design) 2 cr.
Prerequisites ARC222 Or ARCH315
Virtual reality in architecture is a focus for architecture students who wish to improve modelling in the 3rd dimension, in order to increase possibilities and variation in their designs, ranging from orthogonal shapes to complex organic forms and rendering in high quality engines.

ARCH205 Basic Design I 2 cr.
Students will enhance and elaborate their knowledge of applied structure, through this course covering introductory concepts of forms and abstract compositions as applied to organization, proportions, equilibrium, rhythm, and density.

ARCH210 Technical Drawing 2 cr.
Initiating students to producing graphic documents, while being compatible with up to date and international norms, so they can improve their representation of the architectural object in 3D.

ARCH215 2-3D Representation Skills 2 cr.
Students will learn and apply geometric representation in 2D and 3D, while comprehending theories and laws of construction from a scientific perspective as applied to the practical standards of the habitat.

ARCH220 Vernacular Architecture 4 cr.
The aim of this course is to enhance the students' abilities in finding constraints which are at the base of any architecture, while applying this insight to the concept of habitat, under whatever form, from its first inception to today's comprehension of the world. Students will understand the nature human technology interaction and develop their ideas of applying it logically in the production of a habitat.

ARCH225 Basic Design II 2 cr.
Prerequisites ARCH205 Or ARC205
Analyze and deduce logically the abstract notion of orders and structures while applying it in 2D and 3D formats with chromatic variations.

ARCH230 Architecture Analysis and Perception 4 cr.
Prerequisites ARC212 Or ARCH220 Or ARC208 Or DAA208
Students will develop an understanding of the culture and awareness of the concept of space. This course will initiate students to comprehend the built environment while encouraging their sense of investigation and experimentation in order to develop the aptitude to analyze and use the scientific jargon appropriately.

ARCH235 Strength of Materials I 3 cr.
Study of the physics of static forms and the particles of solid objects in order to apply it to the resistance of materials. This course will familiarize students with problems in equilibrium of forces, and how the cumulative forces apply to the ground in static constructions, and provides useful tools demonstrated through practical examples.

ARCH310 History and Culture of Architecture I 3 cr.
Prerequisites DAA241 Or ARI241 Or DAA208
The course aims to introduce concepts of architectural theory, from antiquity till the Renaissance, in a historical chronological order and to emphasize the movements, structural system, composition values and cultural aspects of each period through the works which mostly shaped it.

ARCH315 CAAD 2 cr.
Prerequisites ARCH210 Or ARC210
Introduce and familiarize the students with various software for producing graphic 2D results on different scales which would allow a 3D interpretation of their work.

ARCH320 Structural Design 2 cr.
Prerequisites ARC207 Or ARCH235
Initiation to forms and their characteristics and materials and different structures, in addition to studying the behavior of materials and elements they are made from.

ARCH325 Virtual Reality in Architecture 2 cr.
Prerequisites ARCH315 Or (ARC222 And ARC322)
Principles of virtual reality and architectural simulation will be introduced in the course, while emphasizing its geometrical parameters, materials and virtual lighting. Real time animation allows the students to implement and impact the project within the built architectural environment. Special attention will be given to the conception forms and transformations and their impact on

the conception of formal architecture.

ARCH330 Building Technologies 2 cr.
The course aims at identifying different construction materials and familiarizing students with a variety of building systems and integrating different materials to define an architectural composition, while also familiarizing them with the description of an execution report.

ARCH335 Strength of Materials II 3 cr.
Prerequisites ARCH235 Or ARC220
Based on the prerequisite when the students were introduced to the idea of equilibrium of forces and moments in addition to the flow of forces within a structure, the aim of this course is to become acquainted with the mechanical characteristics of materials, concepts of constraints and deformations and dimensioning of pieces subject to fundamental changes, be they axial, flexing, shearing or torsion.

ARCH340 Reinforced Concrete I 3 cr.
Prerequisites ARCH335 Or ARC221
Introductory concepts of materials and their behavior. Simple twist, shear, centered posts, cement – steel adherence.

ARCH345 Architecture Design Studio I 6 cr.
Prerequisites (ARC214 Or ARCH230) And (ARC212 Or ARCH220)
The workshop introduces the visual interpretation of variables and parameters for an architectural project.

ARCH350 Architecture Design Studio II 6 cr.
Prerequisites ARC201 Or ARCH345
Students are introduced to architectural production in order to comprehend the chain of events from concept to execution.

ARCH355 Geographic Information Systems 2 cr.
The course will familiarize students with the basics of GIS (Geographic Information Systems) and its application to architecture and urbanism, in addition to understanding and comprehending numerical and alphanumeric data.

ARCH360 Soil Mechanics 2 cr.
Introduce students practically to the structural property of floors, fragile elements and real time constraints (consolidation, shearing) and works (supporting walls, superficial and deep foundations).

ARCH365 Safety and Physical Disability Regulations 2 cr.
Students will be introduced to new laws covering fire security and people with physical disability while observing their integrative norms for the architectural composition. The course will familiarize students with the introduction of outside factors and how to be aware of applying architecture within operational laws.

ARCH370 Building Planning and Scheduling 2 cr.
The objective of the course is to initiate the students to the different approaches of managing a construction project during the execution phase, including; time, cost, outcomes and risk. In addition, the students will examine the use of software tools.

ARCH405 Architecture Schematic I 2 cr.
Prerequisites (ARCH230 Or ARC214) And (ARCH345 Or ARC201)

This workshop takes the students through targeted short exercises with the ability to develop techniques of expression, in addition to providing creative tools to visualize the architectural object within its spatial setting.

ARCH410 **History and Theory of Architecture II** **3 cr.**
Prerequisites ARCH310 Or ARC240
The course will familiarize the students with the principles of theory critique and application, starting with the Industrial Revolution of the 20th century, in addition to providing knowledge of chronological events, architectural movements and situating them within historical and political contexts.

ARCH420 **Sanitary and Mechanical Equipments** **2 cr.**
Introduce students to the installations which facilitate the use of clean water and the evacuation of used water, in addition to introductions to the maintenance of artificial ambiance which allow humans to be able to live and function properly.

ARCH425 **Electrical and Lighting** **2 cr.**
Initiate the students in power supply systems and lighting within security and protective norms.

ARCH430 **Stereotomy** **2 cr.**
Prerequisites ARCH330 Or ARC230 Or ARC231
A comprehensive and progressive approach and analysis of traditional and modern building using natural stone, in addition to initiating the students in details, practical knowledge and expertise, material selection, methods of work, and chosen tools.

ARCH435 **Acoustics and Insulation** **2 cr.**
Enhance the students' knowledge of battling against undesired elements such as water, heat, noise and cold.

ARCH440 **Reinforced Concrete II** **3 cr.**
Prerequisites ARCH340 Or ARC324
Based on the prerequisite Reinforced Concrete I this course will tackle and emphasize torsions, tiles, floors and continuous beams.

ARCH445 **Design Studio III** **6 cr.**
Prerequisites ARC202 Or ARCH350
Architecture project in a social and cultural context.

ARCH450 **Design Studio IV** **6 cr.**
Prerequisites ARC301 Or ARCH445
Architectural project with urban and rural residential character.

ARCH455 **Architecture Schematic II** **2 cr.**
Prerequisites ARC203 Or ARCH405
The workshop consists of short exercises at advanced level which enable the students to perfect their architectural expression while adapting it to their own personal style.

ARCH460 **Urbanism I** **3 cr.**
Prerequisites (ARCH450 Or ARC302 Or ARC361 Or ARC461) And (ARCH410 Or ARC241)
Enhance the students' knowledge of the history of cities, preindustrial cities, and urban modernity in Europe at the beginning of the 20th century, in addition to an introduction to critical ideas of the

functionality of the city and postindustrial settings.

ARCH465 **Urbanism II** **3 cr.**
Prerequisites ARCH460 Or ARC 441
The course will familiarize students with urban planning of territory and zoning, and applying it to urban spaces. Students will be shown real life situations and will be placed with local authorities, where they will learn how to best work within the real constraints, as well as being exposed to global views of the issue.

ARCH470 **Standards, Codes and Building Laws** **2 cr.**
Prerequisites ARC302 Or ARCH450 Or (ARC361 And ARC461)
Introduce students to urban zoning laws, construction laws, building quotas and other practical legal matters pertaining to their profession.

ARCH475 **Construction Document and Internship** **3 cr.**
Prerequisites ARCH450 Or ARC302 Or (ARC361 And ARC461)
Initiate students to the concept of the execution report within acceptable international norms, so they become familiar with real-time work requirements.

ARCH480 **Building Modeling and Information** **2 cr.**
Prerequisites ARC322 And (ARC222 Or ARCH315)
Introducing students to computer aided 3D models, execution plans, and synchronization, quantitative elements and major factors influencing their design.

ARCH482 **Surveying** **2 cr.**
Initiate students to the use of practical topographic instruments as applied to the ground in situ with real field knowledge.

ARCH484 **Landscape Architecture** **3 cr.**
Introductory principles of landscape management and structures.

ARCH485 **Design Studio V** **6 cr.**
Prerequisites ARC302 Or ARCH450 Or (ARC361 And ARC461)
Architectural project with a symbolic and public character.

ARCH486 **Architectural Heritage Buildings** **3 cr.**
The course aims to acquaint students with their national built heritage in the traditional Lebanese habitat.

ARCH487 **Intercultural Contexts Studies** **3 cr.**
The student experiments with different international cultures and civilizations in order to expand his historical and contemporary architectural knowledge.

ARCH490 **Final Design Studio** **6 cr.**
Prerequisites ARC401 Or ARCH485
Final Project.

ARCH505 **Architecture Research Methodology** **3 cr.**
Introducing students to and familiarizing them with the methodology of research, making them aware of the European and American standards of academic research so as to best prepare them to write their thesis.

ARCH510 Theory and Critic of Contemporary Architecture 3 cr.
The course initiates students to and covers the critical study of the theories of architecture and international styles.

ARCH515 Complex Buildings Structural Systems 3 cr.
This course improves the knowledge of students in the area of complex frames within the realm of the conception and execution of a building.

ARCH520 Intelligent Buildings 3 cr.

Robot and artificial intelligence within the domain of architecture and building.

ARCH530 Architecture Detailing 3 cr.
This course aims to develop the critical and rational thinking of students within the framework of architecture by applying them to details within the built project.

ARCH535 Working Documents for Project Management 3 cr.
The course introduces students to all legal and technical documents needed, from blueprints to contracts and legal papers, office management and workshop organization.

ARCH540 Graduation Project Thesis 3 cr.
Prerequisites ARCH 505
The course aims at developing the students' critical thinking via the writing of an academic work on a particular topic related to their profession and domain.

ARCH545 Professional Internship 0 cr.
The purpose of professional internship is to gain experience and knowledge by being involved with the activities of professionals, in architectural firms as well as on site and where construction work happens, within all engineering disciplines.

ARCH570 Master Architecture Design Studio I 6 cr.
Thematic workshops from all branches of architecture initiating students to real-life working. Some of the themes students can explore are city, landscape and territory, built heritage, sustainable architecture, mankind and society, architecture and new technology.

ARCH580 Master Architecture Design Studio II 6 cr.
Thematic workshops from all branches of architecture initiating students to real life working. Some of the themes students can explore are city, landscape and territory, built heritage, sustainable architecture, mankind and society, architecture and new technology.

ARCH610 City, Landscape and Territory Workshop 3 cr.
The workshop centers specifically on the notion of the architect as a partner within the social and urban development, in order to create spaces which are harmonious and bring a better quality of living for the inhabitants.

ARCH615 Architecture and New Technologies Workshop 3 cr.
Architecture and NTIC (New Technologies in Information and Communication) as a combined framework within a workshop that experiments and tries to push boundaries for students.

ARCH620 Sustainable Architecture Workshop 3 cr.
Mankind, built spaces and environment are some of the concepts and interactions explored within this course that aims to give a balanced view of the students to their surroundings.

ARCH630 Built Heritage Workshop 3 cr.
This workshop aims to meet a certain need: the adoption of a coherent policy and an effective approach in the field of built heritage. The overall spirit of the workshop is to give a concrete meaning to identity in the work of students and to reduce any anxiety about cultural uniformity.

ARCH635 Archeology and Restoration Workshop 3 cr.
Lebanon, due to its history and geographical position, has very many strata which reveal, above and below the ground, incomparable riches. Students will be able to reflect, analyze and capitalize on this knowledge.

ARCH640 Aesthetic Theorizing and Poetics of Architecture 3 cr.
Is architecture a kind of philosophy? How would the architect and the philosopher approach the space of architecture? Philosophy falls within the framework of construction and occupies an essential place in architecture, its purpose being to know, it is related to the logos, the word and the speech, while the purpose of architecture, its being to construct, its philosophy is related to the building. The philosophical analysis is therefore understood as an objective genitive: what philosophy and philosophers tell us about architecture.
The objective is to know when, how and why there is a theory of architecture. To know how to differentiate between many principles: concept, doctrine, philosophy, party, idea, etc. Another objective of this course is to familiarize students with a particular methodology to understand what the phenomenology of space is, and to explore several issues in their historical, geographical, philosophical, sociological and aesthetic dimensions.

ARCH645 Intercultural Architecture 3 cr.
The course aims at widening the students' knowledge and understanding of how to build within parameters specific to the community and culture, including ethical and social values and norms, so that the project will thrive and take shape.

ARCH670 Senior Project I 6 cr.
Prerequisites ARCH580 And ARCH570 And ARCH540
This course synthesizes previous knowledge which has been developed through the students' academic years, sharpening their theoretical and practical knowledge and combining them into a coherent whole.

ARCH680A Senior Project II 6 cr.
Prerequisites ARCH670
This course synthesizes previous knowledge which has been developed through the students' academic years, sharpening their theoretical and practical knowledge and combining them into a coherent whole.

ARG303 Graphic Design Drafting 2 cr.
This course is a workshop where students learn to originate ideas and it demonstrates how to represent them in a short time. Students will learn to create new ideas according to a specific brief, target audience, etc., and to manage to deliver all this in a limited period of time.

ARG310 Typography Creation 3 cr.
Prerequisites AGP211 And (AGP223 Or AGP322)
Students investigate the basic aspects of Arabic letterforms and typography through a variety of projects. Students are exposed to the historical background, technical and esthetic issues, and communicative abilities of typography as individual forms and as a text.

ARG312 Grid and Modules 2 cr.

Students will explore projects of greater complexity; learning how to analyze substantial data, appreciate the design functions of relating ideas, and develop logical structural systems to organize information for legible and clear communication. Students will be able to transform manuscripts into publications, i.e. book design, newspaper, magazine, and instruction manual and for mobile application. They will have to follow a design process to assess typographical text application, expression, hierarchy, sequential design, layout and page systems, including production.

ARG313 Illustration I 2 cr.

In this course the students will learn how to start researching and illustrating in different style elements related to nature, interior furniture and objects, in order to develop their own illustration style.

ARG331 Art Direction 2 cr.

Prerequisites AGP223 Or AGP322

This course provides students with the opportunity to bring together design and illustration in the context of graphic design projects. Assignments will focus on image-making for communication and strong concepts. The development of a personal visual approach or style and professional process will be the main focus in this course. Students have an opportunity to expand upon the variety of techniques and types of computer graphics and illustration while producing hand-drawn, painted, or digitally manipulated illustrations. Individual artistic expression will be encouraged.

ARG342 History of Graphic Design 3 cr.

Prerequisites ARI241 Or DAA241

In this course the students will learn the history of graphic design, from the first grotto graphic representations, the origin of symbols, the development of various alphabets, printing, logos, etc. and through to the evolution of new media in the related artistic movements.

ARG370 Graphic Design I 6 cr.

Prerequisites AGP211

This workshop is the first professional intersection between all technical information and channels for students to express themselves creativity. It initiates logo design, posters, packaging and layout, making students aware of the cohabitation between visuals and texts on different structures.

ARG380 Graphic Design II 6 cr.

Prerequisites AGP201 Or ARG370

Based on the knowledge acquired during the first workshop in graphics, students are exposed to more complex ideas, so they can learn to better handle different graphic contexts. Having a skilled handling of the technical tools will allow the students to be able to better express their ideas creatively and provide for a more efficient use of visuals for their concepts.

ARG400 Packaging Design 2 cr.

This course emphasizes the application of graphic design elements to various forms of packaging. Packages are analyzed and positioned from a marketing point of view. Brand marks, visual graphics and color schemes are developed for individual products and extended product lines. This class is geared to those interested in product packaging as independent yet related to business.

ARG411 Arabic Calligraphy 2 cr.

The course aims at familiarizing students with the Arabic letters (families, construction and composition) so as to be able to write with the brush through applied exercises of calligraphy, in addition to writing texts and titles, while mastering typography through conventional methods before digitizing them.

ARG412 **3D Animation** **2 cr.**
Prerequisites AGP225 Or AGP323
Students will develop a solid understanding of the many processes and techniques that go into producing works made either entirely of partially using 3D CGI software applications. They will be able to recognize which tools would ideally be used in specific situations, as well as what common pitfalls should be avoided and how to get out of them.

ARG431 **Printing and Production** **2 cr.**
Prerequisites AGP322 Or AGP223
The course consists of teaching the student designers the way to create the best possible print production for their output. It introduces almost all the necessary tools and techniques of the print production process and the know-how to create a correct pre-press PDF file ready-to-print for optimal practical results.

ARG437 **Conception and Writing** **2 cr.**
Prerequisites ARG370 Or AGP201
The power of words is emphasized through this course, be it slang, proverb-based, or more formal in expression, each within its appropriate context. Creative adaptation across languages is also explored.

ARG470 **Graphic Design III** **6 cr.**
Prerequisites ARG380 Or AGP202
This course emphasizes the transposition of a verbal content into graphic language. It can either be targeted via different steps of the graphic language or through a more holistic approach. Geometric forms get an esthetic makeover in posters, and mixed media are used efficiently as part of a bigger aim. Three projects will be tackled but all of them will take visual composition as their core value.

ARG490 **Graphic Design Final Project** **6 cr.**
Prerequisites ARG470 Or ARG301
The final project is a semester-long endeavor in which students develop a graphic design work that brings to life their exploration of a topic of interest. The topic is identified by each student through a project proposal submitted for review and approval by a pool of active instructors in the program. The topic can be triggered by a particular experience, text, artifact, etc. and could bridge between tangential cultural practices (cinema, literature, music, theater, etc.) and/or related fields of study (media and communication studies, art history and theory, cultural studies, visual culture, etc.). The investigation should have design/visual implications that enable it to critically inform and contribute to the student's field of study in graphic design and to expand its margins within the purview of visual representation generally.

ARG504 **Typography in Motion** **4 cr.**
With the advance of technology, hardware and software have become very powerful tools in the hands of designers, opening doors to higher levels of animations be it 2D or 3D. From opening sequences to film titles, to advertising, to music videos, to internet and different formats of online animations, movement found its way not only into images and shapes but into typography as well, transforming the otherwise printed, flat and static letter forms into a living being that mutates, morphs, float, and explodes.

ARG505 **Exhibition Display** **3 cr.**
In this course the students will learn how to conceive a space exhibition for artists' work, for writers, private collections, etc. They will also learn how to define a workspace to prepare a retrospective exhibition for a civilization, to know how to combine graphics and space, themes and

communication, and all the necessary elements.

ARG506 Mobile Application Design 4 cr.
With mobile apps revolutionizing the way we surf the internet and how and where information is received, this course will enable students to acquire the skills to build clean and attractive UI designs. Focusing on the design side of mobile applications, students will go through information that will assist them during the initial process in understanding developmental requirements and specifications.

ARG602 BTL Design 4 cr.
The « Below The Line » has always been an indistinguishable part of the experience of consumption, whether for luxury or mass consumption goods, or at supermarkets, duty free lounges or any other outlets.

ARG605 Art and Modernity 3 cr.
Modernism came about through a series of political, social and historical shifts and inherently portrays them in its designs and visualizations. This course aims at giving the students the tools to decode such links and to be able to analyze them in perspective.

ARG606 Installation Art 3 cr.
The purpose of this course is to teach the students how to explore new ways of artistic three-dimentional exploration through the conception and execution of an art installation based on their own experience of the imaginary.

ARG607 Thematic Illustration 3 cr.
This course is designed to introduce students to the art of illustration. Sharing the tools and techniques of gallery artists and the communicative goals of graphic designers, illustrators work across media to make concepts understandable and powerful in the service of editorial, informational, political or persuasive goals.

ARG610 Museography 3 cr.
Through videos, slides, films and guided visits, the students will have a clear vision and will learn the history of museums, their conception, their evolution and how they can protect and save the human heritage. In a world where heritage, archiving and collective memory is mutating constantly, students learn about the presence of fixed parameters to record signifiers and ways of transmission.

ARG611 Advanced Animation 3 cr.
Students will be initiated into more complex techniques of animation with After Effects as their main tool, in order to create and deliver complete and advanced animation packages within time and budget constraints and according to specific themes and commissions.

ARG612 Silkscreen 3 cr.
A practical printmaking class where students will learn the entire process of silkscreen from stretching the screen to making a book. They will draw on their own creativity to discover new printmaking ideas. They can experiment with their own imagery, whether illustrative, type or photographic. Different techniques of the silkscreen process will be discussed. How students solve problems and deal with selecting the right separations will be an integral part of the course. Their ability to modify, collect and solve will be enhanced. The use of color and connections will also be stressed.

ARG680A Final Project I 6 cr.
The final project is a semester-long endeavor in which each student develops a graphic design

work that brings to life their exploration of a topic of interest.

ARS201 Iconography I 3 cr.
Introduction to the Byzantine traditional technique: preparing the plank, transferring the drawing, and applying the colors.

ARS202 Iconography II 3 cr.
Pre-requisites ARS201
Theories and practical applications of different iconographic techniques.

ARS205 Restoration I 3 cr.
Historical overview of the old pictorial methods and practical application of the old techniques of painting.

ARS206 Restoration II 3 cr.
Pre-requisites ARS205
Historical overview of the old pictorial methods and practical application of the old techniques of painting.

ARS210 Mural Painting (Fresco) 2 cr.
Initiating the students to fresco, a mural painting technique done on a fresh coating, consisting of whitewash and sand, on which color pigments mixed with water are applied.

ARS211 Ceramics I 2 cr.
Introduction and history of the various techniques of ceramics. Applying these techniques, from the turning, to coloring and cooking.

ARS212 Ceramic II 2 cr.
Advanced applications of various pottery techniques: composition, shooting, color, and cooking.

ARS213 Chromatology 2 cr.
Study of colors, their chromatic solution, the characteristics of pigments, their section, opacity and transparency.

ARS214 Mosaics I 2 cr.
History of the different techniques of mosaics through the ages. Practical application: geometrical composition of a non- figurative subject, coloring, cutting and putting on the tesserae.

ARS215 Mosaic II 2 cr.
Pre-requisites ARS214 or ARS203
Practical application: figurative composition, coloring, cutting and putting on the tesserae.

ARS216 Introduction to Artistic Expressions 3 cr.
The objective of this course is to give the student the opportunity to make a personal work of exploration and plastic experimentation. The student will use the techniques of watercolor, pastel, and oil painting to create new plastic compositions according to the themes proposed by the teacher.

ARS220 Color Chemistry 2 cr.
Chemical study of colors and their properties, the media and the equipment used in different pictorial and iconographic techniques.

ARS221 **Computer-Aided Drawing** **2 cr.**
Create, modify and adjust, using the Photoshop program, images that meet the diversified needs.

ARS222 **Anatomy and Iconographic Drawing style** **3 cr.**
Study of drawings and various iconographic canons through the various schools. Creation of graphic compositions and transformation of artistic subjects into iconographic work.

ARS233 **Apocrypha and Icons** **2 cr.**
An interpretation of iconographic themes that are not mentioned in the Holy Bible, in the light of the apocryphal writings and according to Christian tradition.

ARS234 **Syriac Language and Calligraphy** **2 cr.**
Introduction to decoding the texts written on sacred representations, and use of these texts in new calligraphic compositions. The course is divided into four parts: reading, grammar, text study, reading and writing of Karchouni.

ARS240 **History of the Christian Iconography** **3 cr.**
Introduction to the history of Christian iconography throughout the centuries, according to the various iconographic movements.

ARS241 **Theology of the Icon** **2 cr.**
Theological, artistic and symbolical interpretation of the main types and subjects in iconography.

ARS243 **Historical Geography of the Syro-Antiochian World** **2 cr.**
Study of the various historical cities in the region of Antioch, and their artistic and religious heritage. Courses and research.

ARS244 **Iconographic Greek** **2 cr.**
Introduction to the Greek language in order to achieve the decoding of texts found on icons and sacred artworks.

ARS245 **Bible and Iconographic Tradition** **2 cr.**
Browsing biblical texts and their various representations through sacred art. Studying biblical themes and characters depicted in iconography.

ARS246 **Christian Aesthetics** **2 cr.**
Introduction to the general esthetics and the definition of the “beauty” and the “sublime” through the various Christian philosophies, from early Christian until today.

ARS301 **Bachelor Project + Research Note** **3 cr.**
For the graduation project, students are free to choose a topic that will be developed under the supervision of a project manager. At the end of the semester the project, consisting of a research note and an artwork, will be presented and explained in front of a jury.

ARS302 **Iconography III** **3 cr.**
Pre-requisites ARS202
Conceiving new compositions according to the acquired iconographic techniques.

ARS303 **Liturgical Design** **2 cr.**
Course on the history and the description of the various pieces of the liturgical clothing. Creating new items and liturgical design.

ARS314 **Stained Glass I** **2 cr.**
Historical introduction to the different techniques of stained glass. Practical applications: composition, layout, grading, cutting, leading, welding, and grouting.

ARS315 **Stained Glass II** **2 cr.**
Pre-requisites ARS314
Realization of a colored stained glass window according to the traditional method: composition, layout, grading, cutting, grisaille, leading, welding, and grouting.

ARS316 **Engraving I** **2 cr.**
Introduction and history of different techniques of engraving. Applying these techniques: woodcut, lithography, linoleum, etching, screen printing and others.

ARS317 **Engraving II** **2 cr.**
Course and practical application: woodcut, lithography, linoleum, etching, screen printing and others.

ARS321 **Photography** **2 cr.**
General theoretical training providing for the practical and esthetic achievement of photos by students, according to the needs of their field.

ARS330 **Research Methodology in Sacred Art** **2 cr.**
Learning the scientific research methodology applied to sacred art. Logic and scientific reasoning are at the center of teaching and all academic research in this area.

ARS340 **Iconographic Hagiography** **2 cr.**
Discovering the saints of the church in iconography: studying their biographies, their attributes and their representations in artworks according to the different traditions of the church.

ARS341 **Christian Archeology** **3 cr.**
Study of Christian archeology through: monuments (the basilica and places of worship); Christian symbols; relics and reliquaries; and objects of worship.

ARS430 **Traditional Religious Architecture** **6 cr.**
Prerequisites ARI242 Or DAA342 Or ARCH430 Or ARC333

Overview on the architecture of religious spaces such as churches and monasteries. Introduction to the particularities of places of worship and religious sites in the East and specifically in Lebanon. Introduction to the approaches of the types and models, Tradition/Innovation, Spaces and liturgies, as well as the contributions of construction techniques. Education seeks to trace the historical evolution of areas and outlines the dialectical Traditions/Modernity and Liturgies/Techniques.

ARS431 **Architecture and Planning of Religious Edifices** **3 cr.**
Prerequisites ARI242 Or ARC240 Or DAA342
General introduction and initiation into the inner characteristics of Christian churches (plans, forms, religious objects and materials).

ARS445 **Cultural Properties** **3 cr.**
Prerequisites ARI242 Or ARC240 Or DAA342
General introduction and awareness of the influence of architectural styles in history, and of the various building systems of places of worship (churches and monasteries). Analytical and critical study of Christian religious edifices in Lebanon and the Middle East.

ARS501 **Syro-Antiochian Topography** **3 cr.**

Study of the different geographical models that go with the historical representation of the Syro-Antiochian world.

ARS502 Conferences Cycle 3 cr.
Conferences on specialized topics by experts. At the end of the semester, the student will present a summary document.

ARS506 Contemporary Iconography 3 cr.
This course offers a description of the wide range of different iconographic schools of the 20th century, from Russia to Greece to Italy, via Cyprus and the Middle East, highlighting the evolution of the icon in compliance with strict Orthodox traditions, and the rise of the icon with the modernization and emancipation of the artist.

ARS508 Thematic Seminar I (Iconographic) 3 cr.
This course offers a study on the icon throughout the centuries, up to our times, consisting of periods of crisis that eventually led to the rise of the icons, the periods of iconoclasm (8th-9th c.), hesychastic controversy (14th c.) and Moscow councils (16th c.). The Christian icon is restored in its proper context in light of the dogmatic and church teachings, while also receiving a descriptive analysis of the different symbols that it represents. Thus the students will succeed in understanding the real meaning of the icon in its historical, esthetic and cultural context, while being able to distinguish a holy icon from a religious emotional picture.

ARS509 Thematic Seminar II (Methodology) 3 cr.
In this seminar, we examine the methods of historical and theoretical research, the rules governing the writings of the essay, and problems to be solved during the conception of an artwork or an artistic project. Also studied are issues to be addressed in artistic research and some solutions suggested by important works. The students are invited to participate in terms of discussion and theoretical and practical presentations.

ARS510 Compared Architectures 2 cr.
A study of Christian architecture through a comparison whereby students can realistically approach the current issues. In the field of heritage, the comparative concerns geographical areas on a worldwide scale, as well as all the periods from antiquity to the present day.

ARS511 Arts and Crafts- Minor Arts 2 cr.
This course provides the theoretical knowledge and plastic analysis tools necessary for understanding an artwork classified as “Minor Arts”, which refers to all forms of figurative art that is neither painting nor sculpture, or architecture. Minor Arts may also be designated as "Decorative Arts".

ARS512 Religious Sites (in Lebanon) 2 cr.
Introducing students to the interpretation of different built urban forms and shapes in places of worship (the religious site, the monuments).

ARS513 Chronology and Construction Techniques 3 cr.
An in-depth study of some building systems of places of worship (churches and monasteries), under the direction of professional specialists.

ARS514 Iconography IV 3 cr.
Conception and advanced practical application using different iconographical techniques.

ARS540 Christian Typologies 3 cr.
The course begins with a general study of many types of churches from an historical, liturgical, architectural and esthetical perspective. Then students will choose a type of church from which they

will make an individual study.

ARS543 History of Art in Lebanon 3 cr.
Historical study and artistic analysis of modern and contemporary art in Lebanon.

ARS608 Thematic Seminar III (Historical) 3 cr.
This course presents an historic and esthetical study of the Christian, Syriac and Maronite pictorial heritage; in particular approaching the Gospel of Rabbula and the various Syriac illuminated manuscripts preserved mostly in Eastern European libraries.

ARS609 Thematic Seminar IV (Oriental, Non-oriental, Non-Christian Iconography) 3 cr.
This course presents a historical and symbolical study of the Pagan, Jewish and Islamic iconography.

ARS680A Dissertation 6 cr.
For their dissertations, students can choose freely a subject which will be developed under the supervision of their project manager. At the end of the semester, the dissertation will be discussed in a public thesis defense.

AUV204 Introduction to Graphic tools 3 cr.
The students will acquire the fundamental techniques and tools used in a graphic environment whether it is print or digital.

AUV223 Digital Illustration 3 cr.
The students will create, draw and illustrate using techniques and tools from different software. The students will be able to integrate different shapes and forms into a cohesive work of art.

AUV240 Introduction to Interactive Design 3 cr.
The students will understand the different principles and techniques of interactive design. Students will develop the appropriate interface for clear and efficient communication between the user and the device. Students will create a detailed interface, mainly for mobile, tablets and web, and test out the process.

AUV245 Survey of Media 3 cr.
Students will be able to understand the different types of media, analog and digital formats, (text, images, sound, video, etc.). They will be able to use technological tools, QR code, storage hardware and software, and different types of connectivity and I/O devices.

AUV323 Multimedia and Web Page 3 cr.
Students will be able to build and create a multimedia project from the beginning till the end. Students will select a platform, whether web, TV or mobile. Students will acquire the knowledge to manage and organize the different phases in their project.

AUV334 Special Effects 3 cr.
Students will be able to implement and manipulate tools from different software and apply them to moving and still images. Students will manipulate color correction, contrast, create layers, and use green screen techniques.

AUV335 Digital Page Layout 3 cr.
Students will apply fundamental layout and design techniques by manipulating software tools to arrange visual elements effectively. Students will be able to compose and integrate images, illustrations, videos, and texts.

AUV342 Design Web Page 3 cr.

Pre-requisites (AUV123 Or AUV323) And (AUV140 Or AUV240)
Students will create and design a web page from scratch. Students will manage the process from client to final product, including page content, graphics, grid and interactive architecture.

AUV361 Introduction to Graphic Design 3 cr.
Pre-requisites AUV131 Or AUV204
Students will acquire the fundamentals of artistic design, including the concepts of color theory, balance, visual weight, scale and eye direction for both print and electronic media. Students will apply effective means through use of typography, illustrations and page layout applications.

AUV410 Animated Cartoons 3 cr.

Pre-requisites (AUV130 Or AUV335) And (AGP101 Or AGP210)
Students will draw and render the human figure as well as animals. Students will use traditional methods of figure drawing and will implement the basics of understructure for animation using line and shape for maintaining volume.

AUV425 Interface Design 3 cr.
Pre-requisites (AUV201 Or AUV361) And (AUV140 Or AUV240)
Students will acquire deeper knowledge of concepts and principles from the field of human-computer interaction. Students will create user-centered interface design by creating better grids and layouts for mobile, and web and improved techniques in tablets. Students will demonstrate knowledge of appropriate architecture, content design and wireframes design for prospective users.

AUV433 Art Direction 3 cr.
Students will understand concepts and find solutions for problems encountered in different media including the printing and digital processes. Students will integrate knowledge from different fields like marketing production and promotion of products and create ideas and apply them to a specific project.

AUV438 Digital Video Production 3 cr.
Pre-requisites TLV230 Or TLV351
Students will demonstrate knowledge of technical terms used in digital video including formats and digital files. Students will be able to implement various cinematic techniques to produce moving images.

AUV441 Technical English 3 cr.
Students will develop skills and techniques in how to express themselves in English (spoken and written), specifically in a professional environment. Key areas include self-promotion, job application, job interview, brief-taking and client presentations.

AUV449 Introduction to 3D Animation 3 cr.
Students will implement 3D modeling techniques using a computerized environment. Students will create their own models and graphics to which they will apply effective lighting and materials.

AUV451 Sound Design 3 cr.
Pre-requisites TLV331 Or TLV431
The students will understand the various means of designing sound for film, using acquired techniques. The students will be able to integrate different sound tracks into a cohesive and well-balanced track.

AUV457 Digital Photographic Production 3 cr.

Pre-requisites PHO120 Or PHO224

Students will be able to manipulate digital images from production to print by applying techniques of digital photography. Students will manage the different phases in the process, depending on the end use of the image, whether it is a print or digital image, for web mobile application or tablets.

AUV461 Advanced Graphic Design 3 cr.

Pre-requisites AUV201 Or AUV361

The students will apply techniques of graphic design on real world situations, whether it is print, web, mobile applications or tablets. The students will initiate a project from scratch and develop it through all the phases. The students will apply knowledge from different fields like photography, interface design, and video.

AUV470 Final Project 3 cr.

The students will produce a complete product, whether it is a short animation, website, or mobile application.

AUV536 Animation 3DII 3 cr.

Advanced organization and integration of various creative arts used in animation, resulting in production of a complete animated film.

AVC204 Introduction to Contemporary Cinema 3 cr.

The course covers the history of world cinema from 1950 to 1985 addressing, among others, the American cinema of Griffith, the Hollywood system and the star system, Russian cinema, German Expressionism, Surrealism and French Impressionism as well as Italian Neo-realism...

AVS500 Methodology 3 cr.

This course aims to enable students to present visual and performing arts criticism in correct scholarly form, to introduce them to different methods of carrying out research and to acquaint them with the methodology used in classifying bibliographies and reference works relevant to the subject area.

AVS680A Directed Individual Studies I 6 cr.

Students will use this course to complete an independent or team project. This project will help round out a student's portfolio and will demonstrate an appropriate level of professional challenge. These projects may be a narrative film, documentary, animation, website, or mobile application, or they may be a thesis relevant to the field of specialization. Students will form a contract with the faculty concerning the content of their project. Completed projects will assist students in the professional or in the academic field.

DAA208 Foundations of Architecture and Design 4 cr.

Introducing students to the different domains of architecture, interior management and design, through courses and exercises encouraging a balanced appreciation for spaces and objects. The course covers the principles of scale, dimensions, representations, expression and materials.

DAA209 Volume I 2 cr.

Prerequisites ARI211 Or DAA211

This workshop is a first introduction to the third dimension, the students' first passage from surface to volume (low reliefs), from 2D representation to the architectural model. In it they learn and apply the uses and finality of said model. The objective is to give students the occasion to experiment with, create and explore plasticity. The workshop generally uses recycled elements and found objects and applies the visual and technical tools of the plastic arts.

DAA211 Sketching and Drawing I 2 cr.

A workshop teaching drawing. Teaching is based on analytical drawing and emphasizes the development of visual memory and the exploration of the expressive qualities of different tools and supports. Students will experience freehand perspective drawing, human figures, and drawing from nature.

DAA212 **Sketching and Drawing II** **2 cr.**
Prerequisites DAA211 Or ARI211
A workshop teaching drawing. Teaching is based on analytical drawing and emphasizes the development of visual memory and the exploration of the expressive qualities of different tools and supports. Students will experience freehand perspective drawing, human figures, and drawing from nature.

DAA213 **Volume II** **2 cr.**
The workshop explores basic notions of volume and mass, structure and envelop, interior and exterior. It shows through the development of architectural models how form expressed through different materials leads towards differing technological solutions (stratification, knotting, folding, etc.)

DAA216 **Plastic Expressions** **2 cr.**
Prerequisites ARS213

The objective of the workshop is to give students the occasion for personal plastic exploration and experimentation. The workshop generally uses recycled elements and found objects and applies the visual and technical tools of the plastic arts.

DAA241 **General History of Art** **3 cr.**
Prerequisites LFR120
The objective of the course is to give students an understanding of the chronological order of events that constitute the history of art. They will use the methodological tools of the discipline, to learn how to situate, compare and understand the relationships between them through a study of their stylistic characteristics and their socio-historical context.

DAA303 **Drafting I** **2 cr.**
Prerequisites ARS213 And (ARC214 Or ARCH230)
Learning how to rapidly formalize a project. A series of projects (spaces or objects) aid students in analyzing a situation, defining their intentions using pictograms, texts and diagrams and finally, graphically communicating the project (plans, sectional drawings, sketches) formalized in a design.

DAA304 **Drafting II** **2 cr.**
Prerequisites (ARI212 Or DAA212) And (ARI203 Or DAA303)
Learning how to rapidly formalize a project. A series of projects (spaces or objects) aid students in analyzing a situation, defining their intentions using pictograms, texts and diagrams and finally, graphically communicating the project (plans, sectional drawings, sketches) formalized in a design.

DAA312 **Sketching and Drawing III** **2 cr.**
Prerequisites ARI212 Or DAA212
Principles of anatomy and studies in the canons of human anatomy. A study of the relationship between human proportions and the natural and built environments.

DAA330 **Elements of Construction Projects** **2 cr.**
Prerequisites ARCH230
Developing the technical know-how crucial for the understanding and conception of building systems and techniques. Gaining expertise in the execution of architectural projects and interior

design.

DAA332 **Technology of Materials** **2 cr.**
Prerequisites ARCH230

A study of materials constituting different built systems, their implementation and their behavior with time.

DAA340 **History of Furniture and Design** **3 cr.**
A history of furniture and its social, cultural and architectural contexts. The first period covers Antiquity up till the Industrial Revolution, and the second covers the history of contemporary design.

DAA342 **History of Art and Architecture I** **3 cr.**
This course covers the periods of Prehistory, Antiquity and the Middle Ages, as well as those of the first Renaissance up to the 19th century.

DAA371 **Project Studio I (Didactic Project)** **6 cr.**
Prerequisites ARCH230 and ARCH210

Habitat. This workshop develops a reflection on the relationships between human beings and their built environment. Through drawing exercises, analysis, case studies and the exploration of methods of design, the students develop their aptitudes for conceptualization of architectural ideas, the representation of spaces and forms, and their esthetic judgment on the space they conceive.

DAA372 **Project Studio II (Process of Design)** **6 cr.**
Prerequisites (ARI201 Or DAA371)
Construction. This workshop uses models to conceive environments that take into account the quality of materials and conventional building systems in order to explore new ways of inhabiting space. Discussions concerning the role of architecture in culture, nature and technology, will aid in developing an architectural vocabulary.

DAA412 **Sketching and Drawing IV** **2 cr.**
Prerequisites ARI212 Or DAA212
A workshop developing drawing, deepening applied technical expressions in architectural representations, by exploring interior views, architectural sites, figures, and utilitarian objects.

DAA430 **Mastery of Interior Atmospherics** **3 cr.**
Prerequisites ARI202 Or DAA372

Thermic factors, levels of illumination and acoustics, are essential elements of the quality of an architectural space. The course reviews the different architectural devices and equipment that allow for their integration into the project.

DAA431 **Textiles** **2 cr.**
Prerequisites ARI202 Or DAA372
This course is an introduction to textile technologies and their application in the fields of architecture, furniture and clothing. The objective is to understand the different technical aspects at the base of textile design (weaving, meshing, felt, printing, dyeing, etc.), the application of every field, and the use of materials (cotton, nylon, silk, etc.).

DAA432 **Detail in Interior Design Projects** **2 cr.**
Prerequisites ARI202 Or DAA372
The objective of this workshop is to prepare the future practitioners by introducing them into the logic of construction inherent in interior architectural work. Using applied real cases, the

students are initiated into the different arrangements that tie in constructive elements. The projects relate to the three aspects of technical competence, representational drawings and creativity in proposed solutions

DAA433 **Equipment and Services** **3 cr.**
Prerequisites ARI202 Or DAA372
This course is a study of building solutions for the technical elements of projects: sanitary equipment, plumbing, management of thermic energy, air conditioning, and fire safety.

DAA434 **Internship** **1 cr.**
Prerequisites ARI202 Or DAA372
The internship is part of a convention between the FBA and the ARCI department; the latter acting as the host organization. A teacher is in charge of following the internship and a formal statement must be sent to the department. The student will present a report in A4 format to the teacher in charge.

DAA442 **History of Art and Architecture II** **3 cr.**
This course is both a description and a critical reflection on the cultural events of the 20th century, asking the question, “What are the contents of Modernity and the Avant garde?”

DAA452 **Technology of Furniture (Wood)** **3 cr.**
Prerequisites ARI202 Or DAA372
This course allows students to acquire the foundations of carpentry and cabinet making and to receive an introduction to the different kinds of traditional and industrial types of furniture building, looking at assembly, veneers, and hardware. The course is completed with an initiation into the technical drawing of furniture (size drawing, dimensions and nomenclature).

DAA453 **Design Studio I** **2 cr.**
Prerequisites (ARI202 Or DAA372) And (ARI340 Or DAA340)
Taking as a starting point a reflection on the hand, this workshop explores the double relationship between body and object: on the level of its production (artisanal or industrial) or on the level of its use (grip, tactility, maneuverability).

DAA454 **Design Studio II** **2 cr.**
Prerequisites (ARI202 Or DAA372) And (ARI340 Or DAA340)
Taking as a starting point a reflection on the hand, this workshop explores the double relationship between body and object: on the level of its production (artisanal or industrial) or on the level of it use (grip, tactility, maneuverability).

DAA471 **Design Studio III** **6 cr.**
Prerequisites (ARI202 Or DAA372)
Program and place. This explores the question of how to redefine an interior space, to requalify and develop it in view of a specific use. The workshop will examine a functional program as an expression of a particular use and lifestyle that will be translated into dimensions, flux, and specific atmospheres. The workshop explores fundamental notions of path, envelope and liaison and will favor concrete experimentation of dimensional constraints. We will also be approaching the question of detail in the project.

DAA472 **Project Studio IV (BA project)** **6 cr.**
Prerequisites (ARI301 Or DAA471)
Program and place. The methodological approach to the relationship with space through its study as

plastic and cultural phenomenon. Using a work dossier, the workshop will emphasize development, from intention to intervention and from representation to reality. The students will thus complete their technological education.

DES621 Design and Communication 3 cr.
This course covers the three related themes of conditions for sustainable development, the interaction of the object and its environment (private, public or urban), and the semantics of forms, in public space.

DES622 Design and Communication 3 cr.
The objective of this course is to explore ways of enhancing the skills of local craftsmen in order to renew craft traditions by establishing a dialogue between traditional practices and current uses.

DES623 Industrial Design 3 cr.
The workshop is related to the local and regional socio economic context, taking into account specific conditions of production, the labor market and the needs of the local society. Teaching emphasizes technology and computer based tools in order to provide creative design instruments and production methods with a positive impact on business, society and the environment. The course takes into account the users' market with its fluctuations, one where the emergence of new meanings and the permanence of traditional values coexist, and the mode of production of local craft industries which have adapted to mass production through a variety of means.

FLM210 Music of Film 3 cr.
Study of music, sound and acoustics as they relate to performance environments, techniques associated with recording, mixing, processing, automation, and reproduction of dialogue, effects, and music tracks for theater sound design.

FLM240 History of American Cinema 3 cr.
This course is designed to give students an understanding of the history of American cinema from its beginning in 1895 to the present time. It will focus on the silent cinema of D.W. Griffith, the Burlesque film of C. Chaplin and B. Keaton, the genre films of the studio era, the war and post-war noir film, the new Hollywood cinema of the 1960s, the films of the Movie Brats of the 1970s, and the post-modern cinema of the 1980s and on. Special attention will be given to the evolution of the art of the motion picture, including elements of camera, lighting, sound, editing, production design, and narrative structure and the technological evolution of the motion picture, including aspects of inventions and innovations such as color, widescreen, quality sound, and electronic imagery.

FLM241 History of European Cinema 3 cr.
This course is designed to give students an understanding of the history of European cinema from its beginning in 1895 to the present time. It will focus on the early films of the Lumière Brothers, the German expressionist school, the Soviet montage schools, the French surrealist cinema, the Italian neo-realist film, the French new wave film, the 2nd Italian renaissance, the new-German cinema, and the Danish Dogme 95 movement. Special attention will be given to the way in which history has shaped not only film content but also its form.

FLM242 Film Genre 2 cr.
Students will acquire understanding of film genre, whether it is western, film noir, science fiction or musical, etc. Students will be introduced to critical approaches to analyze such films.

FLM316 Introduction to Scriptwriting 3 cr.

The students will acquire basic knowledge and techniques of writing a narrative script for film. The students will be able to create and develop characters, and story line for classical film structure.

FLM317 Introduction to Film Directing 3 cr.
Students will acquire a basic understanding of staging, directing actors, framing, and different notions of space and time. Students will apply these basic techniques on short segments of video.

FLM319 Introduction to Cinematography 3 cr.
Pre-requisites PHO121 Or PHO225
Students will acquire knowledge in the theory of film form. Students will apply these different forms through framing, lighting and assembling shots to create a system of expression based on the indirect time movement images.

FLM321 Advanced Cinematography 3 cr.
Pre-requisites FLM220 Or FLM319
Students will acquire advanced knowledge in the theory of film form. Students will apply these forms by manipulating and assembling shots to create a system of visual expression based on the time-images.

FLM322 Film Language 3 cr.
Students will understand the basic semiotics, language, and subjectivity theory (Freudian and Lacanian theory). Students will be able to implement the classical film language theory in films.

FLM330 Theory of Light in the Cinema 2 cr.
The students will acquire technical and esthetic knowledge of different sources of light. Students will be able to light interior and exterior scenes.

FLM344 Theory and Aesthetics of Film 3 cr.
This course focuses on the various theoretical methodologies that have developed in film theory and esthetics and that have proven useful for the analysis of films and cinema, such as realism, genre and auteur, reflexivity, intertextuality, psychoanalysis, and feminism.

FLM353 Film Authors I 2 cr.
Intensive examination of the works of filmmakers who have produced distinctive universes: Jean-Luc Godard, David Lynch, Andrei Tarkovsky, Sergei Paradjanov, Alfred Hitchcock, and Robert Bresson etc.

FLM416 Advanced Scriptwriting 3 cr.
Pre-requisites FLM201 Or FLM316
Students will write and develop a narrative script, either through the adaptation of a story, or from their own life experience.

FLM417 Advanced Directing 3 cr.
Pre-requisites FLM202 Or FLM317
Students will implement already known techniques in directing, and apply styles and direct actors in short segments.

FLM441 Sound Theory of Film 3 cr.
The students will understand the basics of sound theory in films, based on different concepts introduced by Michel Chion, Kaja Silverman and Slavoj Zizek, etc. Students will acquire a basic understanding of a critical approach to sound in films.

FLM470 Final Project 3 cr.
Students will write, shoot, direct and finalize a short film. Students will consult their assigned

academic supervisor in the different phases of production and post-production.

FLM473 Silent Film 3 cr.
Students will write and make their own short silent film. Students will implement already acquire knowledge and apply it cinematically without the use of dialogue.

FLM474 Experimental Film 3 cr.
Pre-requisites FLM317 Or FLM202
Students will create their own short films through a personal approach based on their experiences and developed through all the different phases of idea, production, filming and editing.

FLM475 Documentary Film 3 cr.
Pre-requisites FLM202 Or FLM317
This course covers the study of the documentary genre through definitions, works, styles, forms, strategies, attitudes, conventions, practitioners, and the history of documentary film. It will also focus on the production of a documentary film and will allow students to directly apply cinematic language and esthetics to the stories in reality

FLM517 Lighting Workshop for Film 3 cr.
Students will acquire technical know-how in supervised exercises on a stage or in an exterior, and in screenings of scenes. Students will participate in discussions aimed at learning to master the lighting to create an appropriate mood or atmosphere of a premeditated scene recorded on a film or through an electronic system.

FLM537 Screenwriting for Film and Television 3 cr.
Through advanced problems in the field of screenwriting, students will acquire professional know-how in documentary and feature film writing, using discussions and exercises with an emphasis on research and preproduction.

FLM551 Film Design and Special Effects 3 cr.
Advanced study and practice of computer techniques, effects and methods of design for motion picture and television, coloring, green screen techniques, layering, etc.

FLM559 Direction of Actors for Film and TV 3 cr.
Exercises in analysis of script and character for the purpose of directing actors in film and television productions. Emphasis is on eliciting the best possible performance from an actor.

FLM537 Screenwriting for Film and Television 3 cr.
Through advanced problems in the field of screenwriting, students will acquire professional know-how in documentary and feature film writing, using discussions and exercises with an emphasis on research and preproduction.

FLM560 Practices in Contemporary Arts 3 cr.
Pre-requisites FLM559
Advanced study and practice of performing arts. Emphasis is on contemporary arts, through video performances and works of art to enhance the use of art in society.

FLM617 Advanced Lighting Workshop for Film 3 cr.
Discussion and creation of different styles of lighting through exercises on the electronic medium, aimed at developing the skills of the director of photography to master the craft and establish a style.

FLM618 Cinematography and Directing 3 cr.
Supervised filming of short dramatic projects on the sound stage and at exterior locations that

explore the complexity of the process, emphasizing the balance and collaboration essential to both directing and photography in its varied technical, production, and creative aspects.

FLM619 Advanced Digital Directing 3 cr.
Supervised filming of short projects on stage and at exterior locations that explore the complexity of the process, emphasizing exposure, lighting, and handling of digital professional cameras.

FLM620 Theory of Sound in Films 3 cr.
Story of film theory, mainly through the theoretical work of Michel Chion (in particular his concept of acousmetre) and through the films of Starub-Huillet, Tati, Duras, Lynch, Syberberg, etc.

FLM630 Seminar in Film Theory 3 cr.
Study of film theory through the works of Vertov, Eisenstein, Bazin, Metz, Deleuze, Virilio, Chion, Bonitzer, feminism (Mulvey, Silverman, et.), psychoanalysis (Zizek, etc.), and postcolonialist thinkers.

FLM634 Advanced Screenwriting 3 cr.
Through advanced problems in writing for original film, students will write a feature film. Students will be coached and supervised by a mentor.

FLM640 Film and the other Arts 3 cr.
Students will discuss in class issues related to films and other arts, plus weekly film screening. Studies in interrelationships between on the one hand film and on the other painting, dance and theater, through examination of such issues as the different modalities of presence in film and theater, the various functions of the frame in film and painting, the correspondence of the freezing that is part of the cinema apertures (frozen frames), and the diegetic freezing of the dancer. May be repeated twice for credit.

FLM650 Film Authors 3 cr.
Students will participate in discussions in class, screenings to be arranged. Studies of several critical discourses that have influenced the analysis of film: Walter Benjamin's "work of art in the age of mechanical reproduction"; Althusser's interpellation; Lacan's mirror's stage; Virilio's dromology and logistics of perception; Debord's society of spectacle; Edward Said's orientalism, etc.

FLM675 Advanced Fiction Workshop 3 cr.
This workshop consists of a discussion, lasting for three hours, and a laboratory, to be arranged. It is designed for graduate students. They will study the basic techniques of film production, including preproduction planning and production of a short group film.

MAT212 Calculus Applied in Architecture 3 cr.
Prerequisites MAT110
This course is intended for students in the first year of architecture. It includes the calculations and techniques that are an essential background for students training in this subject. : They will understand and learn how to draw the various architectural forms for the development of their projects and also have a strong prerequisite for science subjects such as resistance of materials and reinforced concrete.

PHO224 Introduction to Photography 3 cr.
Students will acquire the tools needed to manipulate and control cameras. Students will apply these tools to achieve a specific effect in photographic digital images. Students will understand the principles of framing, composing and balance.

PHO225 Advanced Black and White 3 cr.
Pre-requisites PHO120 Or PHO224

Students will acquire advanced skills in black and white photography, both by manipulation of film exposure and processing or through digital tools. The students will apply zone system know-how to control contrast.

PHO226 Introduction of Image Technology 3 cr.
Students will understand the different optical terms used in photography. They will be able to identify formulas used generally in photography. They will acquire the necessary terms used in photography and communicate with professionals using them accordingly.

PHO235 Introduction to Photography Story-telling 3 cr.
Students will acquire techniques and tools to produce still images with sound tracks. Students will apply these techniques on a visual and audio project.

PHO240 History of Photography 3 cr.
The students will understand the different phases of the evolution of photography from its inception through time to the present day. Students will explore the different art schools of photography.

PHO261 Photography Project I 3 cr.
Students will acquire an introductory critical vision of photography. They will implement the knowledge gained in photographic projects which pertain to the different styles used by major photographers.

PHO320 Color Photography 3 cr.
Pre-requisites PHO120 Or PHO224
The students will understand the theory of color and how it applies to photography. Students will implement the theory in small projects.

PHO321 Large Format Photography 3 cr.
The students will acquire techniques and know-how in the field of large format photography. Students will execute these techniques in the field of commercial and architectural photography. Students will have a hands-on experience in studio lighting using the large format camera.

PHO322 Advanced Image Technology 3 cr.
Pre-requisites PHO122 Or PHO226
Students will acquire an advanced knowledge in the field of optical physics and chemistry related to photography. The students will be able to decipher and understand the jargon used in professional photography and this will enable them to make the appropriate decisions in the professional field.

PHO347 Photography Project II 3 cr.
Pre-requisites PHO101 Or PHO261
Students will understand critical approaches which pertain to photography. Students will be able to integrate theoretical knowledge and apply it on one project.

PHO360 Technical Seminar 2 cr.
Hands-on problems and challenges with various interrelated technical aspects with emphasis on the exploration of different means to solve such problems which photographers face today.

PHO430 Advanced Photography Story-telling 3 cr.
Pre-requisites PHO130 Or PHO235
Students will acquire additional expertise in the field of sound and images, and they will implement several techniques to produce an audiovisual project.

PHO442 Copyright and Law 3 cr.
Students will demonstrate understanding of copyright laws both in the local and the global context. Photographers will become familiar with how to go about protecting the rights of their images and not to infringe on the rights of others.

PHO447 Photography Project III 3 cr.
Pre-requisites PHO101 Or PHO261
Students will reinforce critical approaches that have already been acquired. The students will each embark on a single project in which he or she will explore new creative means in the field of artistic photography.

PHO460 Portrait Photography 2 cr.
Pre-requisites PHO202 Or PHO447
The students will acquire classical techniques of portrait photography. Students will develop their own approach in portrait photography, both inside and outside the studio.

PHO461 Fine Arts Photography 2 cr.
Students will create images through personal approaches. Students will develop their own techniques through the discovery of their own strengths in different fields of photography.

PHO462 Commercial Photography 2 cr.
Pre-requisites PHO202 Or PHO447
Students will understand the different techniques and lighting used in commercial photography, whether it is shot indoors in the studio or outdoors. Students will apply lighting to create mood or to emphasize a product.

PHO463 Landscape Photography 2 cr.
Pre-requisites PHO202 Or PHO447
Students will explore different approaches in landscape photography. Students will apply techniques and demonstrate the ability to deal with natural lighting, by using the zone system or by understanding the nature of available light and its impact on form and texture.

PHO464 Architecture Photography 2 cr.
Students will demonstrate understanding of volume, texture and form. Students will implement techniques acquired through hands-on assignments.

PHO465 Photojournalism 2 cr.
Pre-requisites PHO202 Or PHO447
Students will acquire knowledge of the field of photojournalism. Students will develop techniques in assignments destined for print and electronic media.

PHO466 Fashion Photography 2 cr.

Pre-requisites PHO202 Or PHO447
Students will acquire hands-on experience in the field of fashion photography, whether it is in the studio, indoors or outdoors. Different styles will be explored.

PHO467 Early Photography Processes 2 cr.
Students will execute and print images using old processes used in the evolution of photographic processes.

PHO470 Final Project 3 cr.
Students will execute a major project from one of the different fields of photography. Students will

be guided by a supervisor through all the phases of production.

PUB303 Advertising Drafting 2 cr.
The course is an advertising workshop, where students learn to write a concept, to strategize and elaborate an advertising campaign. They will produce a presentation that answers a problem or a commission within strict time frames. They will learn to manage their schedule, to produce an idea and communicate it creatively in a very defined deadline.

PUB314 Copywriting I 2 cr.
Prerequisites AGP220 Or AGP320
The course introduces students to the skills required to write effective and potent slogans and copy that promotes services, products and ideas to achieve a positive response from the target audience using real life examples.

PUB320 Communication, Perception and Behavior 2 cr.
This course gives the students the principles of effective commercial communication based on the motivation behind consumerism. The students will also learn how to apply this knowledge and how to adapt it in advertising.

PUB324 Advertising Concept and Strategy 2 cr.
This course is an overview of the functions of advertising strategies and provides students with an understanding of the development of an effective communication plan. The course explores communication strategy and techniques in the creation of advertisements for print, radio and television broadcasting. It also provides analysis of award winning advertising campaigns, from definition of the strategy adapted to creation within time and budget constraints. Students will implement a cost-effective creative advertising strategy in order to obtain consumer attention and prompt shoppers to purchase or use a specific product.

PUB332 Storyboard 2 cr.
The course is designed to introduce students to the concept of storyboards. Storyboards are a series of illustrations displayed in sequence for the purpose of pre-visualizing an animated or live-action film. A storyboard is essentially a large comic strip of the film or some section of the film produced beforehand to help the directors and cinematographers visualize the scenes and find potential problems before they occur along with audio and sound effects pointers.

PUB370 Advertising Design I 6 cr.
Prerequisites AGP211
An advertising project is an important and distinct area of study within the visual communication industry. The course shares some common modules with visual design but has a strong emphasis on the relationship between strategic thinking, design, creative thinking and implementations, and the ability to translate concepts visually. Students are encouraged to develop key skills sought by employers, such as team working, effective communication and presentation skills, leading to greater confidence in the workplace.

PUB380 Advertising Design II 6 cr.
Prerequisites AGP201 Or PUB370
This course shares many elements with Adv 370 but within a more complex realm. An advertising project is an important and distinct area of study within the visual communication industry. The course shares some common modules with visual design but has a strong emphasis on the relationship between strategic thinking, design, creative thinking and implementations, and the ability to translate concepts visually. Students are encouraged to develop key skills sought by employers, such as team working, effective communication and presentation skills, leading to

greater confidence in the workplace.

PUB421 **Media Planning** **2 cr.**
Prerequisites PUB323 Or PUB324
This course is designed to provide students with an understanding of the development of a marketing and communication plan. Planning, selection, and evaluation of all major mass media methods and the various decisions and problems that arise in these processes will be discussed and considered, along with patterns and the factors that influence mass media decisions.

PUB425 **Copywriting II** **2 cr.**
Prerequisites AGP220 Or AGP320
This course is designed to provide students with an understanding of the development of a marketing and communication plan. Planning, selection, and evaluation of all major mass media methods and the various decisions and problems that arise in these processes will be discussed and considered, along with patterns and the factors that influence mass media decisions.

PUB430 **Advertising Photography** **2 cr.**
Prerequisites PHO224
In this course, the students will learn how to take pictures of products or any subject for an advertising campaign. They will learn to work as professionals using traditional and/or digital material.

PUB435 **Radio Spot** **3 cr.**
Prerequisites AGP201 Or PUB370
This course aims to introduce students to the importance of audio in general, and radio in particular, as a communication tool for advertising. Designing a spot requires a choice between several concepts, voice-overs, music, editing, and all factors that make a successful and memorable radio campaign.

PUB442 **History of Advertising and Media** **3 cr.**
Prerequisites DAA241 Or ARI241
The course aims to provide students with a history of their trade and the rise of media, and mass media in particular, along with what is now known as new media. By giving students concepts of culture and examples of famous advertising campaigns, the risk of them duplicating something already done becomes more remote

PUB470 **Advertising Design III** **6 cr.**
Prerequisites AGP202 Or PUB380
The course is project-oriented preparing students through real-life applications for the market they will face as they graduate. Through complete campaigns and actual designs, the course is a series of assignments and proper advertising briefs which the students must complete and reply to.

PUB490 **Advertising Design Final Project** **6 cr.**
Prerequisites PUB301 Or PUB470
The course is project-oriented preparing students through real-life applications for the market they will face as they graduate. Through complete campaigns and actual designs, the course is a series of assignments and proper advertising briefs which the students must complete and reply to.

PUB504 **Advanced Arabic Copywriting** **4 cr.**

Students will participate in discussions in class, screenings to be arranged. Studies of several critical discourses that have influenced the analysis of film: Walter Benjamin's "work of art in the age of mechanical reproduction"; Althusser's interpellation; Lacan's mirror's stage; Virilio's dromology and logistics of perception; Debord's society of spectacle; Edward Said's orientalism, etc.

PUB505 Advanced French Copywriting 4 cr.
Advanced techniques and applications of French copywriting, specifically in all advertising and communication forms and the best way to insure a catchy, readable and effective way of selling whatever the product or the social cause is.

PUB506 Advanced English Copywriting 4 cr.
Advanced techniques and applications of English copywriting, specifically in all advertising and communication forms and the best way to insure a catchy, readable and effective way of selling whatever the product or the social cause is.

PUB604 Media Strategy 3 cr.
The advertising industry has undergone significant transformations in recent years as interactive and digital media have changed media and advertising. This course will explore the implications for media content, audiences, modes of media consumption and production, modes of delivery for advertising and methods of audience measurement within an online environment. Students will gain practical skills in how to use online environments for advertising, in how to target particular audiences and reach them with a wide variety of ads, and prompt them to act.

PUB605 Commercial and Cultural Environment 3 cr.
In this course, students will explore the commercial and socio-graphics parameters that influence the commercial communication. They will also study the psychological factors that influence the advertising message impact and pertinence.

PUB608 Propaganda and Critical Analysis 3 cr.
Politics are very closely associated with campaigns, or how to best express the convictions of a political entity through messages which vary across countries, allies, enemies or culture and society. Students will be introduced to the concept of decision-making in a world full of rivalries, hostilities, ideas, budgets and wars. The role of propaganda will be scrutinized vis-à-vis its target audiences and how they pass overt and clandestine messages.

PUB680A Final Project I 6 cr.
The Final project is a semester-long endeavor in which each student develops an Advertising Campaign that materializes her/his exploration of a topic of interest.

SCE613 Clothing and Theater Costumes 3 cr.
Stage costumes are defined as sets of clothes and accessories allowing the actor to embody characters on stage. A costume designer is involved in the creation of historical and contemporary costume for theater, opera, dance and film. As an integral element of stagecraft, a designer must possess an understanding of the meaning and the intentions of the piece.

SCE620 Scenography 3 cr.
The purpose of staging is to create a necessary and conducive context to the performance of a theatrical scene, through the shaping of space and time and always in relation to a text.

SCE623 Places and Spaces of Exhibition 3 cr.
The workshop, while providing a rigorous research methodology, seeks to analyze the art of designing places and exhibition spaces and applying the art of establishing a classifiable and editable inventory.

THT200 Introduction to Voice Mastering 3 cr.

Development of voice and speech techniques for the stage, including those of relaxation, breathing, resonance, and development of speaking voice. Speech training uses text work to train students in standard Arabic speech.

THT210 Body Expression 3 cr.

This course introduces students to the discovery of the body's unique language, through exercises designed to explore and free the total instrument. It covers the development of a flexible actor with range, expression, and physical confidence, encouraging the awakening of the imagination while exploring the worlds of ritual, animal, conceptual, and modern dance movements.

THT215 History of Theater 3 cr.

Study of history of theater from early western culture, Greek, renaissance, bourgeois, romantic, up to modern and post-modern theater. Egyptian and Lebanese theater is covered in this course.

THT220 History of Directing in Theater 3 cr.

Investigation of the work of theater directors from the history of the world's theater, with special emphasis on the relationship to time in which the work was generated.

THT280 Introduction to Acting 3 cr.

Introduction to different fundamental techniques used in the creation of a character. Emphasis on relaxation, concentration, and development of a role through sensorial and emotional memories. Students will improvise and do monologues as exercises in this introductory course.

THT305 Advanced Voice Mastering 2 cr.

Advanced voice techniques, with increased demands on range, resonance, and breathing capacity extension.
Articulation and phonetic alphabet is emphasized. Text work in poetry and prose.

THT310 Dramaturgy 3 cr.

Theoretical and practical aspects of the dramaturge's work in contemporary theater. Introduction to the study of theory and practice of dramaturgy.

THT315 Wardrobe and Design 3 cr.

Investigation of the design research process, period style, and character analysis leading to visual presentation of the design. Study of costume design for theatrical productions, ballet, opera, and musical theater.

THT320 Advanced Acting 3 cr.

Development of an internal technique, beginning with an auto-drama which is a dramatization of one's personal history. Development of an external technique through comedy. Fusion of the internal by use of action and objective with the external.

THT325 Directing the Play 3 cr.

Development of directorial skills through the medium of written preparations and directing of scenes.
Application of stage directing techniques in the production of a short play. Students will direct a one-act play.

THT335 Theatrical Critical Studies 3 cr.

Discussion of essential issues in aesthetics of theater and drama based on philosophy of art and theories of the theater.

THT345 Mime Workshop 3 cr.
Development of the physical capacities of the facial and body muscles to meet the exigencies of the characterization of a role. Advanced physical training of individual actors to their maximum potential.

THT340 Dramatic Writing for Theater 3 cr.
Study and analysis of varied aspects of the playwright's art. Various aspects are selected from topics such as comedy writing, writing for children's theater, and adaptation from literature to stage.

THT415 Puppets and Theater for Children 3 cr.
Creative development and realization of production related to theater for children. Exploration of different techniques in the craft of the production of children's theater.

THT420 Sound and Lighting Workshop 3 cr.
Study of use of light and color to define space, effect of light on scenery and costumes, lighting for theaters, patterns and moving scenery. Study of use of sound and acoustics as they relate to performance environments, techniques associated with recording, effects and music tracks for theater sound design.

THT425 Acting for the Camera 3 cr.
Techniques of acting for the camera, including framing, face and body movements and how it relates to the filmic space.

THT430 Theater of Puppets 3 cr.
Techniques of the manipulation of puppets, puppet movements, voice and performance. Development of skills through exercises which relate to theater of puppets.

THT435 Theatrical Production 3 cr.
Study in production management for the theater. Examination of the professional duties of production manager, including preproduction, rehearsal, and performance phases of a production. Problems of resource management, organization, scheduling, and budgeting while maintaining a creative and collaborative environment.

THT448 Play Analysis 3 cr.
Analysis of texts in plays, whether they are adaptation or original written texts. Deep thorough analysis of monologue, dialogue, structure, semiotics and characters.

THT470 Final Project 3 cr.
Students must produce a short play, 30 minutes maximum.

THT506 Modern Theatricalism 3 cr.
Selected studies in symbolism and avant-garde theater. Exploration of dream experience and private psyche, religious experience, and revitalization of myth and ritual.

THT510 Arab Theater 3 cr.
Selected studies in the development of theatrical production and dramatic writing in Arab theater.

THT512 Greek Theater 3 cr.
Selected studies in the development of theatrical production and dramatic writing in Greek theater.

THT517 Practicum in Dramaturgy 3 cr.
Demonstration of competence in the practice of dramaturgy through completion of an approved dramaturgical assignment.

THT521 Theory and Criticism 3 cr.
Studies in theory and criticism of theater, dramatic literature, and performance, through the 16th to the 19th century.

THT542 Manuscript Analysis 3 cr.
Critical and constructive study of dramatic techniques as employed by playwrights and screenwriters in selected examples of contemporary work.

THT615 Aesthetics of Theater 3 cr.
Discussion of essential issues in esthetics of theater and drama based on philosophy of art and theories of the theater.

THT616 Authors and Genres in Theater 3 cr.
Investigation of the work of theater artists and the literature of the theater, as manifested in one or more of its major forms or genres.

THT619 Literary Adaptation 3 cr.
Playwriting of selected literary work from literature, and demonstration of competence in playwriting through the completion of a short play.

THT620 Scenic Design Workshop 3 cr.
Advanced study and practice in scenic design for theater. Imagination as impetus for design, text analysis, metaphor, and conceptualization. Investigation of the design research process, composition, and style leading to visual presentation of the design.

THT623 Acting for Camera 3 cr.
Development of an internal technique, improvisations capturing the circumstances, life of the character, and intentions of the scene.

THT630 Semiology of Theater 3 cr.
Investigation of the study of semiotics, Saussure, Peirce, Barthes, Derrida, and Beneveniste and its relation to theater.

THT662 Directing as Theory and Practice 3 cr.
Development of directional skills of analysis, planning, staging, and criticism through the medium of written preparations and directing of scenes under minimal production conditions.

TLV307 Writing for Television 3 cr.
The students will acquire knowledge of documentary and segment program writing. Students will implement these skills in short exercises destined for television broadcasting.

TLV351 Introduction to Editing 3 cr.
Students will understand the various theories of montage (Eisenstein, Bazin, Deleuze, etc.), as well as the different styles of montage. Students will be able to use the different tools of nonlinear editing, as well as implement them by making several short videos.

TLV352 Advanced Editing 3 cr.
Pre-requisites TLV230 Or TLV351
Students will apply and reinforce techniques of editing on already existing footage. Students will create from these footages a short narrative film.

TLV416 Television News 2 cr.

Students will apply news writing techniques used in electronic media and television. Students will implement these techniques in short written exercises destined to be broadcast.

TLV420 Television Production 3 cr.
Students will acquire an introductory knowledge of different phases of production. Students will apply skills on pre-production, casting, technical production, locations, and on the production phase scheduling, transportation, catering, and equipment rentals.

TLV431 Sound Techniques 3 cr.
Students will understand the different techniques of acquiring sound in film and television. Students will develop skills in sound pick-up and recording using the appropriate microphones for indoor and outdoor sound recordings.

TLV435 Video Technology 3 cr.
Students will understand the different pieces of equipment used in television, specifically the studio and stage equipment, sound mixers, microphones, image mixers, lights, recorders, etc. Students will learn how digital and analogue signals work, and use the appropriate workflow.

TLV461 Commercials for Television 3 cr.
Students will produce commercials destined for television broadcasting. Students will implement skills and produce a commercial in this course.

TLV462 Television Control Room 3 cr.
Students will acquire hands-on experience in the use of visual and sound mixers in the television studio control room. They will produce a program using multi cameras.

TLV463 Music Video 3 cr.
Students will use team work to produce a music video. Students will start from scratch and go through all the phases of music video production from idea, casting, location, editing, etc.

TLV464 Drama for Television 3 cr.

Pre-requisites TLV462 Or TLV305
Students will apply acquired knowledge in production of a dramatic episode. They will write and direct, then edit a pilot destined for television broadcasting.

TLV470 Final Project 3 cr.
Students will shoot, edit and finalize a documentary film which will not exceed 20 minutes. Students will consult their assigned academic supervisors in the different phases of production and post-production.

TLV516 Documentary Writing 3 cr.
Advanced problems in the field of documentary writing, with emphasis on research and preproduction, conception, development and writing a documentary script.

TLV560 Digital Editing and Animation 3 cr.
Instruction in creation, preparation and production of a complete original computer animation film, with emphasis on organization and operation of the postproduction process.

Faculty of Law

Overview

The teaching of law at the Holy Spirit University of Kaslik (USEK) reconciles the solidity of tradition to adaptation to modern requirements, with particular concern for meeting the needs of the local, regional and international employment market.

Ever since the beginning, its foundation, the Lebanese Maronite Order has been concerned with giving its monks a solid foundation in Canon Law. It has wished to develop this tradition by extending it to the Lebanese in general in all the legal disciplines. This movement took concrete form on 10th November, 1988, 40th anniversary of the Universal Declaration of the Rights of Man, with the inauguration of its Faculty of Law at Jbeil-Byblos.

During the month of September 1999, the Faculty of Law joined the other USEK Faculties on the Kaslik campus and undertook a reform of its system of instruction by the adoption of the credit system and semesters. During the university year 2001-2002, the Faculty of Law carried out a thorough review of its programs in order to adapt them to the evolution of the legal disciplines, as has been done throughout the world. It also deployed, moreover, efforts to reinforce the doctoral school namely through the establishment of partnerships with the Faculties of Law at the University of Paris I Pantheon-Sorbonne and the University of Montpellier I.

The Faculty of Law consists of the following departments/programs:

Law

- Law Degree
- Master in Private Law
- Master in Public Law
- Ph.D. in Law

Department of Criminology

- Master in Criminology

Administration and Full-time Faculty

Dr. Eric Savaux, Associate professor, Dean
Dr. Ghada Karam, Associate Professor, Associate Dean
Dr. Celine Baaklini, Assistant Professor, Research and Publication Development Coordinator
Ms. Reine Daou, Lecturer, Coordinator of the Faculty Legal Journal
Dr. Bechara Karam, Assistant Professor
Dr. Haitham Sakr, Associate Professor
Ms. Liliane EL Kazzi, Lecturer
Rev. Fr. Talal Hachem, Associate professor
Rev. Fr. Wissam Khoury, Assistant Professor

Programs of Study - Undergraduate Programs

Law Degree (Hybrid[i] & Eng.)

Offered in Main Campus Kaslik and in RUC Zahle

Mission

The mission of bachelor program in Law is to prepare a diverse community of students to be national and international leaders in private legal practice, business and industry, government service, and legal education. We believe that rigorous, comprehensive academic instruction is essential for a student to develop the proper capacity of critical and ethical judgment. We also seek to promote the professionalism of legal and paralegals, thereby enhancing their capacity for service to the legal community and ultimately contributing to the advancement of the justice in Lebanese society. Thus, the mission of the law school is to graduate students, undergraduate and graduate students who excel in the field of the judiciary, the bar, diplomatic careers, notaries, public service, international organizations and institutions, teaching, etc.

Program Educational Objectives

1. Graduates will be able to present to various exams: magistracy, the bar, diplomatic services, notary, and public service.
2. Graduates will able to have an effective, ethical and responsible participation in the legal profession.
3. Graduates will be able to continue their studies in the Master's program.

Program Outcomes

a. Students will acquire an ability to know and understand the role of the legal rules, the principles governing their development and application, the essential steps for the development of law, the contents of the main rules of positive law, and the impact of international standards on it.
b. An ability to skip abstraction of the rule to specific facts and vice versa and thus to provide solutions to a reasoned legal problem diagnosed independently.
c. An ability to communicate in a clear, precise and a structured way the result of research and the result of a legal analysis, in absolute respect of the rules governing scientific production.
d. An ability to question the choices of the rules, and to get involved in the promotion of the founding values of law.

[i] Hybrid: Courses offered in French and/or English

Degree Requirements

General Education	**30**
General Education - Behavioral and Social Sciences	6
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Quantitative Reasoning	3
General Education - Science and Health	3
General Education - Sports	1
General Education - Religious Sciences	3
DRG210.1 - General Constitutional Law	3
DRG230.1 - Introduction to Law	3
Specialization	**91**
DRG211.1 - Legal Methodology	2
DRG240.1 - Political Systems	2
DRG300.1 - Special Administrative Law I	2
DRG311 - Regime of Civil Liability	3
DRG325.1 - Land Law	2
DRG327 - Contract law II	3
DRG328 - TD Contract law II	1
DRG351.1 - Labor and Social Security Law	3
DRG393.1 - Civic rights	2
DRG400.1 - Special Criminal Law	3
DRG411.1 - Commercial law	3
DRG414.1 - TD Special Criminal Law	1
DRG415.1 - Corporate Law	3
DRG420.1 - The Sureties	2
DRG421.1 - TD Commercial law	1
DRG424.1 - International Private Law	3
DRG426.1 - International Public Law	3
DRG440.1 - TD International Private law	1
DRG512.1 - Bills of Trade	2
DRG521.1 - Bankruptcy	3
DRG534.1 - Civil Law: Named Contracts II	3
DRG535.1 - TD Civil Law: Named Contracts II	1
DRG550.1 - Methods of Enforcing Judgments	3
DRL213.1 - Property law	3
DRL215.1 - TD Property law	1
DRL222.1 - General Administrative Law	3
DRL223.1 - Lebanese Constitutional Law	2
DRL227.1 - TD General Administrative Law	1
DRL228.1 - Contract law I	3
DRL229.1 - TD Contract law I	1
DRL230.1 - Civil Procedure I	3
DRL310.1 - General Criminal Law	3

DRL315.1 - TD General Criminal Law	1
DRL321.1 - Civil Procedure II	3
DRL412.1 - Civil Law: Named Contracts I	3
DRL415.1 - TD Civil Law: Named Contracts I	1
DRL424.1 - Tax Law and Public Finances	4
DRL510.1 - Civil law: Personal Status	3
DRL511.1 - Criminal Procedure	3
DRL512.1 - TD Civil Law: Personal Status	1
Electives	**16 out of 77**
DRG220.1 - Family Law I	2
DRG222.1 - Canon Law	3
DRG250 - Introduction to the Comparative law	2
DRG320.1 - Computer and Internet Law	2
DRG340- International humanitarian law	2
DRG395 - International Human Rights Law	2
DRG433.1 - International Institutions	2
DRG454.1 - Banking Law	3
DRG455.1 - Insurance Law	2
DRG461.1 - Arbitration Law	3
DRG463 - International Criminal Law	3
DRG465 - Legal Clinic	3
DRG470 - ICC Moot Court	3
DRG472.1 - Civil Service Law	2
DRG520.1 - Civil Law: the Contracts	2
DRG522.1 - TD Civil Law: the Contracts	1
DRG526.1 - European Union Law	2
DRG527.1 - Environmental and Urban Law	2
DRG529.1 - Introduction to the Common Law	2
DRG530.1 - Maritime and Air Law	2
DRG536.1 - Family Law II	2
DRG538.1 - Diplomatic and Consular Law	2
DRG540.1 - Administrative Litigation	3
DRG541.1 - Constitutional Litigation	3
DRG580.1 - TD Administrative Litigation	1
DRG581.1 - TD Constitutional Litigation	1
DRG589.1 - Intellectual and Artistic Property	2
POL226 - Political Economy	3
POL321 - Modern and Contemporary Political History	3
RIN443 - The Arab-Israeli Conflict	3
RIN552 - International Economy	3
SPO442 - Negotiations and Conflict Resolutions	3
SPO461 - Analysis of Political Texts	3
Total	**137**

Programs of Study - Graduate Programs

Master in Private Law (Hybrid[i])

Mission

The mission of the Master in Private Law program is to graduate students that excel in the field of private law. In increasing and deepening their knowledge, students will have a mastery of operational rules, principles and concepts that govern all disciplines of law. Students will be capable, in an autonomous and independent manner, of diagnosing all types of legal problems and work to find a resolution.

Program Educational Objectives

1. Graduates will be able to present to various exams: magistracy, the bar, notary, and public service.
2. Graduates will be able to continue on to study at PhD level.

Program Outcomes

a. Students will acquire an ability to mobilize and enrich, in a critical spirit, the knowledge and skills acquired at the end of the Bachelor of Law program.
b. An ability to master the content of the main rules of substantive law in all its branches, as well as those of international law, to compare the essential features of some foreign systems, and be able to move from the abstract to the rule of law to the facts, even if they are presented in complex ways, and vice versa.
c. An ability to skip easily from the rule to the facts, and vice versa, during a discussion, communicate the result of research and legal analysis in a clear, precise, structured and persuasive manner, and produce a legal study, with absolute respect to the governing scientific rules.
d. An ability to update knowledge, perceive bridges between the different branches of law, to form personal opinions and, if necessary, to build on the opening resulting from an internship or an exchange trip.
e. An ability to question the choices of the rules, getting involved in the promotion of the founding values of the law and organizing its work.

Degree Requirements

Common Core	**3**
DRG500 - Research Methodology	3
Specialization	**18**
DRG610 - Civil Law	3
DRG611 - Business Law	3
DRG612 - Criminal Law and Criminal Procedure	3
DRG613 - Private International Law	3
DRG660A - Master Thesis	6
Total	**21**

[i] Hybrid: Courses offered in French and/or English

Master in Public Law (Hybrid[i])

Mission

The mission of Master in Public Law program is to graduate students that excel in the field of public law, increasing and deepening their knowledge. Students will acquire a mastery of operational rules, principles and concepts that govern all disciplines of law. Students will be capable, in an autonomous and independent manner, of diagnosing all types of legal problems and work to find a resolution.

Program Educational Objectives

1. Graduates will be able to present to the following exams: State Council, the bar, diplomatic career, notary, and public service
2. Graduates will be able to continue on to study at PhD level.

Program Outcomes

a. Students will acquire an ability to mobilize and enrich in a critical spirit the knowledge and skills acquired at the end of the Bachelor of Laws program
b. An ability to master the content of the main rules of substantive law in all its branches, as well as those of international law, to compare the essential features of some foreign systems, and be able to move from the abstract to the rule of law to the facts, even if they are presented in complex ways, and vice versa.
c. An ability to skip easily from the rule to the facts, and vice versa, during a discussion, communicate the result of research and legal analysis in a clear, precise, structured and persuasive manner , and produce a legal study, with absolute respect to the governing scientific rules.
d. An ability to update knowledge, perceive bridges between the different branches of law, to form personal opinions and, if necessary, to build on the opening resulting from an internship or an exchange trip.
e. An ability to question the choices of the rules, getting involved in the promotion of the founding values of the law and organizing its work.

Degree Requirements

Common Core	**3**
DRG500 - Research Methodology	3
Specialization	**18**
DRG620 - Administrative Law	3
DRG621 - Constitutional Law	3
DRG622 - International Public Law	3
DRG623 - Tax Law and Public Finances	3
DRG660A - Master Thesis	6
Total	**21**

[i] Hybrid: Courses offered in French and/or English

Master in Criminology (Hybrid[i])

Mission

The Master in Criminology endorses a special mission: to make a better world of democracy. It means that the Master students takes responsibility for developing a critical criminological thought process that is necessary for a democracy to be a home for security and fraternity.

Program Educational Objectives

1. Lawyers and non-lawyers graduates in criminology will be able (a) to engage in research in criminology; (b) to effectively participate in the penal legal profession, and (c) to effectively participate in rehabilitating criminals in general, and prisoners in particular.
2. Lawyers graduates in criminology will be able to assess the level of the defendant's criminological threat, with the aim of fixing equitable penalties: (a) as criminal judges (proving that the degree a defendant's criminological threat is high), either at prosecution level (general prosecutor), or at investigation level (investigating judge, indictment division), or at judgment level (assizes court or at all degrees of criminal jurisdictions for misdemeanors); (b) as criminal lawyers: proving that the degree of the client's criminological threat is not high, and (c) as judiciary police: to be able to detect the criminological threat.
3. Non-lawyer graduates in criminology will have the ability to become (a) assistants to criminal judges or lawyers, and to assess a defendant's criminological threat; (b) assistants to medical examiners to participate in operating medico-legal autopsies; (c) assistants to medical experts in courts, to assess a defendant's or victim's mental health; (d) assistants to psychologists, psychiatrists or sexologists to study a defendant's or victim's mental health, and (e) activists in non- governmental organizations in fighting violence, sexual abuse, sexual harassment, etc.

Program Outcomes

a. Students will acquire an ability to draft detainee assessment briefs.
b. An ability to submit projects of law or bills for the prevention of crime.
c. An ability to draft criminals' mental health assessment.
d. An ability to assist in medico-legal autopsies.

Degree Requirements

Specialization	**36**
CRM511 - General Criminology	3
CRM512 - Criminal Creology	3
CRM513 - Questions of Ethics in Criminology	3

[i] Hybrid: Courses offered in French and/or English

CRM514 - Psychological Criminology	3
CRM515 - Sociological Criminology	3
CRM516 - Forensic Medicine I	3
CRM611 - Psychiatric Criminology	3
CRM612 - Forensic Medicine II	3
CRM613 - Forensics	3
CRM614 - Current Events in Criminology	3
CRM680 - Internship in Criminology	3
CRM690A - End of Studies Project	3
Total	**36**

Programs of Study – Doctoral Programs

Ph.D. in Law (Hybrid[i])

Mission

This program aims to train independent top researchers in law, who are able to make a significant original contribution to the legal discipline

Program Educational Objectives

1. Graduates will be able to teach in higher education institutes.
2. Graduates will be able to be accepted as a trainee judge without submitting the qualification exam.

Program Outcomes

a. Students will acquire an ability to pursue original research independently.
b. An ability to contribute substantially and directly to the promotion of knowledge.
c. An ability to interpret relatively complex data.
d. An ability to develop a critical attitude towards discipline.

Degree Requirements

Specialization	**60**
Ph.D. Seminars by Doctoral College	15
Ph.D. Dissertation	45
Total	**60**

[i] Hybrid: Courses offered in French and/or English

Course Descriptions

CRM511 General Criminology 3 cr.

The course studies the criminal phenomenon in its constitutive elements, including crime, the criminal, the victim and social reaction. The course will also examine such concepts as levels of dangerous, transition to criminal act, prevention of crime, issues confronting criminal law and criminology.

CRM512 Criminal Creology 3 cr.

The course studies criminal phenomenon in its constitutive elements, including crime, This course examines the nature, object, and necessity of criminal creology: the creologic study of crime. Students will consider the theory of "human act in se"; shifting the study of crime from without to within human act per se, the compatibility and incompatibility of creative activity and criminal activity. This course will also study criminal creologization: a creative activity as a criminological factor, creative activity and development of psychological and psychiatric characteristics of criminal personality. Finally students will learn about levels of creological dangerous and criminological threats.

CRM513 Questions of Ethics in Criminology 3 cr.

The aim of this course is to enable the would-be criminologists to become acquainted with the fundamental knowledge of medical ethics and to encourage them to think critically in a context related to ethical criminology. Facing a complex medical situation, the appropriate reaction is not always easy to determine. It is usually decided in reference to concepts that people have. This course, on the basis of specific themes, will help students to think, understand, criticize, compare, analyze and draw conclusions, thus enabling them make better decisions when decisions are not easy to make.

CRM514 Psychological Criminology 3 cr.
Prerequisites CRM511

This course will enable students to integrate psychological theories in order to understand the criminal phenomenon, to acquire the basic concepts of different theories and to become operational within the practice of research and future considerations. This course will also examine several clinical cases to illustrate and help students understand both the psychology of the person who committed a crime and the victim.

CRM515 Sociological Criminology 3 cr.
Prerequisites CRM511

Sociologists are interested in how society is created and how human beings form social relationships and interact with each other. Criminology is a related discipline that examines "crime" and "deviance", and the processes through which the criminal justice system responds to these phenomena. Studying Sociological criminology will provide a sound understanding of the key conceptual and substantive issues involved in the study of society, crime and criminal justice.

CRM516 Forensic Medicine I 3 cr.
Prerequisites CRM511

This course helps students to understand human thoughts and the consequences of pressure, know the basic ideas in forensic medicine, learn about the Lebanese legislation (law, decree), their rights and responsibilities, and know how to judge the quality and authenticity of an expert report. The course will also cover medico-legal study and dating of violence lesions, examination of a dead body, levee body, and importance of autopsy contributionand medico-legal expertise.

CRM611 Psychiatric Criminology 3 cr.

Prerequisites CRM512

Criminal threat is often associated with mental disorders. Recent studies using standardized diagnostic instruments confirm this relationship. Compared to the general population, the arrest rate of patients with mental disorders is significantly higher. Incarcerated persons suffer from more psychiatric disorders. Psychotic disorders, in particular schizophrenia with hallucinations and delusions, antisocial personality disorder and addiction disorders increase the risk of a person committing homicide. Epidemiological studies confirm that various DSM5 mental disorders significantly increase the prevalence of violent behavior. The higher the psychiatric comorbidity, the higher the risk of aggressive behavior and suicide.

CRM612 Forensic Medicine II 3 cr.

This course focuses on the study of medico-legal activities in matters of criminal law, and of civil law. With regard to the first type of activities, this course examines findings of physical, psychic and sexual violence, identification of the author of crime, age determination, amenability to detention, investigating alleged cases of torture, forensic psychiatry criminal expertise, etc. With regard to the matters of civil law, Forensic Medicine II concentrates on various studies, such as evaluation of suspected physical injury, guardianship, expertise in medical liability, etc. Students will learn to analyze medico-legal case studies that cover both criminal and civil law issues, such as murder, suspect death, victimology, sexual offences, abuse of children, collective criminology, testimony in court, information about driving abilities, etc.

CRM613 Forensics 3 cr.
Prerequisites CRM516

This course will focus on the work of forensic experts and tribunals, fire and explosion forensic investigation, fingerprint identification (dactyloscopy), and bone identification (osteology).

CRM614 Current Events in Criminology 3 cr.
Prerequisites CRM 511 And CRM 515 And CRM 512 And CRM 611 And CRM 516 And CRM 612 And CRM 613 And CRM 514

Students, researchers and practitioners participate in addressing questions on criminology relating to Lebanese, Arab, and World current events.

CRM680 Internship in Criminology 3 cr.

Students will complete an internship with a medico-legal institute, a psychiatric hospital, a prison, etc. in Lebanon or abroad.

CRM690A End of Studies Project 3 cr.

Criminology students are required to prepare a project, either theoretical or practical, at the end of their Master. It will be publish in the USEK Journal of Criminology.

DRG210.1 General Constitutional Law 3 cr.

The course presents the concepts of constitutional law based on two main ideas: authority and freedom. This vision is founded according to the bodies constituting the public powers, their functions and their relationships between each other and the governed population

DRG211.1 Legal Methodology 2 cr.

The law students will encounter face several exercises that require different methodologies. The purpose of this course is to raise and increase the legal reasoning of students which will help them to find suitable solutions to different law cases; such as, legal dissertation, judgment file, decision commentary, practical cases. In addition to several assignments on each topic, this course aims to

stimulate legal research and gain familiarity with the library where students will learn to research texts of law, jurisprudence and doctrine. Finally, the legal methodology is mainly based on legal logic, which is a way of reasoning translated by a chronological sequence of ideas leading to a certain solution. So the legal methodology is a way of searching for documents, references, judgments and legal decisions in order to analyze them, and discuss them logically.

DRG220.1 Family Law I 2 cr.

The Family Law I course is an introduction to European family law, the French one is particular looked at. Sources and history of family law are offered. In addition, students learn about training conditions, effects, evidence and divorce: causes, procedure, and effects, as well as legitimate filiation: maternity and paternity legitimate, evidence, and the disallowance paternity.

DRG222.1 Canon Law 3 cr.

Canon law is the name given to the rules that govern church order and discipline of the Roman Catholic Church. The goal of this course is to enable students to take a look at the vast field of the canon law of the Catholic Church. This course will allow students to understand some general principles and to learn the methodology of the discipline. This course has been updated to reflect changes and adaptations in canon law and new resources in the field, and offers an introductory orientation of all canon law. This course illustrates the relatively complex domains of canon law, and defines the primary framework and design of the several offices and functions within the church, and shows how they communicate to each other, which will lead to the more important fields of canon law of substance and the context in which more elaborate rules can be implied and comprehended.

DRG230.1 Introduction to Law 3 cr.

This course will actively explore all aspects of the law: in se and inter se; public and private; imperative and interpretative; founding principles and theories of law; sources; ratione loci, ratione personæ, ratione materiæ, ratione temporis; Lebanese judicial system.

DRG240.1 Political Systems 2 cr.
Prerequisites DRG210.1

This course is designed to present a general overview on the importance of the elections, public powers, and the different political systems adopted by the states in all over the world. This course introduces the idea of the role of public power and the political system adopted within the state.

DRG250 Introduction to the Comparative law 2 cr.

The course offers students an introduction to legal comparison, to its nature and goals in connection with the contemporary globalization processes, with particular reference to the interaction of law and culture in Europe.

Through the first part of this course, students will be exposed to the historical evolution and the main features of the civil law tradition in comparison with the common law tradition. The analysis will touch on some issues that show the convergence of legal systems and traditions favored by the doctrine in the first half of the 20th century and by the European Union in the second.

The second part of this course explores the Italian legal system as example of legal reception and the convergence of legal systems in Europe. After an introduction of the main legal principles and the relevant sources of law, the course deals with different issues related to contract law. Starting from the rules governing Italian law, the selected topic is addressed in a broader European perspective, taking into account the influence of Eu's legislation, as well as the most recent developments in the progressive harmonization and unification of European private law.

DRG300.1 Special Administrative Law 2 cr.

Prerequisites DRL222.1 Or DRL222.2 Or DRL222

This course is designed to introduce public services and the Lebanese public institutions. It deals with the nature of public administration, as activity and as discipline. Administrative law has two different aspects: enabling and controlling. The course will explore how the law enables government to create institutions and programs to provide public goods and public services, and who oversees and controls the exercise of these powers. Students are expected to develop an understanding and a sense of appreciation of the role of Lebanese public administration, in a historical perspective and in contemporary society. It will also describe the legal regime of public service, the different categories, and the methods of administering public services, as well as the public institutions and their organization. Students are introduced to the role of administrative law in Lebanon from both theoretical and practical points of view. They will explore the rights of those affected and how they can confront abuses of this power, and also whether it is feasible to defy government for failure to exercise the powers given to it.

DRG311 Regime of Civil Liability 3 cr.

Prerequisites DRG327 Or DRL322 Or DRL322.1 Or DRL322.2

The course will introduce students to civil liability, the private law governing the rights, duties, and obligations that members of society are entitled to and owe to one another. The course will, firstly, draw the distinction between different forms of liabilities, then it will clarify the general framework of civil liability, through a critical assessment of the foundations on which it rests, and highlight the changes that such foundations have gone through.

DRG320.1 Computer and Internet Law 2 cr.

This course deals with learning the essentials of computer and network technologies, and how those technologies are challenging settled legal understandings. The sources of Internet law are many, from intellectual property to tort.

DRG325.1 Land Law 2 cr.

This course is aimed at studying the compulsory delimitation and demarcation of land, its technical and administrative stage as well as the legal and judicial stage. It also explores the compulsory delimitation and demarcation effects in addition to the optional delimitation and demarcation procedures and effects. It also examines the competence of the land judge, the land register regulations such as the registering system, the procedures of registration and radiation, the types of registrations, the provisional measures and effects and finally the registration effects.

DRG327 Contract law II 3 cr.

Co-requisites DRG328

Prerequisites DRL228.1 Or DRL228.2 Or DRG250 Or DRL312.1 Or DRL312.2 Or DRL312 Or DRG251

This course studies general provisions regarding the extinction of contracts. It starts with generalities about the effects of contracts and elaborates on the obligatory force of contract as well as its relative value, and then it develops the illicit acts, the illegitimate growth of wealth as well as judicial acts. Then it treats the cancelation of a contract and its dissolution by reason or circumstances subsequent to its formation, which are the rescission of a contract and its termination. Furthermore, it develops the effects of obligations and the remedies available to creditors for the enforcement of performance due to them: right of detention, indirect action, direct action and Paulian action. Finally, it ends with an overview of the transmission of obligations.

DRG328 TD Contract law II 1 cr.

Co-requisites DRG327

Law is a discipline based to a large extent on practice. Therefore, the practical applications entitled tutorials are crucial to a better knowledge and understanding of the course and will raise subjects and matters that might call into question the theory taught in the classroom. Consequently, the tutorials (travaux dirigés), aim to apply the knowledge learned in the course, and provide a useful complement to the lectures. Tutorials intend to introduce new information in order to enable students to delve deeper into the content of the lecture and increase their knowledge and to boost and stimulate their legal research and reasoning. Therefore students will have to answer several types of assignments such as legal dissertation, case studies, decision commentaries, etc., that will be corrected by the professor, who will intervene to help students and push them to find adequate solutions and to develop their reasoning skills.

DRG330.1 Administrative Jurisdictions and Organization 2 cr.

This course is intended to elucidate the organization of power to administer and to introduce administrative justice. Thus, the power to administer is distributed between institutions that embody what is the authority in the structural meaning of the term and the institutions exercising it. Some have general administration tasks within a territorial district, others are confined to the completion of a specific service.

DRG340 International Humanitarian Law 2 cr.

This course aims at introducing and examining the foundations and key principles and rules of the law of war (also known as the law of armed conflict or international humanitarian law, IHL) applicable in times of armed conflict. IHL is comprised of norms designed to humanize and limit the effect of warfare. This course provides students with an overview of the history of IHL, its normative logic and its conditions of applicability as well as an understanding of the main substantive norms. The themes of the course include the sources of IHL, the definition of an armed conflict and the distinction between international armed conflict and non-international armed conflict, the status of persons not taking part or no longer taking part in hostilities, the rules and principles on the conduct of hostilities regulating the means and method of warfare, the means of implementation and enforcement of IHL as well as the interplay between this body of norms and international human rights law.

DRG351.1 Labor and Social Security Law 3 cr.

Prerequisites DRG327

The course is intended to provide students with an in-depth understanding of labor laws and social security laws, as well as develop an appreciation for the application of labor laws to the collective labor agreements. The course is designed to give an overview of various aspects of labor relations and social security benefits, including the perspective of working people and their labor organizations. It aims at assisting students in the acquisition of full knowledge and understanding and is intended to stimulate critical reflection on this branch of law.

DRG393.1 Civic rights 2 cr.

Prerequisites DRG426.1

This course provides, on the one hand, an understanding of the general theory of fundamental rights and freedoms, with an emphasis on the domestic and international safeguards of fundamental rights, as well as the mechanisms of protection to ensure their observance. The second part analyzes the legal regime of the protected fundamental freedoms, including the right to respect the dignity of a human being, the principle of equality, and civil and political liberties.

DRG395 International Human Rights 2 cr.

Prerequisites DRG393.1

This course is a survey course in international human rights law in order to introduce the students to the basic principles of international human rights and the institutions that operate in this area of the law.

DRG400.1 Special Criminal Law 3 cr.
Co-requisites DRG 414.1
Prerequisites DRL310.1 Or DRL310.2 Or DRL310
This course studies of all the offenses under Lebanese criminal law, and their penalties: crimes against property, such as theft, fraud, breach of trust, and checks with insufficient funds; crimes and offences against persons, such as homicide, and assault and battery; crimes against public faith, such as forgery.

DRG411.1 Commercial law 3 cr.
Pre-requisites DRL228.1 or DRL228.2
Co-requisites DRG 421.1
The course studies the rules of law that govern many aspects of business. An understanding of legal rules and constraints provides a framework for understanding the nature, structure and differences between several commercial deeds. It will help students understand the legal meaning of "merchant" and the legal importance of establishing a "business".

DRG414.1 TD Special Criminal Law 1 cr.
Co-requisites DRG 400.1
Law is a discipline based to a large extent on practice. Therefore, the practical applications entitled tutorials are crucial to a better knowledge and understanding of the course and will raise subjects and matters that might call into question the theory taught in the classroom. Consequently, the tutorials (travaux dirigés), aim to apply the knowledge learned in the course, and provide a useful complement to the lectures. Tutorials intend to introduce new information in order to enable students to delve deeper into the content of the lecture and increase their knowledge and to boost and stimulate their legal research and reasoning. Therefore students will have to answer several types of assignments such as legal dissertation, case studies, decision commentaries, etc., that will be corrected by the professor, who will intervene to help students and push them to find adequate solutions and to develop their reasoning skills.

DRG415.1 Corporate Law 3 cr.
Prerequisites DRG411.1 Or DRG411.2 Or DRG411
Co-requisites DRG425.1
This course is an introduction to the law that governs corporations. It will examine first the rule of contract that governs the formation of corporations in general, and then onto the different types of corporations in a comparative approach between the Lebanese and the French law.

DRG420.1 The Sureties 2 cr.
The first part of this course focuses on the sureties of not granting possession. It examines the mortgage guarantee, its definition and characteristics, as well as the creation of mortgage by contract and compulsory mortgage, its transmission, inscription effects, extinction and radiation as well as the mortgage charges. The focus of the second part of this course on the sureties is on granting possession, living pledge of real estate, sale with option of repurchase and the pledge.

DRG421.1 TD Commercial law 1 cr.
Co-requisites DRG 411.1
Law is a discipline based to a large extent on practice. Therefore, the practical applications entitled tutorials are crucial to a better knowledge and understanding of the course and will raise subjects and matters that might call into question the theory taught in the classroom. Consequently, the

tutorials (travaux dirigés), aim to apply the knowledge learned in the course, and provide a useful complement to the lectures. Tutorials intend to introduce new information in order to enable students to delve deeper into the content of the lecture and increase their knowledge and to boost and stimulate their legal research and reasoning. Therefore students will have to answer several types of assignments such as legal dissertation, case studies, decision commentaries, etc., that will be corrected by the professor, who will intervene to help students and push them to find adequate solutions and to develop their reasoning skills.

DRG424.1 International Private Law 3 cr.
Pre-requisites DRG311
Co-requisites DRG 440.1
This course explores one of the most fascinating and complex areas of law: what do you do when legal problems transcend jurisdictional boundaries? What happens when more than one sovereign state (e.g., two countries like Lebanon and France) can apply its laws to a particular situation or transaction? Whose law applies? Whose law should apply? And how should one state treat the laws and judgments of another? The course will draw heavily upon close reading, case analysis, and problem-solving skills.

DRG425.1 TD Corporate Law 1 cr.
Co-requisites DRG 415.1
Law is a discipline based to a large extent on practice. Therefore, the practical applications entitled tutorials are crucial to a better knowledge and understanding of the course and will raise subjects and matters that might call into question the theory taught in the classroom. Consequently, the tutorials (travaux dirigés), aim to apply the knowledge learned in the course, and provide a useful complement to the lectures. Tutorials intend to introduce new information in order to enable students to delve deeper into the content of the lecture and increase their knowledge and to boost and stimulate their legal research and reasoning. Therefore students will have to answer several types of assignments such as legal dissertation, case studies, decision commentaries, etc., that will be corrected by the professor, who will intervene to help students and push them to find adequate solutions and to develop their reasoning skills.

DRG426.1 International Public Law 3 cr.
Pre-requisites DRG240.1 and (DRL223.1 or DRL223.2)
This course enables students to learn about the subjects of international law and their legal status; such as, states, organizations, and private persons, and the sources of international law; such as, treaties, customs, general principles, unilateral acts, jurisprudence, etc. The course also discusses the general questions of international law, i.e. questions of law making, sovereignty, jurisdiction, responsibility, enforcement, the settlement of disputes, and specific topics such as the use of force.

DRG433.1 International Institutions 2 cr.
This is a hybrid course combining face-to-face classroom instruction with computer-based learning. It examines the ways in which states and non-state actors organize themselves: intergovernmental, nongovernmental and transnational organizations. It tackles questions relating to the nature of the formal institutions, their legal foundations, structures, functions, activities, and their relevance to global events and issues. A special emphasis will be made on the study of some organizations and agencies in depth, and their relations to the United Nations, which will be given special attention due to the truly global scope of its activities and impact. As the course is presented in a hybrid seminar format, students will be expected to actively participate in the online exercises.

DRG440.1 TD International Private Law 1 cr.
Co-requisites DRG 424.1

Law is a discipline based to a large extent on practice. Therefore, the practical applications entitled tutorials are crucial to a better knowledge and understanding of the course and will raise subjects and matters that might call into question the theory taught in the classroom. Consequently, the tutorials (*travaux dirigés*), aim to apply the knowledge learned in the course, and provide a useful complement to the lectures. Tutorials intend to introduce new information in order to enable students to delve deeper into the content of the lecture and increase their knowledge and to boost and stimulate their legal research and reasoning. Therefore students will have to answer several types of assignments such as legal dissertation, case studies, decision commentaries, etc., that will be corrected by the professor, who will intervene to help students and push them to find adequate solutions and to develop their reasoning skills.

DRG454.1 Banking Law 3 cr.

This course provides the students with an understanding of the structure of the Lebanese Banking by giving an overview of the banking concepts, theories and practices, their importance and their effects on law. It provides insight into the transformation of "banking" from traditional national banking to International E-banking based on the Internet, and the standardization of forms and contracts.

DRG455.1 Insurance Law 2 cr.
Prerequisites DRG415.1

Insurance law is an integral part of commercial law, the right to the protection of the consumer and the right to compensation for people and their property. This evolutionary law also involves risk and damage prevention, and, by allowing subjects to stipulate conditions, guarantees the respect for precautionary measures and protective measures.

DRG461.1 Arbitration Law 3 cr.
Prerequisites (DRL228.1 or DRL228.2) and (DRL321.1 or DRL321.2)

This course is focused on the third party with the power to settle disputes which may arise between individuals under an arbitration award. Power is generated, in principle, by the agreement of wills of the parties, is the settlement of a dispute by the arbitral dispute mechanism. The course is divided into two parts: the arbitration agreement (Part I), and the requirements of arbitration proceedings that enable the parties to resolve their dispute.(Part II).

DRG463 International Criminal Law 3 cr.
Prerequisites DRG400.1 and DRG426.1

This course covers international criminal law from the application of domestic and international law to questions of jurisdiction over international criminal activities, the granting of amnesty to persons responsible for international crimes, international cooperation in criminal matters, substantive international law as contained in multilateral treaties concerning war crimes and terrorism, and the permanent International Criminal Court.

DRG465 Legal Clinic 3 cr.
Prerequisites DRG230.1

This course focuses on shaping public policy by analyzing the limits on law-making authority, identifying options for changing policy, helping to draft policy proposals including model legislation, as well as speaking at a public hearing, conference and seminar in order to advance new policies. The course further offers students a unique opportunity to serve the public by providing pro-bono legal services at a high level of professionalism to low-income individuals (in particular children and women) and families who face difficulty in engaging lawyers for advice.

DRG470 ICC Moot Court 3 cr.

This course prepares the students for the ICC Moot Court Competition which welcomes universities from all over the world for a large scale moot court simulating the proceedings of the International Criminal Court (ICC). The Competition's case addresses fundamental issues of substantive and procedural international criminal law.

DRG472.1 Civil Service Law 2 cr.

This course gives a general view of the norms governing the service of public agents, be they civil servants or non-permanent staff, whether they serve the state or other public entities. It allows the student to assess the degree of originality of the law of public service in comparison with labor law.

DRG512.1 Bills of Trade 2 cr.

Prerequisites DRG411.1 Or DRG411.2 Or DRG411

Combining the basic concepts and practical techniques of commercial papers, the course addresses the exchange, promissory notes and checks: definitions, characteristics, conditions of issue, and payment.

DRG520.1 Civil Law 2 cr.

Co-requisites DRG522.1

Prerequisites DRL322 Or DRL322.2 Or DRL322.1

This course on "the contracts" is designed to present a general overview on the basics of the contracts and their typology, and to develop the negotiation period as well as study the liability of the parties in case of breach of contract. Moreover, it introduces students to the convention on contracts for the International sale of goods, as of 11th of April 1980, including the abusive clauses. In addition, this course allows students to assimilate the characteristics of the consumption contract, the franchise agreement, leasing, the electronic contract, and finally the information technology contract.

DRG521.1 Bankruptcy 3 cr.

Co-requisites DRG516.1

Prerequisites DRG415.1

This course is designed to provide students with a comprehensive introduction to bankruptcy law. The key general concepts studied will include: the bankruptcy estate, the different classifications of claims, exemptions, preferences, and fraudulent transfers. In examining the different types of bankruptcy proceedings, we will begin with the rules for liquidations and then explore individual reorganizations. Throughout the course we will explore the policies underlying the bankruptcy law

DRG522.1 TD Civil Law 1 cr.

Co-requisites DRG520.1

Law is a discipline based to a large extent on practice. Therefore, the practical applications entitled tutorials are crucial to a better knowledge and understanding of the course and will raise subjects and matters that might call into question the theory taught in the classroom. Consequently, the tutorials (*travaux dirigés*), aim to apply the knowledge learned in the course, and provide a useful complement to the lectures. Tutorials intend to introduce new information in order to enable students to delve deeper into the content of the lecture and increase their knowledge and to boost and stimulate their legal research and reasoning. Therefore students will have to answer several types of assignments such as legal dissertation, case studies, decision commentaries, etc., that will be corrected by the professor, who will intervene to help students and push them to find adequate solutions and to develop their reasoning skills.

DRG526.1 European Union Law 2 cr.

This course analyzes the legal European Union and its interaction with member State law and policy. There will be an emphasis on decision making, supremacy, direct effect, breaches of European law, legal remedies, and protection of human rights guarantees.

DRG527.1 Environmental and Urban Law 2 cr.

This course will review the law of the environment from a theoretical perspective, with an emphasis on international, European and comparative practices. It will increase the student's abilities to grasp a wider knowledge of various documents related to environmental law, such as directives, international conventions, judicial decisions, etc.

DRG529.1 Introduction to the Common Law 2 cr.

This course introduces the common law tradition to students of other legal traditions, in particular the civil law tradition. The focus will be on the case study approach that permeates most of the laws in the common law tradition. It will covers a wide variety of substantive law issues, ranging from contract law, property law, tort law, to criminal law issues. In addition, the course will familiarize the students with common civil law and criminal procedures.

DRG530.1 Maritime and Air Law 2 cr.

This course provides an overview of the laws governing transportation, customers and users of the means of sea or air transport, as well as intermediaries such as freight forwarders, tour operators, etc. In addition, it takes a thorough look at the responsibility of reviewing legal contracts.

DRG534.1 Civil Law: Named Contracts II 3 cr.

Co-requisites DRG535.1

Prerequisites DRL412.1 Or DRL412.2 Or DRL412

This course studies the special rules governing certain contracts, such as the loan and proxy. In its first part, this course studies the general provisions of the lease, which includes the applicable rules to all leases as well as special rules for building leases. It also examines the effects of the lease, which include the obligations of the lessor and the lessee. Finally, it analyzes the extinction of the lease and the land leases. In its second part, this course studies special rules governing the proxy. It starts with a general outline of a proxy, and then determines the effects of proxy between the principal and the agent as well as the effects of the proxy in relation to third parties. Finally, the last part of this course pays particular attention to the extinction of the proxy.

DRG535.1 TD Civil Law: Named Contracts II 1 cr.

Co-requisites DRG534.1

Law is a discipline based to a large extent on practice. Therefore, the practical applications entitled tutorials are crucial to a better knowledge and understanding of the course and will raise subjects and matters that might call into question the theory taught in the classroom. Consequently, the tutorials (travaux dirigés), aim to apply the knowledge learned in the course, and provide a useful complement to the lectures. Tutorials intend to introduce new information in order to enable students to delve deeper into the content of the lecture and increase their knowledge and to boost and stimulate their legal research and reasoning. Therefore students will have to answer several types of assignments such as legal dissertation, case studies, decision commentaries, etc., that will be corrected by the professor, who will intervene to help students and push them to find adequate solutions and to develop their reasoning skills.

DRG536.1 Family Law II 2 cr.

Prerequisites DRG220.1 Or DRG220.2 Or DRG220

This course is offered to students who succeeded in the course 'Family Law I'. They will learn about laws relating to personal status in Lebanon among Christians and Muslims. Starting with a comparison of nullity of marriage, this course considers the courts and the steps to the final judgment. In addition, students learn how to implement provisions to accelerate the procedure of the family law in ecclesiastical courts. Finally, conflicts of jurisdiction between the civil and ecclesiastical courts are taught in this course.

DRG538.1 Diplomatic and Consular Law 2 cr.
Prerequisites DRG 426.1 Or DRG 426.2 Or DRG 426

This course reviews diplomatic and consular laws, in particular the Vienna Convention on Diplomatic Relations of 1961, in the light of state and judicial practices. It will study bilateral diplomatic relations that are maintained by permanent missions, including special missions. The course will also cover diplomatic and consular privileges and immunities.

DRG540.1 Administrative Litigation 3 cr.
Prerequisites DRG 300.1 Or DRG 300.2 Or DRG 300

Administrative litigation entails some characteristics different from litigation. These differences meet during contentious administrative procedures that involve several phases ranging from introducing the appeal in the judgment itself, and passing by the statement. These are to be applied to the different actions referred to the administrative judge: recourses of full jurisdiction, action for annulment, and action for interpretation. Next to this ordinary procedure exist emergency procedures allowing litigants to obtain a rapid decision from the judge.

DRG541.1 Constitutional Litigation 3 cr.
Prerequisites DRG 240.1 Or DRG 240.2 Or DRG 240

This course is designed to present a general overview of the jurisdiction of the Constitutional Council in France Lebanon, and the importance of the constitutionality control of law, as well as the electoral litigations.
This course also introduces the prominence of specific rights and freedoms that must always be respected in each society.

DRG550.1 Methods of Enforcing Judgments 3 cr.
Prerequisites DRL321.1 Or DRL321.2 Or DRL321

This course introduces the measures of enforcement, and the general provision of the measures of enforcement. Then it determines the competence of the enforcement court, including the subject matter competence, the competence by reason of the person concerned and the venue jurisdiction. Then it elaborates on the writ of enforcement, including executive power, object of the enforcement and the parties. Next, it determines the procedures before the enforcement judge and the decision of the latter. In addition, this course allows students to assimilate the plea to stay as well as the opposition. It develops also the sequestration of property, the garnishment, the enforcement by sale of the debtor's real property, the tender specifications and the sale by auction by order of the court. Finally it ends with a study on the seizure of movable goods for sale and imprisonment for debts.

DRG580.1 TD Administrative Litigation 1 cr.
Co-requisites DRG 540.1

Law is a discipline based to a large extent on practice. Therefore, the practical applications entitled tutorials are crucial to a better knowledge and understanding of the course and will raise subjects and matters that might call into question the theory taught in the classroom. Consequently, the tutorials (*travaux dirigés*), aim to apply the knowledge learned in the course, and provide a useful

complement to the lectures. Tutorials intend to introduce new information in order to enable students to delve deeper into the content of the lecture and increase their knowledge and to boost and stimulate their legal research and reasoning. Therefore students will have to answer several types of assignments such as legal dissertation, case studies, decision commentaries, etc., that will be corrected by the professor, who will intervene to help students and push them to find adequate solutions and to develop their reasoning skills.

DRG581.1 TD Constitutional Litigation 1 cr.
Co-requisites DRG 541.1

Law is a discipline based to a large extent on practice. Therefore, the practical applications entitled tutorials are crucial to a better knowledge and understanding of the course and will raise subjects and matters that might call into question the theory taught in the classroom. Consequently, the tutorials (travaux dirigés), aim to apply the knowledge learned in the course, and provide a useful complement to the lectures. Tutorials intend to introduce new information in order to enable students to delve deeper into the content of the lecture and increase their knowledge and to boost and stimulate their legal research and reasoning. Therefore students will have to answer several types of assignments such as legal dissertation, case studies, decision commentaries, etc., that will be corrected by the professor, who will intervene to help students and push them to find adequate solutions and to develop their reasoning skills.

DRG589.1 Intellectual and Artistic Property 2 cr.
This course introduces students to the principles and concepts of the Lebanese intellectual property law, including its two main categories: literature and artistic property and the industrial property (mostly patents). The course also focuses on the international aspects of branches of intellectual property and the patent laws.

DRL213.1 Property law 3 cr.
Co-requisites DRL215.1

Prerequisites DRG211.1 and DRG230.1

This course starts with a general comparison between objective and subjective rights. It then develops extrapatrimonial rights and a study regarding the estate, including its composition, characteristics and the position of the Lebanese law. It then deals with the patrimonial rights, including definition, sources, characteristics and its extinguish reasons. The course then develops the distinction between personal rights and property rights as well as the intellectual rights and the classification of properties: tangible and intangible assets. Finally this course ends with a study on the tangible real properties, the fixtures and the real actions.

DRL215.1 TD Property law 1 cr.
Co-requisites DRL211.1

Law is a discipline based to a large extent on practice. Therefore, the practical applications entitled tutorials are crucial to a better knowledge and understanding of the course and will raise subjects and matters that might call into question the theory taught in the classroom. Consequently, the tutorials (travaux dirigés), aim to apply the knowledge learned in the course, and provide a useful complement to the lectures. Tutorials intend to introduce new information in order to enable students to delve deeper into the content of the lecture and increase their knowledge and to boost and stimulate their legal research and reasoning. Therefore students will have to answer several types of assignments such as legal dissertation, case studies, decision commentaries, etc., that will be corrected by the professor, who will intervene to help students and push them to find adequate solutions and to develop their reasoning skills.

DRL222.1 General Administrative Law 3 cr.
Co-requisites DRL227.1

Prerequisites DRL223.1 or DRL223.2

Administration is subject to a law which regulates its activity and, thereby, its relationship with citizens. This course explains the unilateral administrative act, administrative contracts, various appeals and the liability of the public authority.

DRL223.1 Lebanese Constitutional Law 2 cr.
Prerequisites DRG210.1

This course includes the history of Lebanese institutions, and the main sources of the Lebanese Constitution. It includes a detailed study of the public powers of the State, their functions and their relationships between each other.

DRL227.1 TD General Administrative Law 1 cr.

Co-requisites DRL222.1

Prerequisites DRG230.1

Law is a discipline based to a large extent on practice. Therefore, the practical applications entitled tutorials are crucial to a better knowledge and understanding of the course and will raise subjects and matters that might call into question the theory taught in the classroom. Consequently, the tutorials (*travaux dirigés*), aim to apply the knowledge learned in the course, and provide a useful complement to the lectures. Tutorials intend to introduce new information in order to enable students to delve deeper into the content of the lecture and increase their knowledge and to boost and stimulate their legal research and reasoning. Therefore students will have to answer several types of assignments such as legal dissertation, case studies, decision commentaries, etc., that will be corrected by the professor, who will intervene to help students and push them to find adequate solutions and to develop their reasoning skills.

DRL228.1 Contract law I 3 cr.
Co-requisites DRL229.1

Prerequisites DRG211.1 and DRG230.1

This course studies the general theory of contracts. It starts with generalities regarding contracts, and then it develops the constituent elements or conditions of validity of the contracts, including consent, pollicitation, acceptance, the object, the cause and common provisions to the vitiation of consent. It will then elaborate on the vitiation of consent, including error, fraud, fear, tort, incapacity.

DRL229.1 TD Contract law I 1 cr.
Co-requisites DRL228.1

Law is a discipline based to a large extent on practice. Therefore, the practical applications entitled tutorials are crucial to a better knowledge and understanding of the course and will raise subjects and matters that might call into question the theory taught in the classroom. Consequently, the tutorials (travaux dirigés), aim to apply the knowledge learned in the course, and provide a useful complement to the lectures. Tutorials intend to introduce new information in order to enable students to delve deeper into the content of the lecture and increase their knowledge and to boost and stimulate their legal research and reasoning. Therefore students will have to answer several types of assignments such as legal dissertation, case studies, decision commentaries, etc., that will be corrected by the professor, who will intervene to help students and push them to find adequate solutions and to develop their reasoning skills.

DRL230.1 Civil Procedure I 3 cr.
Prerequisites DRG230.1
This course about civil procedure (part I) is designed to present a general overview of the basics of civil procedure. Therefore, it begins by presenting the general provisions related to the case, such as conditions of admissibility, the right and capacity to sue. It then introduces the plea of unacceptability and the plea in bar as well as the classification of actions and the estimation of the amount of the dispute. It also determines the judicial organization and the theory of competence. In addition, this course allows students to assimilate the provisions related to proof, including notarial act and simple contract, instrument in writing and plea of forgery, avowal, personal appearance, path and promissory oath, testimony evidence and finally presumption and authority of the adjudged matter.

DRL310.1 General Criminal Law 3 cr.
Pre-requisites DRG211.1 and DRG230.1
This course studies the driving principles of criminal law: legality; ignorance of law is no excuse; application of law ratione temporis; application of law ratione loci, the constitutive elements of crime, qualification of a factual situation, criminal defenses, criminal liability and causes of criminal irresponsibility, absolving and extenuating excuses, and mechanism for sentencing, and, finally the criminal and its victim.

DRL315.1 TD General Criminal Law 1 cr.
Co-requisites DRL310.1

Law is a discipline based to a large extent on practice. Therefore, the practical applications entitled tutorials are crucial to a better knowledge and understanding of the course and will raise subjects and matters that might call into question the theory taught in the classroom. Consequently, the tutorials (travaux dirigés), aim to apply the knowledge learned in the course, and provide a useful complement to the lectures. Tutorials intend to introduce new information in order to enable students to delve deeper into the content of the lecture and increase their knowledge and to boost and stimulate their legal research and reasoning. Therefore students will have to answer several types of assignments such as legal dissertation, case studies, decision commentaries, etc., that will be corrected by the professor, who will intervene to help students and push them to find adequate solutions and to develop their reasoning skills.

DRL321.1 Civil Procedure II 3 cr.
Prerequisites DRL311.1 Or DRL311.2 Or DRL311
This course about civil procedure (part II) starts by developing representation before a court, the writ of summons, the delays, the legal judicial aid and the procedure before the first instance court. Then it introduces the incidental plea, the theory of judgments and the special hearing in civil matters. In its second part, this course develops the decision in a non-contentious matter, correction and interpretation of judgments and the several remedies at law, including the opposition, the appeal, third party opposition, retrial and cassation.

DRL412.1 Civil Law: Named contracts I 3 cr.
Co-requisites DRL415.1
Prerequisites DRL322.1 Or DRL322.2 Or DRL322
This course studies the special rules governing certain contracts, such as the sale agreement and the barter system. It is designed to present some provisions about sales, like the conditions for a sale, who may buy or sell, things, what may be sold, the price and the perfect sale. It also treats the effects of the sale and develops in details the vendor's obligations and the buyer's obligations, as well as some special kinds of sale. Moreover, it gives an idea about the promise to sell and promise to buy. Finally, this course develops the barter agreement in its general and specific provisions.

DRL415.1 TD Civil Law: Named Contracts I 1 cr.
Co-requisites DRL412.1
Law is a discipline based to a large extent on practice. Therefore, the practical applications entitled tutorials are crucial to a better knowledge and understanding of the course and will raise subjects and matters that might call into question the theory taught in the classroom. Consequently, the tutorials (*travaux dirigés*), aim to apply the knowledge learned in the course, and provide a useful complement to the lectures. Tutorials intend to introduce new information in order to enable students to delve deeper into the content of the lecture and increase their knowledge and to boost and stimulate their legal research and reasoning. Therefore students will have to answer several types of assignments such as legal dissertation, case studies, decision commentaries, etc., that will be corrected by the professor, who will intervene to help students and push them to find adequate solutions and to develop their reasoning skills.

DRL424.1 Tax Law and Public Finances 4 cr.
This course consists of two parts: the budgetary law and the tax law. Thus it explains the fundamental concepts relating to the budget of the State, its preparation, enforcement and control. On the other hand, the general theory of tax requires the study of the notion of tax, classification of taxes, tax techniques, and tax administration. Then it focuses on the three main taxes: tax on income, VAT, and the estate tax.

DRL510.1 Civil law: Personal Status 3 cr.
This course is aimed at studying the non-Muslim will, its conditions of validity, the characteristics of bequests, the testator's intent, consent, the capacity, the object, the cause and the interpretation of wills. It then elaborates the types of succession bestowed by a will, its forms and the appointment of devisee and legate, the disposable portion of an estate as well as the revocation of a will and forfeiture and inheritance for non-Muslims, including: means of estate devolution, the opening of the succession, the entitlement to the inheritance, the estate distribution to the heirs, the participation per stripes and the devolution of an estate. Finally, in its last part, this course develops the Muslim will and the Islamic inheritance, the obligatory shares and the agnates, and lastly the restoration of property to a succession, the default of heirs and the case of a missing person.

DRL511.1 Criminal Procedure 3 cr.
Prerequisites DRG400.1
This course covers the part of the criminal procedure that relates to criminal proceedings and criminal investigation. With regard to criminal proceedings, the course will study (a) Public Action: initiation; restrictions that apply to it; grounds for its extinction; such as, death of defendant, amnesty, expiry of the prescription period, and (b) Civil Action: relation to public action, civil parties, nature of damage, competent authorities to hear a civil case). The criminal investigation part of the course will closely follow the path of public action from the stage of (a) Preliminary Inquiry, as conducted by the judicial police force, up to the stage of (b) Investigation, as examined by the investigating judge and determined by the Indictment Division.

DRL512.1 TD Civil Law: Personal Status 1 cr.
Co-requisites DRL510.1
Law is a discipline based to a large extent on practice. Therefore, the practical applications entitled tutorials are crucial to a better knowledge and understanding of the course and will raise subjects and matters that might call into question the theory taught in the classroom. Consequently, the tutorials (*travaux dirigés*), aim to apply the knowledge learned in the course, and provide a useful complement to the lectures. Tutorials intend to introduce new information in order to enable students to delve deeper into the content of the lecture and increase their knowledge and to boost and stimulate their legal research and reasoning. Therefore students will have to answer several

types of assignments such as legal dissertation, case studies, decision commentaries, etc., that will be corrected by the professor, who will intervene to help students and push them to find adequate solutions and to develop their reasoning skills.

DRG500 Research Methodology 3 cr.
The course focuses on both the method and methodology of academic research and explains both how and why it is necessary to carry out academic research work. The method / methodology is the focus of this course.

DRG610 Civil Law 3 cr.
The course is designed to present a depth of knowledge on the basics of contracts and their typology, and to develop the negotiation period and study the liability of the parties in case of breach of contract. Moreover, this course allows students to assimilate the characteristics of the consumption contract, the franchise agreement, leasing, the electronic contract and, finally, the information technology contract.

DRG611 Business Law 3 cr.
This is an advanced corporate law course designed specifically for Master students. The course will discuss aspects of economic and legal policy of various issues in business law as well as their practical implications. It is designed to provide law students with the analytical tools necessary to understand the financial and economic factors that underlie business structures in corporate law.

DRG612 Criminal Law and Criminal Procedure 3 cr.
This course covers highly discussed topics in criminal law and criminal procedure, such as the principle of criminal legality, the application of criminal law ratione temporis, actus reus and mens rea, criminal responsibility and irresponsibility, impartiality of the judge in criminal proceedings, public action and civil action, criminal evidence, secrecy of criminal proceedings, rights of the defense, etc.

DRG613 Private International Law 3 cr.
This course explores one of the most fascinating and complex areas of the law: what do you do when legal problems transcend jurisdictional boundaries? What happens when more than one sovereign state (e.g., two countries like Lebanon and France) can apply its laws to a particular situation or transaction? Whose law applies? Whose law should apply? And how should one state treat the laws and judgments of another? The course will draw heavily upon close reading, case analysis, and problem-solving skills.

DRG620 Administrative Law 3 cr.
The administration is subject to a law which regulates its activity and, thereby, its relationship with citizens. This course explains the unilateral administrative act, administrative contracts, various appeals and the liability of the public authority.

DRG621 Constitutional Law 3 cr.
The course presents the concepts of constitutional law based on two main ideas: authority and freedom. This vision is founded according to the bodies constituting the public powers, their functions and their relationships between each other and the governed population.

DRG622 International Public Law 3 cr.
This course enables students to learn about the subjects of international law and their legal status; such as, states, organizations, and private persons, and the sources of international law; such as, treaties, customs, general principles, unilateral acts, jurisprudence, etc. The course also discusses the general questions of international law, i.e. questions of law making, sovereignty, jurisdiction, responsibility, enforcement, the settlement of disputes, and specific topics such as the use of force.

DRG623 Tax Law and Public Finances 3 cr.

This course explains the fundamental concepts relating to the budget of the State, its preparation, enforcement and control. On the other hand, the general theory of tax requires the study of the notion of tax, classification of taxes, tax techniques, and tax administration. Then it focuses on the three main taxes: tax on income, VAT, and the estate tax.

POL226 Political Economy 3 cr.

This course aims, first, to analyze the microeconomic behavior; the subjective individual behavior of consumers and producers. The interaction between these two types of individuals, with the goal of maximizing their satisfaction, leads to the study of the market including the law of supply and demand and the equilibrium price. Thus, the analysis of competition in a market will be studied as well as non-competitive situations, such as, monopoly, monopsony, duopoly, oligopoly, etc. Then, individual behavior will be analyzed as a whole using the macroeconomic approach, including the relationship between large aggregates: GDP, consumption, unemployment, Gross Fixed Capital Formation, Export, and Import. This study will consider the different theoretical approaches concerning the choice of economic policy including monetary and fiscal policies for a country or a group of countries.

POL321 Modern and Contemporary Political History 3 cr.

The course focuses on the political, economic and sociological landscape covering the major issues of the twentieth century: the world wars, colonization, the East-West confrontation, the Cold War, decolonization, the disintegration of the USSR, the fall of the Berlin Wall, the European integration, US hegemony, the new international order resulting from the Gulf War, etc.

RIN443 The Arab-Israeli Conflict 3 cr.

This course considers the history of the Arab-Israeli conflict since the founding of the State of Israel and its impact on the regional and international political map, including: the interference of international powers in this conflict, the political contexts of the wars of 1956, 1967, 1973, 1982, and the process of peace (the peace conference in Madrid, the Oslo Accords, and the peace treaty between Israel and Jordan), the problem of the Golan Heights and the Shebaa Farms.

RIN552 International Economy 3 cr.

International economics deals with economic relations between nations. It seeks essentially to account for the reasons for their exchange and for the effects of international trade on the structure of economies. The simplest questions are directly related to foreign trade analysis: Why exchange? Is this a gain or loss? What determines the structure of foreign trade of the countries? How are fix the prices of traded goods fixed, while production costs are not the same in different countries? Other more detailed issues relate to the interaction between trade and economic and social development: How will international integration will affect inequalities between nations? What are the interrelationships between external openness and growth? , and, furthermore, normative trade policy issues, such as: Should imports to be taxed and should we promote exports? These questions are addressed throughout the course.

Higher Institute of Political and Administrative Sciences

Affiliated to the Faculty of Law

Overview

The Holy Spirit University of Kaslik is aware of its important role in society, especially that of aiding the formation of young minds in those who will take their place as future actors within political life. It is also aware of the importance of political sciences in the structuring of society in Lebanon and the Middle East. Thus it has created the Higher Institute of Political and Administrative Sciences.

The Higher Institute of Political and Administrative Sciences, which was created in February 2006 (decree no 16410), aims at training future officials in public administration and civil society, who are mindful of community spirit and ethics. The Institute contains three multidisciplinary educational fields, those of political sciences, international relations and public administration. These aim to:

- Provide students with a specialized education in political sciences, thus giving them access to a professional life.
- Develop the students' analytical and synthesis spirit, thus enabling them to understand national and international issues.
- Prepare students to follow a specialized higher education curriculum.

The Higher Institute of Political and Administrative Sciences consists of the following departments/programs:

Department of Political Sciences

- Bachelor in Political Sciences
- Master in Political Sciences
- Online Certificate in Geopolitics of Lebanon and the Middle East

Department of International Relations

- Bachelor in International Relations
- Master in Political Sciences - International Relations
- Master in Diplomacy and International Security

Administration and Full-time Faculty

Dr. Nassif Hitti, Associate professor, Director
Dr. Darina Saliba Abi Chedid, Associate professor, Coordinator of Undergraduate Programs
Dr. Francisco Barrosso, Assistant professor, Coordinator of Graduate Programs
Dr. Nicolas Badaoui, Lecturer

Programs of Study - Undergraduate Programs

Bachelor in Political Sciences (Hybrid[i])

Mission

The mission of the Political Science department is to train students in the Lebanese political system and other political systems. The main goal is to provide our students with the basic theoretical and methodological tools in the field of political science to be capable of understanding and explaining the political environmental and the main sociopolitical dynamics that affect the politics at its different levels. In order to reach this goal the Political Science department is offering a program focused on the following topics:

- Middle Eastern, Arabic and Lebanese policy
- Public affairs, public institutions, Constitutional Law
- Political communication
- Comparative politics, theory/philosophy of politics

Program Educational Objectives

1. Graduates will conduct educational, social, cultural programs, etc. within the Lebanese public service (ministries, municipalities or other public institutions).
2. Graduates will manage political life as a parliamentary attaches.
3. Graduates will integrate the political environment.
4. Graduates will organize political actions in the private sector (associations, lobbies, companies, committees).

Program Outcomes

a. Students will produce documents relating to local and national politics.
b. Students can assist a political leader as a parliamentary attaches
c. Students will be able to compose and implement projects related to internal political issues intended for public or private life (political parties, associations).

Degree Requirements

General Education	**30**
General Education - Arts and Humanities	3
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Quantitative Reasoning	3
General Education - Science and Health	3
General Education - Sports	1

[i] Hybrid: Courses offered in French and/or English

General Education - Religious Sciences	3
POL211 - Introduction to Political Science	3
POL212 - Introduction to Geopolitics	3
SOC218 - Statistics Applied to Human Sciences I	3
Common Core	**18**
POL213 - Introduction to International Relations	3
POL224 - Political Science Method	3
POL225 - Elements of Constitutional Law	3
POL226 - Political Economy	3
POL321 - Modern and Contemporary Political History	3
POL322 - Modern and Contemporary Political History of the Middle East	3
Specialization	**48**
POL331 - European Union: History, Organization and Political Challenges	3
POL333 - Human Geography of Lebanon and Arab Countries	3
POL334 - Political Regimes of Arab Countries	3
POL335 - Politics and Mass Media	3
POL336 - History of Political Thought	3
RIN443 - The Arab-Israeli Conflict	3
RIN444 - Water Issues in Regional Politics	3
SOC422 - Political Sociology	3
SPO431 - Principles of Law	3
SPO432 - Conflict Theories	3
SPO441 - Contemporary Political Thought in the Arab-Muslim World	3
SPO442 - Negotiations and Conflict Resolutions	3
SPO451 - Lebanon's Political Regime	3
SPO452 - Administrative Organization of Lebanon	3
SPO453 - Lobbies and Political Parties in Lebanon	3
SPO461 - Analysis of Political Texts	3
Total	**96**

Bachelor in International Relations (Hybrid[i])

Mission

The mission of the International Relations department is to train students in the theories and political and economic issues that shape the relations between states, by offering a program focused on the following topics:

- Middle Eastern, Arabic and Lebanese policy
- International, diplomatic and constitutional law
- Political communication
- Economics and energy, and their contemporary challenges

[i] Hybrid: Courses offered in French and/or English

Program Educational Objectives

1. Graduates will have the ability to manage projects in for NGOs, local or international associations or embassies, both in Lebanon and abroad.
2. Graduates will be trained to handle complex cases as high-level officials in the Lebanese Ministry of Foreign Affairs and pass administrative exams.
3. Graduates will have the skills to analyze files and develop investigations in political journalism.
4. Graduates will defend their opinions, and deliver presentations relating to international relations, and in several languages.

Program Outcomes

a. Students will conduct field work in an organization or association of a political or humanitarian nature, and/or relating to human rights and the application of the international law.
b. Students will handle complex cases as high-level officials in the Lebanese Ministry of Foreign Affairs and pass administrative exams.
c. Students will analyze files and develop investigations in political journalism.
d. Students will be capable of analyzing a problem and drawing correct inferences. In this process, they will be ready to communicate ideas clearly and persuasively in different languages.

Degree Requirements

General Education	**30**
General Education - Arts and Humanities	3
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Quantitative Reasoning	3
General Education - Science and Health	3
General Education - Sports	1
General Education - Religious Sciences	3
POL211 - Introduction to Political Science	3
POL212 - Introduction to Geopolitics	3
SOC218 - Statistics Applied to Human Sciences I	3
Common Core	**21**
POL213 - Introduction to International Relations	3
POL224 - Political Science Method	3
POL225 - Elements of Constitutional Law	3
POL321 - Modern and Contemporary Political History	3
POL322 - Modern and Contemporary Political History of the Middle East	3
POL334 - Political Regimes of Arab Countries	3
SOC422 - Political Sociology	3

Specialization	45
POL226 - Political Economy	3
POL331 - European Union: History, Organization and Political Challenges	3
POL333 - Human Geography of Lebanon and Arab Countries	3
POL335 - Politics and Mass Media	3
POL336 - History of Political Thought	3
RIN431 - Diplomatic and Consular Law	3
RIN432 - Public International Law	3
RIN433 - Geopolitics of World Energy	3
RIN441 - Existing and Emerging World Powers	3
RIN442 - Transnational Movements	3
RIN443 - The Arab-Israeli Conflict	3
RIN444 - Water Issues in Regional Politics	3
RIN451 - Theories of International Relations	3
RIN452 - Regional and International Organizations	3
SPO442 - Negotiations and Conflict Resolutions	3
Total	**96**

Programs of Study - Graduate Programs

Master in Political Sciences (Hybrid[i])

Mission

The mission of the Political Science department is to train students in the Lebanese political system and other political systems. The main goal is to provide our students with the basic theoretical and methodological tools in the field of Political Science to be capable of understanding and explaining the political environmental and the main sociopolitical dynamics that affect the politics at its different levels. In order to reach this goal the Political Science department is offering a program focused on the following topics:

- Middle Eastern, Arabic and Lebanese policy
- Public affairs, public institutions, Constitutional Law
- Political communication
- Comparative politics, theory/philosophy of politics

Program Educational Objectives

1. Graduates will have the ability to manage a team within a parliamentary or ministerial group.
2. Graduates will have the ability to perform consultations in study offices or consulting firms.
3. Graduates will have the ability to work on political editorial projects.

[i] Hybrid: Courses offered in French and/or English

Program outcomes

a. Students will be able to define political projects with parliamentary leaders and ministerial offices.
b. Students will be able to create special folders on economic policy for public and private companies.
c. Students will collaborate in the design and evaluation of editorial projects in politics.

Degree Requirements

Common Core	**15 out of 18**
POL505 - Political Theories, Methodology and Political Science Challenges	3
POL510 - Comparative Political Systems	3
POL515 - Challenges of Globalization	3
POL520 - Current Events Issues	3
POL525 - Politics and Societies in the Mediterranean Area	3
POL530 - Political Communication	3
Specialization	**15 out of 18**
ADP550 - Public Politics and Administrative Law	3
ADP552 - Constitutional Law and State Theories	3
ADP554 - Sustainable Development and Resource Management	3
ADP556 - Federalism, Decentralization and Regional Cooperation	3
ADP558 - Political System and Administrative Organization in Lebanon	3
ADP560 - Political Challenges of Religions in Societies	3
Capstone	**6**
POL580A - Dissertation	6
Total	**36**

Master in Political Sciences - International Relations (Hybrid[i])

Mission

The mission of the International Relations department is to train students in theories and political and economic issues that shape the relations between states, by offering a program focused on the following topics:

- Conflict management
- The question of safety
- The political, economic and international issues of the Mediterranean region

Program Educational Objectives

1. Graduates will have the skills to negotiate and manage crisis situations as a diplomat or as part of a diplomatic type institutions.

[i] Hybrid: Courses offered in French and/or English

2. Graduates will have the ability to provide solutions in handling complex cases as head of unit in an international, regional or local organizations.
3. Graduates will have the ability to direct an NGO or international organization of active character in the humanitarian sector, and in the area of human rights and the application of international law.
4. Graduates will have the ability to defend complex or controversial ideas in public.

Program Outcomes

a. Students will manage diplomatic actions in the context of peace or war.
b. Students will be able to create multiple projects related to national and international affairs.
c. Students will defend ideas and actions related to the fields of human rights and international law.

Degree Requirements

Common Core	**15 out of 18**
POL505 - Political Theories, Methodology and Political Science Challenges	3
POL510 - Comparative Political Systems	3
POL515 - Challenges of Globalization	3
POL520 - Current Events Issues	3
POL525 - Politics and Societies in the Mediterranean Area	3
POL530 - Political Communication	3
Specialization	**15 out of 21**
RIN540 - Sociology of International Relations	3
RIN542 - Foreign Policy: Analysis of the Decision-making Process and Case Studies	3
RIN544 - International Migrations and Identity Issues	3
RIN546 - Mediation and Conflict Resolution	3
RIN548 - International Organizations, NGO's and Non-State Actors	3
RIN550 - Terrorism and International Security	3
RIN552 - International Economy	3
Capstone	**6**
POL580A - Dissertation	6
Total	**36**

Master in Diplomacy and International Security (Hybrid[i])

Mission

The mission of the International Relations department is to train students in the theories and political and economic issues that shape the relations between states, by offering a program focused on the following topics:

[i] Hybrid: Courses offered in French and/or English

- Conflict management
- The question of safety
- The political, economic and international issues of the Mediterranean region

Program Educational Objectives

1. Graduates will demonstrate the ability to evaluate the various political, geographical, and cultural contexts on the international stage.
2. Graduates will interpret conflicts at international level in order to provide appropriate strategies for resolving these conflicts.
3. Graduates will develop their oral and written skills to communicate in the context of diplomacy and international security.

Program Outcomes

a. Students will gain the methodologies of scientific research addressing various political, geographical, and cultural contexts on the international stage.
b. Re-frame the issues that encompass the international conflicts. They will be able to design and implement conflict resolution strategies.
c. Adapt the tools and techniques of oral and written communication to the specific needs of diplomacy and international security.

Degree Requirements

Common Core	**12**
POL515 - Challenges of Globalization	3
RIN546 - Mediation and Conflict Resolution	3
DIS530 - Introduction to Strategic Studies	3
RIN548 - International Organizations, NGOs and Non-State Actors	3
DIS535 - Foreign Policy Analysis	3
Specialization	**24**
RIN550 - Terrorism and International Security	3
DIS540 - War Studies	3
DIS545 - Diplomacy in Global Energy Policies	3
DIS550 - Diplomacy and Risk Analysis in the Current Geopolitical Situation	3
DIS555 - Diplomacy and International Migration	3
DIS560 - Diplomatic Management of Energy Security in the Middle East	3
DIS565 - Actions and Humanitarian Law	3
DIS570 - The Armed Forces in the Management of Security and Defense	3
DIS575 - Diplomatic Expression and Methodological Workshop	3
POL580A – Dissertation	6
Total	**36**

Online Certificate in Geopolitics of Lebanon and the Middle East (Eng.)

The Online Course on Geopolitics of Lebanon and the Middle East gives you the ability to:

- Continue to build your career in the right direction.
- Boost your career and academic experience by incorporating new techniques in a perpetually regenerating field
- Study and work at the same time
- Develop your skills in negotiation, decision-making and consulting
- Expand your knowledge on the Middle East.

Objectives and Outcomes

At the end of this course, students will have acquired:

1. Knowledge of the various definitions of Geostrategic and Geopolitics and their implications in the field of International Relations.
2. An understanding of the linkages among International Relations, Political Science, National Security policies, History, Political and Economic Geography, Geopolitics and Geostrategic.
3. Familiarity with theories of the state as a geographical and political unit, such as Geopolitics. Knowledge of Geostrategic/Geopolitical theories of land (Mackinder), sea (Mahan), air (de Seversky), etc. and their contemporary applications; in addition to emerging geostrategic theories involving the globalization of issue areas such as democratization, environment, and international political economy.
4. An understanding of the elements and nature of power, power analysis, and power projection in the world of politics, to include not only the traditional nation-state as actor, but also contemporary non-state phenomena such as multinational corporations and the environment as geostrategic factors.
5. An understanding of the geopolitical dynamics registered in the Middle East region and the geopolitical behavior of the regional and external potencies and great powers.
6. Awareness of the geostrategic implications related to contemporary international relations issues (outer space, globalization, international terrorism, etc.).
7. Capability of reading, understanding, and analyzing articles of varying complexity on Geopolitical topics.

Download the Brochure

Course Descriptions

ADP550 Public Politics and Administrative Law 3 cr.
This course provides tools for policy analysis, a central theme in political science. The analysis of public policy helps to identify practical and ideological conditions in which publication is developed, formulated and implemented. It combines the practical instruction of general administrative law based on various case studies.

ADP552 Constitutional Law and State Theories 3 cr.
This course offers a critical and comparative approach to constitutional law and the theory of the state, based on various case studies. Its content is structured around the questioning of the notion of state in Lebanon and the Arab countries, with regard to the sources of norms production and policies and legislative practices, in comparison with historical experiences the West has known, and other regions of the world (Indian subcontinent, Latin American world).

ADP554 Sustainable Development and Resource Management 3 cr.
Sustainable development is a current topic which is investing more and more public action in the management of natural, cultural and historical resources. This course offers both practical and theoretical instruction, for putting into practice in the Lebanese and regional situation.

ADP556 Federalism, Decentralization and Regional Cooperation 3 cr.
Federalism and decentralization are issues of debate in many countries including Lebanon. This course aims to provide students with practical knowledge through the study of case studies along with theoretical tools related to these fields.

ADP558 Political System and Administrative Organization in Lebanon 3 cr.
Deep knowledge and critical approach of the political system and the administrative organization in Lebanon are necessary for any student who is interested in public policy and who wants to pursue a professional career or conduct research in this area.

ADP560 Political Challenges of Religions in Societies 3 cr.
Pre-requisites POL211 And POL336 And POL213 And SPO431 And POL321 And POL212
"The 21th century will be religious or not" (attributed to André Malraux). It is clear that religions have become - or have again become - actors of international relations in the Middle East, but also in some European countries as rather acquired secularism. Key questions will be discussed in this course, including: How has Islam projected itself onto the world stages and its legitimacy to speak about religious conflicts in the Middle East or the Balkans? What is happening in Italy, where in November 2009 more than 80% of its population voted for maintaining its commitment to keeping crucifixes in the classrooms of public schools, just after the European Court of Human Rights decided on their removal in the name of freedom of conscience? This course will provide some answers while placing the Lebanese experience at the center of the debate.

DIS530 Introduction to Strategic Studies 3 cr.
The objective of this seminar is to provide the students with an introduction necessary to the understanding of current debates about the threats of security order. The first part of the course provides an introduction to theoretical interpretations of international security. The second part, it deals with general issues such as coercion and use of force, alliances, security cooperation, etc.

DIS535 Foreign Policy Analysis 3 cr.
This seminar focuses on a comparative study of various foreign policies (great powers, medium-sized powers in developing countries, etc.). This is a theoretical and empirical analysis of decision-

making in foreign policy. Several cases are examined in: European American foreign policy, Japanese, Chinese, etc., The policy period and routine in times of crisis will also be analyzed.

DIS540 War Studies 3 cr.

This seminar opens the debate on the theory of the causes and consequences of war. It leads a largely theoretical reflection at first, then deals with the impact of new global threats on the perception and the development of new armed conflicts. This seminar attempts to conceptualize approaches to improve clarity of the concepts related to the security issue, and then the imprecise (common security, preventive war, coercive or preventive diplomacy, etc). The last part is dedicated to the analysis of "a new kind" of armed conflicts.

DIS545 Diplomacy in Global Energy Policies 3 cr.

The 20th and 21st centuries saw the birth of several types of organizations dealing with the energy issues. From the International Atomic Energy Agency (IAEA), to the International Renewable Energy Agency, passing by the International Energy Agency (IEA), what are the different economic policies that have been discussed and applied to manage the energy sectors? This seminar attempts to provide answers taking into account the variety of the energy market (nuclear, oil, solar, wind, etc).

DIS550 Diplomacy and risk analyzes in the current geopolitical Situation 3 cr.

"Risk" is a term that can be defined as "the product of a hazard and a vulnerability." This seminar starts from the evolution of international diplomacy since World War II, to then look at the development of diverse strategic and military threats, threat perceptions, as well as the manipulation of perceptions.

DIS555 Diplomacy and International Migration 3 cr.

These are the countries of the southern hemisphere that supply the bulk of international migration flows. Several Western countries emphasize their security policies related to the international mobility. However, it is commonly accepted that if there were no borders, there would be no migrants. This seminar highlights the link between the phenomenon of migration, which creates security problems and various diplomatic strategies put in place for its management.

DIS560 Diplomatic Management of Energy Security in the Middle East 3 cr.

This seminar aims at shedding light on the evolution of the Middle East as oil and nuclear power. The oil producing states are rich countries but mostly rentier economies, heavily dependent on oil revenues. What diplomatic policy should be put in place knowing that this region is poised to be among the most polluting areas of the planet due to a significant increase in energy consumption? Other sources of energy are also discussed in this seminar: hydro, solar, wind, etc.

DIS565 Actions and Humanitarian Law 3 cr.

International humanitarian law is a set of rules designed to limit the effects of armed conflicts. It protects persons who are not taking part in hostilities. This seminar examines the development and implementation of international treaties and conventions, through an approach that is both theoretical (legal standards) and practical (diplomatic action, action on the ground). It attempts to answer the question to what extent international humanitarian law is able to protect the victims of armed conflicts.

DIS570 The Armed Forces in the Management of Security and Defense 3 cr.

This seminar explores the success of the armies in the field of defense and security in the local and international context, as well as other forces, implementation, evolution and the limits of military power. The approach of this course will focus on the relationship between military, political,

technological, and ethical, as well as military effectiveness and military occupations. Case studies are also planned to consolidate students' knowledge in this area.

DIS575 Diplomatic Expression and Methodological Workshop 3 cr.
This resolutely methodological seminar provides a thorough approach to diplomatic and political language that the students will have to apply in their future professional life. It also enables students to improve their writing skills with the aim of preparing the Master thesis, writing briefing notes, lecture notes, etc. and offers them the tools needed to progress in making public speaking and developing their performance.

POL211 Introduction to Political Science 3 cr.
Pre-requisites LFR120
This course defines the notion of policy. It questions the concepts of “Political Science” and the different “Political Sciences” with a focus on the field of policy. The concept of State is an important part in this introduction given the interdependence and complementarity between “political” and “State”.

POL212 Introduction to Geopolitics 3 cr.
Pre-requisites LFR120

This course offers an introduction to geopolitics, its development through history and, its different schools of thought. An analytical approach to the geopolitics of Lebanon and the Middle East is a key aspect of the course.

POL213 Introduction to International Relations 3 cr.
Pre-requisites LFR120

Beyond any theoretical perspective, this course presents the current state of international relations following the fall of communism; emphasizing the new world order, globalization, the role of the United States and its reappraisal.

POL224 Political Science Method 3 cr.
This course trains students on two levels: linguistic and reflexive. Its objective is to prepare students for the rigorous study in the Bachelor program. It aims to assist students in learning the working methods of political science. Several methodological tools will be taught for this purpose: linguistically, analysis and summaries of texts adapted to different areas of political science, lecture notes, presentations and oral argument, and on the reflexive level, mastery of techniques of dissertation writing, so students can learn to differentiate between personal thinking and personal opinion, engage in synthetic reflection, and present a mini-dissertation “research” applying the methods learned throughout the semester. This course is meant to be participative and students are advised to take this course at the beginning of their degree program.

POL225 Elements of Constitutional Law 3 cr.
This course aims to introduce students to the constitutional rights through the perspective of a political science. It presents the main principles of constitutional law; such as, separation and balance of powers, the various political regimes, institutional bodies as well as those essential to political and social life - parties, unions, etc.

POL226 Political Economy 3 cr.
This course aims, first, to analyze the microeconomic behavior; the subjective individual behavior of consumers and producers. The interaction between these two types of individuals, with the goal of maximizing their satisfaction, leads to the study of the market including the law of supply and demand and the equilibrium price. Thus, the analysis of competition in a market will be studied as

well as non-competitive situations, such as, monopoly, monopsony, duopoly, oligopoly, etc. Then, individual behavior will be analyzed as a whole using the macroeconomic approach, including the relationship between large aggregates: GDP, consumption, unemployment, Gross Fixed Capital Formation, Export, and Import. This study will consider the different theoretical approaches concerning the choice of economic policy including monetary and fiscal policies for a country or a group of countries.

POL321 Modern and Contemporary Political History 3 cr.
The course focuses on the political, economic and sociological landscape covering the major issues of the twentieth century: the world wars, colonization, the East-West confrontation, the Cold War, decolonization, the disintegration of the USSR, the fall of the Berlin Wall, the European integration, US hegemony, the new international order resulting from the Gulf War, etc.

POL322 Modern and Contemporary Political History of the Middle East 3 cr.
This course focuses on the major constituent events in the modern and contemporary political history of the Middle East. It highlights fundamental aspects of the emergence and evolution of this region: the fall of the Ottoman Empire and its impact, Franco-British colonization, independences and confrontation with the State of Israel, etc.

POL331 European Union: History, Organization and Political Challenges 3 cr.
This course covers the history of the European Union and the political and economic context of its foundation. It deals with its organization, its institutions, its political issues, particularly those of its foreign policy, its economic power, etc. It addresses geographical, cultural, religious and linguistic features and their role in the formation of the European Union and in its enlargement. It focuses on the Euromed project that encompasses the countries of the European Union and the Mediterranean.

POL333 Human Geography of Lebanon and Arab Countries 3 cr.
This course aims to introduce the topics of human settlement in Lebanon and the Arab countries, the phenomena of migration, and human activity, such as agriculture, industry and services.

POL334 Political Regimes of Arab Countries 3 cr.
This course reveals the dominant features that constitute the characteristics of political regimes in the various Arab countries by comparing their respective constitutions.

POL335 Politics and Mass Media 3 cr.
Political power remains voiceless or even nonexistent if it does not communicate with the masses, and it is put in danger if it communicates poorly. At its worst it can become autocratic, communicating one way. This course is responding to the question of how to call upon mass communication without manipulating which, this is the policy issue in democracy and the main focus of this course.

POL336 History of Political Thought 3 cr.
Pre-requisites POL211

This course covers the history of political thought, from ancient times to contemporary history. Particular attention is paid to concepts such of democracy, citizenship, the birth of the states, revolutionary movements, liberalism, socialism and conservatism.

POL505 Political Theories, Methodology and Political Science Challenges 3 cr.
This course is devoted to issues of political science research, from theoretical and methodological points of view, and it proposes to revisit the major themes that characterize the discipline. What

are the main research areas favored by political scientists today? What are the theoretical implications? What impact can political science research have on the societies studied?

POL510 Comparative Political Systems 3 cr.

The comparative study of contemporary systems is a relatively recent development in the field of political systems and this course focuses on the comparative analysis of different Western political systems in particular. There will be an emphasis on the practice of comparing systems, comparing and classifying what is studied in order to achieve a generalization or a developing a better explanation. Political science is no exception to the rule and comparative work makes up a significant part of the analysis conducted on the diversity of socio-political phenomena around which the discipline is built. The methodological approach of this course will combine comparative analysis by subject and then by country. Throughout this course students will be invited to participate in an active way.

POL515 Challenges of Globalization 3 cr.

This course provides a multidisciplinary approach to the challenges of globalization, with a particular emphasis placed on its scope and its economic consequences. We will discuss the much debated theoretical questions about globalization, and combine it with an analysis of changes in the balance between powers in the 20th and 21st centuries, including the decline of traditional powers, the emergence of new regional powers, the multiplication of decision centers, and the role of international governance in organizations.

POL520 Current Events Issues 3 cr.

This course is a set of practical activities focused on current issues. Presentations and press releases, the writing of book reviews and synthesis, and participation in simulation debates are all exercises that will allow students to gain practical and working methods in close contact with the current themes of international, regional and national politics.

POL525 Politics and Societies in the Mediterranean Area 3 cr.
Pre-requisites POL211 And POL336 And POL213 And SPO431 And POL321 And POL212

The Mediterranean area is now at the center of international and European policy. Mediterranean societies have a long and rich history, but it is their contemporary problems and issues that interest us the most in this class. We will also pay special attention to their common points and differences in order to better understand this region.

POL530 Political Communication 3 cr.

This course aims to give students a theoretical analysis framework to understand the practical issues of political communication. Thus, the seminar aims to assess the different types of political effects and to understand strategies and communication practices during the development, elaboration and the implementation of public policy.

RIN431 Diplomatic and Consular Law 3 cr.
Pre-requisites POL225

This course is about the organization of diplomatic and consular posts, and the immunities and privileges attached to it according to the Vienna Conventions.

RIN432 Public International Law **3 cr.**

This course deals with the law governing relations between States, its historical evolution, and the main international conventions, focusing on issues within political science.

RIN433 Geopolitics of World Energy 3 cr.

The course introduces students to the different types of energies: oil, gas, uranium, and the producing countries (MENA, Iran, and Russia, countries of the Caspian Sea, OPEC members, and African countries).

It examines the growth of energy needs, demand and supply, the role of the main international energy international organizations, and international treaties related to production, trade and the exploitation of energy.

Finally, this course analyses the place of energy in world and regional politics.

RIN441 Existing and Emerging World Powers 3 cr.

Pre-requisites POL321

This course covers the political and economic issues of world powers: the United States, France, Britain, Germany, and Russia. It also addresses the emerging world powers: China, India, Brazil, and South Africa.

RIN442 Transnational Movements 3 cr.

This course deals with movements that do not position themselves necessarily under the traditional influence of the states, whether NGOs, lobbies, or Diasporas, all of which seem to obey their own logic. This class mainly attempts to explain their recent development, especially through international social movements, in the field of environmental protection and the phenomenon of globalization.

RIN443 The Arab-Israeli Conflict 3 cr.

Pre-requisites POL322

This course considers the history of the Arab-Israeli conflict since the founding of the State of Israel and its impact on the regional and international political map, including: the interference of international powers in this conflict, the political contexts of the wars of 1956, 1967, 1973, 1982, and the process of peace (the peace conference in Madrid, the Oslo Accords, and the peace treaty between Israel and Jordan), the problem of the Golan Heights and the Shebaa Farms.

RIN444 Water Issues in Regional Politics 3 cr.

This course considers the issue of waters and rivers in Turkey and in the Middle East, international and interstate conventions and agreements concerning water, strategies and regional water conflicts, large water projects established and executed in the region, the water needs of states and water projects in Lebanon.

RIN451 Theories of International Relations 3 cr.

This class will focus on the most important schools of thought and their approach to international relations. The main theoretical movements that will be covered include: Realism, Liberalism, Transnationalism, Marxism and Constructivism.

RIN452 Regional and International Organizations 3 cr.

This course offers an historical overview of international organizations since 1944, and tries to establish a classification system of these organizations depending on their competences, structures and missions on the level of international or regional organization, cooperation or integration. The course will particularly focus on the Arab League and specific UN organizations.

RIN540 Sociology of International Relations 3 cr.

This course addresses the major issues of the sociology of international relations and aims to provide students with the appropriate tools for analyzing the complexity of power relations in the world.

RIN542 Foreign Policy: Analysis of the Decision-making Process and Case Studies 3 cr.

This is a theoretical and practical course that aims to decipher the decision-making process in foreign policy through case studies. This course focuses on practices and instruments of foreign policy. Diplomats and experts in the field will bring a practical dimension to the topics covered.

RIN544 International Migrations and Identity Issues 3 cr.

International migration motivated by economic, political and/or security reasons are among the most striking phenomena of the modern world, especially in the Middle East region.
Beyond the history and sociology of the migration of Lebanese people, this course aims to capture the global, political and security issues of migration and the questions they raise about issues of identity.

RIN546 Mediation and Conflict Resolution 3 cr.

The demand for expertise in mediation and conflict resolution is under constant development, because conflicts and tensions are on the increase in our society, whether at the political level or in other fields. This seminar aims at answering this demand by providing highly practical tools and methods to help our students become more efficient negotiators.

RIN548 International Organizations, NGO's and Non-State Actors 3 cr.

International organizations, governmental and nongovernmental, play an increasingly important role in the world and in the region in particular. This course offers students practical knowledge about the functioning of key international organizations, as well as the practical details and governance of the countries in which they operate, in humanitarian work, public assistance development or international cooperation.

RIN550 Terrorism and International Security 3 cr.
Pre-requisites POL211 And POL336 And POL213 And SPO431 And POL321 And POL212

This course discusses some theories of the causes and consequences of terrorism. The first part of the course provides a good background concerning the discipline of terrorism and counterterrorism studies. Indeed, this course offers the chance to develop an understanding of the scope and nature of terrorism as it relates to the Middle East. Students will develop the ability to differentiate between varying forms of terrorism in relation to the political and societal context from which they originate and the differing domestic, regional and international responses they provoke. The last part of this course provides the tools to analyze and to understand the new kind of terrorism (cyberterrorism, bioterrorism, etc…) and the new counterterrorism strategies.

RIN552 International Economy 3 cr.

International economics deals with economic relations between nations. It seeks essentially to account for the reasons for their exchange and for the effects of international trade on the structure of economies. The simplest questions are directly related to foreign trade analysis: Why exchange? Is this a gain or loss? What determines the structure of foreign trade of the countries? How are fix the prices of traded goods fixed, while production costs are not the same in different countries? Other more detailed issues relate to the interaction between trade and economic and social development: How will international integration will affect inequalities between nations? What are the interrelationships between external openness and growth? , and, furthermore, normative trade policy issues, such as: Should imports to be taxed and should we promote exports? These questions are addressed throughout the course.

SOC218 Statistics Applied to Human Sciences I 3 cr.

Most of the analysis in human and social sciences and decision-making is founded on statistical data. Students will work individually on data collected either in their research or in their professional lives. This course provides students with the tools and knowledge required to present data in tables and graphs, how to analyze the characteristics of a statistical distribution, and how to study the correlations between two variables. Particular attention is devoted to the choice of statistical methods and interpretation of results.

SOC218 Statistics Applied to Human Sciences I 3 cr.

Most of the analysis in human and social sciences and decision-making is founded on statistical data. Students will work individually on data collected either in their research or in their professional lives. This course provides students with the tools and knowledge required to present data in tables and graphs, how to analyze the characteristics of a statistical distribution, and how to study the correlations between two variables. Particular attention is devoted to the choice of statistical methods and interpretation of results.

SOC422 Political Sociology 3 cr.

This course focuses on the central theme of power. This topic is treated in two parts with sub-themes which are integral to the central issue of the course. In the first part of the course, students will be introduced to the notion of power and how it is undeniably linked to politics in its relation to the state and social actors. The second part of the course encourages reflection and questioning in relation to power, demonstrated through the study of different thinkers and sociologists of the twentieth century. Students learn not only to handle the theoretical concepts but also how to reflect on them in a methodical way, moving back and forth between sociological conceptualization and political reality.

SPO431 Principles of Law 3 cr.

The aim of this course is to introduce the students to the basic legal principles of law applied in Lebanon, with an emphasis on civil law, the penal code, and the commercial code, etc.

SPO432 Conflict Theories 3 cr.

This course provides a classification of different types of conflicts; for example, intra-state or sub-state, guerrilla wars of independence, etc. It also outlines the forms and economies of violence.

SPO441 Contemporary Political Thought in the Arab-Muslim World 3 cr.

This course examines the different political thought of the Arab-Muslim world from the late 19th century to present, including fundamentalist political Islam, the Arab national movement of the late 19th century, the liberal modernism influenced by West, Arab nationalism against the Franco-British occupation, projects of Arab unity, Arab socialism, and current political Islamism.

SPO442 Negotiations and Conflict Resolutions 3 cr.
Pre-requisites SPO432

This course is of practical nature, intended to prepare students to address the different forms of international negotiations: individual diplomatic negotiations, labor delegations, international trade negotiations, how to resolve political, ethnic, community, and economic conflicts. This education is provided by practitioners in the field, such as diplomats and international businessmen.

SPO451 Lebanon's Political Regime 3 cr.
Pre-requisites POL 211

This course covers, in detail, aspects of the Lebanese political system, the various political powers and their ways of operating, including, the Office of the President, Cabinet, Parliament, and judicial

practices. This course also explains the community structure in Lebanon. It also introduces students to the Lebanese Constitution and its evolution since1926.

SPO452 Administrative Organization of Lebanon 3 cr.

This course deals with the Lebanese central government, its structure and its various institutions, its hierarchy, and the main laws governing its operation. It then discusses the decentralized authorities, municipalities, and autonomous offices. It also examines the Lebanese administrative courts (Council of State and Conflict Tribunal).

SPO453 Lobbies and Political Parties in Lebanon 3 cr.

This course familiarizes students with the different Lebanese political parties, political movements, factions, political trends, groups of interests, and lobbies, with their doctrines, principles, preferred type of organization and internal structure. The course examines their relation with the state and legal institutions.

SPO461 Analysis of Political Texts 3 cr.

Pre-requisites POL211 and POL224

This course aims to introduce students to the analysis of political texts, manifestos, declaration, charter, treaties, constitutions, political speeches and press releases, etc. The analysis of the text allows the student to build a rich and varied political terminology related to the specialization.

Faculty of Letters

Overview

Established in 1962, the Faculty of Letters developed progressively in keeping with the University's ever-increasing growth. The Faculty broadened its academic achievements by founding the following divisions: the Institute of History (1971); the Language Centre (1970); the Department of Interpretation and Translation (1993); the Department of French Language and Literature (1997); the Department of English Language and Literature (2001); the Department of Arab Language and Literature (2002); the Department of Applied Modern Languages with an option in Business and Trade (2002); and the Department of Journalism and Communication(2007).

The Faculty of Letters aims to train professionals in fields for which there is much demand nowadays in Lebanon. These include multilingual operators in companies, translators in media and publishing institutions among others, interpreters in international conferences and forums, and Arabic, French or English literature and language teachers, as well as high-school history teachers. The Faculty also trains written press specialists.

The Language Centre meets the needs of executives and employees in Lebanese companies by providing them with a thorough grounding and training in the main modern languages, namely English, German, Italian, Spanish and French. Moreover, this center gives students of the Interpretation and Translation Department the advantage of on-the-spot courses to consolidate their knowledge of several modern languages.

The degrees delivered by the Faculty are all acknowledged by the Lebanese State.

While aiming to satisfy its students' literary ambitions, the Faculty of Letters takes particular interest in providing them with general and art knowledge in all fields, developing their critical thinking and their sense of the truth, and granting them the vocational competences that serve the purpose of human openness and intercultural dialogue in Lebanon and the modern world.

In keeping with the University's new orientations, the curricula underwent reform in 1999 and the annual system was replaced by the credit system while the content of subject matters was, for the most part, preserved. The objective of this reform was to grant the students additional mobility and flexibility in choosing their courses at the university in keeping with international standards.

The Faculty of Letters consists of the following departments/programs:

Department of French Language and Literature

- Bachelor of Arts in Language and Literature
  Emphasis:
    - French Language and Literature

- Master of Arts in French Language and Literature
- Ph.D. in French Language and Literature

Department of English Language and Literature

- Bachelor of Arts in Language and Literature
  Emphasis:
    - English Language and Literature
- Master of Arts in English Language and Literature
- Ph.D. in English Language and Literature

Department of Arabic Language and Literature

- Bachelor of Arts in Language and Literature
  Emphasis:
    - Arabic Language and Literature
- Master of Arts in Arabic Language and Literature
- Ph.D. in Arabic Language and Literature

Department of Interpretation and Translation

- Bachelor of Arts in Modern Languages and Translation
- Master of Arts in Translation
- Diploma in Interpretation
- Ph.D. in Language Sciences and Traductology

Department of Journalism and Communication

- Bachelor of Arts in Journalism and Communication
- Master of Arts in Journalism and Communication
- Master of Arts in E-Journalism and E-Communication

Administration and Full-time Faculty

Prof. Nicole Saliba-Chalhoub, Professor, Dean
Dr. Samar El Hage, Associate Professor, Associate Dean, Head of French Language and Literature Department
Prof. Joseph Chraim, Professor, Head of Letters Doctoral Commission, Head of Interpretation and Translation Department
Dr. Rita Khater, Assistant Professor, Head of Arabic Language and Literature Department
Dr. Mirna Abou Zeid, Associate Professor, Head of Journalism and Communication Department
Dr. Pamela Layoun, Assistant Professor, Head of English Language and Literature Department
Dr. Linda Rizk Saber, Assistant Professor, Director of History Institute (Affiliated to the Faculty of Letters)
Prof. Mireille Issa, Professor, Head of the Latin Studies Center
Dr. Ranya Salamé, Associate Professor, Director of USEK Cultural and Language Center
Dr. Christelle Stephan-Hayek, Associate Professor, Head of the French Section at the Language Center (USEK Cultural and Language Center)
Dr. Rabih Nabhan, Assistant Professor, Head of the English Section at the Language Center (USEK Cultural and Language Center)
Dr. Randa Saliba-Chidiac, Assistant Professor, Assistant to the Head of the English section at the Language Center (USEK Cultural and Language Center)
Dr. Rita Khalil-Khoury, Course Coordinator for the Journalism and Communication Department
Dr. Talal Wehbé, Associate Professor, Translation Coordinator
Mrs. Daisy Waked Azar, Lecturer
Rev. Fr. Karam Rizk, Professor
Dr. Rima Mattar-Mazraani, Assistant Professor
Prof. Rosie Khoury-Ghannage, Professor

Programs of Study - Undergraduate Programs

Bachelor of Arts in Language and Literature

Emphasis

- Arabic Language and Literature
- French Language and Literature
- English Language and Literature

Mission

The mission and objectives of the program are to develop the undergraduate students' communicative competence in Arabic / English / French and critical thinking skills to develop writing and speaking skills and to interpret literature. It works toward forming students academically and endeavors to achieve intercultural dialogue between these languages. It also provides the students with the educational resources that enhance their appreciation of the significance of the language and literature in the world today and promote cultural exchanges between Lebanon, the region and the world. Thus, it will allow graduates to have successful careers in education, editing, or writing.

Program Educational Objectives

1. Graduates will become educators in Arabic / French / English language as first language in the complementary cycle of the Lebanese school system.
2. Graduate will become educators in the literary texts and writers integrated to the program of the complementary cycle of the Lebanese school system.

Program Outcomes

a. Classify literary works and explain basic concepts of literature;
b. Analyze literary works critically;
c. Distinguish and explain basic linguistic concepts;
d. Use linguistic knowledge to analyze real-life situations critically;
e. Apply different literary theories to evaluate literature;
f. Apply various linguistic approaches to evaluate real-situation texts;
g. Write effectively for different purposes;
h. Communicate effectively and use speaking skills for various purposes;
i. Relate language and literature to wider social and historical contexts;
j. Demonstrate knowledge and awareness of varied cultural situations relation to literature and language.

Degree Requirements

General Education	**30**
General Education - Arts and Humanities	6
General Education - Behavioral and Social Sciences	6
General Education - Civic Engagement	2

General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Quantitative Reasoning	3
General Education - Science and Health	3
General Education - Sports	1
General Education - Religious Sciences	3
Common Core	**21**
ARA210 - Advanced Arabic	3
ARA310 - Techniques of Expression in Arabic	3
ELL214 - English Grammar and Composition	3
ELL314 - Advanced English Communication Skills	3
LFR201 - Advanced French Course	3
LFR216 - Techniques of Expression in French	3
TRD220 - Initiation to Translation	3
Emphasis: Arabic Language and Literature	**45**
LLA212 - Introduction to Linguistics	3
LLA222 - Introduction to Rhetoric and Stylistics	3
LLA224 - Introduction to the Study of Literary Genres	3
LLA312 - Pre-Islamic and Umayyad Epochs	3
LLA315 - Novel and Theater	3
LLA316 - Literature in the Abbasids Era	3
LLA318 - Arabic Morphology and Syntax	3
LLA319 - Evolution of the Arabic Prose and Poetry	3
LLA323 - Literature in the Mamluk and Ottoman Era	2
LLA324 - Literature in the Renaissance Era	3
LLA325 - Literature in the Andalusian Era	2
LLA326 - Overseas Arabic Literature	2
LLA411 - Comparative Literature	3
LLA412 - Arabic Linguistics Problems	2
LLA415 - Lebanese Popular Heritage	2
LLA423 - Modern and Contemporary Arabic Literature	2
Capstone	
LLA413 - Modern and Contemporary Arabic Criticism	3
Emphasis: French Language and Literature	**45**
LFR211 - Introduction to the Poetics of Texts	3
LFR220 - History of French Literature I	3
LFR221 - Literature Culture and Society	3
LFR222 - General and Comparative Literature	3
LFR224 - Elements of Linguistics	3
LFR310 - Literatures and Cultures of Francophonie	3
LFR316 - French Morphology and Syntax	3
LFR320 - History of French Literature II	3
LFR322 - Imaginaries and History	3
LFR409 - Topics in French Literature	3
LFR411 - Latin Language and Civilization	3
LFR419 - Literary Essays	3

LFR420 - Literary Readings	3
LFR421 - Lebanese Literature	3
Capstone	
LFR412 - Critical Approach	3
Emphasis: English Language and Literature	**45**
ELL210 - Introduction to Linguistics	3
ELL221 - Introduction to Poetry	2
ELL222 - Survey of English Literature I	3
ELL223 - Sophomore Rhetoric	3
ELL310 - Survey of English Literature II	3
ELL311 - Introduction to Drama	3
ELL313 - English Morphology and Syntax	3
ELL321 - History of the English Language	3
ELL322 - Development of English Poetry	3
ELL323 - Development of the English Novel	3
ELL324 - American Literature	3
ELL411 - The Age of Shakespeare	3
ELL412 - Comparative Literature	3
ELL413 - Special Topics in the English Language	2
ELL421- Special Topics in Literature	3
Capstone	
ELL410 - Literary Criticism	3
Total	**96**

Bachelor of Arts in Modern Languages and Translation

Mission

The mission of the Department of Modern Languages and Translation is to enable students to promote inter-linguistic communication. They will achieve a complete knowledge and practice of Arabic, French and English - simultaneously with the other international languages elective acquisition - as well as the art of translation and interpretation from one of these languages into another. Together with their increased professional standing, graduates will be in a position to equip Lebanon, at the confluence of the East and the West, with a historically healthy multilingualism and a capacity for openness, dialogue, communication and exchange, providing enrichment at all levels: economic, socio-political, educational and cultural etc. The Department is concerned with promoting multilingualism and rewardingly, to train professionals in the practice of written translation and interpretation.

Program Educational Objectives

1. Enable our future professional translators to communicate successfully in Arabic, French and English in multicultural contexts, in order to produce quality translations.
2. Train our future graduates to teach translation and modern languages in primary and secondary classes.
3. Build the professional competencies and skills of our future graduates who leave us equipped with lifelong learning habits.

Program outcomes

a. Students will acquire an ability to teach English.
b. An ability to teach the French language.
c. An ability to teach Arabic.
d. An ability to work in the development of bilingual glossaries.
e. An ability to teach general translation.
f. An ability to contribute to the lingual monitoring in their native language, Arabic.
g. An ability to contribute to lingual monitoring in a foreign language.
h. An ability to perform economic specialist translations.
i. An ability to perform legal specialist translations.
j. An ability to intervene in international negotiations and mediations.

Degree Requirements

General Education	**30**
General Education - Arts and Humanities	6
General Education - Behavioral and Social Sciences	6
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Quantitative Reasoning	3
General Education - Science and Health	3
General Education - Sports	1
General Education - Religious Sciences	3
Common Core	**15**
ARA210 - Advanced Arabic	3
ARA310 - Techniques of Expression in Arabic	3
ELL214 - English Grammar and Composition	3
LFR201 - Advanced French Language Course	3
LFR216 - Techniques of Expression in French	3
Common Core - Elective	**3 out of 6**
ANG411 - Modern Cultural Issues in English	3
LFR205 - Modern Cultural Issues in French	3
Specialization	**48**
DRT305 - Business Law Terminology	3
ELL313 - English Morphology and Syntax	3
LFR316 - Morphology and Syntax	3
LLA318 - Arabic Morphology and Syntax	3
TRD220 - Initiation to Translation	3
TRD310 - Methodology and Rules of Translation	2
TRD321 - General Translation A-B/B-A	3
TRD322 - General Translation A-C/C-A I	3
TRD411 - General Translation A-B/B-A II	3
TRD415 - Computer-Assisted Translation	2
TRD416 - Linguistics and Translation	3
TRD421 - Legal Translation A-B/B-A	3

TRD423 - General Translation A-C/C-A II	3
TRD424 - Economic Translation A-B/B-A	2
TRD425 - Economic Translation A-C/C-A	3
TRD428 - Conference Translation A, B, C	3
TRD429 - Sight Translation A, B, C	3
Total	**96**

Bachelor of Arts in Journalism and Communication

Mission

This program is designed to prepare students to become professional media practitioners (reporters, editors, copywriters, designers and layout artists, etc.) and communication professionals. The curriculum will improve their techniques of expression and communication, and develop their capacities to understand, analyze and judge events and social phenomena, providing leading research and generating knowledge.

Program Educational Objectives

1. Acquire strong academic knowledge of the state of the art in journalism and communication.
2. Develop professional skills (writing, reporting, editing, shooting, filming…).
3. Practice journalism and communication in various types of media.

Program outcomes

a. Students will use different techniques of expression in different contexts to elaborate a correct and coherent text in a target language.
b. Collect, analyze and communicate information using specific methods in journalism.
c. Implement audiovisual and multimedia technology, and demonstrate working knowledge to produce effective communication.
d. Acquire necessary knowledge to understand and analyze social, political and historical events, as well as economic issues.
e. Identify and employ ethical standards.
f. Select and use appropriate communication strategies
g. Integrate required knowledge and skills to be professional practitioners (writers, reporters, editors) using specific norms and techniques.
h. Develop the ability to edit and write effectively for a variety of media.
i. Produce a report summarizing experience during traineeship.
j. Select and integrate theories of journalism in the work field.

Degree Requirements

General Education	**30**
General Education - Arts and Humanities	6
General Education - Behavioral and Social Sciences	6
General Education - Civic Engagement	2

General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Quantitative Reasoning	3
General Education - Science and Health	3
General Education - Sports	1
General Education - Religious Sciences	3
Common Core	**22**
ARA210 - Advanced Arabic	3
JCM200 - Information and Communication Methodology	2
JCM229 - Journalistic Writings Workshops	3
JCM310 - Communication Theories	3
JCM322 - General Contemporary History (Current World Issues)	3
JCM418 - Sociopolitical Communication	2
JCM419 - Advertising Communication	2
JCM427 - Semiology of the Media Image	2
JCM428 - Analysis of the Media Discourse	2
Specialization	**39**
JCM201 - History of Media	2
JCM203 - Techniques of Journalistic Expression	3
JCM221 - Political Economy of Media	2
JCM228 - Data Collection and Analysis in Journalism	3
JCM314 - Journalism Genres	3
JCM315 - Television Report Techniques	3
JCM316 - Media Law and Deontology	3
JCM324 - Media and Society	3
JCM326 - Multimedia Journalism	3
JCM327 - Specialized Press	2
JCM328 - Photojournalism	2
JCM415 - Media Techniques: Newspapers	2
JCM416 - Media Techniques: Radio	2
JCM417 - Media Techniques: Television	2
JCM425 - Media Geopolitics	2
JCM426 - News Agencies	2
Specialization - Elective	**3 out of 6**
JCM224 - General Journalistic Translation A-C/C-A	3
JCM225 - General Journalistic Translation A-B/B-A	3
Capstone	**2**
JCM429 - Professional Internship	2
Total	**96**

Programs of Study - Graduate Programs

Master of Arts in French Language and Literature

Mission

The program aims to train students to become French language and literature teachers in both complementary and secondary cycles, within colleges for which French is the first language of instruction. It also aims to train them to be able to form and write literary and linguistics criticism through media and communication fields, or through scientific research.

Program Educational Objectives

1. Graduates will be able to teach French language and literature in the complementary and secondary school cycles.
2. Graduates will be able to make literary and linguistics criticism.
3. Graduates will be able to conduct a research.

Program Outcomes

a. Students will acquire the ability to teach linguistical and stylistical characteristics of French language, as well as literature contents and specifications in the Secondary Cycle of the Lebanese school system.
b. An ability to produce a literary and linguistics criticism (publishing, cultural press, etc.).
c. An ability to join a research center and produce research.

Degree Requirements

Common Core	**3**
MTR500 - Research Methodology	3
Specialization	**33**
LFR520 - Culture and Modern Civilization Seminar	2
LFR521 - French Literature Seminar I	3
LFR522 - French Literature Seminar II	3
LFR524 - French Linguistic Seminar I	3
LFR525 - French Linguistic Seminar II	3
LFR526 - Seminar: Theater	3
LFR610 - Seminar: Comparative Literature	3
LFR612 - Seminar: General Linguistics	3
LFR621 - Seminar: French or Francophone Literature	2
LFR623 - Seminar: Pragmatics	2
LFR690A - Master Dissertation	6
Total	**36**

Master of Arts in English Language and Literature

Mission

The mission of the Master of Arts program in the Department of English Language and Literature is to prepare postgraduate students for advanced research in English linguistics and literature and complement their knowledge of contemporary linguistic and literary issues by providing them with the educational resources that further develop their critical thinking and research skills. The program will support research of issues related to the English language, literature and culture in the world today and enable graduates to have successful careers in education, editing, publishing, writing, or English communication-related professions.

Program Educational Objectives

1. Graduates will be active members of their community by teaching the English language and literature in schools and universities or working in fields which require English language skills.
2. Graduates will be active members of their community by taking on various professional positions requiring advanced training and research in the English language and literature.
3. Graduates will be ready for national and international careers with the necessary English language skills as educators, editors, writers, analysts or communication professionals.

Program Outcomes

Students will

a. Classify contemporary literature and apply literary theories to various texts.
b. Explain contemporary linguistic phenomena and apply linguistic theories to real-situation texts.
c. Develop research skills.
d. Analyze critically and apply various linguistic and literary concepts as part of research endeavors.
e. Develop academic writing.
f. Utilize the latest educational techniques and skills to teach and assess the teaching of English as a foreign language.
g. Analyze the significance of culture in language and literature production.

Degree Requirements

Common Core	**3**
MTR500 - Research Methodology	3
Specialization	**27**
ELL520 - Culture and Modern Civilization Seminar	2
ELL521 - English Literature I	3
ELL522 - English Literature Seminar II	3
ELL524 - English Linguistics Seminar I	3
ELL525 - English Linguistics Seminar II	3

ELL526 - Literary Issues	3
ELL610 - Seminar: Comparative Literature	3
ELL612 - Seminar: Applied Linguistics	3
ELL621 - Seminar: English Literature	2
ELL623 - Seminar: English Language Acquisition	2
Capstone	**6**
ELL690A - Master Dissertation	6
Total	**36**

Master of Arts in Arabic Language and Literature

Mission

The mission of Master of Arts in Arabic Language and Literature is to enable students to reach highly professional aims in literary criticism and language analysis, as well as in producing texts and discourses in the field of academic research. Advances in the latter are conditional on an extended knowledge of global literature, literary criticism, and linguistics.

Program Educational Objectives

1. Graduates are trained to carry out research in the areas of Arabic language and literature.
2. Graduates are trained to compare key literary texts and important writers with texts and writers of world literature.
3. Graduates are trained in writing Master's theses (choosing a subject, formulating a research question and a literature review, designing an outline, writing and implementing a methodology).

Program Outcomes

Students will:

a. Apply the rules of the methodology in conducting scientific research.
b. Apply technical and formal rules of the methodology in the presentation of scientific articles.
c. Locate the place of different cultures, in particular the movement of universal civilizations.
d. Identify the impact and reciprocal influences between Arab civilization and other universal civilizations.
e. Relate the contribution of language to modern and contemporary Arab literary studies.
f. Examine the contribution of Arabic literature to global literature.
g. Apply various types of textual approaches.
h. Evaluate Arabic literature and its relationship to foreign literature in a comparative perspective.
i. Examine the impact of modern drama on contemporary Arab societies.
j. Propose new topics and formulate research questions for MA theses.

Degree Requirements

Common Core	**5**
LLA520 - Seminar: Contemporary Culture and Civilization	2
MTR500 - Research Methodology	3
Specialization	**25**
LLA511 - Seminar: Literature I	3
LLA512 – Seminar: Linguistics I	3
LLA521 - World Literature	3
LLA522 - Textual Approaches	3
LLA523 - Seminar: Modern Theatre	3
LLA610 - Seminar: Arabic literature II	3
LLA612 - Seminar: Arabic Linguistics II	3
LLA621 - Seminar: Comparative Literature	2
LLA623 - Seminar: Civilization and Literature Topics	2
Capstone	**6**
LLA690A - Master Dissertation	6
Total	**36**

Master of Arts in Translation

Mission

The mission of the Department of Modern Languages and Translation is to allow its Master students to hone their specialization in technical translations and to comply with the requirements of academic research; so that they can perform the tasks assigned to them in their countries and inter-linguistic and intercultural vocation.

Program Educational Objectives

1. Graduates are trained in general translation and specialize in translation for agencies and publishing houses.
2. Graduates are trained in teaching translation in complementary and secondary education.
3. Graduates will be trained in University research.

Program Outcomes

a. Students will perform general translations of books.
b. Perform economic translations of books.
c. Perform legal translations of books.
d. Perform scientific and technical translations of books.
e. Perform oral translations and interpretation.
f. Perform editorial press and media translations.
g. Perform subtitle translation for cinema and television.
h. Be able to teach translation in schools.
i. Be able to play the role of mediator in multilingual negotiations.
j. Be able to conduct academic research.

Degree Requirements

Specialization	36
ANG520 - Techniques of Expressions in English	2
MTR501 - Research Methodology	2
TRD511 - General Thematic Translation A-B/B-A	2
TRD514 - Economic Translation A-B/B-A II	2
TRD520 - Economic Translation A-C/C-A II	2
TRD521 - General Thematic Translation A-C/C-A	2
TRD526 - Legal Translation A-B/B-A; A-C/C-A	2
TRD527 - Seminar: Contemporary Culture and Civilization	2
TRD528 - Technical and Scientific Translation A-B/B-A ; A-C/C-A	2
TRD529 - Film Translation: Subtitling and Dubbing	2
TRD620 - Liaison Interpretation A, B, C	2
TRD621 - Editorial and Economic Translation A-B/B-A	2
TRD622 - Editorial and Economic Translation A-C/C-A	2
TRD623 - Legal Translation A-B/B-A II	2
TRD624 - Legal Translation A-C/C-A	2
TRD690A - Master Dissertation	6
Total	**36**

Diploma in Interpretation

Mission

The Mission of the Interpretation Department is to train conference interpreters by offering them an intensive training in consecutive and simultaneous interpretation and providing them with the required skills and knowledge, in order to integrate them into the world of international organizations and other private and public institutions.

Program Educational Objectives

1. Graduates will be trained for consecutive interpretation in Arabic, French and English.
2. Graduates will be trained for simultaneous interpretation from and into Arabic, French and English.
3. Graduates will be able to teach languages (Arabic, French and English).

Program outcomes

a. Students will understand a source text.
b. Identify the language difficulties for each text.
c. Interpret any text from Arabic, English or French.
d. Reorganize ideas in the target language.
e. Interpret the hidden meaning of any text.
f. Translate, on sight, any text from and into three languages.
g. Recognize the particularities of each language.
h. Master the logical transition from one idea to another.
i. Master note-taking in Arabic, French and English.
j. Come up with a perfectly comprehensible orally translated text.

Degree Requirements

Specialization	**69**
INT550 - Consecutive Interpretation A-C I	3
INT551 - Sight Translation A-B/B-A I	3
INT553 - Sight Translation A-C/C-A I	3
INT554 - Consecutive Interpretation A-B I	3
INT555 - Consecutive Interpretation B-A I	3
INT556 - Consecutive Interpretation C-A I	3
INT557 - Sight Translation A-B/B-A II	3
INT558 - Sight Translation A-C/C-A II	3
INT559 - Consecutive Interpretation A-B II	3
INT560 - Consecutive Interpretation B-A II	3
INT561 - Consecutive Interpretation C-A II	3
INT563 - Consecutive Interpretation A-C II	3
INT600 - Simultaneous Interpretation A-C I	3
INT610 - Consecutive Interpretation A-B/B-A II	3
INT611 - Consecutive Interpretation C-A III	3
INT612 - Simultaneous Interpretation A-B I	3
INT614 - Simultaneous Interpretation B-A I	3
INT615 - Simultaneous Interpretation C-A I	3
INT616 - Consecutive Interpretation A-B/B-A IV	3
INT617 - Simultaneous Interpretation A-B II	3
INT618 - Simultaneous Interpretation B-A II	3
INT619 - Simultaneous Interpretation C-A II	3
INT620 - Simultaneous Interpretation A-C II	3
Total	**69**

Master of Arts in Journalism and Communication

Mission

This program is designed for BA holders in Journalism and Communication who wish to pursue a higher academic level, in preparation for PhD studies. Graduates will be communication professionals, media researchers and experts, information and communication critics, etc. This degree will enhance academic knowledge, skills and leadership. Graduates will reflect upon more sophisticated topics and acquire a greater sense of discrimination, analysis and criticism. By the end of the curriculum, they will produce a well-researched thesis summarizing their academic attainment.

Program Educational Objectives

1. Graduates will take into account current evolution and media internationalization, to analyze their contact with cultures and societies.
2. Graduates will acquire information in different areas of knowledge including journalism and communication, and will develop an analytical and scientific approach towards media issues.

3. Graduates will create appropriate communication strategies based on available data and tools.
4. Graduates will know how to use media and new technology tools to serve communication strategies.

Program outcomes

a. Students will acquire methodologies of scientific research, while studying media and communication.
b. Structure, write and present a personal, innovative and documented research on a problematic topic in the field of information and communication.
c. Re-examine cultural, economic and political issues, with respect to media and mass communication, especially in the age of new media and globalization.
d. Define the most efficient techniques and tools in communication.
e. Adapt communication strategies to the real needs of media, enterprises, collectives, etc.
f. Discuss major factors affecting the process of communication.
g. Implement new technology to support media needs.
h. Identify, employ and discuss ethical standards.
i. Define a perspective of media functioning and provide exposure to technical know-how.
j. Develop competency in professional practice and be able to assess a professional experience from different perspectives.

Degree Requirements

Common Core	**3**
MTR500 - Research Methodology	3
Specialization	**27**
JCM515 - Media and Public Opinion	2
JCM516 - Psychology of Communication	2
JCM517 - New Technologies, New Media	2
JCM518 - Media: Freedoms and Deontology	2
JCM523 - Political Behaviors and Mass Communication	2
JCM524 - Economics and Media Management	2
JCM610 - Strategies and Tools of Public Communication	2
JCM611 - Globalization and Cultural Diversity	2
JCM612 - Internationalization of Media	2
JCM613 - Bilateral, Multilateral, Mediation and Globalization	2
JCM620 - Multicultural Communication	2
JCM621 - Thematic Seminars	2
JCM680 - Professional Internship	3
Capstone	**6**
JCM690A - Master Dissertation	6
Total	**36**

Master of Arts in E-Journalism and E-Communication

Mission

This program is designed for holders of degrees in fields outside journalism and communication, willing to pursue an education in journalism. Graduates will be professional practitioners and communication professionals. With an interdisciplinary curriculum combining up-to-date knowledge and practical applications, the degree enhances professional knowledge, skills and leadership in journalism and communication.

Program Educational Objectives

1. Graduates will create and edit written and multimedia content suitable for the web by selecting appropriate technology tools.
2. Graduates will take into account current evolution and media internationalization, to analyze their contact with cultures and societies.
3. Graduates will develop analytical and scientific approaches towards media and communication issues, in order to assess their performance.
4. Graduates will create appropriate communication strategies based on available data and tools.
5. Graduates will adapt their contents to issues of cultural diversity and economic interest, and will abide by law and professional ethics of digital media.

Program outcomes

a. Students will structure, write and present a personal, innovative and documented research on a problematic topic in online journalism and communication
b. Re-examine cultural, economic and political issues, with respect to media and mass communication, especially in the age of new media and globalization.
c. Define the most efficient techniques and tools in communication.
d. Adapt communication strategies to the real needs of media, enterprises, collectives etc.
e. Discuss major factors affecting the process of communication.
f. Implement new technology to support media needs.
g. Identify, employ and discuss ethical standards.
h. Define a perspective of media functioning and provide exposure to technical know-how.
i. Analyze the role and functions of social media in a globalized, networked society, and learn how to mobilize them strategically.

Degree Requirements

Specialization	**32**
CSC555 - Web Fundamentals for Online Communication	3
EJCM512 - E-Journalism Workshop I	1
EJCM513 - Web Writing (Arabic)	3
EJCM525 - Web Writing (English OR French)	3
EJCM530 - Professional Seminar I	1
EJCM535 - Cyberlaw and Cyberethics	2
EJCM540 - E-Journalism Workshop II	1

EJCM613 - Social Media and Community Management	2
EJCM625 - Professional Seminar II	1
EJCM680 - Professional Internship	3
JCM517 - New Technologies, New Media	2
JCM524 - Economics and Media Management	2
JCM610 - Strategies and Tools of Public Communication	2
JCM611 - Globalization and Cultural Diversity	2
JCM612 - Internationalization of Media	2
JCM620 - Multicultural Communication	2
Capstone	**4**
EJCM690A - Professional Project	4
Total	**36**

Programs of Study – Doctoral Programs

Ph.D. in French Language and Literature

Mission

The program aims to train Ph.D. candidates to become university teachers and researchers in the fields of French and Francophone Literature or Linguistics.

Program Educational Objectives

Train the future Higher Education teachers and researchers.

Program Outcomes

a. Ph.D. holders will be able to teach within the Higher Education field and to conduct and produce scientific research.

Degree Requirements

Specialization	**60**
Ph.D. Dissertation	45
Ph.D. Seminars by Doctoral College	15
Total	**60**

Ph.D. in English Language and Literature

Mission

The mission of the Ph.D. program in the Department of English Language and Literature is to offer postgraduate students specialized training in the field of their choice within the English major by providing them with the educational resources that help them perfect their critical thinking and research skills and contribute to current knowledge in the field of study. Thus, the program will allow graduates to have successful careers in the fields of research, higher education, editing, writing, and English communication.

Program Educational Objectives

1. Graduates will become active members of their community by teaching the English language and literature in universities, and working in fields which require research in English linguistics or literature.
2. Graduates will become active members of their community by taking on various professional positions requiring advanced training and research in the English language and literature.
3. Graduates will be ready for national and international careers with specialized knowledge and training in the fields of English literature and language and will show commitment to continued professional development.

Program Outcomes

a. Students will develop as independent researchers.
b. Demonstrate competence in academic writing and argumentation skills.
c. Use critical thinking skills as part of research endeavor.
d. Evaluate the significance of culture in language and literature production.

Degree Requirements

Specialization	**60**
ELL700 - Seminar: Research Methodology	3
ELL710 - Seminar: Modern English Literature	3
ELL711 - Seminar: Special Topics in English Syntax	3
Ph.D. Dissertation	45
Ph.D. Seminars by Doctoral College	6
Total	**60**

Ph.D. in Arabic Language and Literature

Mission

The mission of the Ph.D. in Arabic Language and Literature is to enable students to acquire deep knowledge in relation to a specific topic. This is achieved through further development of research techniques, and the implementation of relevant approaches and methods of analysis. It is essential for students to become able to position themselves as researchers, and to develop an understanding of their own strengths, as part of the process of their academic formation.

Program Educational Objectives

1. Graduates are trained to teach Arabic language and literature at university levels.
2. Graduates are trained to write creatively scientific articles and books in literary criticism and linguistics.
3. Graduates are trained in academic analysis and literary criticism, and the design, development and defense of innovative personal statements.

Program Outcomes

Students will:

a. Perform an analytical and critical linguistic study of study of Ph.D. theses.
b. Perform an analytical and critical methodological study of Ph.D. theses.
c. Perform an analytical and critical content study of Ph.D. theses.
d. Formulate research proposals in the various specializations of the discipline.
e. Conduct scientific research to develop research proposals.
f. Write scientific papers for publication, covering parts of the student thesis.
g. Enrich a thesis in Arabic literature within the frame of comparative literature studies.
h. Examine a thesis in the light of the principles and theories of modern and contemporary esthetics.

i. Find or create Arab terms to express new concepts in world literature.
j. Examine systematically Arab or foreign literature and identify original inputs.

Degree Requirements

Specialization	60
LLA700 - Seminar: Scientific Research Methodology	3
LLA710 - Seminar: Comparative Literature	3
LLA711 - Seminar: Linguistics and Terminologies	3
Ph.D. Dissertation	45
Ph.D. Seminars by Doctoral College	6
Total	**60**

Ph.D. in Language Sciences and Traductology

Mission

The mission of the Department of Modern Languages and Translation is to train doctoral students in higher education and research in the fields of Language Sciences and Traductology.

Program Educational Objectives

Training future university teachers of translation and translation studies.

Program outcomes

a. Students will be able to work in research centers.
b. Be able to teach translation in secondary classes.
c. Be able to teach translation at the University.
d. Be able to teach language sciences at the University.
e. Be able to translate and publish literary translations.
f. Be able to develop and publish research in translation.
g. Be able to teach contemporary translation theories.
h. Be able to manage linguistic consulting firms.
i. Be able to assist in the development of academic curricula.
j. Be able to work in international organizations.

Degree Requirements

Specialization	60
TRD731 - Seminar: Research Methodology	3
TRD732 - Seminar: Interpretive Theory of Translation	3
TRD733 - Seminar : Pedagogical Translation	3
TRD734 - Literary Translation Seminar	3
Ph.D. Seminars by Doctoral College	3
Ph.D. Dissertation	45
Total	**60**

Course Descriptions

ANG411 Modern Cultural Issues in English 3 cr.

The course studies current events in the Anglophone world. The introduction defines the concept of current event, and identifies the Anglophone countries and their common character underlying their various ways of life. Part One examines the special current events relative to each Anglophone country, namely, the United Kingdom and The British Isles, The Republic of Ireland, Australia, New Zealand, Canada, South Africa, India, Nigeria, The Caribbean, and The United States of America. Part Two reflects on the wider world current events that may affect the Anglophone world, such as governance, terrorism, globalization, human rights, democratization, and settlement of international disputes, migration and environmental and economic issues. Finally, the current events of yesterday and of today, no less than those of tomorrow. The course will also explore "the next society" that we want to be members of.

ANG520 Techniques of Expressions in English 2 cr.

This course aims at perfecting the oral and written English expression of the students. They will learn through the different patterns of expression (essays, text analysis and oral presentations) how to better express themselves orally and in writing, in order to achieve better communication skills and an improved analytical spirit. For the final examination, students should be able to develop an essay of 500 words in the period of 2 hours. Through a variety of themes (technology, society, psychology, education), the students will also improve their topic analysis while discussing and explaining pertaining viewpoints.

ARA210 Advanced Arabic 3 cr.

Prerequisites ARA120

This course aims to develop student language skills by giving a detailed analysis of Arabic syntax via a dynamic approach using practical texts and exercises. This course also broadens student knowledge of the Arabic language, both on oral and written levels, through exploration and analysis. It also gives the students the opportunity to be acquainted with Arabic grammar and linguistic studies or references that will be needed while writing.

ARA310 Techniques of Expression in Arabic 3 cr.

Prerequisites ARA120 Or LLA210

This course is designed to improve the Arabic language performance of the students, and to help them learn, through the different patterns of expression (poetry, literary writings, articles, reports, etc.) how to analyze, connect, distinguish and deduce in order to better understand or write texts. This course also aims to raise the awareness of future translators of the formal and stylistic particularities of each type of discourse.

CSC555 Web Fundamentals for Online Communication 3 cr.

This is an introductory course to HTML language to enable students to create and manage a website, on their own, or in collaboration with web designers and developers. They will first master the CMS services such as Drupai, Joomla and Wordpress, and will then be initiated to HTML. They will be acquiring appropriate terminology to communicate with the webmaster for a better exploitation of web tools and possibilities.

DRT305 Business Law Terminology 3 cr.

This course is not designed to train corporate lawyers. Indeed, its primary objective is to ensure that future translators acquire knowledge and expertise in the field of commercial law and business, which are necessary for the practice of their profession. Through specialty texts, students can access the concepts and terminology of the field of study and be able to develop,

through a semasiological process, specialized lexicons containing words, their synonyms and their immediate contexts.

EJCM512 E-Journalism Workshop I 1 cr.
The objective of these workshops is to acquire proper techniques to prepare, edit, and diffuse multimedia content such as web reports and web documentaries.

EJCM513 Web Writing (Arabic) 3 cr.
This course raises student awareness to the particularities of writing, organizing, and editing web contents. It defines the formats of various journalistic genres adapted to the web, offering many practical exercises to adapt articles for screen reading.

EJCM525 Web Writing (English or French) 3 cr.
This course raises student awareness to the particularities of writing, organizing, and editing web content. It defines the formats of various journalistic genres adapted to the web, offering many practical exercises to adapt articles for screen reading.

EJCM530 Professional Seminar I 1 cr.
The course is a cycle of seminars involving qualified professionals and specialists from other fields, who will explain the real needs of the market, alongside the available media means to meet these needs. This course will be examining investigative journalism, e-marketing, conceptualizing and editing online magazines, photojournalism, data journalism, leadership, information on mobiles, etc.

EJCM535 Cyberlaw and Cyberethics 2 cr.
This course introduces students to texts about cyberlaw. It discusses the different texts with respect to press freedom, as guarantors of individual and group freedoms. It reviews the influences affecting press liberties; elaborating upon the relationship between press independence, politics and finance. The course also examines different means to ensure respect of this freedom, as well as the professional code and ethics of journalism.

EJCM540 E-Journalism Workshop II 1 cr.
The objective of these workshops is to acquire suitable techniques to prepare, edit, and diffuse multimedia content such as web reports and web documentaries.

EJCM613 Social Media and Community Management 2 cr.
This course trains the students to be community managers, who are entrusted to increase and retain an audience, through different ethical, relational and social strategies, and to uphold the e-reputation of trademarks and media.

EJCM625 Professional Seminar II 1 cr.
The course is a cycle of seminars involving qualified professionals and specialists from other fields, who will explain the real needs of the market, alongside the available media means to meet these needs. This course will be examining investigative journalism, e-marketing, conceptualizing and editing online magazines, photojournalism, data journalism, leadership, information on mobiles, etc.

EJCM680 Professional Internship 3 cr.
Students are required to pass through a traineeship of 200 hours in a press office, company, or advertising agency. They should become familiar with the different services and posts, before selecting a certain job. On completion, they will submit a report of 15 pages summarizing their

performed tasks and experience. Enrolled students should have covered 26 credits with a GPA. ≥ 80 /100.

EJCM690A Professional Project 4 cr.
A professional project is pursued under the supervision of a professor in the Master's department, or other professional journalist or communication expert. The purpose of this project is to develop and demonstrate professional competence and experience. The final project (web documentary, digital communication campaign, etc.) depends on the specialty of the student and should be validated by a jury. Enrolled students should have covered 26 credits with a GPA. ≥ 80 /100.

ELL210 Introduction to Linguistics 3 cr.
The aim of this course is to introduce the major sub-disciplines in linguistics. Topics include the emergence of language, the sounds and sound systems of language, word structure, sentence structure, meaning, language use and variation, language history and language acquisition. The course combines theoretical and descriptive aspects of linguistic analysis as well as the application of basic tools and techniques used in the field.

ELL211 Introduction to Literature 3 cr.
The aim of this course is to introduce the basic features of major literary genres in English literature: poetry, prose, and drama. The design of the course involves the explanation and modes of analysis of the different types of each genre. Selections for the course include a novel, a short story, an essay, a play, and a number of various poetic forms. Students will explore the basic characteristics of each form (language, figurative language, plot, setting, characterization, point of view, narrative voice, etc.) and learn to appreciate English literature.

ELL212 Sociological Approach 2 cr.
This course is an introduction to the basic concepts, principles, and methods of Sociology, and to the way they are employed for analyzing the structure of society at large, and the structure of basic social communities such as family, or institutions such as religion or language. The course will initiate students to the field of Sociology, so as to sensitize them to the sociological dimension of the problems with which they have to deal.

ELL214 English Grammar and Composition 3 cr.
Pre-requisites ENG120

The course focuses on short essay type of writing. Throughout the course, learners will explore how to recognize appropriate grammatical structures, organizational patterns, rhetorical phrases, and academic style, and to correctly apply them to their writing. The types of sources students may write about are diverse, but emphasis is placed on students' ability to produce well-formed, accurate, and comprehensible written responses that meet the standards and conventions of academic style. Thus, the aim of the course is to build on learner's written communication skills through the writing/editing/ revising process, and to help them improve their ability to recognize and use the basic rhetorical structures commonly found in academic writing across disciplines.

ELL221 Introduction to Poetry 3 cr.
This course is an introduction to the major poetic movements that shaped English poetry. Starting with Plato's definition of poetry, the course traces the major developments in poetic conventions, modes and genres: Classicism, Neoclassicism, Romanticism, Victorianism, Aestheticism, Modernism (Symbolism, Impressionism, Imagism, Surrealism) and the contemporary experimental movements (Concrete, Beat, Slam). The poetry selections will be used as a vehicle to examine universal themes basic to the human condition, and to investigate these themes as they relate to life experiences. The course also teaches the skills one needs to study poetry with understanding and pleasure. During this course students will interpret,

analyze, and critically evaluate representative works of these movements. Using examples from different periods, the students will be able to develop a sense of how poetic modes, genres, and forms change across different periods.

ELL222 Survey of English Literature I 3 cr.
Prerequisites ELL211
The course is a close examination of the early beginnings of the novel in the 18th century, culminating with the Gothic School. After introducing the different factors (social, economic, and literary) that brought about the rise of this genre, the students will be introduced to the prevalent modes/techniques as well as the main themes that concerned early novelists such as Defoe, Richardson, Fielding, Sterne, and Mary Shelley. Moreover, successful completion of the course will enable students to construct appropriate oral and written statements concerning literary, historical, cultural, and philosophical movements from the classical up to approximately the romantic era.

ELL223 Sophomore Rhetoric 3 cr.
The aim of this course is to enable students to read critically, evaluate what they read and formulate verbal or written opinions based on the best available evidence. It also covers methods of formal argumentation suitable for students majoring in linguistics and literature. During the course students will develop research, writing-process, and timed-writing skills. They will also use primary and secondary sources to write an effective college-level documented expository essay.

ELL224 Psychological Approach 2 cr.
The aim of the course is to introduce the fundamental principles and findings in contemporary scientific psychology. It helps students gain knowledge about the systematic and scientific study of behavior and mental processes of human beings. Students will learn psychological facts, principles, and phenomena associated with each of the major subfields within psychology, ranging from perceptual, cognitive and physiological processes, to social, personality and child development. It also provides an analysis of the factors in learning, through a survey of the major theories of learning. It provides students with the opportunity to appreciate the role of psychology in modern living, and it allows them to build insight into their own behavior.

ELL310 Survey of English Literature II 3 cr.
Prerequisites ELL222
The course offers an in-depth analysis of the main characteristics (themes, characters, and techniques of the golden age of the novel: the Victorian period). It focuses on major representative works by such authors as Austen, the Bronte sisters, Eliot, and Hardy. Both the form and the content will be scrutinized in order to highlight the multifaceted nature of the Victorian era and to trace its connection to the 18th and 20th century novel. The course makes students aware of the diversity of the Victorian novel and the various social, intellectual, and religious thoughts that permeated the age.

ELL311 Introduction to Drama 3 cr.
The course offers both a historical survey and a literary history of the development of drama. It concentrates on critical analysis of the distinguishing features of the different genres and sub-genres in drama: tragedy, comedy, tragicomedy, morality, Elizabethan, Jacobean, comedy of manners, the well-made play, one act play, closet drama, mono-drama, superstar play, absurd play, etc. The course also introduces the practical or technical side of the theater by looking at stage conventions and artistry. The course aims at helping students gain awareness of the technicalities involved in the theater, as well as the correlation between the genres of drama and the diction, the characterization, and the stage setting. Students are expected to give

presentations on their favorite form and try to write scenes based on themes, characters or forms of their choice.

ELL312 English Phonetics 3 cr.

This Course helps students familiarize themselves with the basics of English phonetics. It provides the students with practical skills, training, and knowledge in phonetics.

This course focuses on segmental phonetics and beyond: the structure and linguistic function of the articulatory apparatus, the characteristics and classification of vowels and consonants, the International Phonetic Alphabet and its use in phonetic transcription. It also briefly expands on the syllable and word stress. It basically serves as a background for further readings on suprasegmental phonetics and aspects of connected speech.

ELL313 English Morphology and Syntax 3 cr.

The course is an in-depth study of morphology, the abstract rules/constraints governing the internal structure of words, and syntax, principles governing how words are combined to form phrases and sentences. The focus of the course will be building the students' skills in English morphological and syntactic analysis. Major attention will be given to the interaction of morphology with syntax to study the patterns and relationships of words, phrases, and clauses to form sentences and the rules by which the sentences are constructed.

ELL314 Advanced English Communication Skills 2 cr.

Prerequisites ENG240

This course is designed to help students become more effective and responsible speakers and listeners. It will encourage them to communicate more openly in different settings (speeches, debates, group discussion, interviews, etc.). This course teaches students the necessary skills needed to become more articulate in verbal communication. It also highlights the importance of both encoding and decoding in the communication process.

ELL320 Semantics and Pragmatics 3 cr.

This course introduces some basic approaches to the study of meaning in linguistics, including word meaning, and an analysis of the relationships between words in a language system, words and concepts, and words and objects in the world. It also introduces pragmatics, the theory of utterance comprehension. It offers a broad overview of the concepts and tools required for analyzing how linguistic communication works. Meaning will be tackled from two angles, context-independent (semantics), and context-dependent (pragmatics). In the semantics part students will look at how meaning is associated with words (lexical semantics) and grammatical constructions (grammatical semantics). While in the pragmatics part students will explore both micropragmatics (reference, deixis, speech acts) and macropragmatics (conversation, the importance of context and ways of speaking).

ELL321 History of the English Language 3 cr.

This course offers a broad study of the development of the English language from its beginnings to the present time. The course addresses the relationship between the history of society and the history of sounds, inflection, and vocabulary of the English language. The course also surveys English grammar from the point of view of modern linguistic scholarship or transformational grammar. The course aims to help students understand how the English language should be used, rather than simply how it is used.

ELL322 Development of English Poetry 3 cr.

Prerequisites ELL221

The course traces the development of English poetry in the 19th and 20th century through an in-depth study of its major figures. The focus of the course is to delineate the changes in poetic

modes and sensibility, from Romanticism to Modernism, and in the literary theory which permeated the period and affected directly and indirectly the poetry of the 20th century. Along these lines, the course will take a close look at works of poets such as Blake, Wordsworth, Coleridge, Byron, Shelley, Keats, Tennyson, Browning, Arnold, the Nineties, Yeats, Eliot, Auden, and Larkin, among others.

ELL323 Development of the English Novel 3 cr.
Prerequisites ELL310
This course's aim is to offer students a close study of the development of the 20th century novel as an outcome and reaction to the 19th century novel. This course focuses on how the writers of the early 20th century abandoned the previous literary conventions and adopted new ones in their understanding of the role of the novelist. Social, psychological, moral, literary, political, and philosophical circumstances called for experimentation in form, in narrative techniques, in characterization, and in style. The course focuses on some of the major novelists such as Hardy, Conrad, Lawrence, Forster, Woolf, and Joyce. Thus the course enables students to analyze the formalistic and thematic concerns of the novelists of the period.

ELL324 American Literature 2 cr.
This course offers an introduction to various forms of American literature in the 19th and 20th century. It traces the relationship between the intellectual, political and cultural background of American poetry and the novel. The course focuses on major figures such as Emerson, Poe, Whitman, Melville, Hawthorne, Hemingway, Fitzgerald, Pound, and Eliot. The course leads students to gain awareness in the multicultural nature of American literature, as well as with the specificity of the American experience.

ELL410 Literary Criticism I 3 cr.
This course is an introduction to major trends in literary theory from Plato to the end of the 18th century, covering Classicism, Renaissance, Neo-classicism, Romanticism, Realism and Naturalism, Symbolism, and Aestheticism. The aim of this course is to enable students to practice how to use different theories, to read literature, and how to relate literary theory to the cultural, political, social, and moral backgrounds.

ELL411 The Age of Shakespeare 3 cr.
The course is designed to introduce students to a representative sample of Shakespeare's dramatic output. The six plays for study include two comedies, two tragedies, a history play and a romance, covering virtually the entire period during which Shakespeare was active as a playwright. The aim of the course is to provide an understanding of the historical conditions - above all the theatrical - in which Shakespeare lived and worked.

ELL412 Sociology of Literature 2 cr.
This course is designed to focus on major issues in literature, such as gender, racial, ethnic, religious, political, colonial and postcolonial, cultural and multicultural. The course focuses on the universality of the human experience in the dialectic of the Self and Other, of East and West, of Male and Female, of Master and Slave. Accordingly, the course examines works from different countries, periods, and cultures that could be selected for study to illustrate any of the above issues, such as works by Joseph Conrad (United Kingdom), David Malouf (Australia), William Faulkner (America), Chinua Achebe (Nigeria), Gibran Khalil Gibran, Amin Rihani (Lebanon), and Najeeb Mahfouz (Egypt). The course aims to raise awareness of the inter-relationship between literature and society in all of its facets, and to sharpen the ability of students to analyze cultural nuances and subversions.

ELL413 Special Topics in the English Language 2 cr.

The course provides an introductory exposure to communicative variation within human sociocultural systems (such as slang, dialects, jargon, speaking in tongues, etc.), language acquisition, languages in contact, communicative performance, linguistic issues in meaning and cognition, aspects of the structure of language, and applied linguistics. The usual format for the class meetings is lecture/discussion, with some in-class exercises. This course synthesizes information on language and culture, human communication, thought and creativity, literary expression, social and historical diversity. It bridges the humanities field of linguistics and aspects of history, literature, philosophy, and the performing arts, as well as the science and social science approaches to language.

ELL414 English Language Teaching Methodology 2 cr.

This course is designed to equip students with the latest in the field of teaching English as a second/foreign language. Students are invited to examine the methods and techniques of teaching: listening, speaking, reading, writing, English for specific purposes and content area language learning. Assessment, cultural awareness, and self-evaluation of teaching and materials designing will also be addressed. The course is meant to enhance learning by integrating theory and practice of teaching English as a second/foreign language.

ELL420 Literary Criticism II 3 cr.

Prerequisites ELL410

The course introduces students to the major trends of literary theory in the 20th century and allows them to examine the major critical movements of the 20th century including Liberal Humanism, Structuralism, Psychoanalytical Criticism, Feminism, Marxism, Postcolonialism, Reader-Response Criticism, Postmodernism, Deconstructionist and New Historicist Criticism. Students will discover various ways in which they can interpret literature. Thus, the course aims at enabling students to practice the use of different literary theories by applying them to literary texts, relate literary theory to the cultural, political, social, and moral backgrounds, and assess the strengths and limitations of these theories. By the end of the semester, the students should be able to approach literature critically.

ELL421 Special Topics in Literature 2 cr.

The focus of the course is on modern drama which has been preoccupied with expressing the spirit of the modern age. A profound sense of disillusionment, fragmentation and absurdity of human experience pervades the plays of this period. The course investigates the reasons for and the dramatizations of the modern condition by studying European and American drama, illustrated by representative works of the major Irish, American and British playwrights. Although the focus of the course will be on Synge, O'Casey, Beckett, Pinter, Stoppard, O'Neill and Albee, both the precursors (Ibsen, Strindberg, Checkov, and Shaw) and the inheritors of modern drama (Hare, Storey, Mamet, Shepard, etc.) will be introduced. The course aims at helping students gain awareness in the cultural experience of modern drama, and the rendering of the theater as a private space for the playwright's alienation from the audience and from language itself. It familiarizes students with movements such as Naturalism, Symbolism, Realist, and Absurdist, and how these movements manipulate stage settings, language, and other dramatic features.

ELL422 Comparative European Literature 3 cr.

More often than not, the stories we tell are key to understanding, and even creating, personal and communal identity. In this class we will discover, through the discussion of texts from various cultural backgrounds, the diverse ways in which narrative allows us to explore, challenge and reformulate definitions of identity. The course is designed to equip students with the tools necessary to critically analyze texts in light of other texts and to enable them to compare the rhetorical discourse and strategies implied in the texts.

ELL424 Internship 2 cr.
Prerequisites ELL414
This course aims to prepare students for their internship by providing structured pre-internship experience while meeting regularly in a university class. Students will be provided opportunities for structured observations of actual classroom teaching (English as a Foreign Language) and applications of their knowledge in tutorial, small group and total class instruction. They will also have additional experiences in planning and developing course work (lessons, units). Finally, they will learn how to examine and develop effective procedures for record-keeping and improving classroom management.

ELL520 Culture and Modern Civilization Seminar 2 cr.
This course is designed to examine some of the most important events and trends in modern world history. Students will discuss themes related to the Rise of the West and globalization. They will select and discuss topics in human culture in the context of how humans, as historical beings, are shaped by the thoughts and actions of their predecessors and how they influence the lives of those who follow them. The course will examine culture as a distinct heritage of ideas, values, and artistic expressions that undergo continual adaptation due to social changes. Students will also study religions: Buddhism, Hinduism, Judaism, Christianity and Islam.

ELL521 English Literature I 3 cr.
The aim of the seminar is to integrate the study of different 20th century literary theories and academic research writing. Students will examine the ways in which literary theories of the 20th century have been applied to canonic literary texts and have reshaped the reading and reception of those texts. They will look into the forms, the approaches and the structures employed. They will focus on selected writers, genres, issues, trends, or movements addressed in American, British, and/or world literatures from the Renaissance till now. The course includes reading primary and secondary sources related to poems, plays, and novels encompassing issues like race, gender, class, discourse and political power. Students will study writings that celebrate new freedoms and new ways of assessing the self and the world through literature and theory. Authors such as Shakespeare, Milton, Blake, Wordsworth, Tennyson, Hardy, Yeats, Joyce, Eliot, and others will be focused on. Students will explore diverse approaches, issues, and texts, and they will undertake an analysis of a text of their choice, using the references surveyed in addition to others, as part of their own chosen research project.

ELL522 English Literature Seminar II 3 cr.
This course examines the scope of colonialism/postcolonialism as a multi-disciplinary, often cross- disciplinary, re-examining the history and legacy of colonialism and incorporating the perspectives of the colonized with the purpose of relating this to English literature and postcolonial literature written in English. The aim of this course is to introduce students to a wide range of postcolonial criticism with the purpose of familiarizing them with the major contributors to the field and the significant arguments or counter-arguments that each has espoused, by means of a close reading of seminal articles and class discussions on their basis. In addition to knowledge of postcolonial critics and their articles, students will develop an understanding of the postcolonial approach and method, so that they will acquire an ability to undertake a postcolonial reading and analysis of a text of their choice, using the references surveyed in addition to others, as part of their own chosen research project.

ELL524 English Linguistics Seminar I 3 cr.
The course provides an instructional framework of how to evaluate and participate in reforming language curricula. It emphasizes the development of teacher competency in the fields of curriculum designing, teaching and assessing English as a foreign/second language. During the

course students will examine the development and implementation of effective research-based curriculum designing and instructional practices. They will explore theories, procedures, and instruments used for reforming language curricula and assessing language skills for proficiency. Students will also be responsible for evaluating and designing a language syllabus and setting formal/informal assessment strategies that fit with the syllabus designed.

ELL525 English Linguistics Seminar II 3 cr.

This seminar helps students explore systemic functional grammar, a theory that aims to account for the use of language as a vehicle for communication between people in social and cultural contexts. During the seminar, students will experience the functions of language in representing situations and activities, in interaction and in creating discourse. They will be aware of how language users convey meaning through their choice of words and grammatical structures in specific situations. Students will analyze authentic texts and experience how to describe the lexical, grammatical and cohesive structures of texts and reflect on how the resources of the English language are employed in different types of discourse; and they will also learn why language users choose one wording over another to better reach their communicative goals.

ELL526 Literary Issues 3 cr.

This course aims to help students explore a variety of selected literary topics. They will read and analyze literary works drawn from English speaking and non-English speaking cultures. Through lectures and discussions, students will gain awareness of varied literary issues, including structure and technique, and a sense of the cultural backgrounds that inform those works. While reading and discussing literary topics, students will: demonstrate an understanding of literary terms, themes, strategies, and issues relevant to the works being studied; express their understanding of the relationship between literature and the historical/cultural contexts in which it was written; synthesize literature of non-English speaking cultures in terms of historical literary values as they reveal esthetic, political, social, and historical relationships between countries and eras; and demonstrate the ability to choose and apply appropriate critical methods for analyzing and writing about literature.

ELL610 Seminar: Comparative Literature 3 cr.

The seminar aims to explore with the students the field of comparative literature, contemporary theory, and modern approaches to literary texts. It is intended to help students develop an understanding of literature and culture, as well as technologies and esthetic forms of mediation and transmission of world views, values and critiques. During the seminar, students will discuss originals and works in translation, experience cross-cultural comparisons, and the multilingual, pluralistic and global world. They will also compare literature to other arts, media and further modes of writing. The broad perspective of the seminar is to help students think critically and analytically about what literature is and does; how literature relates to other fields and kinds of writing; how literary texts produce their complex webs of meaning; and what the ethical relevance of literature is in a globalized world.

ELL612 Seminar: Applied Linguistics 3 cr.

This seminar provides an overview of the field of applied linguistics, its history, branches and scope. It encourages research collaboration in language learning/teaching and language assessment. It also guides students to examine the different linguistic, social, and cultural factors in human communication through their looking at a variety of levels in language and how such variation constructs and is constructed by identity and culture. An exploration of attitudes and ideologies about these varieties will also be tackled. Moreover, the course offers students the opportunity to explore the research literature on a range of topics related to the study of language and society, including sociolinguistic theory and research methodology, the ethnography of speaking, the role of social variables (such as age, socio-economic status and

sex/gender) in language variation and change, bilingualism and language contact, and language policy and planning. Students will carry out an empirical analysis of a set of language data as part of their course project.

ELL621 Seminar: English Literature 2 cr.

The aim of this seminar is to enable students to consider how contemporary Anglo-American literature re-imagines social history, genre, politics and identity. The seminar will focus on influential works written since the beginning of the 20th century by writers such as George Orwell, Virginia Woolf, Maxine Hong Kingston, Margaret Atwood, Wole Soyinka, Carol Ann Duffy, John Fowles and Angela Carter, among others. Students will examine literary texts as examples of contemporary culture, focusing on issues such as postmodernism and multi-culturalism. They will also tackle topics such as the representation of space and identity in depictions of the city, the small town and suburbia, fairy tale and gothic horror and new technologies and culture.

ELL623 Seminar: English Language Acquisition 2 cr.

The aim of this seminar is to help students explore the second language acquisition (SLA) theory and examine some of the latest research methodological tools in the field. Students will also study the complex variables underlying second language acquisition and the different perspectives of SLA theories. Among the topics tackled are: the effect of age at which a second language is learned, the learner's rate of acquisition and attainment profile, the effects of language impairment and loss in second language grammars, the influence that first language exerts on the acquisition of a second language, and a number of psycholinguistic and neurolinguistic aspects of SLA. Students will also gain experience of second language research through a small-scale study they will conduct in an area of second language knowledge.

ELL690A Master Dissertation 6 cr.

ELL700 Seminar: Research Methodology 3 cr.

This course is designed to help PhD students develop their research projects and assist them in defining their mode of enquiry. It is constructed to guide them through a general overview of research, its methodologies, its challenges and its organization, including creative practice. Students will be equipped to plan, organize their research and communicate their findings. Thus, students will explore a variety of research tools, methods, ethical and legal questions. They will develop the ability to reflect critically on the processes of research, articulate critical language appropriate to their research aims and interests, develop a supportive research environment, and become familiar with a range of research practices applicable to sciences, humanities, social sciences, literature and art.

ELL710 Seminar: Modern English Literature 3 cr.

The aim of this seminar is to encourage students to explore and discuss some ways in which leading English language poets, novelists, short story writers and playwrights have engaged the questioning spirit of recent times. The seminar will focus on influential works written, since 1960, by writers such as Martin Amis, Rabih Alameddine, Seamus Heaney, Margaret Atwood, Wole Soyinka, Allen Ginsberg, Gregory Corso and Salman Rushdie. The course also considers how contemporary literature re-imagines history, genre and identity.

ELL711 Seminar: Special Topics in English Syntax 3 cr.

The aim of this seminar is to examine a range of syntactic phenomena and evaluate opposing theoretical analyses proposed to account for them. Students will construct theoretical analyses and evaluate their explanatory adequacy for Universal Grammar. Topics include low frequency

(LF) phenomena, functional projections, and structural representations. Students will also study the language and explore its syntax and uses within varied contexts.

INT550 Consecutive Interpretation A-C I 3 cr.
The aim of the course is to teach note taking for texts in Arabic to be translated into English. The basics of note taking are taught at the beginning followed by texts read to the students with lengths ranging from 2 minutes to 5 minutes at the end of the semester.

INT551 Sight Translation A-B/B-A I 3 cr.
The on sight translation course given to first year students has three main objectives: To enrich their vocabulary. To work on the flow of the texts, the intonation, the articulation etc. To work on reformulating ideas, because interpreting essentially means explaining. The texts given to students revolve around current themes as well as more technical ones such as labor, sustainable development, international conventions etc. They are taken from websites; UN and other International Organizations. Texts are chosen gradually in terms of the gaps that the students need to address, in order to have a comprehensive training. At the end of the semester, students have to appear before a jury, in order to evaluate the process of the first half of the year.

INT553 Sight Translation A-C/C-A I 3 cr.
This course is given to reinforce the sense of translation among the students who will have to translate the text while reading it for the first time. This will teach them speed and precision and will prepare them for the simultaneous interpretation.

INT554 Consecutive Interpretation A-B I 3 cr.
This course introduces students to note taking techniques, in order to consecutively interpret texts from Arabic into French. The text lengths vary, starting with 2 minute texts and ending with texts up to 5 minutes, revolving around different themes: political, economic, and more general texts.

INT555 Consecutive Interpretation B-A I 3 cr.
This course introduces students to note taking. The professor will explain the note taking techniques (symbols, signs, etc.) and give theoretical introductions to the course that starts with 1 or 2 minute long texts for around 4 weeks. The length of the texts will increase as we go into the semester and will reach 5-6 minutes in December. Texts are taken initially from L'Orient-Le Jour and then the professor will choose more difficult texts from international French newspapers and magazines such as (Le Monde diplomatique), as well as other UN reports in French.

INT556 Consecutive Interpretation C-A I 3 cr.
Similarly to all the consecutive translation courses, this course will cover texts taken from the Daily Star in the beginning and will evolve to encompass texts from 'foreign affairs', "The Economist" as well as different reports from many UN agencies. It will focus on note taking at the beginning of the course and move toward a more tangible aspect of translation.

INT557 Sight Translation A-B/B-A II 3 cr.
This course teaches students to read a text and translate it at the same time; this exercise will serve as an introduction to simultaneous interpretation and will prepare students for different types of texts. General texts, at the beginning of the semester, lead to more specialized ones with a more complicated terminology.

INT558 Sight Translation A-C/C-A II 3 cr.
This course aims at enabling students to read a text and translate it on sight. This exercise will introduce them to simultaneous interpretation and prepare them for different kinds of texts ranging from general themes to more detailed and specific texts with specific terminology.

INT559 Consecutive Interpretation A-B II 3 cr.
At this stage, the students will have mastered note taking, and will concentrate on texts in Arabic to be translated into French. The text lengths vary between 5-6 minutes and they cover politics, economics and other current events.

INT560 Consecutive Interpretation B-A II 3 cr.
Students will be able to master consecutive interpretation of texts from French into Arabic. The degree of difficulty will be increasing the further they go into the semester and the students will tackle a variety of themes. As with all consecutive interpretation exercises, the students will have to master the connections within the texts and have to preserve the chronological order of the ideas.

INT561 Consecutive Interpretation C-A II 3 cr.
The second semester will allow the students to master translating consecutively texts from English into Arabic. The degree of difficulty will increase and with it the variety of the texts given to the students. The students will bear in mind the necessity of keeping the coordination between the various parts of the texts, as well as the chronological order.

INT563 Consecutive Interpretation A-C II 3 cr.
The aim of this course is to teach interpreting students the techniques of consecutive interpretation. Students will be taught to listen to a 4 or 5 minute long speech in Arabic, to take note of what they heard, and then, based on the notes they have, translate the text into English. This course will teach students how to understand the logic of a given speech and be able to convey the same ideas and logic in English as accurately as possible and within a time frame not exceeding the duration of the original speech. Please note that the length and difficulty of the texts will increase as we progress through the semester and as students improve their oral expression skills and note taking techniques. The texts will be taken from a variety of sources, such as UN agencies and reports and Arab newspapers and magazines, and will cover different topics (economics, politics, international news, the environment, human rights, in addition to any other hot topics or current events as they arise). Material references: Annahar newspaper, Al Hayat newspaper, Al Biaa wal Tanmia magazine, Le Monde Diplomatique Arabe, etc.

INT600 Simultaneous Interpretation A-C I 3 cr.
This first attempt at simultaneous interpretation puts the students in direct touch with the Booth. The students will start with memorization exercises and will start dividing their thinking between listening to the text and translating it. After one month, the students will be able to simultaneously translate any type of text from Arabic into English. The degree of difficulty will increase with time. The types of texts are generally taken from the UN organizations (FAO, ILO, UNESCO).

INT610 Consecutive Interpretation A-B/B-A II 3 cr.
This course is given for the second year interpretation students. The students will have mastered note taking techniques and will be up to the task of consecutively translating all sorts of texts. They will be honing their already acquired skills.

INT611 Consecutive Interpretation C-A III 3 cr.
In the 3rd semester of interpretation the students will have mastered note taking. They will continue with texts ranging from 6 to 7 minutes in length, while the instructor focuses on the chronological order of the ideas and the links between them.

INT612 Simultaneous Interpretation A-B I 3 cr.
This course introduces students to simultaneous interpretation. They will start with memorization techniques and try to divide their attention between listening and translating. The more they train, the more they will be able to follow the texts and concentrate on the nuances and the particularities of the different texts. This course will be based on translating texts from Arabic into French.

INT614 Simultaneous Interpretation B-A I 3 cr.
This course introduces students to simultaneous interpretation. They will start with memorization techniques and will divide their attention between listening and translating. The more they train, the more they will be able to follow the texts and concentrate on the nuances and the particularities of different texts. This course will essentially cover texts from French into Arabic.

INT615 Simultaneous Interpretation C-A I 3 cr.
This course introduces the students to simultaneous interpretation. They will be introduced to the Booth, texts will be read to them, and they will start translating the texts at the same time that they are being read to. This ability follows 4 weeks of practice, including memory exercises, to master it. Texts are of a general nature at the beginning. Then we progress to the UN General Assembly before moving to the different UN organizations. By the end of the semester the students will have covered all the UN terminology.

INT616 Consecutive Interpretation A-B/B-A IV 3 cr.
This course introduces students to simultaneous interpretation. They will work in the Booth and will translate texts read to them at the same time. This skill follows 4 weeks of intensive training that encompasses memorization exercises. In the beginning, the texts will be general, followed by texts and speeches from the UN General Assembly and other different organizations. The students will learn to deal with UN terminology from the beginning of the semester.

INT617 Simultaneous Interpretation A-B II 3 cr.
After having been introduced to simultaneous interpretation for a semester, the students will have acquired more skills for the second semester, in order to deal with all sorts of texts. At this stage, other factors come into play: speed and precision. The texts are general (United Nations) from Arabic into French. The students will also listen to recorded speeches from the UN and other bodies. The difficulty at this stage will be with accents. Now the students can take part in actual conferences that take place within the University, as training. This will help them reinforce their skills and their performances so that they will be ready for work.

INT618 Simultaneous Interpretation B-A II 3 cr.
After having been introduced to simultaneous interpretation for a semester, the students will have acquired more skills for the second semester, in order to deal with all sorts of texts. At this stage, other factors come into play: speed and precision. The texts are general (United Nations) from French into Arabic. The students will also listen to recorded speeches from the UN and other bodies. The difficulty at this stage will be with accents. Now the students can take part in actual conferences that take place within the University as training. This will help them reinforce their skills and their performances so that they will be ready for work.

INT619 Simultaneous Interpretation C-A II 3 cr.
After introducing the students to simultaneous interpretation for a semester, they will become more competent in the second semester to deal with any types of texts. The skills are taught and now other factors come into play, such as speed, accuracy and precision. Texts vary from UN texts to more general texts. Also the students will be listening to recordings in different languages and

accents and will be translating videos and PowerPoints. The students in this stage will have the opportunity to participate in any conference that takes place at the University as silent Booth, in order to reinforce their skills and improve their performance, for them to be ready for the labor market.

INT620 Simultaneous Interpretation A-C II 3 cr.
After introducing the students to simultaneous interpretation for a semester, they will become more competent in the second semester to deal with any types of texts. The basic skills are taught and now other factors come into play, such as speed, accuracy and precision. Texts will vary from UN texts to more general texts. The students will also be listening to recordings in different languages and accents and will be translating videos and PowerPoints. The students, at this stage, will have the opportunity to participate in any conference that takes place at the University as silent Booth, in order to reinforce their skills and improve their performances so that they are ready for the labor market.

JCM200 Information and Communication Methodology 2 cr.
This course is intended to train students in oral and written information and communication techniques, besides data management and data synthesis (writing reports, summaries, analysis, reviews, interviews, etc.).

JCM201 History of Media 2 cr.
This course traces the history of each one of the five great media types (written press, radio, cinema, TV and internet) from the first loose-leaf in Europe, before written press, reaching Web 2.0. It overviews the greatest moments of this history on different levels (sociopolitical, cultural, economic, and technical).

JCM202 Techniques of Journalistic Expression in French 3 cr.
Pre-requisites LFR120

This course aims to develop the students' language skills by giving a detailed analysis of Arabic syntax via a dynamic approach using practical texts and exercises. This course also broadens the students' knowledge of Arabic language, both on oral and written levels, through exploration and analysis. Besides, it gives the student the opportunity to become acquainted with Arabic grammar and linguistic studies or references that will be needed while writing.

JCM203 Techniques of Journalistic Expression 3 cr.
This is an introductory course to the basics and general principles of journalistic writing, wherein different writing techniques for diverse journalism genres are tackled.

JCM221 Political Economy of Media 2 cr.
This course aims to study the science of production, distribution and wealth consumption, especially theories and methods of diverse schools of economy and politics, applied to media. RJCM 500 is a remedial equivalent course.

JCM224 General Journalistic Translation A-C/C-A 3 cr.
Pre-requisites ARA120
This course offers students different translation methods A- C/C-A: equivalence, correspondence, literary translation, free translation, etc. It is also an initiation to translation genres: literary, scientific, technical, economic, legal, etc. In the journalistic field, this course trains students to translate journalistic lexis.

JCM225 General Journalistic Translation A-B/B-A 3 cr.
Pre-requisites ARA120

French-educated students can opt for this translation course, in case their linguistic background does not enable them to follow JCM 224. This course offers students different translation methods A-C/C-A: equivalence, correspondence, literary translation, free translation, etc. It is also an initiation to translation genres: literary, scientific, technical, economic, legal, etc. In the journalistic field, this course trains students to translate journalistic lexis.

JCM228 Data Collection and Analysis in Journalism 3 cr.
This course presents quantitative (statistics: variables, population, sampling, questionnaires, etc.) and qualitative methods (interviews, observations, biographies, analysis, etc.) in investigative journalism. RJCM 501 is a remedial equivalent course.

JCM229 Journalistic Writing Workshops 3 cr.
Pre-requisites ARA210
The objective of this course is the acquisition of techniques to write different kinds of articles. It is a workshop where linguistic skills are requested to serve various journalism genres. RJCM 502 is a remedial equivalent course.

JCM310 Communication Theories 3 cr.
The course presents famous schools and authors who have established the most important theories in communication on individual and collective levels. It also seeks to provide students with the basic tools for a better understanding of the communication process, in theory and practice. RJCM 503 is a remedial equivalent course.

JCM314 Journalism Genres 3 cr.
This course conveys appropriate methods and know-how to make reports, inquiries, accounts, interviews, from the very first stages of concept to finalization.

JCM315 Television Report Techniques 3 cr.
This course is intended to tackle technical processes while making a TV report (camera handling, image language, sound takes, editing, etc.). RJCM 504 is a remedial equivalent course.

JCM316 Media Law and Deontology 3 cr.
This course tackles Media and Communication Law, reviewing different official Lebanese texts. It also poses and analyzes ethical issues in journalism, alongside other media ethical codes. RJCM 505 is a remedial equivalent course.

JCM322 General Contemporary History (Current World Issues) 3 cr.
This course explores History in the 20th century, from World Wars I and II, reaching the new world order after the Gulf War. It helps students to read social-historical news in the light of important upheavals in the 20th century.

JCM324 Media and Society 3 cr.
This course explores the role of media in society as a communication medium and socializing agent, exploring functions of media and technology advances with their relative impact on daily life and evolution of society.

JCM326 Multimedia Journalism 3 cr.
Pre-requisites JCM229 or JCM413
The course defines the characteristics of bimedia journalism; web journalism; blogging and social media, in order to enable the students to write and edit contents for digital media.

JCM327 Specialized Press 2 cr.
This course offers students information about the advantages and pitfalls of specialized journalism (economy, agriculture, fashion, sports, games, health, computing, travel, etc.), with an aim to develop writing skills and techniques in the field.

JCM328 Photojournalism 2 cr.
The objective of this course is to convey practical information about photojournalism, including initiation into shooting methods and mastery of specific parameters (lighting, framing, picture composition) in order to make photo portraits, and photo reports.

JCM415 Media Techniques: Newspapers 2 cr.
This course prepares future editorial secretaries, with a primary focus on editing techniques; from the very realization of a cover.

JCM416 Media Techniques: Radio 2 cr.
This course offers basic information on radio journalism, from field work to studio, defining the roles of the radio team (presenter, chief editor and reporter), explaining the difference between different radio formats, alongside typical exercises targeting radio writing, editing, and mastering vocal core competencies, as well as diction. RJCM 506 is a remedial equivalent course.

JCM417 Media Techniques: Television 2 cr.
The objective of this course is to offer a training experience to write and present TV news, while optimizing body language in front of the lens. RJCM 507 is a remedial equivalent course.

JCM418 Sociopolitical Communication 2 cr.
This course introduces concepts in socio-politics related to “plural societies” and “national identities”, in order to understand and analyze challenges of communication interfaces in a globalized world, considering socio-political and socio- cultural factors.

JCM419 Advertising Communication 2 cr.
This course describes the world of publicity (structure, agents, and different aspects), shedding light on its importance to society. It also reviews major advertising supports, specifications and evolution, starting from the most classical (newspapers, billboards, ratio, TV), reaching the internet and new media, with an analysis of media messages.

JCM425 Media Geopolitics 2 cr.
This course describes the geographic division of media in the world, tackling unstable division, division between the consumer and productive world, the underdevelopment issue in the media world, and the right for equal access to information.

JCM426 News Agencies 2 cr.
This course traces the history of news agencies, and expands on the most eminent among them, to study the way they operate; especially processes of data collection and treatment to produce transmissible information.

JCM427 Semiology of the Media Image 2 cr.
Visual literacy is the ability to create images that communicate information in aesthetic and meaningful ways. It is also the ability to interpret images. This course provides you with the analysis tools of the media image in its synthetic, iconic and linguistic aspects. With the theoretical reading assignments you will be provided with the vocabulary to communicate the meaning of different types of images. It focuses on advertising images, caricatures and press photos, offering an

analytical framework that allows you to understand how to shape meaning in these systems of signs.
Course Goals: The goals of the class are to gain a practical understanding of semiotics, improve critical thinking skills, and learn to use semiotics to think logically and to analyze communication, meaning, and culture.

JCM428 Analysis of the Media Discourse 2 cr.
The objective of this course is to offer required theoretical and practical elements to analyze different types of media discourse. Based on different methods of analysis, it includes practical exercises from newspaper and TV discourses.

JCM429 Professional Internship 2 cr.
Students are required to pass through a traineeship of 45 hours in a press office, company, or advertising agency. They should become familiar with the different services and posts, before selecting a certain job. On completion, they will submit a report of 15 pages summarizing their performed tasks and experience.

JCM515 Media and Public Opinion 2 cr.
This course highlights the methods used by media to influence public opinion and vice versa. It also tackles the concept of "event" within media (criteria to report an event, impact, situation, interpretation, main differences between a journalist and historian in event reporting).

JCM516 Psychology of Communication 2 cr.
This course defines the key concepts that students need to know which are used to enhance understanding of each other, leading to a better influence of others. Persuasive communication demands a real knowledge, in the fields of advertising and media, in order to analyze future discourse and measure its impact when received.

JCM517 New Technologies, New Media 2 cr.
This course reviews diverse techniques related to new technologies in the field of communication. From print media to electronic media, going through audiovisual media, "new media" are emerging with technological progress, and development of the consumer society. This course is an introduction to the operational aspects of new communication and information technology.

JCM518 Media: Freedoms and Deontology 2 cr.
This course discusses different texts with respect to press freedom, as guarantors of individual and group freedoms. It reviews the factors affecting press liberties, elaborating on the relationship between press independence, politics and finance. The course also examines different ways to ensure respect of this freedom, as well as the professional code and ethics in journalism.

JCM523 Political Behaviors and Mass Communication 2 cr.
The objective of this course is to understand and analyze social phenomena in relation to political power and control. In terms of taking or retaining power, by or for different stakeholders, it is more and more essential to resort to different techniques of communication and public conditioning in political practice.

JCM524 Economics and Media Management 2 cr.
This course examines the role and impact of the media in economy, with a main focus on different aspects required to operate a media company.

JCM610 Strategies and Tools of Public Communication 2 cr.

This course examines adequate techniques and methods to be used, in order to implement a communication strategy with optimum results. As there are multiple communication tools, this course offers a theoretical approach, followed by practical applications allowing a better mastery of the techniques.

JCM611 Globalization and Cultural Diversity 2 cr.
This course introduces the ways by which each human society and linguistic group sees its own culture and civilization, and strives to find distinctive features, while accepting - to a certain extent - different cultures to live in its community.

JCM612 Internationalization of Media 2 cr.
This is an introductory course to different concepts and issues related to the internationalization of the media industry, in relation to international relations, political economy, cultural studies and New World Information and Communication Order.

JCM613 Bilateral, Multilateral, Mediation and Globalization 2 cr.
This course develops various types of communication used between countries in diplomacy and politics, from the United Nations to the European Union and the Arab League. Students will be able to understand the role of the State, and bilateral relationships between States. The course provides explanations about various existing international organizations (role, structure, relationship with these organizations).

JCM620 Multicultural Communication 2 cr.
This course explores consubstantial relationships between communication and culture. As an important and essential element of the communication act, cultures live, perpetuate and renew themselves through communication. The course introduces communication semiotics, and invites students to analyze the mechanisms of intercultural communication.

JCM621 Thematic Seminars 2 cr.
The course is a cycle of seminars, involving qualified professionals and specialists from other fields, who will explain the real needs of the market, alongside the available media means to meet these needs.

JCM680 Professional Internship 3 cr.
This course is based on a one month traineeship in a press office, company or advertising agency. During traineeship, students will become familiar with the different services and posts, before selecting a certain job. On completion, they will submit a report summarizing their performed tasks and experience.

JCM690A Master Dissertation 6 cr.
After completion of the MA courses, students are required to prepare and submit an independently researched dissertation, under the close supervision of a department professor or expert of the field. They should conduct their own original research and write a dissertation of approximately 150 pages in length, on a chosen theme or issue relating to journalism and communication.

LFR201 Advanced French Language Course 3 cr.
Prerequisites LFR120
This course enables students to master all grammatical functions and to manipulate the different types of clauses: independent, main and subordinate. The overall method adopted is inductive and the approach is that of text grammar.

LFR205 Modern Cultural Issues in French 3 cr.

The main objective of the course is to educate future translators in the major political, economic and social contemporary developments, comprehended in their philosophical, historical and human dimensions. It also aims to create in students the habit of reading the world press (French in particular) to familiarize them with the analysis styles used and to think critically.

LFR210 Myth and Literature 3 cr.

This course seeks to initiate the students to the sources of Western literature through the study of Greek and Roman myths. The course consists of two parts. The first part includes the definition of myth in general, of the Oedipus myth in particular, and a presentation of ancient tragedy. The second part focuses on the comparative study of ancient tragedy and a classic tragedy. The course concludes with an introduction to the myth criticism approach.

LFR211 Introduction to the Poetics of Texts 3 cr.

The course defines specific concepts and methods related to the literariness of a text: fiction, mimesis, figures, versification, etc., and introduces students to the analysis of writing techniques involved in various genres and types of texts. This course represents an introduction to critical approaches which will be elaborated on later in targeted courses.

LFR212 Commentary 3 cr.

Students will acquire the methodology of argumentative writing through the written review. They will be introduced to basic analytical tools and to various aspects of making reviews (introduction, plan, development, transitions, conclusions and presentation criteria). Literary genres and typologies will be covered through a varied corpus consisting of texts covering the different eras.

LFR216 Techniques of Expression in French 3 cr.
Pre-requisites LFR201

This course initiates students to analyze different kinds of oral or written texts through communication, enunciation, semantics, narration and argumentation theories. It also develops formal and stylistic specificities peculiar to each type of speech and leads students to analyze and produce different types of texts. It helps students to consider, later on, in their translations the communication strategies and other types of speech due to their identification and analysis in this course.

LFR220 History of French Literature I (from the 18th to the 20th century) 3 cr.

Literary history (18th, 19th and 20th century) invites students to re-explore the French literature of modern times through its main authors and movements. It uses mainly the diachronic approach which enables students to relocate a work within a broad literary movement, to identify the specificities of expression modes related to an era or to a literary genre, and to understand the conveyed literary sensibilities.

LFR221 Literature, Culture and Society 3 cr.

This course aims to shed light on the relationship between society and literary production by relying on the historical and political context of a specific era. The chosen time is the 1950s, a period shaken by the two World Wars whose influence is particularly seen in writings that fall within the dramatic genre.

LFR222 General and Comparative Literature 3 cr.
Prerequisites LFR212

The course consists of two parts: the theory and method of comparative literature, using the comparative commentary; and the application of the method to three plays inspired by the Don Juan myth.

LFR224 Elements of Linguistics 3 cr.

Based on texts written by the founders of the discipline, this course will introduce students to the history of linguistics and the main linguistic concepts and theories developed to date, in order to familiarize them with the various fields of the application of linguistics. This introduction will be followed by a study of the French phonetic and phonological systems: synchronic study of sounds, articulatory and combinatorial phonetic transcription, and the phonological approach to French (articulation points and modes of phonemes, minimal pairs, distinctive features, etc.). It will be followed by the study of phonetic evolution.

LFR225 Description and Practice of French 2 cr.

Prerequisites LFR214 Or LFR112 Or LFR101

This course adopts the inductive method and a textual grammar approach. Its objective is to lead the students to a good knowledge of the French language: grammatical functions and classes, verbal system and syntax. The students will be able to identify, then to manipulate, analyze and produce all kind of French sentences.

LFR310 Literatures and Cultures of the Francophonie 3 cr.

This course aims to examine the expansion of Francophonie based on two problem issues: the first one deals with the relationship between history, politics and literature; while the second deals with the link between the francophone writer and the French language. The issues will be examined using a grouping of texts taken from the most representative books of Francophonie.

LFR311 Poetics of Genders 3 cr.

This course aims to analyze, diachronically, the poetics of literary genders, particularly poetry, through rhyming and non-rhyming poems, in addition to theoretical texts (prefaces, essays, manifestos, etc.). The course also aims to determine the intrinsic relationships between the poem's form and its thematic substance, associated with the socio-cultural context of the relevant era.

LFR312 Latin Language System 2 cr.

The initiation of students to the Latin language is essential to their understanding of the origins of the French language. However, the first contacts with Latin are particularly challenging. While seeking to preserve the attractiveness of the ancient language, this course attempts to facilitate the access of beginners to its morpho-syntactic system and to its huge lexical resource.

LFR316 Morphology and Syntax 3 cr.

Prerequisites LFR201

This course is about lexicology which is divided in two branches: lexical semantics and lexical morphology. We will first define lexicology, word and lexicon. Then, we will explain Saussure's theories about the sign, the different kinds of definitions and semantic relations. In Morphology, we will treat words' formation (derivation, composition, etc.).

LLA318 Arabic Morphology and Syntax 3 cr.

Pre-requisites ARA210 or LLA210

This course aims to help students acquire the basic rules of Arabic morphology and syntax (from the perspective of functional grammar). It will allow them to produce a grammatically correct text. The method adopted uses a text or a series of typical examples, from which the students derive the rule, acquire it and apply it appropriately.

LFR320 History of Literature II (from the Middle Ages to the 17th century) 3 cr.
Prerequisites LFR220
The diachronic history of European literature in general and French literature in particular (Middle Ages, Renaissance and 17th century) aims to familiarize students with the evolution of literature, focusing on works which stood out in their respective eras. At the end of this course, taken after both the Written Review and Dissertation courses, students will be able to understand the thematic sensibilities, in addition to literary genres and modes of expression.

LFR321 Origins of French 3 cr.
The history of the French language goes back to the Latin sources, which were embraced later in the linguistic evolution. The Department of French Language and Literature provides a twofold learning experience, each aspect of which has a total of 22 hours. The first diachronic part, ranging from the Latin to the 16th century, considered as the beginning of linguistic stability, involves the four types of change, namely morphological, syntactic, lexical and phonetic. The second synchronic part deals with the state of the language, mainly in the 12th or 13th century, and examines its functioning based on a literary work.

LFR322 Imaginaries and History 3 cr.
This course briefly retraces the Napoleonian's epic in order to show its influence on the 19th century literature. This myth, which has influenced the collectivity's imaginary, will be studied through three integral works. We will also analyze some excerpts from another writings. At the end, we will educe some constants about this myth's perception as well as some major differences.

LFR409 Topics in French Literature 3 cr.
This course will successively shed light on the structural and narrative characteristics, as well as the thematic constants of the fairy tales and fantasy through a corpus of short stories and stories that reveal the evolution of both genres between the 17th and the 20th century.

LFR411 Latin Language and Civilization 3 cr.
Accessing a second level of learning Latin clearly requires a preliminary initiation. This course will first endeavor to summarize and deepen certain language skills, then complete this first level with an indispensable civilizational supplement. To this end, the implementation of a teaching method alternating between language and civilization will offer students the opportunity to rediscover the heritage that founded the French language and thinking.

LFR412 Critical Approach 2 cr.
Initiation to the structuralist-narratological approach of a text using the method of Gérard Genette.

LFR420 Literary Readings 3 cr.
Prerequisites LFR314
This course is designed to study the work of Jean Cocteau, a marginal author whose pluralistic work played a leading role in 20th century literature. Novels, poetry, theater, cinema, music and painting are all areas that were explored by this unique author.

LFR421 Lebanese Literature 3 cr.
Prerequisites LFR314

This course aims to introduce students to the various aspects of Lebanese literature in the French-speaking world. The relationship between French-speaking Lebanese authors and the French language will be examined. The French language is a language of friendship, a language of liberation, but also a language of revolt from the first traces of Francophonie in Lebanon till the present day. More particularly, the images of Lebanon reflected by the authors under study will be addressed. The course will conclude with an overview of the current Francophone Lebanese literature and the study of a contemporary work.

LFR422 European Literatures and Cultures 3 cr.

The course consists of two parts: presentation of the historical, social, religious and literary context in which romanticism flourished; and a study of romantic texts and paintings which belong to the movement in Germany, Britain and France. The comparative study of these texts will lead to an understanding which highlights the similarities and differences that reveal the intentions of each writer.

LFR423 Linguistics of Enunciation 3 cr.

Prerequisites LFR224

This course aims to introduce students to the theory of articulation. After locating articulation in the field of linguistics, the course will familiarize them with the components of indexical deixis, with the characteristics, particularly the verbal ones, of the articulation plans and with the different forms of the enunciative heterogeneity. The presentation of each notion will be followed by a relevant observation, analysis and interpretation in the selected literary texts.

LFR520 Culture and Modern Civilization Seminar 2 cr.

This course deals with the analysis of what makes the unity of a culture and differentiates it from others. It is based on the theories of Margaret Mead and de Bruno Latour who are concerned with how individuals receive their culture and integrate it within their personal development. Based on the study of exemplar stations of French culture that range from the Golden Age, though the Roaring Twenties, the period between the two World Wars, May 68, the Women's Liberation Movement and the French theory (Derrida, Barthes, Guattari, Bourdieu), we will challenge the biases rooted in attitudes, and we will study using literary texts the difference between men and women in French society according to the psychosocial context, besides studying gestures and corporeality related to each gender. We will also focus on the movement of ideas at the end of the 20th century in interaction with the cultural totality.

LFR521 French Literature Seminar I 3 cr.

This course proposes a philosophical approach to literary texts of 20th century authors, placing the literary work at the intersection of the concerns and aspirations of a group and/or an individual. Hence, students deal with another phase of the pluralistic reading of a literary work showing the intersection of this writing within a multidimensional space-time framework, placing the work at the crossroad of a convergence of thoughts rooted in a particular era, while transcending it; however, these works remain literary in the first place regardless of the genre used.

LFR522 French Literature Seminar II 3 cr.

This course is designed to teach the Freudian and Jungian schools to the students of the Masters in French Language and Literature, as well as their application to literary texts as critical approaches of the sub-textual discourse, or in other words the unconscious of the text.

LFR524 French Linguistic Seminar I 3 cr.

The course consists of two parts. The first is devoted to a review of linguistic and stylistic concepts. The second deals with the application of concepts to poems taken from two collections: Les Fleurs du mal by Baudelaire, and Liban: Vingt poèmes pour un amour and Archives sentimentales dune guerre au Liban by Nadia Tueni, in order to write a stylistic review of a poem.

LFR525 French Linguistic Seminar II 3 cr.

This seminar aims to remind students of the stylistic guidelines and help them to apply these concepts to a specific corpus. The selected corpus is a collection of monologues taken from works that belong to the period from the 17th to the 21st century.

LFR526 Seminar: Theater 3 cr.

The course focuses on the evolution of the genre. A diachronic vision attempts to trace the sources of Greek tragedy, to show the future of dealing with the tragic themes, the appearance of comedy and the creation of the tragicomic genre. The corpus is rich: the syllabus includes Aeschylus, Euripides and Sophocles, Plautus, Adam de la Halle, Monléon Robert Garnier, Tirso de Molina, Shakespeare and Calderón. The seminar, refraining from an artificial thematic repartition, will dwell on many areas of interference before examining the preparations for classical drama.

LFR610 Seminar: Comparative Literature 3 cr.

The course consists of three parts. The first part reviews the Oedipus myth, the ancient and the classical tragedy. The second part focuses on a comparative study of a Greek tragedy, The Phoenician Women by Euripides and two classical tragedies, The Thebais by Racine and Oedipus by Corneille. The third part is devoted to an introduction to myth criticism.

LFR612 Seminar: General Linguistics 3 cr.

The objective of this seminar is to review issues related to language and gender; exploring female and male dialects by presenting them in their most representative aspects at many levels relating to phonology, syntax, morphology and multiple contingencies that govern every utterance. The language in question is not only verbal but also gestural. In this brief overview, we rely on the course of general linguistics by Ferdinand de Saussure. We then propose outlining a new question in terms of linguistics of sexual difference by referring to contemporary linguists: Lakoff, Verena Aebischer and Anne-Marie Houdebine.

LFR621 Seminar: French or Francophone Literature 2 cr.

The course is dedicated to a hermeneutic reading designed to teach students the decryption of sacred symbols, as well as the application of philosophical and religious concepts to literary texts, presenting the rationale of evil (the pact with the devil, metamorphosis and inversion) and good (the quest of the Self, the quest of God and angelism).

LFR623 Seminar: Pragmatics 2 cr.

This seminar aims to introduce pragmatics as a linguistic discipline. The various pragmatic theories which help examine the functioning of words in situations will be introduced, in addition to the extra-linguistic processes for the production and interpretation of meaning. These theories will be applied to extracts of theater, a dramatic genre presenting many similarities with authentic conversations, the real object of interest of pragmatics.

LFR690A Master Dissertation 6 cr.

LLA212 Introduction to Linguistics 3 cr.

This course will provide an introduction to the discipline of linguistics. It focuses on the fundamental concepts, the basic goals and the methods of modern theoretical linguistics. It introduces students to linguistics through the writings of well-known linguists, such as, but not limited to, Ferdinand De Saussure, Bloomfield, André Martinet, Roman Jakobson, and Noam Chomsky. By the end of the course the students will be familiar with some of the terminology and techniques of linguistic analysis.

LLA222 Introduction to Rhetoric and Stylistics 3 cr.

The course is designed to help the students practice writing, reading, evaluating, formulating, and presenting opinions in writing based on the best available evidence, using the methods of formal argument and the methods of rhetorical style.

LLA224 Introduction to the Study of Literary Genres 3 cr.

The focus of the course is on modern drama, and poetry arts such as instructive topic, wisdom, and lyrics. The course aims at helping students gain awareness in the cultural experience of modern drama and topic poetry. It familiarizes students with literary movements such as naturalism, symbolism, realism, and other dramatic features.

LLA312 Pre-Islamic and Umayyad Epochs 3 cr.

The course covers, in introduction, the civilization and the literature of the Pre-Islamic epoch. It helps students to recognize various topics such as glory poetry, chivalry, wisdom, speech, and enthusiasm. Then the course covers the civilization and the literature of the Early Islamic and Umayyad Era. This course aims to distinguish between the development of poetry and prose in this period, and to describe the different methods and characteristics of Early Islamic and Umayyad literature such as Islamic poetry, Umayyad speech, and epistles.

LLA315 Novel and Theater 3 cr.

This course aims to offer students a detailed study of the development of the 20th century novel as an outcome and reaction to the 19th century novel. The course gives special attention to some of the major Arabic novelists, such as Najib Mahfouze, Toufic Youssef Awad, and Amine Maalouf. This course offers both a historical survey and a literary history of the development of drama. It concentrates on critical analysis of the distinguishing features of the different genres and sub-genres in drama, tragedy, comedy, and tragicomedy. This course gives special attention to the major Lebanese theater, such as the Rahbany brothers, Shoushou, Nabih Abu El Husn, and George Khabbaz (modern theatre).

LLA316 Literature in the Abbasids Era 3 cr.

The course is designed to help students study the civilization and the literature of the Abbasids Epoch. This course aims to distinguish between the development of poetry and prose in this period, and to describe the different methods and characteristics of Abbasids literature (poetry, speech, narration, maqama, music, and singing).

LLA318 Arabic Morphology and Syntax 3 cr.

Prerequisites ARA120 Or LLA210

This course aims to help students acquire the basic rules of Arabic morphology and syntax (from the perspective of functional grammar). It will enable them to produce a grammatically correct text. The method adopted uses a text or a series of typical examples, from which the students derive the rule, acquire it and apply it appropriately.

LLA319 Evolution of the Arabic Prose and Poetry 3 cr.

The course traces the development of Arabic prose through an in-depth study of major figures. The focus of the course is to delineate the changes in prose modes, from antiquity to the

renaissance epoch. It will help the students to be able to identify the forms of Arabic prose style such as letters, report, description, novel, criticism, speech, essay, and article. This course also offers an introduction to the major poetic movements that shaped Arabic poetry. It traces the major development in poetic conventions, modes and genres such as Classicism, Romanticism, Symbolism, Impressionism, and Surrealism. Using examples from different periods, the students will be able to develop a sense of how poetic modes changed across different periods.

LLA322 Prosody and Poetic Harmony 2 cr.

The aim of the course is to explore the melodic and rhythmic aspects of the languages of the word. Emphasis is placed on theoretical and experimental approaches to cross-linguistic typology. Specific topics include: syllables and syllable-weight; rhythm and speech timing; stress and metrics; and tone and intonation.

LLA323 Literature in the Mamluk and Ottoman Era 2 cr.

In this course, the students learn about the developments of the Islamic world during the period of Mamluk and Ottoman colonial domination and its aftermath, with special attention to the works of leading authors. In Mamluk literature: Al Boussayri, Saffieh Al Dinn, Ibn Nabata, Ibn Manzour (lissan Al Arab), Salah Al dinn Al safady (Alwafi bel Waffiatt), and Al KalKashindi (Sobeh Al Ashaa). From the Ottoman literature: Ibn Al Nakib, Ibn Maatuk, Nicola Al Turk, Boutros Karame, and Bader Al dinn Alghozzi.

LLA324 Literature in the Renaissance Era 3 cr.

This course introduces students to Renaissance literature by studying the history of this period and the famous authors and poets who changed the structure of literary texts. This course aims to consider many poetry texts, and to study the influence of printing, and of journalism, the pedagogic foundation which left their effects on Arabic modern literature. The students will be looking at important poets and writers, such as Ahmad Amine, Gergi Zayden, Joubran Khalil Goubran, Micheal Nouayme, and others, and they will study the characteristics of literary production in the light of new methods of modern criticism.

LLA325 Literature in the Andalusian Era 2 cr.

In this course, the students study the prose and the poetry of Andalusian literature. They will study literary genres in order to interpret, analyze, and critically evaluate selections. Poetry topics: nostalgia, nature, terza rima (mouwashah). Poets: Ibn Zaydun, Ibn Khafaja, Ibn Zumrok, Wallada bent Al Mustakfi. Prose topics: Maqama, biography, speech, the short novel, Diwan writing. Writers: Ibn Abd Rabboh, Ibn Tufayl, Ibn Shahid. The students will also learn about the Andalusian civilization, aspects such as religions, languages, the role of women, culture, and society.

LLA326 Overseas Arabic Literature 2 cr.

This course is an introduction to the major literary movements of overseas writers, starting with Gebran Khalil Gebran, M. Nouayme, R. Ayoub, N. Arida, among others. The course traces the major development of Arabic literature overseas, and helps students to investigate the themes and the characteristics of this literature.

LLA411 Comparative Literature 2 cr.

This course investigates the nature and scope of comparative literary studies, focusing on the nature and assumptions of literary study undertaken from several comparative perspectives. It is designed to equip students with the tools necessary to critically analyze texts in light of other texts.

LLA412 Arabic Linguistics Problems 2 cr.

This course is a continuation of LLA212. It stresses the importance of linguistic evidence in understanding grammatical correctness. Focusing on the acquisition of basic vocabulary and grammatical structures, it helps students explore, in depth, the principles of word formation, derivation, and inflection, and simultaneously provides an overview of the major syntactic constructions of Arabic.

LLA413 Modern and Contemporary Arabic Criticism 2 cr.

The course prepares students to study, evaluate, and interpret the Arabic literature texts. It will help students to recognize the different methods to criticize the literary text by using the logic interpretation and constant evaluation. The course aims at enabling students to practice how to use different theories, how to read literature, and how to relate literary theory to the cultural background.

LLA414 Semantics 2 cr.

This course will examine meaning from a variety of perspectives, including how it is encoded in words and sentences, how native speakers interpret language, and how truth and falsehood can emerge from the complexity of the grammar. We will also touch on various aspects of pragmatics; the function of meaning in a communicative setting.

LLA415 Lebanese Popular Heritage 2 cr.

This course presents the Lebanese popular language and its importance, its Aramaic origins, and the interest of its study for Westerns. It defines the rules and meters of Lebanese folk poetry, the Zajal (its different genres, its pioneers, along with its modern and contemporary troops), the Muwassah, al- Ataba, al-Mijana.

LLA421 Arabic Philology 2 cr.

The focus of the course is on philological and literary analysis of Arabic religious and secular texts from late antiquity to the present. In the language modules students who have chosen the Arabic Studies specialization obtain the ability to use primary Arabic source material.

LLA423 Modern and Contemporary Arabic Literature 2 cr.

This course presents the modern Arabic literature of prose and poetry. It defines modernity and its general characteristics: the literary genres (novel, play, biography, literary research). It presents the contemporary Arabic literature and its universal dimensions: the Arabic novel, its principles and general rules, the movements that it illustrates, and its methods. At the poetry level, the course defines the concepts of modern, new and contemporary. It reviews the history of modern poetry: its beginnings, its pioneers, its stands, its directions, as well as its various forms of prose, poems, and poems subject to the rules of prosody.

LLA425 Lexicology, Lexicography and Encyclopedias 2 cr.

This course has been designed to provide an innovative methodology for the task of Arabic vocabulary acquisition. As many students have learned so far in their study of Arabic language, retention of new and useful vocabulary remains one of the most formidable challenges. The principal goal of this course is to facilitate active/passive vocabulary retention. The mechanics of its lexical analysis should complement well the syntactic analysis techniques previously encountered with the contextual reading.

LLA426 Translation: Themes and Versions 3 cr.

This course is designed to exercise linguistic habits (competence and performance) of the student, to enable him to translate a French text into Arabic and vice versa, usually easy to read, avoiding as far as possible the usual interference.

LLA511 Seminar: Literature I 3 cr.
The aim of the course is to define the features of major literary genres: poetry, prose, and drama. The design of the course involves the explanation and modes of analysis of the different types of each genre. It focuses on contemporary authors and on current fields of interaction between arts, sciences and literature.

LLA512 Seminar Linguistics I 3 cr.
The aim of this course is to make the students aware of the importance of studying linguistics theory in order to be acquainted with the grammatical efforts of former Arab grammarians (al khaliil bin Ahmad, Sibawaih Ibn Jinny) who analyzed, in their books, the Arabic language through a scientific methodology which does not differ from the linguistic methodology adopted by the generative and transformational grammar. Topics include, but are not limited to, the grammaticality of sentences, the definition of human language, the linguistic competence, and the nominal phrase.

LLA520 Seminar: Contemporary Culture and Civilization 2 cr.
This seminar aims, through a diachronic approach, and starting from the relationship between thought, language and civilization, to shed light on the great trends, movements and schools which have marked, with the passing centuries, Arabic society and culture, and this from within literary texts and founding documents.

LLA521 World Literature 3 cr.
This course introduces students to the diverse genres of international literature and to masterworks produced by Arabic authors. It will help students to read, analyze, and research diverse and significant literary texts. Genres studied include fiction (novels and short stories), drama, comedy, lyrical literature, imagined story, speech, poetry and prose.

LLA522 Textual Approaches 3 cr.
This course aims to help students to approach the literary texts, understanding them by using the modern criticism, studying the form of texts, structure, linguistic style, and evaluating them as performance text meant for production. Students will research and study literary elements of narrative forms, and storytelling traditions of different cultures.

LLA523 Seminar: Modern Theater 3 cr.
The seminar focuses on the esthetics of drama and distinguishes between modern and contemporary drama writing and classical drama poetics. It analyzes Lebanese and Arab theater from pragmatic and intercultural perspectives.

LLA610 Seminar: Arabic Literature II 3 cr.
The aim of the seminar is to define the features of major literary genres: poetry, prose, and drama. The design of the course involves the explanation and modes of analysis of the different types of each genre.

LLA612 Seminar: Arabic Linguistics II 3 cr.
This seminar introduces students to the fields of applied linguistics. It explores how children from infancy to the early school years learn their first language and presents an overview of psychological research and theory on language acquisition. It also covers applications of various branches of linguistics to the methods and approaches of teaching Arabic language.

LLA621 Seminar: Comparative Literature 2 cr.

This seminar will acquaint the students with basic methods and concepts of criticism through close reading of key texts (lyric poetry, drama, short fiction) by major authors. It will offer the students the chance to investigate what constitutes the field of comparative literature. They will trace the history of the discipline and explore traditional as well as recent areas of research, such as interdisciplinarity and global and multicultural comparativism. Students will investigate how to more fluently cross the boundaries of disciplines and national literatures. The course involves a thorough reading and understanding of the background, history, and literature associated with world literatures.

LLA623 Seminar: Civilization and Literature Topics 2 cr.

The course is designed to focus on major issues in literature, such as gender, racial, ethnic, religious, political, colonial and postcolonial culture and multiculture. This course aims to raise the students' awareness of the inter-relationship between literature and society in all of its facets.

LLA690A Master Dissertation 6 cr.

The dissertation, which consists of 100 to 150 pages, crowns the completion of the Master's degree by elaborating upon an Arabic literature subject. Students will learn to manage the difficulties of writing a scientific work supported by appropriate research and one that is presented in a rigorous and clear manner. Through the dissertation, the students must successfully prove that they master the components of the methodology required to achieve a scientific work, and that they are able to analyze, argue, illustrate, and defend a thesis, as well as validate a problem, relying on strong and authentic documents and bibliographic references.

LLA700 Seminar: Scientific Research Methodology 3 cr.

This seminar aims to give graduate students the means to acquire the methodological skills essential to the development of their thesis, according to internationally accepted standards. It aims to help them respond quickly to questions they pose relative to the choice of topic, the organization of their work, using information available to them, in the writing of the thesis, and running the defense.

LLA710 Seminar: Comparative Literature 3 cr.

This seminar aims to develop and deepen knowledge of the Ph.D. students in comparative literature. It broadens their cultural horizons by comparing their own literature and those of other nations. It enables them to compare their own thoughts to those of others, and that of their society with those of other foreign societies, such as customs, traditions, tastes and arts that are peculiar to each of them. It raises global issues in the field of the literary world, presents the characteristics of the different schools of comparative literature, and studies the links connecting literary subjects to those of other humanities disciplines, as well as the corresponding manifestations of these same subjects in other literatures.

LLA711 Seminar: Linguistics and Terminologies 3 cr.

This seminar will focus on certain problems in linguistics and terminology issues which enable a fresh look at a number of key concepts used in linguistics, such as those of sign, categorization, concept, competence, denotation, and connotation. Particular emphasis will be placed on the interest that there may be to analyze, in a terminological framework, metaphors and figures of speech. This doctoral seminar proposes supervised student activities on research projects identified on an individual or small group basis.

MTR500 Research Methodology 3 cr.

This course improves student skills in writing research proposals and conducting basic research. It enables students to become critical readers of professional literature and develop a critical spirit of inquiry by providing a structured way of thinking about information studies problems

and their resolutions. Thus, students will practice writing a typical research proposal which includes: thesis statement/hypothesis, context, variables, literature review, research methods, outlining, results, and so forth. They will also apply basic aspects of quantitative and qualitative analyses within the frame of research proposals. The purpose of this course is to provide students with research training: knowledge and skills. It includes theoretical and methodological teachings, in addition to practical applications. It introduces students to research techniques and analysis methods, and provides them with the methodological framework required to write a research paper or a thesis. The course also includes a purely technical and formal objective: empowering students to apply the rules of research presentation in accordance with what is required by the University, or even on a universal scale, through the implementation of practical work adapted for this purpose (using methodology books, reviewing dissertations or theses, project outlines to be submitted, reports on the proceedings of defense sessions, etc.).

MTR501 Research Methodology 3 cr.

This course aims to provide students with research training: a knowledge and a "Know-how". It includes theoretical and methodological teaching, as well as practical applications. It introduces students to research techniques and analysis methods, and provides them with the needed methodological framework to perform a research note, a paper, or a thesis. The course also includes a purely technical and formal objective: allowing students to apply the presentation's rules of a research, in conformity with the required by the University, or on a universal scale, by carrying out practical work adapted for this purpose (Reports of methodological books, critical of papers or thesis, draft projects to be submitted, report on thesis defense sessions…).

SYR211 Oriental Language I 3 cr.

This course presents the Syriac language and its importance among the Semitic languages. It teaches various Syriac writings, the alphabet, and the vowels. It also covers the grammar: the nouns, the verbs, the particles (prepositions, conjunctions, adverbs), the adjectives, the pronouns, numbers (singular, plural), gender (male, female), the declension of nouns, and the conjugation of verbs.

SYR225 Oriental Language II 3 cr.

Prerequisites SYR211

This course is a continuation of the course SYR211. It provides a brief overview of the Syriac literature, along with practical texts to illustrate it. It compares between two languages: Syriac and Arabic.

TRD220 Initiation to Translation 3 cr.

Pre-requisites LFR201 and ARA210

This course's objective is to introduce the student to the preliminary Translation strategies, let him acquire its techniques, and apply these general rules by solving exercises. It introduces the student to different types of translation: general translation and mainly journalistic translation, the literary, philosophical, poetic, scientific (ecological, medical, technological…), economical, religious, legal translations… It familiarizes him with the technical procedures of translation that he will use in his professional life.

TRD310 Methodology and Rules of Translation 2 cr.

The goal of this course is to bring students to discover, by themselves and through texts, the fundamental principles of "Translation Studies" by making them confront its various theories. It also allows them to go beyond the limits of correspondence translation (transcoding), towards interpretive translation or by equivalences, by giving the context as much importance as the text,

and by helping them understand, through practice, the stages and the mecanisms of the interpretive theory of translation.

TRD321 General Translation A-B/B-A 3 cr.
Pre-requisites LFR201 and (ARA210 or LLA210)

This course is designed to exercise linguistic habits (competence and performance) of students, to enable them to translate a French text into Arabic and vice versa, making it easy to read and avoiding, as far as possible, the usual interference.

TRD322 General Translation A-C/C-A I 3 cr.
Pre-requisites TRD220 and ENG240

The objective of this course is to introduce students to translation from Arabic into English and vice versa, through a wide variety of texts that may range from technical and scientific to literary; with emphasis on the concepts in both languages rather than on lists of vocabulary.

TRD411 General Translation A-B/B-A II 3 cr.
Pre-requisites TRD321

This course takes the same structure as that of TRD 321, but covers relatively longer and more complex texts.

TRD415 Computer-Assisted Translation 2 cr.
Pre-requisites TRD321

This course aims at familiarizing students with the translation using the various useful computer tools necessary for their work as professional translators, or other similar professions that deals with languages (editor, publisher, journalist, etc.).
The Computer-Assisted Translation (CAT) consists of a set of tools designed to introduce the student to use the computer in his practice of translation. It is designed to guide them through using software, terminology databases, electronic and online dictionaries, and language programs. Thus, the SDL Trados Studio 2014 software, was installed specifically for this course to introduce students to its use. This software is a CAT tool, a translation memory software which helps the students to translate faster, and better manage their translation projects. The importance of this software lies in the ability to create a database that could be inserted into the software memory
The use of technological tools in translation appears with the effective use of various monolingual and multilingual dictionaries, in addition to the good use of the translation software and ensure consistency of terminology and syntax in translation.
In addition, this course is a practical application of translation using the computer as a tool supporting the translation work, and it introduces students to the fast delivery of translation projects in a proper time management.

TRD416 Linguistics and Translation 3 cr.
This course aims to make students aware of the fact that the advent of the first language and terminology had some impact on the translation process. It assesses the contribution of linguistic and terminology in translation studies, explaining how the translators accept the science of language as a precision tool in their professional practice. On the theoretical level, it will explain the decisive influence of language and terminology on translation, in the context of structuralism, Europe, the Prague Circle, and the United States, under the leadership of Eugene Nada, whose work marked a new attitude showing that translation is no longer considered as only an art. Finally, it will demonstrate how the theoreticians of language and terminology are many, and to emphasize the need to link the theory of translation to a theory of language. In practical terms, this course will include an overview of the morphology, lexicography, lexicology and terminology, etc.

TRD421 Legal Translation A-B/B-A 3 cr.
Pre-requisites TRD321

The course aims at introducing students to major legal documents and to the language used to write them. It also seeks to show the importance of respecting the relevant structures and terms. Students will therefore learn to tell the difference between the structure of a law, a decree, a contract, etc., and to find the appropriate equivalence in the target language. Moreover, the course aims at showing the importance of rigour, clarity and consistency in translating texts in which there is no room for vagueness or inaccuracy.

TRD423 General Translation A-C/C-A II 3 cr.
Pre-requisites TRD322

The objective of this course is to let students translate, from Arabic into English and vice versa, a wide variety of long texts that may range from technical and scientific to literary, with emphasis on cultures and civilizations. Students are also invited to do documentary research based on the notion of "translation documentation", in order to completely understand the key concepts related to any domain whatsoever.

TRD424 Economic Translation A-B/B-A 2 cr.

Pre-requisites TRD321

This course aims to introduce students to an understanding of economic reasoning and fundamental concepts and mechanisms of the economy at national and international level, in order to familiarize them with the specific terminology in this area and help them to translate specialized texts from French into Arabic and vice versa.

TRD425 Economic Translation A-C/C-A 3 cr.
Pre-requisites TRD322

The course seeks first of all to introduce students to the different economic and financial processes in order to avoid any misunderstandings that could eventually lead to incorrect translations. Secondly, it focuses on the technical and context-specific terms, idioms and collocations used in the economic discourse. A special attention will also be given to consistency, structure and finding or creating proper equivalences while translating.

TRD428 Conference Translation A, B, C 3 cr.

The course aims at introducing students to the translation of all documents used in international organisations, mainly the United Nations System. To this end, students need to learn how to tell the various types of documents apart, how to translate particular sentence structures used in these documents and how to use the appropriate terms and language for a translation that is consistent with the requirements of the UN.

TRD429 Sight Translation A, B, C 3 cr.

By learning how to translate orally a written text in the target language without previous preparation, students will develop their ability to quickly spot the main components of a sentence in order to understand the structure and the meaning behind it. Moreover, sight translation enriches students' vocabulary, stimulates their memory and general knowledge and develops their ability to rephrase the ideas as a quick solution to difficult structures and terms.

TRD511 General Thematic Translation A-B/B-A 2 cr.

This course uses the same structure as the course of TRD 411, putting particular emphasis on the varied choice of topics related to modern history, geography, sociology and all areas of knowledge.

TRD514 Economic Translation A-B/B-A II 2 cr.

The purpose of this course is to allow the students to develop a high level of skill, to translate from French into Arabic and vice versa, some long and quite difficult economic texts, relating to various topics, including oil, banks and the IMF international concepts and terminology, etc. This is in order to deal with any kind of economic text or newspaper article, and to develop a dual Arabic-French glossary.

TRD520 Economic Translation A-C/C-A II 2 cr.
This seminar trains students to understand and translate economic texts from English into Arabic, and vice versa. The topics of the translated texts are related to current issues as viewed by journalists and scientists of economics. The level of the texts can be described as intermediate specialized. All texts require terminological and syntactic analysis.

TRD521 General Thematic Translation A-C/C-A 2 cr.
In this course, students will have theoretical and practical classes. They will be exposed to the translation of various topics from English into Arabic and vice versa. Special emphasis will be placed on how to deal with cultural differences that constitute the main challenge to many translators, and how to use the accurate equivalence of expressions, proverbs and idioms. Students will also have the opportunity of knowing the weak forms of translations in order to avoid them when they translate. They will also learn how to keep the exact meaning of what they translate, by having a deep insight into the cultural differences.

TRD526 Legal Translation A-B/B-A; A-C/C-A 2 cr.
The aim of this course is to improve students' knowledge and translation of various legal documents and legal styles, mainly through the translation of a wide variety of legal documents. Different types of contracts, acts and declarations, as well as legal texts about them, are to be translated from French into Arabic and vice versa, and from English into Arabic and vice versa. To add to the variety of styles, journalistic legal texts are also translated.

TRD527 Seminar: Contemporary Culture and Civilization 2 cr.
As globalization brings radical changes and new cultural demands to contemporary civilization, which made the international scene witness from time to time, since the end of Cold War, what can be described as a clash of civilizations, and necessitates learning about how different language groups (English-speaking, French-speaking or Arab-speaking groups) see their own cultures, and the problematics caused by interconnecting with the global human civilization. It also requires examining what distinguishes all these multiple cultures, and their willingness to co-exist with different unilateral and multilateral cultures and civilizations.
It is necessary to consider cultural diversity and pondering in the shattering or richness it may lead to.
The research explores the position of each of the major cultures mentioned in the international civilization: their diversity, encounter, contradiction, intertwinement, variations and development. One of the problematics raised in this course, is facing the tendency to encourage either more diversity or more identification and unilateralism.

TRD528 Technical and Scientific Translation A-B/B-A ; A-C/C-A 2 cr.
This course aims to help students become aware of the specific problems caused by scientific and technical translation in the Arab world in general, and to familiarize them with technical and scientific terms in Arabic, French and English. It also enables them to acquire a working method, enabling them to understand any technical or scientific text.

TRD529 Film Translation: Subtitling and Dubbing 2 cr.
This course aims to raise awareness, in the future translators, of the different registers of language (maintained, familiar, slang registers, etc.) made in the movies, in novels or in the works of general

literature, in order to initiate translation practice. It may offer opportunities in television stations or publishing houses, and to make use of audiovisual aid and laboratory translation; and perform many translation assignments of movies, or television broadcasting, excerpts from novels, plays or work of general literature.

TRD620 Liaison Interpretation A, B, C 2 cr.
The aim of this course is to improve students' knowledge and translation of various oral documents styles, through the consecutive translation of a wide variety of texts. Different types of usually spoken discourses are to be translated from French into Arabic and vice versa, and from English into Arabic and vice versa.

TRD621 Editorial and Economic Translation A-B/B-A 2 cr.
This course aims to introduce students to the understanding of economic reasoning, the main concepts and fundamental mechanisms of the economy at both national and international levels, in order to familiarize them with the specific terminology in this area and allow them to translate specialized texts.

TRD622 Editorial and Economic Translation A-C/C-A 2 cr.
This seminar trains students to understand and translate advanced economic texts from English into Arabic, and vice versa. The topics of the translated texts are related to current issues as viewed by journalists and scientists of economics. Students will be able to understand and apply terminology research principles and a methodology for creating terminology records.
Students translate advanced economic texts and analyze terminological and syntactic issues.

TRD623 Legal Translation A-B/B-A II 2 cr.
The course will help the students to develop a legal translator spirit. In continuation of the course TRD 421, the Legal Translation AB / BA - initiates the translator apprentices in the legal terminology and structure of a written law.

TRD624 Legal translation A-C/C-A 2 cr.
This seminar trains students to understand and translate advanced legal texts from English into Arabic, and vice versa. Different legal topics are examined, and the texts to translate are published by national and international legal organizations. Students will be able to understand and apply terminology research principles and a methodology for creating terminology records.
Students translate legal texts and analyze terminological and syntactic issues.

TRD690A Master Dissertation 6 cr.
A work of about 150 pages, most of which is the translation of 50 pages of a current book, which will be an analysis of the traductology problems.

TRD731 Seminar: Research Methodology 3 cr.
This seminar aims to give graduate students the means to acquire methodological skills that are essential to the development of their dissertation, according to internationally accepted standards. It aims to help them respond quickly to the questions coming from the topic they choose, to organize their work, using the information available to them, in the writing of the dissertation and to learn how to manage the defense.

TRD732 Seminar: Interpretive Theory of Translation 3 cr.
This seminar aims to give graduate students the opportunity to understand the dimensions of the interpretive theory, especially its triple process of understanding, deverbalization and re-expression. It also aims to help them to situate this theory among other contemporary translation theories.

TRD733 Seminar: Pedagogical Translation 3 cr.

This seminar aims to give graduates the opportunity to explore the different techniques of pedagogical methods of translation, especially at the University.

TRD734 Literary Translation Seminar 3 cr.

This seminar concerns the theoretical framework, on one hand, and practice and evaluation of the translation of French literary texts into Arabic and vice versa, on the other. It enables exchanges between students, who may be interested in the translation of literary works, and could one day become professional literary translators.

TRD790A PhD Thesis 0 cr.

The PhD thesis, which is about 300 pages long, is the culmination of extensive research focused on a problem of translation studies. It must be innovative and comply with international standards for the development of doctoral theses.

Institute of History

Affiliated to the Faculty of Letters

Overview

The Institute of History at the Holy Spirit University of Kaslik was founded in 1971 as part of the Faculty of Letters. The expertise of its teaching personnel, the continuous updating of its programs, and the adoption of a pedagogy, which has a constant dialogue between theory and practice, are sources of a rigorous 'cutting edge' teaching. Such a skillful teaching method will enable students of cycle I and II to acquire a unique way of thinking, a methodology and a culture appropriate to many professional fields and, Doctoral students to take part in specialized research, which is internationally recognized.

The Institute of History consists of the following departments/programs:

Department of History

- Bachelor of Arts in History
- Master of Arts in History
- Master in Information Studies
- Ph.D. in History

Department of Archeology and History of Art

- Ph.D. in Archeology and Art History

Administration and Full-time Faculty

Dr. Linda Rizk Saber, Assistant Professor, Director
Mr. Attilio De Gasperis, Lecturer
Rev. Fr. Elias Hanna, Associate Professor, Director
Rev. Fr. Jean Maroun (Assaad) Maghames, Associate Professor
Rev. Fr. Joseph Moukarzel, Associate Professor
Rev. Fr. Karam Rizk, Professor

Programs of Study - Undergraduate Programs

Bachelor of Arts in History (Hybrid[i])

Mission

The program aims to introduce students to the history of the region they live in, which constitutes their direct heritage. Students will learn about Eastern history, especially the history of Lebanon and history of the Middle East since ancient times.

Additional courses will be offered covering religious history, such as Christianity and Islam, which contribute in developing a double-sided civilization in the Middle East.

Program Educational Objectives

1. Graduates will conduct objective analysis on historical events in the Middle East.
2. Graduates will master the different aspects of the history of their region: religion, politics, economic and social matters.
3. Graduates will contextualize, in time and in space, the different events they study.
4. Graduates will be able to conduct a comparative analysis on different scales.

Program Outcomes

a. Students will draw and use a timeline in different areas and fields of history.
b. Produce a historical analysis using primary sources.
c. Study and analyze objects of art related to the period they study.

Degree requirements

General Education	**30**
General Education - Arts and Humanities	6
General Education - Behavioral and Social Sciences	6
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - Quantitative Reasoning	3
General Education - Science and Health	3
General Education - Sports	1
General Education - Religious Sciences	3
HIS215 - Lebanon in the Ancient Period	3
Common Core	**31**
AAR305 - Museology and Archeology	2
AAR320 - Introduction to Pre-History	2
AAR335 - Former Semitic Languages: Semitic Group (Phoenician, Hebrew, Aramaic, Syriac)	3

[i] Hybrid: Courses offered in French and/or English

AAR340 - Former Language: Greek or Latin (Indo-European Group)	3
AAR355 - Art History in Lebanon	3
AAR360 - Archeology / Tourism in Lebanon: archeological and touristic sites	2
HIS220 - Lebanon in the Medieval Period	3
HIS225 - Lebanon in the Modern Period	3
HIS230 - Lebanon in the Contemporary Period	3
HIS301 - Historical Criticism	3
HIS320 - Geography	2
HIS485 - Islam: Open Questions: Doctrines, Institutions, Rites, Law, Sufism, Brotherhood, Western Trends	2
Specialization	**35**
AAR415 - Art of Modern Times	3
AAR460 - Contemporary Art	3
HIS385 - Ancient Near-East: Egypt	2
HIS390 - Ancient Near-East: Mesopotamia	2
HIS395 - Ancient Near-East: Syria	2
HIS400 - Greek and Byzantine History	2
HIS405 - Roman History	2
HIS425 - Islam, from Mahomet to 1516	3
HIS430 - Western Middle Ages	2
HIS435 - The Ottoman Empire	3
HIS450 - Modern Europe	3
HIS455 - The Contemporary World	2
HIS460 - Contemporary Middle East	3
HIS480 - History of Christianity: Birth and Doctrines	3
Total	**96**

Programs of Study - Graduate Programs

Master of Arts in History (Hybrid[i])

Mission

In this program students will specialize in historical research, learn to manage primary sources, and to adopt methods and approaches as an historian.

Students will also give particular attention to the complete history of Lebanon. Students taking the Master degree program will be initiated into the field of art history, so they can become art historians, or art critics.

Program Educational Objectives

1. Graduates will manage a research project from the beginning (selection and identification of the sources and of the method of analysis) to the final production of a research paper.
2. Graduates will classify the sources depending on their relevance and type.

[i] Hybrid: Courses offered in French and/or English

3. Graduates will assert artistic and historical criticism.

Program Outcomes

a. Students will produce a complete analysis of Lebanon's history, in French and in Arabic
b. Conduct research in a specialized area.
c. Teach history at school and at university at undergraduate level.

Degree requirements

Specialization	**27**
HIS600 - Research Methodology	3
HIS620 - Social History: Structure of the Family in Rural and Urban Areas	3
HIS625 - History of International Relations (1918 – 2006)	3
HIS630 - Art Critic	3
HIS640 - Thematic Research	6
HIS650 - Seminary: Ancient Lebanon	3
HIS660 - Seminary: Modern and Contemporary Lebanon	3
HIS655 - Seminary: Medieval Lebanon	3
Capstone	**9**
HIS670A-B - Thesis Project History	9
Total	**36**

Master in Information Studies (Hybrid[i])

Mission

MIS prepares knowledgeable and ethical professionals in the fields of library, archives and museums for a diverse and global information society by providing a program integrating excellent teaching, inspiring intellectual curiosity and research and fostering interdisciplinary approaches to address challenges and provide exceptional services within diverse communities.

Program Educational Objectives

1. Perform administrative, service, and technical functions of professional practice in libraries, archives, museums and information centers.
2. Use existing and emerging technologies to meet needs in libraries, archival centers, museums and information centers.
3. Integrate relevant research to enhance their work in libraries and information centers.
4. Apply the highest ethical standards in their professional information practice, as articulated by relevant professional organizations.
5. Provide leadership and guidance in their community and to information professions.

Program Outcomes

[i] Hybrid: Courses offered in French and/or English

a. Identify and analyze information needs and opportunities of individuals and organizations
b. Demonstrate critical thinking by integrating relevant models, theories, research and practices
c. Demonstrate management, interpersonal and organizational skills
d. Demonstrate leadership and advocacy skills
e. Communicate knowledge from information studies and multidisciplinary specialties
f. Demonstrate information technology fluency
g. Demonstrate understanding of the selection, acquisition, licensing, organization, preservation, retrieval, and use of recorded knowledge and information resources
h. Promote and model the professional values of ethical responsibility, intellectual freedom, and universal access to information
i. Demonstrate awareness of diverse groups and how to serve them effectively
j. Participate in ongoing professional development
k. Teach others to identify, analyze, organize and use information

Degree requirements

Remedial Courses	**9**
RINS502 - Introduction to Information Studies	3
RINS501 - Principles of Conservation and Preservation	3
RINS503 - Evolution of Cultural heritage	3
Common Core	**18**
INS510 - Law and Ethics in Information Studies	3
INS515 - Management of Libraries and Archives	3
INS520 - Research Methodology	3
INS697A-B - Thesis	6
MUSM610 - Preservation Management	3
Specialization - Option: Archive	**18**
ARCV605 - Research Tools and the Internet	3
ARCV610 - Records Management	3
ARCV615 - Digital Archives	3
ARCV620 - Information systems	3
MUSM615 - Inventories and Documentation Practices	3
MUSM635 - Communication, Dissemination and Development of Archival Heritage	3
Specialization - Option: Library	**18**
LIBR605 - Collection Development and Management	3
LIBR610 - Information Sources and Services	3
LIBR615 - Library Automation Systems	3
LIBR620 - Digital Libraries	3
LIBR625 - Rare Books and Special Collections	3
LIBR630 - Informetrics	3
Total	**36**

Programs of Study - Doctoral Programs

Ph.D. in History (Hybrid[i])

Mission

The course focuses on research techniques and the methodology of thesis writing. Students will master the methods of developing and substantiating the results of their on-site research.

Beside their research work, students deepen their knowledge of Lebanon's history, art history and historiography.

Program Educational Objectives

1. Graduates will conduct thorough research, and master the use of sources and methods of writing a thesis.
2. Graduates will deliver oral presentations.

Program Outcomes

a. Students will classify, organize and exploit research sources.
b. Defend their research in an optimized timeline.
c. Pursue their research in a limited time.

Degree requirements

Common Core	**3**
AAR785 - Art History	3
Specialization	**12**
HIS710 - Historiography	3
HIS720 - History of Contemporary Lebanon	3
HIS730 - Civilization of the Near-east	3
HIS784 - Social History	3
Capstone	**45**
HIS796A - Thesis	0
HIS796B - Thesis	0
HIS796C - Thesis	0
HIS796D - Thesis	0
HIS796E - Thesis	0
HIS796F - Thesis	45
Total	**60**

[i] Hybrid: Courses offered in French and/or English

Ph.D. in Archeology and Art History (Hybrid[i])

Mission

The Ph.D. Program focuses on research techniques and the methodology of thesis writing. Students will master the methods of developing and substantiating the results of their theory and on-site research.

Beside their research work, students deepen their knowledge of Lebanon's history, art history and historiography.

Program Educational Objectives

1. Graduates will conduct thorough research, and master the use of sources and methods of writing a thesis.
2. Graduates will deliver professional oral presentations.

Program Outcomes

a. Students will classify, organize and exploit research sources.
b. Defend their research in an optimized timeline.
c. Pursue their research in a limited time.

Degree requirements

Common Core	**3**
AAR785 - Art History	3
Specialization	**12**
AAR710 - Art and Archeology in Ancient Lebanon	3
AAR720 - Art and Archeology in the Ancient Near East	3
AAR730 - Art and Archeology: Near-East in the Late-Empire 1566	3
AAR740 - Teaching Art and Archeology	3
Capstone	**45**
AAR796A - Thesis Archeology and Art History	0
AAR796B - Thesis Archeology and Art History	0
AAR796C - Thesis Archeology and Art History	0
AAR796D - Thesis Archeology and Art History	0
AAR796E - Thesis Archeology and Art History	0
AAR796F - Thesis Archeology and Art History	45
Total	**60**

[i] Hybrid: Courses offered in French and/or English

Course Descriptions

AAR305 Museology and Archeology 2 cr.

The course introduces students to the methods of museology, including conservation, restoration, and publishing. They are trained to substantiate the heritage of the Near East by using traditional tools and new technologies during excavations. They will conduct field work at the national museum of Beirut, and compare theories of different methods of conservation used and deployed by international museums, such as Le Louvre in Paris, or the Pergamon museum in Berlin.

AAR320 Introduction to Pre-History 2 cr.

In this course students will study the period before history, known as pre-history, and consider all the events which marked human beings before the invention of writing. This course is a multidisciplinary science, which includes geology, anthropology, climatology, zoology, etc. Students will examine material, mute traces and lifeless remnants of the past, which will provoke questions and enable students to draw information from multiple arenas.

AAR335 Former Semitic Languages: Semitic Group (Phoenician, Hebrew, Aramaic, Syriac) 3 cr.

Students of history and archeology will study the Semitic languages, grammar books, dictionaries, and the corpus of texts. In this course students will learn how to read inscriptions and texts.

AAR340 Former Language: Greek or Latin (Indo-European Group) 3 cr.

This course enables students to decipher inscriptions and to read the classic texts as well get acquainted with the use of tools: grammar, dictionaries, corpus of texts, etc.

AAR355 Art History in Lebanon 3 cr.

This course presents art in Lebanon since its origins until the present day. By conducting comparative studies, students explore its sources, its interactions, the influences it has undergone, its originality and its geographical, historic characteristics and close and distant cultural context.

AAR360 Archeology / Tourism in Lebanon: archeological and touristic sites 2 cr.

The purpose of this course is to make students aware of the values of Lebanon's archeological heritage. Important historical sites of Lebanon will be studied. The cultural, architectural and artistic characteristics of every period will be underlined. The main discoveries preserved in Beirut National Museum and in the regional museums of Baalbek, Beiteddine and Byblos, as well as the major works preserved in the international museums, will be included. This highly visual course will be illustrated with projected images.

AAR415 Art of Modern Times 3 cr.

The course covers the period from the 14th century up to the first half of the 18th century. It studies the transformations in art throughout the centuries within the sociocultural context, from early antiquity in the West, until when paintings and sculptures began to illustrate real characters in real places. Students will learn how to analyze a work of art (painting, sculpture, drawings, etc.) and how to compare the techniques used by the artists in different periods of time.

AAR460 Contemporary Art 3 cr.

Contemporary art begins in the last half of the 20th century, and this course explains the causes of transformations in art, and the trends, forms and tools which resulted in the contemporary arts. Students learn how to give value to a contemporary work of art in a time when there are not fixed standards anymore and where everything seems allowed. We consider the role of a work of art in society and its impact on the observer, as well as explore real and virtual museums.

AAR710 Art and Archeology in Ancient Lebanon 3 cr.
This course provides students with an overview of excavations, which have taken place in Lebanon since Ernest Renan until the present day. Students will study the representative artistic elements and learn to recognize the lasting characteristics of art in Lebanon.

AAR720 Art and Archeology in the Ancient Near East 3 cr.
This course will provide students with an overview of the excavations in the Near East, and study the representative artistic elements. Students will learn to recognize the lasting characteristics of art in the different areas of the region: Mesopotamia, Persia, Anatolia, Syria, Phoenicia and Palestine.

AAR730 Art and Archeology: Near-East in the Late-Empire 1566 3 cr.
The Roman era is one of the richest ones concerning spectacular monuments. Students will study the different and representative sites and monuments in Baalbek, Palmyre, Gerosh, Petra, Cesaria, and Jerusalem.

AAR740 Teaching Art and Archeology 3 cr.
From the results of the excavations, the course studies the architectural sites, sculptures, ceramics, paintings, and other minor arts. It will focus on the uses of the materials in different fields and areas.

AAR785 Art History 3 cr.
This course examines the dimensions of art in education (schools and universities), in public life (museums and archeological sites), and in the market of cultural property (exhibitions, galleries, auctions). Students will examine a collection of art works from the artistic Lebanese heritage published by the Institute of History.

ARCV605 Research Tools and the Internet 3
An introduction to the electronic environments related to the archives collections. It aims at acquiring the concepts which allow the adaptation of the major research principles, use and display of archival descriptions to the electronic environment (intranet, internet). This introductory course tackles the documentary and technical problems linked to the establishment of a digitization project in an archive center, and helps acquire the concepts that would allow for the publishing of digitized archives documents on the Internet.

ARCV610 Records Management 3
This course introduces the basic notions, concepts and main problems related to electronic archiving, helps discover the technical and normative environment; and situate the archivist intervention in the digital information circuit. It also aims at presenting the records management reference systems.

ARCV615 Digital Archives 3
This course introduces the existing possibilities and technologies for the digitization of analog documents, so as to enable the elaboration of concrete projects. It allows the identification of the main problems related to the archiving of digital documents, the available strategies, and the ability to plan their implementation.

ARCV620 Information systems 3
An overview of the architecture of information systems and databases as well as the fundamental principles of information technology, their development status and their perspectives. This course introduces the methods used in the development of information systems, and allows the student to evaluate and judge the importance of the foundations of information technologies for institutions. It also enables students to have a good command of a relational DBMS (DataBase Management System), especially the SQL standard; and to understand all the aspects relating to the architecture and functioning of a relational DBMS, namely, physical storage, indexing, and optimization of requests, competition and failover.

HIS215 Lebanon in the Ancient Period 3 cr.
Prerequisites LFR120
Students will be introduced to the ancient history and antique archeology of Lebanon, including the main historical events and the archeological sites that make this period important for Lebanon. Students will present, through written and material testimonies, the diverse civilizations and the cultures of Lebanon, having gained knowledge and experience through working on archeological sites and studying several themes: arts, crafts, trade, religion, politics, and society. The period examined, distributed over six chronological phases, starts with pre-history and ends at antiquity/the pre-Byzantine era.

HIS220 Lebanon in the Medieval Period 3 cr.
Prerequisites LFR120
Students are introduced to the history of medieval Lebanon, a very important period, which begins with the Arab-Muslim conquest of Lebanon in 636 and which ends in 1516 with the victory of the Ottomans over the Mamelukes. Students will become familiar with research while using primary sources.

HIS225 Lebanon in the Modern Period 3 cr.
Prerequisites ENG120
The history of modern Lebanon extends from the date of the Ottoman victory over the Mamelukes during the battle of Marj Dabek in 1516 to the beginning of the First World War in 1914. Students will learn chronologically about the great periods and events in Lebanon's history, as well as the reign of the Maan and Chehab dynasties, and both Caïmacamias, Moutasarifiya (from 1861 to 1915), and the evolution of Lebanese society.

HIS230 Lebanon in the Contemporary Period 3 cr.
This course covers the history of contemporary Lebanon from the eve of World War I until the present day. This history includes the formation of the State of Lebanon and the struggle to maintain its integrity and independence. Lebanon was the first political entity established in the Near-East since the 16th century. The roots of its political institutions were built during the Mutasarifiya, under the guarantee of major powers. The Lebanese political entity was confirmed through the declaration of the Lebanese Republic in 1926 and its independence. Independent Lebanon, since 1943, has experienced periods of stability and prosperity as well as periods of disturbance and socio-political agitation on the local scale, depending on regional and international rivalries.

HIS301 Historical Criticism 3 cr.
This course approaches history as an experimental science within the constellation of human sciences. It teaches the student-historians how to apply rigorous thought processes, which consist of a series of critical examinations on a variety of testimonies (material, oral and written sources), and on information gathered. The historians master the research processes through independent analysis, the use of supplementary material and the application of critical apparatus (authenticity, origin, restitution, originality), to begin developing the chosen subject. This fundamental course teaches student-historians to work independently with critical minds.

HIS320 Geography 2 cr.
Geography is a science, which is interested in the inhabited earth. It analyzes the natural facts in relation to human beings, their distribution, their movements, their activities and their actions. Beyond the influence of the natural mechanisms on life, geography studies the great contemporary problems: social and economic globalization, inequalities of development, ecological risks, and the overcrowding of cities, etc.

HIS385 Ancient Near-East: Egypt 2 cr.

This course introduces students to the history of Egypt in ancient times, focusing on the chronology of the Pharaohs and their power in the Near East. Students will learn how to read and even to translate hieroglyphs. Students should be able to use primary sources and contextualize the topic in drawing a comparative chronology between Egypt and the rest of the eastern world.

HIS390 Ancient Near-East: Mesopotamia 2 cr.

This course focuses on the history of Mesopotamia in ancient times. This is a fundamental course which enables students to understand the context of the establishment of the first state-cities in the world. Students will use classical methods of learning, such as chronology and scale analysis. They should be able to establish the link between the history of Mesopotamia and the history of Egypt and other countries during the same period.

HIS395 Ancient Near-East: Syria 2 cr.

This course intends to focus on the idea that ancient Syria has never been a centralized and strong state. Students will use methods of contextualization to understand that throughout history its cities have been influenced by empires and neighboring kingdoms: the Hittite Empire in the North, Assyria in the East, and Egypt in the South. This course will also consider the geography of Syria and its geopolitical situation. Finally, it will refer to archeological fields in order to enhance the importance of Syria at a certain time of History.

HIS400 Greek and Byzantine History 2 cr.

Greek history lives on thanks to its rich heritage, especially in the Mediterranean area. The course will present the constitutive elements of this long history since the emergence of the Minoan and Mycenaean “palatial” civilizations up to the fall of the Byzantine Empire in 1453. Students will study the cultural aspect of the Greek civilization, which reached its apogee with Hellenism. The course will help the students to analyze the process of diffusion of Christianity all around the Mediterranean coast, realized by the foundation of the Byzantine Empire and the uniqueness of the Basileus. A political approach will be adopted, analyzing the different regimes in the Greek and Byzantine world, from democracy to the powerful Empire, through tyranny. Attention will be given to the evolution of the city of Constantinople.

HIS405 Roman History 2 cr.

The course examines, through the history of the roman entities, the different factors which enhance the role of Rome as a Mediterranean power. The development and enlargement of the roman influence will be explained during both periods: period of the Roman Republic and then the period of roman imperialism. Students will use a comparative approach to examine the roman influence during these two periods and in different areas. Students will furthermore be able to define the process of Romanization and to develop a critical approach concerning the heritage of the Romans.

HIS425 Islam, from Mahomet to 1516 3 cr.

Gathered under the leadership of the prophet Mahomet, in the 7th century, the Arabs dominated the Near-East within a few years and continue the conquest in Africa and in Europe. The Caliph Rachidoun (632-661) yielded power to dynasties, which governed Dar-el-Islam of various capitals. Students will closely follow the stages of the expansion, the moments of the transfer of power, the organization of the administration and the governmental institutions of the Arab community from social, economic, cultural and scientific perspectives.

HIS430 Western Middle Ages 2 cr.

The course describes the western Middle Ages period with a social, political, military and cultural approach. Students will be introduced to the first theories of modern states, which contributed to transform Europe from the 5th to the 14th centuries. Primary sources and works of art will help the students to understand the different representations of the societies, their leaders and the new-born states. A comparative approach is necessary to understand the different evolutions in the European

areas.

HIS435 The Ottoman Empire 3 cr.

The interest in writing about the Ottoman period in history was renewed when local archives were made accessible in the second half of the 20th century. The image of a tyrannical and fanatical power, which made Europe tremble, was sweetened and the emphasis was put on the internal organization of the Empire.

Defeated in Lepante in 1570, stopped in Vienna in 1683, and overruled in the Treaty of Kaynardji in 1774, the Empire weakened and became "the sick man of Europe" throughout the 19th century and had disappeared by the end of World War I.

HIS450 Modern Europe 3 cr.

This course deals with the history of Europe from the Renaissance until the end of the Monarchy. Students will examine financial and economic questions, the political regimes, religious reforms, the Industrial Revolution, as well as the psychological and social structures of the period.

HIS455 The Contemporary World 2 cr.

This course will focus first on the interwar period of the 20th century. It will then deal with the main reasons that disturbed the world order during the second half of the 20th century: bipolarization, positive neutrality, decolonization, the European construction, the end of communism, the role of the USA as a superpower, globalization, international organizations, etc.

HIS460 Contemporary Middle East 3 cr.

The expression "Middle East" concerns the area including the states of the Fertile Crescent and those of the Arab Peninsula, and Turkey, Pakistan, Iran, Afghanistan, Libya, Egypt, and sometimes India. The course limits the study to states of the eastern Mediterranean Sea and Iraq. Students will examine themes dealing with the political and economic evolution, social mutations, demographic dynamics and some geopolitical questions focusing on contemporary issues, such as conflicts related to water management and the Arab Spring.

HIS480 History of Christianity: birth and doctrines 3 cr.

This course focuses on the inauguration of the New Alliance by Jesus, and the New testament which records the words and actions of this period. When Apostles proclaimed the good news by the kerygma it validated the evangelic mission of the Church, and from it, the first Christian communities were developed and organized. Their emergence caused different reactions and they were attacked by the upholders of Judaism and adherents of paganism. The course focuses on the dialectic of the integration of the Christians. The account of the genesis of Christianity is examined in this course along with the elaboration of the corpus of the first texts, and by minutely questioning the essence of the message that it brings to its understanding, its transmission, its evolution and its interpretation.

HIS485 Islam: open questions: doctrines, institutions, rites, law, Sufism, brotherhood, western trends 2 cr.

This course presents the different theological interpretations and current legal issues, as well as examining the current myths about Islam, the brotherhoods and the different contemporary movements questing an ideal. Students will be studying the papers and the works of contemporary Muslim intellectuals throughout this course.

HIS600 Research Methodology 3 cr.

Students will develop the practice of critical thinking and analytical approaches they have already applied in history and archeology, opening up the horizons of their research, so they can choose the form of their research paper or thesis. Students will include, alongside the research project, the necessary theoretical and practical knowledge to develop their thesis. Component parts of thesis

writing will include: structuring the outline, dividing the content into chapters, and writing the introduction and conclusion in a coherent and rigorous way.

HIS620 Social History: structure of the family in rural and urban areas 3 cr.
This course examines the family status in different areas and it detects the factors of change and durability. It is obvious that the situation of the family changes in Lebanon, but it is also well known that it remains at the base of society and is an element which gives the country its charm and stability.

HIS625 History of International Relations (1918 – 2006) 3 cr.
This seminar covers the large context of international relations. It introduces these relations from the first colonial period to the implementation of strategies to secure and dominate the territory. The philosophical theories that preside over these relations will be discussed in class. The implementation of the supranational and super-states authorities of social, political, economic and military types, as well as their actions, will be studied. A study of the Arab world and the Mediterranean Sea are included, from the eve of World War I until the present day.

HIS630 Art Critic 3 cr.
This course aims at teaching students how to develop a critical eye to define a work of art, analyze its characteristics, place the work of the artist in its correct time, and to know how to channel the information. The art critic explains, defends, objects, regulates, distinguishes and creates artistic movements, and these are the skills students can acquire on this course.

HIS640 Thematic Research 6 cr.
This course studies problematic cases related to the history, art and archeology of Lebanon.

HIS650 Seminary: Ancient Lebanon 3 cr.
Besides the theoretical and practical knowledge, this course includes field work experience in a multidisciplinary context.

HIS655 Seminary: Medieval Lebanon 3 cr.
Students are introduced to the history of medieval Lebanon, a very important period which begins with the Arab-Muslim conquest of Lebanon in 636 and which ends in 1516 with the victory of the Ottomans over the Mamelukes. Students will become familiar in research using primary sources.

HIS660 Seminary: Modern and Contemporary Lebanon 3 cr.
This course deals with extensive questions related to the history of modern and contemporary Lebanon, based on primary sources such as archives and manuscripts.

HIS670A-B Thesis Project History 9 cr.
Graduates will have the ability to conduct thorough research, and master the use of sources and methods of writing a thesis.

HIS710 Historiography 3 cr.
This course shows what really distinguishes history as a scientific discipline by giving equal consideration to both its theoretical foundations and to its practice. Students look at the historic genres which prevail in Europe and in America, and examine the historiographical trends which are apparent in Lebanon and in the bordering countries.

HIS720 History of Contemporary Lebanon 3 cr.
This course approaches, in a critical and analytical way, the themes of Lebanese contemporary history since the establishment of the Emirate of Chehabs until the Doha Agreement. The content of the course is based mainly on primary sources: diplomatic documents, archives of various institutions, manuscripts, periodicals, memoirs, etc.

HIS730 Civilization of the Near-east 3 cr.
This course studies political thought in the Arab world since the Renaissance period. It considers the papers of the first reformists, those of the contemporary Islamists and tries to reveal the causes of the conflict between the Shiites and the Sunnites in the context of the Arab Spring.

HIS784 Social History 3 cr.
This course deals with several key issues in Lebanon, such as sustainable development, demography, labor and problems related to it, massive urbanization, emigration, the decline of political parties and the trades union, etc.

INS510 Law and Ethics in Information Studies 3
This course looks into the moral and ethical values essential to information professionals, archivists and museum experts in situations involving legal debates and ethical issues. The course covers the following topics and issues: legal information; general principles of ethics; art and cultural property law; protection of movable and immovable assets; intellectual property and copyright; freedom of information and censorship; information theft and plagiarism; integrity and digitization; principles of negotiations and contracts.

INS515 Management of Libraries and Archives 3
This course is the study of effective and efficient management of organizations. It introduces management theory and decision making in the context of information agencies and services. Emphasis is placed on strategic planning and organizing, quality management, organizational behavior, human resource management, leadership and communication, management of change, legal issues in information agencies, and use of information in decision making.

INS520 Research Methodology 3
The course is designed to generate proposals for master's theses in information studies. It focuses on how to organize a research project, including the development of research questions, the review and synthesis prior to research and writing, and the understanding of the elements of a research proposal. Those include research problems and questions; critical appraisal of research literature; data sources and sampling; research ethics and integrity; and quantitative and qualitative statistics and analysis.

LIBR605 Collection Development and Management 3
This course examines the principles, processes, issues and best practices for developing and maintaining library and information center collections. It studies the methods for identifying the needs of a user community, designing a collection policy, selecting and acquiring library materials in all formats, making decisions related to a collection's management and preservation, and evaluating the quality and appropriateness of an existing collection.

LIBR610 Information Sources and Services 3
An introduction to concepts and processes relating to reference and information science. An overview of the reference function includes the history and future trends of reference service, question negotiation, information needs analysis, effective research strategies, evaluation of information sources in various formats, and ethics of information services.

LIBR615 Library Automation Systems 3
This course deals with the principles for the design, selection, implementation, and management of automated systems for all types of libraries, including systems for technical services, processing, reference and user's services. It provides the students with a sound understanding of how libraries apply technology to deliver information. It also describes several open source integrated library systems (ILS) and other proprietary ILS.

LIBR620 Digital Libraries 3

A theoretical study of planning, designing, constructing and evaluating digital libraries, as well as an opportunity to practice. This course covers the requirements, components and technologies of digital library systems, follows the evolution of digital libraries and explores the trends influencing their structure and development.

LIBR625 Rare Books and Special Collections 3

A practical introduction to the field of rare books and special collections, as well as codicology and manuscript cataloging. This course provides students with a definition of rare books and special collections, presents the different types of materials housed in special collections, and discusses what being a rare book and special collections librarian entails. It also covers the study of Syriac and Arabic manuscripts from different places and periods, written in different hands, in order to gain a basic knowledge in how to read and to some degree date and geographically locate these manuscripts.

LIBR630 Informetrics 3

An introduction to the study of the quantitative aspects of information, including the production, dissemination, and use of all forms of information, and encompassing the following fields: bibliometrics, which studies quantitative aspects of recorded information; altmetrics, which is concerned with non-traditional metrics that have been proposed as an alternative to the more traditional citation impact metrics; scientometrics, which studies quantitative aspects of science; and webometrics, which studies quantitative aspects of the World Wide Web.

MUSM610 Preservation Management 3

This course focuses on the preservation of materials found in museums and other cultural and historic institutions, and covers topics such as the chemical and physical nature of the cultural work, agents of deterioration, preventive conservation strategies and proper care and handling of artifacts, as well as the appropriate cleaning and maintenance of art objects and historic artifacts. The course also covers the storage environments for archaeological objects, and the packaging and support materials for collections.

MUSM615 Inventories and Documentation Practices 3

This course deals with the new developments in inventory making techniques, documentation and exploitation of preventive conservation files, and the links that these tools have with specific professions. It aims at looking into manual and computerized inventory methods based on concrete cases. The course will be divided into two parts. The first one is dedicated to the marking principles and methods on different aids and media: it consists of “security” markings such as inserts, invisible ink, and “management” markings such as barcode labels and radiofrequency. The second part will revolve around two basic modules: knowing how to establish an archiving chart; understanding its uses, functions and applications (for the current and intermediary archives); and implementing the different phases for the processing of the final archives collections.

MUSM635 Communication, Dissemnination and Development of Archival Heritage 3

This course aims at providing different operating elements to people working in an archiving department, so as to meet the expectations of the public using such a service. It focuses on the different actions aimed at emphasizing the value of archives and on the analysis of the means needed for organizing cultural activities. Also, the essential elements for setting up an exhibition will be discussed: material, premises, partners, documents selection and costs. It will discuss any event aiming at valuing the archives collections and at identifying the expectations of the audience, as well as the development of the skills and know-how of a quality welcoming, in order to provide the community with scientific information.

RINS501 Conservation and Preservation: Principles 3

An introduction to the basic principles and methods of conserving and preserving the wide range of materials found in libraries, archives, and special and heritage collections. The purpose of this course is to introduce students to principle carriers of information, procedures for managing information through its life cycle, and methods for protecting that information from loss, damage, deterioration, destruction, and obsolescence for as long as it has value. The course will explore a wide variety of media in which information is commonly stored, and will introduce current methods and best practices for extending their useful life.

RINS502 Intro to Information Studies 3

This course studies the origins, development, and evolution of libraries, archives and museums, from antiquity to the twenty-first century; as a reflection of literacy, recognition of archival responsibility, humanistic achievement, scientific information needs, and service to society. It also examines the historical development of the information society through a number of important conceptual lenses. The course will also introduce the theory, principles, standards, and methods of information organization across a variety of information environments. Topics include principles of information representation, tools for information access, metadata, and controlled vocabulary.

RINS503 Evolution of Cultural Heritage 3

This course provides an overview of the interaction between the definitions attributed to libraries, archive centers and museums throughout different eras; the origin of documentary and museum-related practices inherited from the past; and the evolution of buildings' architecture. The book will be studied under its three aspects of production, diffusion and consumption, while emphasizing on its peculiarity in the Orient.

Faculty of Medicine and Medical Sciences

Overview

In accordance with the mission of the Lebanese Maronite Order (O.L.M), with its 300-year tradition and principles, and wishing to contribute to the development of the medical sector and health services in Lebanon, the Holy Spirit University of Kaslik (USEK) created the Faculty of Medicine and Medical Sciences, with the express purpose of providing initial and a continuing education of general practitioners and specialists.

Devoted to helping the development of competent professionals and, simultaneously, to be at the service of all, the Faculty participates in the advancement of knowledge in the field of health and aims to be nationally and internationally recognized for to the excellent quality of its teaching programs. The Faculty's work is based on the values of excellence, humanism, intellectual rigor and the application of high moral standards through a continuously evolving medical education and introduction to research, in the clinical domain, public health and basic research.

Theoretical studies take place at the faculty and training at the University Hospital Center, "Notre Dame des Secours", in Jbeil.

The Faculty of Medicine and Medical Sciences consists of the following departments/programs:

Department of Research

Department of Medical Sciences

- Doctorate of Medicine

Department of Basic Health Sciences

- Bachelor of Science in Health Fundamental Sciences

Department of Doctoral Studies

- Diploma of Specialized Studies - Anesthesia and Critical Care
- Diploma of Specialized Studies - Cardiology
- Diploma of Specialized Studies - Cardiovascular and Thoracic Surgery
- Diploma of Specialized Studies - Clinical Biology
- Diploma of Specialized Studies - Dermatology
- Diploma of Specialized Studies - Emergency Medicine
- Diploma of Specialized Studies - ENT
- Diploma of Specialized Studies - Gastro-enterology
- Diploma of Specialized Studies - General Surgery
- Diploma of Specialized Studies - Hematology-Oncology
- Diploma of Specialized Studies - Internal Medicine
- Diploma of Specialized Studies - Nephrology
- Diploma of Specialized Studies - Neurology
- Diploma of Specialized Studies - Neurosurgery

- Diploma of Specialized Studies - Obstetrics and Gynecology (ob-gyn)
- Diploma of Specialized Studies - Ophthalmology
- Diploma of Specialized Studies - Orthopedic Surgery and Traumatology
- Diploma of Specialized Studies - Pathology
- Diploma of Specialized Studies - Pediatrics
- Diploma of Specialized Studies - Psychiatry
- Diploma of Specialized Studies - Pulmonology
- Diploma of Specialized Studies - Radiology
- Diploma of Specialized Studies - Urology

Postdoctoral Studies Department

Department of Hospitalo-University

Administration and Full-time Faculty

Prof. Jean-Claude Lahoud, Professor, Dean
Eng. Pascal Damien, Associate Professor, Associate Dean
Dr. Zaki Ghorayeb, Assistant Professor, Associate Dean for Medical Affairs
Dr. Hanna Mattar, Assistant Professor, Head of Doctoral Studies
Dr. Antoine Kossaify, Associate Professor, Head of Research
Dr. Georges Nohra, Associate Professor, Head of Postdoctoral Studies
Dr. Maroun Khattar, Assistant Professor, Head of Medical Sciences Department
Dr. Georges Merheb, Assistant Professor, Head of Basic Health Sciences Studies
Dr. Ziad El Khoury, Associate Professor, Head of Hospitalo-University Department
Prof. Alex Jalkh, Professor
Dr. Alexandre Kharma, Assistant Professor
Dr. Alexandre Schakal, Assistant Professor
Dr. Amal Bassile Harb, Assistant Professor
Dr. Amale Sukkarieh Chelala, Assistant Professor
Dr. Ameed Samaha, Assistant Professor
Dr. Antoine Kassis, Assistant Professor
Dr. Antoine Abdel Jalil, Assistant Professor
Dr. Boutros El Hachem, Assistant Professor
Dr. Charbel Yazbek, Associate Professor
Dr. Christian Haddad, Associate Professor
Dr. Elias Makhoul, Assistant Professor
Dr. Elias Khoury, Assistant Professor
Dr. Elissar Dagher Nohra, Assistant Professor
Dr. Emile Andari, Assistant Professor
Dr. Fadi Hoyek, Associate Professor
Dr. Fady Nasr, Assistant Professor
Dr. Georges Abi Aad, Assistant Professor
Dr. Georges Azar, Assistant Professor

Dr. Georges Nicolas, Assistant Professor
Dr. Georges Abi Fares, Assistant Professor
Dr. Hamid El Bayeh, Assistant Professor
Dr. Issa Issa, Assistant Professor
Dr. Issam Maalouf, Associate Professor
Dr. Juliana Menassa Saabi, Assistant Professor
Dr. Kamal Kallab, Associate Professor
Dr. Madona Matar Lahoud, Assistant Professor
Dr. Marcel Massoud, Associate Professor
Dr. Marie-Claude Fadous Khalifé, Associate Professor
Dr. Melhem Samara, Associate Professor
Dr. Monique Tabet, Associate Professor
Dr. Myriam Al Amm, Assistant Professor
Dr. Nabil Tawil, Associate Professor
Dr. Neemtallah Basile, Assistant Professor
Dr. Norma Ghosn Hakim, Assistant Professor
Dr. Patrick Zaarour, Assistant Professor
Dr. Paul Khoueiry, Assistant Professor
Dr. Peter Noun, Assistant Professor
Dr. Philip Rouadi, Assistant Professor
Dr. Pierre Khoury Edde, Assistant Professor
Dr. Raghid EL Khoury, Assistant Professor
Dr. Saad Khairallah, Associate Professor
Dr. Saadé Abboud, Associate Professor
Dr. Samir Tarraf, Assistant Professor
Dr. Seba Mhanna, Assistant Professor
Dr. Souhail Chamandi, Assistant Professor
Dr. Wadih Ghanameh, Associate Professor
Dr. Walid El Khoury, Associate Professor
Dr. Walid Harb, Assistant Professor

Programs of Study - Undergraduate Programs

Bachelor of Science in Health Fundamental Sciences (Hybrid[i])

Mission

The mission of the Bachelor of Science program in Fundamental Health Sciences is to help students acquire knowledge allowing them to pursue medical studies or other health specialties, particularly those in public health, by providing knowledge, general education and ethical skills for an appropriate foundation for further education. The department is committed to providing quality and innovative teaching through expertise in the disciplines of anatomy, physiology, pharmacology, and pathology in the servicing of undergraduate and postgraduate programs. For the fulfillment of its mission, the department of basic health sciences finds its anchor point in the mission of the Lebanese Maronite Order (O.L.M) and the social teaching of the Catholic Church on universities.

Program Educational Objectives

1. Graduates will have the basic knowledge, skills, behaviors, and attitudes that will enable them to go on to pursue their education to become capable physicians.
2. Graduates will be able to pursue careers in the fields of health management, public health and scientific branches.
3. Graduates will be able to pursue postgraduate and PhD studies.

Program Outcomes

a. An ability to apply knowledge of mathematics and applied and/or natural sciences to areas relevant to the discipline.
b. An ability to design and conduct experiments, or test hypotheses, as well as to analyze and interpret data.
c. An ability to formulate or design a system, process, procedure or program to meet desired needs.
d. An ability to function on multidisciplinary teams.
e. An ability to identify and solve technical or scientific problems.
f. An understanding of professional and ethical responsibility.
g. An ability to communicate effectively.
h. The broad education necessary to understand the impact of technical and/or scientific solutions in a global and societal context.
i. A recognition of the need for and an ability to engage in life-long learning.
j. Knowledge of contemporary issues.
k. An ability to use the techniques, skills, and modern scientific and technical tools necessary for professional practice.

[i] Hybrid: Courses offered in French and/or English

Degree Requirements

General Education	**30**
General Education - Arts and Humanities	3
General Education - Behavioral and Social Sciences	3
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Quantitative Reasoning	6
General Education - Science and Health	6
General Education - Sports	1
General Education - Religious Sciences	3
Common Core	**14**
BCH320 - Structural Biochemistry	3
BCH421 - Metabolic Biochemistry	3
BIO377 - Laboratory of Biochemistry and Molecular Biology	1
BIO413 - Molecular Biology	3
CHM317 - Organic Chemistry	3
CHM377 - General Chemistry and Physics Laboratory	1
Specialization	**66**
MEDL200 - Cytology and Human Cell Pathologies	3
MEDL205 - General Histology	3
MEDL210 - Musculoskeletal Anatomy	3
MEDL215 - Biostatistics & Introduction to Epidemiology	3
MEDL220 - Human Anatomy	3
MEDL300 - Human Embryology	3
MEDL310 - Human Cellular Physiology	3
MEDL315 - Human Parasitology And Mycology	3
MEDL320 - Histology Of Organs	3
MEDL321 - Laboratory of Cytology And Histology	1
MEDL325 - Physiology I	3
MEDL330 - Homeostasis Physiology	3
MEDL335 - Biophysics	3
MEDL400 - General Pathology	3
MEDL405 - Immunology	3
MEDL410 - Microbiology	3
MEDL411 - Parasitology and Microbiology Laboratory	1
MEDL420 - Surgical Semiology	3
MEDL425 - Epidemiology	3
MEDL430 - General Pharmacology and Toxicology	3
MEDL435 - Medical Genetics	3
MEDL445 - Economics and Health Management	3
MEDL450 - Medical Semiology	3
MEDL455 - Emergency First AID and Introduction to Hospital	1
Total	**110**

Doctorate of Medicine (Hybrid[i])

Mission

The mission of the Doctorate of Medicine program is to contribute to the wellbeing of Lebanese citizens by training good general practitioners and preparing graduates for different future specializations, and by providing knowledge, general education and ethical skills in order for them to become socially responsible doctors and general practitioners and to have an appropriate foundation for further training in any branch of medicine. For the fulfillment of its mission, the department finds its anchor point in the mission of the Lebanese Maronite Order (O.L.M) and the social teaching of the Catholic Church on universities.

Program Educational Objectives

1. Graduates will use their knowledge for the benefit of patients in harmony with the principles and limits of general medicine.
2. Graduates will use their knowledge to reach a diagnosis, provide treatment and monitor the proper implementation of this treatment in collaboration with various specialists.
3. Graduates will support the patient psychologically and morally, and the family and entourage for better compliance.
4. Graduates will be motivated to accomplish ongoing training as well as sharing their knowledge.
5. Graduates will use their expertise in health management and health systems.
6. Graduates will apply and promote the concepts of preventive medicine.
7. Graduates will apply and promote the concepts of social responsibility.
8. Graduates will promote good health in relation to both physical and moral well-being, and promote the best quality medicine at the best price synonymous with efficiency as well as equity of medical care for all.
9. Graduates will work with a sense of professionalism towards patients, colleagues, other specialists, and finally themselves.
10. Graduates will become specialists after appropriate training.

Program Outcomes

a. Students will acquire basic scientific, social, economic, legal and ethical knowledge enabling them to acquire good clinical knowledge.
b. Students will master clinical knowledge for the proper application of clinical skills (syllabus outcomes and subjects), taking as a model PUIGEP.
c. Students will master the clinical skills such as taking a good history, basic clinical examination gestures and other more specialized ones (ad-hoc) to build a medical record.
d. Students will master clinical reasoning skills such as problem formulation, development of diagnostic hypotheses, formulating a course of action and the development of a monitoring plan.
e. Students will use publications and international literature to improve their performance.

[i] Hybrid: Courses offered in French and/or English

f. Students will attend medical specialists and surgeons (and others) to understand certain techniques.
g. Students will perform minor actions such as IV, suture, abscess incision, put on and remove and monitor casts, and put in probes.
h. Students will acquire extensive knowledge in public health, health systems and management, and quality of care with expertise in medical epidemiology.
i. Students will acquire the principles of medical ethics, in particular respect for autonomy, working for the benefit of the patient, in their best interest, and equity of care for all.
j. Students will experience working in collaboration with other specialists or in a multidisciplinary framework respecting the medical code of ethics.
k. Students will be able to communicate verbally, in spoken and written language.
l. Students will be prepared to present in national and international competitions in their specialization.

Degree Requirements

General Education	**30**
General Education - Arts and Humanities	3
General Education - Behavioral and Social Sciences	3
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Quantitative Reasoning	6
General Education - Science and Health	6
General Education - Sports	1
General Education - Religious Sciences	3
Common Core	**80**
BCH320 - Structural Biochemistry	3
BCH421 - Metabolic Biochemistry	3
BIO377 - Laboratory of Biochemistry and Molecular Biology	1
BIO413 - Molecular Biology	3
CHM317 - Organic Chemistry	3
CHM377 - General Chemistry and Physics Laboratory	1
MEDL200 - Cytology and Human Cell Pathologies	3
MEDL205 - General Histology	3
MEDL210 - Musculoskeletal Anatomy	3
MEDL215 - Biostatistics & Introduction to Epidemiology	3
MEDL220 - Human Anatomy	3
MEDL300 - Human Embryology	3
MEDL310 - Human Cellular Physiology	3
MEDL315 - Human Parasitology and Mycology	3
MEDL320 - Histology of Organs	3
MEDL321 - Laboratory of Cytology and Histology	1
MEDL325 - Physiology I	3
MEDL330 - Homeostasis Physiology	3
MEDL335 - Biophysics	3

MEDL400 - General Pathology	3
MEDL405 - Immunology	3
MEDL410 - Microbiology	3
MEDL411 - Parasitology and Microbiology Laboratory	1
MEDL420 - Surgical Semiology	3
MEDL425 - Epidemiology	3
MEDL430 - General Pharmacology and Toxicology	3
MEDL435 - Medical Genetics	3
MEDL445 - Economics and Health Management	3
MEDL450 - Medical Semiology	3
MEDL455 - Emergency First Aid and Introduction to Hospital	1
Specialization	**120**
MEDM500 - Clinical Pharmacology and Toxicology	3
MEDM505 - Electrocardiology and Hemodynamics	3
MEDM510 - Cardiovascular Pathology	3
MEDM515 - Pulmonary Pathology	3
MEDM520 - Pathologies of the Urinary Tract	3
MEDM525 - Endocrine and Metabolic Diseases	3
MEDM530 - Specialized Pathology	3
MEDM531 - Pathology Laboratory	1
MEDM535 - Gastrointestinal Disease	3
MEDM540 - Hepato Biliary and Pancreas Pathology	3
MEDM545 - Obstetrics and Gynecology	3
MEDM550 - Hospital Training	3
MEDM555 - Hematology Clinical Biology	3
MEDM560 - Dermatology and Plastic Surgery	3
MEDM565 - Ear Nose and Throat Pathology	3
MEDM600 - Hemato-oncology	3
MEDM605 - Infectious Diseases	3
MEDM610 - Systemic Diseases and Internal Medicine	3
MEDM615 - Pediatrics	3
MEDM620 - Neurological and Neurosurgical Diseases	3
MEDM625 - Hospital Internship II	3
MEDM630 - Pathology of the Musculoskeletal System	3
MEDM635 - Psychiatric Disorders	3
MEDM640 - Forensic and Medical Law	3
MEDM645 - Public Health and Work Medicine	3
MEDM650 – Clinical Reasoning and Risk Management	3
MEDM655 - Hospital Training III	3
MEDD700 - Hospital Internship IV	1
MEDD710 - Introduction to Medical Research	3
MEDD715 - Medical and Surgical Therapeutics Seminars I	3
MEDD720 - Hospital Training V	3
MEDD725 - Medical and Surgical Critical Care	3
MEDD730 - Medical and Surgical Therapeutics Seminars II	3
MEDD735 - Hospital Training VI	3

MEDD800 - Hospital Training VII	1
MEDD805 - Hospital Training VIII	3
MEDD810 - Hospital Training IX	3
MEDD815 - Hospital Training X	3
MEDD820 - Hospital Training XI	3
MEDD850A - Thesis of Medicine	9
Total	**230**

Programs of Study – Doctoral Programs

Diploma of Specialized Studies - Anesthesia and Critical Care (Hybrid[i])

Mission

The mission of the anesthesia residency program is to provide state-of-the-art patient care in the areas of pre-operative evaluation, intraoperative anesthesia, post-operative critical care and pain management.

Students will not only be skilled in the procedural aspects of the specialty but also have a strong base in the cognitive aspects of it.

Program Educational Objectives

1. Graduates must use their basic and clinical knowledge acquired during the specialization path in order to support and treat the patient (in the OR and ICU) within the specialty but without forgetting their skills in general practice.
2. Graduates must support the patient psychologically and morally, and the family and entourage for better acceptance.
3. Graduates must improve their knowledge and skills in parallel to the new technological discoveries and put them to the service of their patients according to the rules of professionalism and ethics.
4. Graduates have to practice their profession in accordance with the principles of quality, in particular the principles of efficiency and equity.
5. Graduates must share their knowledge and promote prevention principles and other public health principles.

Program Outcomes

At the end of the program, the young anesthesiologists will:

a. Master the basic knowledge and clinical knowledge in anesthesia and resuscitation in order to analyze the clinical situation, to propose a course of action and the appropriate treatment and be ready to act quickly in urgent cases.

[i] Hybrid: Courses offered in French and/or English

b. Acquire deep knowledge in other specialties (cardiology, pneumatology, nephrology …) for a better practice.
c. Be able to take charge of a patient and provide moral and psychological support to the patient and entourage.
d. Be prepared to use new knowledge and new techniques to improve their practice.
e. Master the gestures and techniques (intubation, work with dangerous drugs, central lines, etc.) and apply them according to the rules of professionalism and ethics.
f. Collaborate with other clinical or paraclinical specialists, respecting the principle of efficiency and in the best interest of the patient.
g. Share their knowledge with peers, students and other healthcare professionals.
h. Promote the principles of prevention and other public health principles.

Degree Requirements

Common Core	**12**
MEDR904 - Principles of Anesthesia and Critical Care Medicine	3
MEDR907 - Anesthesia according to the Surgical/medical Procedure	3
MEDR908 - Anesthesia according to the Status and Medical Background of the Patient	3
MEDR909 - Anesthesia in Children, Chocks and Aggressions	3
Specialization	**60**
MEDR930A - Seminars and Conferences Residency	0
MEDR930B - Seminars and Conferences Residency	0
MEDR930C - Seminars and Conferences Residency	0
MEDR930D - Seminars and Conferences Residency	12
MEDR960A - Residency Rotation in Anesthesia I	6
MEDR960B - Residency Rotation in Anesthesia II	6
MEDR960C - Residency Rotation in Anesthesia III	6
MEDR960D - Residency Rotation in Anesthesia IV	6
MEDR960E - Residency Rotation in Anesthesia V	6
MEDR960F - Residency Rotation in Anesthesia VI	6
MEDR960G - Residency Rotation in Anesthesia VII	6
MEDR960H - Residency Rotation in Anesthesia VIII	6
Total	**72**

Diploma of Specialized Studies – Cardiology (Hybrid[i])

Mission

The mission of the cardiology residency program is to educate MD graduates to evaluate and manage critically ill patients requiring advanced cardiology therapies, through a multidisciplinary team approach. They will be introduced to all cardiology sub-specialties.

Program Educational Objectives

[i] Hybrid: Courses offered in French and/or English

1. Graduates must use their basic and clinical knowledge acquired during the specialization path in order to support and treat the patient within their specialty, but without forgetting their skills in general practice.
2. Must support the patient psychologically and morally, and the family and entourage for better therapeutic compliance.
3. Must improve their knowledge and skills in parallel to the new technological discoveries and put to the service of their patient according to the rules of professionalism and ethics.
4. Have to practice their profession in accordance with the principles of quality, in particular the principles of efficiency and equity.
5. Must share their knowledge and promote prevention principles and other public health principles.

Program Outcomes

At the end of the program, the young cardiologists will:

a. Master the basic knowledge and clinical knowledge in cardiology in order to analyze the clinical situation, to propose a course of action and the appropriate treatment and be ready to act quickly upon urgent cases.
b. Acquire a deep knowledge in other specialties (sister and/or complementary and / or additional).
c. Be able to take charge of a patient and provide moral and psychological support to the patient and entourage.
d. Be prepared to use new knowledge and new techniques to improve their practice.
e. Master the gestures and techniques (ECG, US, KT) proper to the specialty and apply them according to the rules of professionalism and ethics.
f. Collaborate with other clinical or paraclinical specialists, respecting the principle of efficiency and in the best interest of the patient.
g. Share their knowledge with peers, students and other healthcare professionals.
h. Promote the principles of prevention and other public health principles (specific to cardiology without forgetting their skills as generalists).

Degree Requirements

Common Core	**12**
MEDR910 - Medical Emergencies	3
MEDR926 - Medical Pathologies I	3
MEDR927 - Medical Pathologies II	3
MEDR928 - Medical Pathologies III	3
Specialization	**60**
MEDR930A - Seminars and Conferences Residency	0
MEDR930B - Seminars and Conferences Residency	0
MEDR930C - Seminars and Conferences Residency	0
MEDR930D - Seminars and Conferences Residency	12
MEDR940A - Internship Residency I	6
MEDR940B - Internship Residency I	6

MEDR940C - Internship Residency I	6
MEDR940D - Internship Residency I	6
MEDR954A - Residency Rotation in Cardiology	6
MEDR954B - Residency Rotation in Cardiology	6
MEDR954C - Residency Rotation in Cardiology	6
MEDR954D - Residency Rotation in Cardiology	6
Total	**72**

Diploma of Specialized Studies - Cardiovascular and Thoracic Surgery (Hybrid[i])

Mission

The thoracic and cardiovascular surgery residency program provides residents with the range and depth of academic experience and academic exposure required to develop superior surgical skills and an ability to make mature, informed, independent judgments with high professional standards.

Program Educational Objectives

1. Graduates must use their basic and clinical knowledge acquired during the specialization path in order to support and treat the patient within the specialty, but without forgetting their skills in general practice.
2. Must support the patient psychologically and morally, and the family and entourage for better therapeutic compliance.
3. Must improve their knowledge and skills in parallel to the new technological discoveries and put to the service of their patients according to the rules of professionalism and ethics.
4. Have to practice their profession in accordance with the principles of quality, in particular the principles of efficiency and equity.
5. Must share their knowledge and promote prevention principles and other public health principles.

Program Outcomes

At the end of the program, young cardio- thoracic surgeons will:

a. Master the basic knowledge and clinical knowledge of the specialty in order to analyze the clinical situation, to propose a course of action and the appropriate treatment and be ready to act quickly in urgent cases.
b. Acquire deep knowledge in other specialties, surgery, cardiology pulmonary etc.., in order to better perform their practice.
c. Be able to take charge of a patient and provide moral and psychological support to the patient and entourage.
d. Be prepared to use new knowledge and new techniques to improve their practice.

[i] Hybrid: Courses offered in French and/or English

e. Master the gestures and techniques (surgical, resuscitation) proper to their specialty and apply them according to the rules of professionalism and ethics (to be defined).
f. Collaborate with other clinical or paraclinical specialists, respecting the principle of efficiency and in the best interest of the patient.
g. Share their knowledge with peers, students and other healthcare professionals.
h. Promote the principles of prevention and other public health principles (specific to their specialty without forgetting their skills as generalists).

Degree Requirements

Common Core	**12**
MEDR901 - Surgical anatomy	3
MEDR906 – Trauma	3
MEDR911 – Non-Trauma Urgent Surgical Situations	3
MEDR916 - Surgical Methodology	3
Specialization	**96**
MEDR930A - Seminars and Conferences Residency	0
MEDR930B - Seminars and Conferences Residency	0
MEDR930C - Seminars and Conferences Residency	0
MEDR930D - Seminars and Conferences Residency	12
MEDR941A - Residency Rotation in Surgery I	6
MEDR941B - Residency Rotation in Surgery I	6
MEDR941C - Residency Rotation in Surgery I	6
MEDR941D - Residency Rotation in Surgery I	6
MEDR951A - Residency Rotation in Cardiovascular and Thoracic Surgery	6
MEDR951B - Residency Rotation in Cardiovascular and Thoracic Surgery	6
MEDR951C - Residency Rotation in Cardiovascular and Thoracic Surgery	6
MEDR951D - Residency Rotation in Cardiovascular and Thoracic Surgery	6
MEDR951E - Residency Rotation in Cardiovascular and Thoracic Surgery	6
MEDR951F - Residency Rotation in Cardiovascular and Thoracic Surgery	6
MEDR951G - Residency Rotation in Cardiovascular and Thoracic Surgery	6
MEDR951H - Residency Rotation in Cardiovascular and Thoracic Surgery	6
MEDR951I - Residency Rotation in Cardiovascular and Thoracic Surgery	6
MEDR951J - Residency Rotation in Cardiovascular and Thoracic Surgery	6
Total	**108**

Diploma of Specialized Studies - Clinical Biology (Hybrid[i])

Mission

The mission of the residency in clinical biology is the training of physicians who are specialized in the field of laboratory medicine and who can contribute to the healthcare system of the country by acting as support to other clinical specialties. Moreover, the aim of the program is

[i] Hybrid: Courses offered in French and/or English

to graduate specialized doctors with the appropriate skills and knowledge and with ethics in line with the mission of the Lebanese Maronite Order (O.L.M.).

Program Educational Objectives

1. Graduates will be able to manage a laboratory in both the private and/or hospital setting.
2. Graduates may also ultimately work in the polyvalent, specialized or research tracks.
3. Graduates will be able to use both the fundamental and specialized knowledge for the processing of and the validation of the interpretation of various laboratory tests.
4. Graduates will be able to function in multidisciplinary teams in respect to ethical codes of the profession.

Program Outcomes

a. The Students of the residency in clinical pathology will have both the fundamental and specialized knowledge for the processing and the clinical interpretation of various laboratory tests.
b. Aid the patient's primary treating team in reaching a diagnosis in the most appropriate and efficient ways.
c. Acquire communication skills to ensure proper collaboration with other health care professionals in a multi-disciplinary setting.
d. Be trained to take responsibility, recognize limitations and be ethical in their dealings with colleagues and patients.
e. The students will master the management and the organizational operations of the laboratory.
f. There will also be an emphasis on quality assurance and the judicious use of available resources and finances.
g. They will learn to stay up to date by critically reading literature and studies relevant to the specialty and will be encouraged and taught to contribute to the medical literature by conducting research and writing medical papers.

Degree Requirements

Common Core	**12**
MEDR937 - Medical Microbiology	3
MEDR938 - Medical Biochemistry	3
MEDR939 - Clinical Hematology	3
MEDR946 - Polyvalent Clinical Pathology	3
Specialization	**60**
MEDR930A - Seminars and Conferences Residency	0
MEDR930B - Seminars and Conferences Residency	0
MEDR930C - Seminars and Conferences Residency	0
MEDR930D - Seminars and Conferences Residency	12
MEDR969A - Residency Rotation in Clinical Biology A	6
MEDR969B - Residency Rotation in Clinical Biology B	6
MEDR969C - Residency Rotation in Clinical Biology C	6
MEDR969D - Residency Rotation in Clinical Biology D	6

MEDR969E - Residency Rotation in Clinical Biology E	6
MEDR969F - Residency Rotation in Clinical Biology F	6
MEDR969G - Residency Rotation in Clinical Biology G	6
MEDR969H - Residency Rotation in Clinical Biology H	6
Total	**72**

Diploma of Specialized Studies – Dermatology (Hybrid[i])

Mission

The mission of the dermatology residency program is to provide trainees the opportunity to acquire knowledge, procedural skills, professional attitudes and practical experience in the subjects of medical dermatology and cosmetology.

Program Educational Objectives

1. Graduates must use their basic and clinical knowledge acquired during the specialization path in order to support and treat the patient within the specialty, but without forgetting their skills in general practice.
2. Must support the patient psychologically and morally, and the family and entourage for better therapeutic compliance.
3. Must improve their knowledge and skills in parallel to the new technological discoveries and put them to the service of their patients according to the rules of professionalism and ethics.
4. Have to practice their profession in accordance with the principles of quality, in particular the principles of efficiency and equity.
5. Must share their knowledge and promote prevention principles and other public health principles.

Program Outcomes

At the end of the program, the young dermatologists will:

a. Master the basic knowledge and clinical knowledge of the specialty in order to analyze the clinical situation, to propose a course of action and the appropriate treatment and be ready to act quickly upon urgent cases.
b. Acquire deep knowledge in other specialties (especially medical specialties).
c. Be able to take charge of a patient and provide moral and psychological support to the patient and entourage.
d. Be prepared to use new knowledge and new techniques to improve their practice.
e. Master the gestures and techniques (medical, dermic surgery and cosmetology) and apply them according to the rules of professionalism and ethics.
f. Collaborate with other clinical or paraclinical specialists, respecting the principle of efficiency and in the best interest of the patient.

[i] Hybrid: Courses offered in French and/or English

g. Share their knowledge with peers, students and other healthcare professionals.
h. Promote the principles of prevention (sun, STD) and other public health principles.

Degree Requirements

Common Core	**12**
MEDR910 - Medical Emergencies	3
MEDR926 - Medical Pathologies I	3
MEDR927 - Medical Pathologies II	3
MEDR928 - Medical Pathologies III	3
Specialization	**60**
MEDR930A - Seminars and Conferences Residency	0
MEDR930B - Seminars and Conferences Residency	0
MEDR930C - Seminars and Conferences Residency	0
MEDR930D - Seminars and Conferences Residency	12
MEDR940A - Internship Residency I	6
MEDR940B - Internship Residency I	6
MEDR940C - Internship Residency I	6
MEDR940D - Internship Residency I	6
MEDR968A - Residency Rotation in Dermatology I	6
MEDR968B - Residency Rotation in Dermatology II	6
MEDR968C - Residency Rotation in Dermatology III	6
MEDR968D - Residency Rotation in Dermatology IV	6
Total	**72**

Diploma of Specialized Studies - Emergency Medicine (Hybrid[i])

Mission

The mission of the emergency medicine program is to advance the specialty for the direct benefit of the patients by educating, mentoring, and developing future leaders in emergency medicine, whether they devote their efforts to advancing emergency prehospital care, research, public health, or public policy. We aim to be collaborative, across disciplines, specialties and health systems.

Program Educational Objectives

1. Graduates must use their basic and clinical knowledge acquired during the specialization path in order to support and treat the patient within their specialty, but without forgetting their skills in general practice.
2. Must support the patient psychologically and morally, and the family and entourage for better therapeutic compliance.
3. Must improve their knowledge and skills in parallel to the new technological discoveries and put them to the service of their patients according to the rules of professionalism and ethics.

[i] Hybrid: Courses offered in French and/or English

4. Have to practice their profession in accordance with the principles of quality, in particular the principles of efficiency and equity.
5. Must share their knowledge and promote prevention principles and other public health principles.

Program Outcomes

At the end of the program, the young emergency specialists will:

a. Master the basic knowledge and clinical knowledge of both medical and surgical and critical situations in order to analyze the clinical situation, to propose a course of action and the appropriate treatment and be ready to act quickly.
b. Acquire deep knowledge in other specialties.
c. Be able to take charge of a patient and provide moral and psychological support to the patient and entourage.
d. Be prepared to use new knowledge and new techniques to improve their practice.
e. Master the gestures and techniques (medical, surgical and critical care) and apply them according to the rules of professionalism and ethics.
f. Collaborate with other clinical or paraclinical specialists, respecting the principle of efficiency and in the best interest of the patient.
g. Share their knowledge with peers, students and other healthcare professionals.
h. Promote the principles of prevention and other public health principles.
i. Be able to dispatch patients and take priority choices.

Degree Requirements

Common Core	**12**
MEDR906 – Trauma	3
MEDR910 - Medical Emergencies	3
MEDR911 – Non-Trauma Urgent Surgical Situations	3
MEDR926 - Medical Pathologies I	3
Specialization	**60**
MEDR930A - Seminars and Conferences Residency	0
MEDR930B - Seminars and Conferences Residency	0
MEDR930C - Seminars and Conferences Residency	0
MEDR930D - Seminars and Conferences Residency	12
MEDR940A - Internship Residency I	6
MEDR940B - Internship Residency I	6
MEDR940C - Internship Residency I	6
MEDR940D - Internship Residency I	6
MEDR965A - Residency Rotation in Emergency Medicine I	6
MEDR965B - Residency Rotation in Emergency Medicine II	6
MEDR965C - Residency Rotation in Emergency Medicine III	6
MEDR965D - Residency Rotation in Emergency Medicine IV	6
Total	**72**

Diploma of Specialized Studies – ENT (Hybrid[i])

Mission

The fundamental purpose of the training program in otorhinolaryngology (ENT) is to educate and train physicians to function independently as specialists in the field of otorhinolaryngology – head and neck surgery. They will be trained to practice their skills with a high level of professionalism.

Program Educational Objectives

1. Graduates must use their basic and clinical knowledge acquired during the specialization path in order to support and treat the patient within the specialty, but without forgetting their skills in general practice.
2. Must support the patient psychologically and morally, and the family and entourage for better therapeutic compliance.
3. Must improve their knowledge and skills in parallel to the new technological discoveries and put them to the service of their patients according to the rules of professionalism and ethics.
4. Have to practice their profession in accordance with the principles of quality, in particular the principles of efficiency and equity.
5. Must share their knowledge and promote prevention principles and other public health principles.

Program Outcomes

At the end of the program, the young ENT specialists Will:

a. Master the basic knowledge and clinical knowledge of the specialty in order to analyze the clinical situation, to propose a course of action and the appropriate treatment and be ready to act quickly in urgent cases.
b. Acquire deep knowledge in other specialties (sister and/or complementary and / or additional).
c. Be able to take charge of a patient and provide moral and psychological support to the patient and entourage.
d. Be prepared to use new knowledge and new techniques to improve their practice.
e. Master the gestures and techniques (to be specified) proper to their specialty and apply them according to the rules of professionalism and ethics.
f. Collaborate with other clinical or paraclinical specialists, respecting the principle of efficiency and in the best interest of the patient.
g. Share their knowledge with peers, students and other healthcare professionals.
h. Promote the principles of prevention and other public health principles (specific to their specialty without forgetting their skills as generalists).

[i] Hybrid: Courses offered in French and/or English

Degree Requirements

Common Core	**12**
MEDR918 - Principals in ENT	3
MEDR919 - Surgical Anatomy in ENT	3
MEDR920 - Semiology and Pathology of the Ear, the Nose and the Sinuses	3
MEDR921 - Semiology and Pathology of the Head and Neck	3
Specialization	**60**
MEDR930A - Seminars and Conferences Residency	0
MEDR930B - Seminars and Conferences Residency	0
MEDR930C - Seminars and Conferences Residency	0
MEDR930D - Seminars and Conferences Residency	12
MEDR941A - Residency Rotation in Surgery I	6
MEDR941B - Residency Rotation in Surgery I	6
MEDR963A - Residency Rotation in ENT I	6
MEDR963B - Residency Rotation in ENT II	6
MEDR963C - Residency Rotation in ENT III	6
MEDR963D - Residency Rotation in ENT IV	6
MEDR963E - Residency Rotation in ENT V	6
MEDR963F - Residency Rotation in ENT VI	6
Total	**72**

Diploma of Specialized Studies - Gastro-enterology (Hybrid[i])

Mission

The mission of the gastro-enterology residency program is to improve medical care by providing the best specialists in the field through better education and research. They will acquire knowledge, technical skills and especially ethical skills in order to best serve their society.

Program Educational Objectives

1. Graduates must use their basic and clinical knowledge acquired during the specialization path in order to support and treat the patient within their specialty but without forgetting their skills in general practice.
2. Must support the patient psychologically and morally, and the family and entourage for better therapeutic compliance.
3. Must improve their knowledge and skills in parallel to the new technological discoveries and put them to the service of their patients according to the rules of professionalism and ethics.
4. Have to practice their profession in accordance with the principles of quality, in particular the principles of efficiency and equity.
5. Must share their knowledge and promote prevention principles and other public health principles.

[i] Hybrid: Courses offered in French and/or English

Program Outcomes

At the end of the program, the young GI specialists will:

a. Master the basic knowledge and clinical knowledge of the specialty in order to analyze the clinical situation, to propose a course of action and the appropriate treatment and be ready to act quickly in urgent cases.
b. Acquire deep knowledge in other specialties (internal medicine, rheumatology, general surgery, etc.).
c. Be able to take charge of a patient and provide moral and psychological support to the patient and entourage.
d. Be prepared to use new knowledge and new techniques to improve their practice.
e. Master the gestures and techniques (biopsies, endoscopy) proper to their specialty and apply them according to the rules of professionalism and ethics.
f. Collaborate with other clinical or paraclinical specialists, respecting the principle of efficiency and in the best interest of the patient.
g. Share their knowledge with peers, students and other healthcare professionals.
h. Promote the principles of prevention and other public health principles (specific to their specialty without forgetting their skills as generalists).

Degree Requirements

Common Core	**12**
MEDR910 - Medical Emergencies	3
MEDR926 - Medical Pathologies I	3
MEDR927 - Medical Pathologies II	3
MEDR928 - Medical Pathologies III	3
Specialization	**60**
MEDR930A - Seminars and Conferences Residency	0
MEDR930B - Seminars and Conferences Residency	0
MEDR930C - Seminars and Conferences Residency	0
MEDR930D - Seminars and Conferences Residency	12
MEDR940A - Internship Residency I	6
MEDR940B - Internship Residency I	6
MEDR940C - Internship residency I	6
MEDR940D - Internship residency I	6
MEDR958A - Residency Rotation in Gastro-enterology	6
MEDR958B - Residency Rotation in Gastro-enterology	6
MEDR958C - Residency Rotation in Gastro-enterology	6
MEDR958D - Residency Rotation in Gastro-enterology	6
Grand Total	**72**

Diploma of Specialized Studies - General Surgery (Hybrid[i])

Mission

The general surgery residency program will train general surgeons with a comprehensive approach in the state-of-the-art field of general surgery (neck, breast, gastro-intestinal, oncological, endocrine surgery and all aspects of laparoscopy) to provide residents with first-hand experience of managing surgical patients in a variety of surgical areas by developing their technical, professional and ethical skills according to the values of our institution.

Program Educational Objectives

1. Graduates must use their basic and clinical knowledge acquired during the specialization path in order to support and treat the patient within the specialty, but without forgetting their skills in general practice.
2. Must support the patient psychologically and morally, and the family and entourage for better therapeutic compliance.
3. Must improve their knowledge and skills in parallel to the new technological discoveries and put them to the service of their patients according to the rules of professionalism and ethics.
4. Have to practice their profession in accordance with the principles of quality, in particular the principles of efficiency and equity.
5. Must share their knowledge and promote prevention principles and other public health principles.

Program Outcomes

At the end of the program, the young specialists will:

a. Master the basic knowledge and clinical knowledge of the specialty in order to analyze the clinical situation, to propose a course of action and the appropriate treatment and be ready to act quickly in urgent cases.
b. Acquire deep knowledge in other specialties (all surgical specialties, plus more medical).
c. Be able to take charge of a patient and provide moral and psychological support to the patient and entourage.
d. Be prepared to use new knowledge and new techniques to improve their practice.
e. Master the gestures and techniques proper to their specialty (surgery, endoscopic surgery…) and apply them according to the rules of professionalism and ethics.
f. Collaborate with other clinical or paraclinical specialists, respecting the principle of efficiency and in the best interest of the patient.
g. Share their knowledge with peers, students and other healthcare professionals.
h. Promote the principles of prevention and other public health principles (specific to their specialty without forgetting their skills as generalists).

[i] Hybrid: Courses offered in French and/or English

Degree Requirements

Common Core	**12**
MEDR901 - Surgical Anatomy	3
MEDR906 – Trauma	3
MEDR911 – Non-Trauma Urgent Surgical Situations	3
MEDR916 - Surgical Methodology	3
Specialization	**72**
MEDR930A - Seminars and Conferences Residency	0
MEDR930B - Seminars and Conferences Residency	0
MEDR930C - Seminars and Conferences Residency	0
MEDR930D - Seminars and Conferences Residency	12
MEDR941A - Residency Rotation in Surgery I	6
MEDR941B - Residency Rotation in Surgery I	6
MEDR941C - Residency Rotation in Surgery I	6
MEDR941D - Residency Rotation in Surgery I	6
MEDR949A - Residency Rotation in General Surgery	6
MEDR949B - Residency Rotation in General Surgery	6
MEDR949C - Residency Rotation in General Surgery	6
MEDR949D - Residency Rotation in General Surgery	6
MEDR949E - Residency Rotation in General Surgery	6
MEDR949F - Residency Rotation in General Surgery	6
Total	**84**

Diploma of Specialized Studies - Hematology-Oncology (Hybrid[i])

Mission

The hematology-oncology residency program has the mission to educate physician scientists, teachers and clinicians so they become able to provide indispensable clinical service of the highest quality, and all of this in respect to ethical and humanistic laws.

Program Educational Objectives

1. Graduates must use their basic and clinical knowledge acquired during the specialization path in order to support and treat the patient within the specialty, but without forgetting their skills in general practice.
2. Must support the patient psychologically and morally, and the family and entourage for better therapeutic compliance.
3. Must improve their knowledge and skills in parallel to the new technological discoveries and put them to the service of patients according to the rules of professionalism and ethics.
4. Have to practice their profession in accordance with the principles of quality, in particular the principles of efficiency and equity.

[i] Hybrid: Courses offered in French and/or English

5. Must share their knowledge and promote prevention principles and other public health principles.

Program Outcomes

At the end of the program, the young specialists will:

a. Master the basic knowledge and clinical knowledge of the specialty in order to analyze the clinical situation, to propose a course of action and the appropriate treatment and be ready to act quickly in urgent cases.
b. Acquire deep knowledge in other specialties (all specialties and pathology).
c. Be able to take charge of a patient and provide moral and psychological support to the patient and entourage.
d. Be prepared to use new knowledge and new techniques to improve their practice.
e. Master the gestures and techniques (bone marrow aspiration, biopsy…) proper to the specialty and apply them according to the rules of professionalism and ethics.
f. Collaborate with other clinical or paraclinical specialists, respecting the principle of efficiency and in the best interest of the patient.
g. Share their knowledge with peers, students and other healthcare professionals.
h. Promote the principles of prevention and other public health principles (specific to their specialty without forgetting their skills as generalists).

Degree Requirements

Common Core	**12**
MEDR910 - Medical Emergencies	3
MEDR926 - Medical Pathologies I	3
MEDR927 - Medical Pathologies II	3
MEDR928 - Medical Pathologies III	3
Specialization	**84**
MEDR930A - Seminars and Conferences Residency	0
MEDR930B - Seminars and Conferences Residency	0
MEDR930C - Seminars and Conferences Residency	0
MEDR930D - Seminars and Conferences Residency	12
MEDR940A - Internship Residency I	6
MEDR940B - Internship Residency I	6
MEDR940C - Internship Residency I	6
MEDR940D - Internship Residency I	6
MEDR957A - Residency Rotation in Hematology-oncology	6
MEDR957B - Residency Rotation in Hematology-oncology	6
MEDR957C - Residency Rotation in Hematology-oncology	6
MEDR957D - Residency Rotation in Hematology-oncology	6
MEDR957E - Residency Rotation in Hematology-oncology	6
MEDR957F - Residency Rotation in Hematology-oncology	6
MEDR957G - Residency Rotation in Hematology-oncology	6
MEDR957H - Residency Rotation in Hematology-oncology	6
Total	**96**

Diploma of Specialized Studies - Internal Medicine (Hybrid[i])

Mission

The mission of the internal medicine residency program is to train and foster the development of future experts in the field and to train future generations of specialists who will not only be skilled in the procedural aspects of the specialty but also in the ethical rules that guide their practice.

Program Educational Objectives

1. Graduates must use their basic and clinical knowledge acquired during the specialization path in order to support and treat the patient within the specialty, but without forgetting their skills in general practice.
2. Must support the patient psychologically and morally, and the family and entourage for better therapeutic compliance.
3. Must improve their knowledge and skills in parallel to the new technological discoveries and put them to the service of patients according to the rules of professionalism and ethics.
4. Have to practice their profession in accordance with the principles of quality, in particular the principles of efficiency and equity.
5. Must share their knowledge and promote prevention principles and other public health principles.

Program Outcomes

At the end of the program, the young specialists will:

a. Master the basic knowledge and clinical knowledge of the internal medicine domain in order to analyze the clinical situation, to propose a course of action and the appropriate treatment and be ready to act quickly in urgent cases.
b. Acquire deep knowledge in other specialties.
c. Be able to take charge of a patient and provide moral and psychological support to the patient and entourage.
d. Be prepared to use new knowledge and new techniques to improve their practice.
e. Master the gestures and techniques proper to their specialty and apply them according to the rules of professionalism and ethics
f. Collaborate with other clinical or paraclinical specialists, respecting the principle of efficiency and in the best interest of the patient.
g. Share their knowledge with peers, students and other healthcare professionals.
h. Promote the principles of prevention and other public health principles (specific to their specialty without forgetting their skills as generalists).

[i] Hybrid: Courses offered in French and/or English

Degree Requirements

Common Core	**12**
MEDR910 - Medical Emergencies	3
MEDR926 - Medical Pathologies I	3
MEDR927 - Medical Pathologies II	3
MEDR928 - Medical Pathologies III	3
Specialization	**60**
MEDR930A - Seminars and Conferences Residency	0
MEDR930B - Seminars and Conferences Residency	0
MEDR930C - Seminars and Conferences Residency	0
MEDR930D - Seminars and Conferences Residency	12
MEDR940A - Internship Residency I	6
MEDR940B - Internship Residency I	6
MEDR940C - Internship Residency I	6
MEDR940D - Internship Residency I	6
MEDR953A - Residency Rotation in Internal Medicine	6
MEDR953B - Residency Rotation in Internal Medicine	6
MEDR953C - Residency Rotation in Internal Medicine	6
MEDR953D - Residency Rotation in Internal Medicine	6
Total	**72**

Diploma of Specialized Studies – Nephrology (Hybrid[i])

Mission

The mission of our nephrology training program is to provide each trainee with a broad range of experiences in nephrology including scientific, technical and ethical skills and the knowledge necessary for the preparation of a successful career as an academic leader or a clinical practitioner.

Program Educational Objectives

1. Graduates must use their basic and clinical knowledge acquired during the specialization path in order to support and treat the patient within the specialty, but without forgetting their skills in general practice.
2. Must support the patient psychologically and morally, and the family and entourage for better therapeutic compliance.
3. Must improve their knowledge and skills in parallel to the new technological discoveries and put them to the service of patients according to the rules of professionalism and ethics.
4. Have to practice their profession in accordance with the principles of quality, in particular the principles of efficiency and equity.

[i] Hybrid: Courses offered in French and/or English

5. Must share their knowledge and promote prevention principles and other public health principles.

Program Outcomes

At the end of the program, the young nephrologists will:

a. Master the basic knowledge and clinical knowledge of the specialty in order to analyze the clinical situation, to propose a course of action and the appropriate treatment and be ready to act quickly in urgent cases.
b. Acquire deep knowledge in other specialties (cardiology, internal medicine, etc.).
c. Be able to take charge of a patient and provide moral and psychological support to the patient and entourage, especially those under chronic treatment (dialysis, renal transplant…).
d. Be prepared to use new knowledge and new techniques to improve their practice.
e. Master the gestures and techniques (renal biopsy, dialysis) proper to the specialty and apply them according to the rules of professionalism and ethics.
f. Collaborate with other clinical or paraclinical specialists, respecting the principle of efficiency and in the best interest of the patient.
g. Share their knowledge with peers, students and other healthcare professionals.
h. Promote the principles of prevention and other public health principles (specific to their specialty without forgetting their skills as generalists).

Degree Requirements

Common Core	**12**
MEDR910 - Medical Emergencies	3
MEDR926 - Medical Pathologies I	3
MEDR927 - Medical Pathologies II	3
MEDR928 - Medical Pathologies III	3
Specialization	**60**
MEDR930A - Seminars and Conferences Residency	0
MEDR930B - Seminars and Conferences Residency	0
MEDR930C - Seminars and Conferences Residency	0
MEDR930D - Seminars and Conferences Residency	12
MEDR940A - Internship Residency I	6
MEDR940B - Internship Residency I	6
MEDR940C - Internship Residency I	6
MEDR940D - Internship Residency I	6
MEDR959A - Internship Residency Nephrology	6
MEDR959B - Internship Residency Nephrology	6
MEDR959C - Internship Residency Nephrology	6
MEDR959D - Internship Residency Nephrology	6
Total	**72**

Diploma of Specialized Studies – Neurology (Hybrid[i])

Mission

The mission of our training program is to educate physicians who will be prepared at the end of their training to become leaders in the field of neurology as clinicians, teachers, researchers, and advocates.

Program Educational Objectives

1. Graduates must use their basic and clinical knowledge acquired during the specialization path in order to support and treat the patient within the specialty, but without forgetting their skills in general practice.
2. Must support the patient psychologically and morally, and the family and entourage for better therapeutic compliance.
3. Must improve their knowledge and skills in parallel to the new technological discoveries and put them to the service of patients according to the rules of professionalism and ethics.
4. Have to practice their profession in accordance with the principles of quality, in particular the principles of efficiency and equity.
5. Must share their knowledge and promote prevention principles and other public health principles.

Program Outcomes

At the end of the program, the young neurologists will:

a. Master the basic knowledge and clinical knowledge of the specialty in order to analyze the clinical situation, to propose a course of action and the appropriate treatment and be ready to act quickly in urgent cases.
b. Acquire deep knowledge in other specialties (internal medicine, ENT, ophthalmology, radiologist).
c. Be able to take charge of a patient and provide moral and psychological support to the patient and entourage.
d. Be prepared to use new knowledge and new techniques to improve their practice.
e. Master the gestures and techniques (EEG, LP …) proper to the specialty and apply them according to the rules of professionalism and ethics.
f. Collaborate with other clinical or paraclinical specialists, respecting the principle of efficiency and in the best interest of the patient.
g. Share their knowledge with peers, students and other healthcare professionals.
h. Promote the principles of prevention and other public health principles (specific to their specialty without forgetting their skills as generalists).

[i] Hybrid: Courses offered in French and/or English

Degree Requirements

Common Core	**12**
MEDR910 - Medical Emergencies	3
MEDR926 - Medical Pathologies I	3
MEDR927 - Medical Pathologies II	3
MEDR928 - Medical Pathologies III	3
Specialization	**60**
MEDR930A - Seminars and Conferences Residency	0
MEDR930B - Seminars and Conferences Residency	0
MEDR930C - Seminars and Conferences Residency	0
MEDR930D - Seminars and Conferences Residency	12
MEDR940A - Internship Residency I	6
MEDR940B - Internship Residency I	6
MEDR940C - Internship Residency I	6
MEDR940D - Internship Residency I	6
MEDR956A - Residency Rotation in Neurology	6
MEDR956B - Residency Rotation in Neurology	6
MEDR956C - Residency Rotation in Neurology	6
MEDR956D - Residency Rotation in Neurology	6
Total	**72**

Diploma of Specialized Studies – Neurosurgery (Hybrid[i])

Mission

The neurosurgery residency program is committed to training future leaders and innovators in academic neurological surgery by fostering the development of the cognitive, technical, academic, administrative and humanistic capabilities of our residents and training them to become highly motivated, confident, and clinically excellent specialists, equipped to contribute to the advancement of neurosurgery.

Program Educational Objectives

1. Graduates must use their basic and clinical knowledge acquired during the specialization path in order to support and treat the patient within the specialty, but without forgetting their skills in general practice.
2. Must support the patient psychologically and morally, and the family and entourage for better therapeutic compliance.
3. Must improve their knowledge and skills in parallel to the new technological discoveries and put them to the service of patients according to the rules of professionalism and ethics.
4. Have to practice their profession in accordance with the principles of quality, in particular the principles of efficiency and equity.

[i] Hybrid: Courses offered in French and/or English

5. Must share their knowledge and promote prevention principles and other public health principles.

Program Outcomes

At the end of the program, the young neurosurgeons will:

a. Master the basic knowledge and clinical knowledge of the specialty in order to analyze the clinical situation, to propose a course of action and the appropriate treatment and be ready to act quickly in urgent cases.
b. Acquire deep knowledge in other specialties (surgery, orthopedics, neurology, ENT, ophthalmology).
c. Be able to take charge of a patient and provide moral and psychological support to the patient and entourage.
d. Be prepared to use new knowledge and new techniques to improve their practice.
e. Master the gestures and techniques proper to the specialty and apply them according to the rules of professionalism and ethics.
f. Collaborate with other clinical or paraclinical specialists, respecting the principle of efficiency and in the best interest of the patient.
g. Share their knowledge with peers, students and other healthcare professionals.
h. Promote the principles of prevention and other public health principles.

Degree Requirements

Common Core	**12**
MEDR901 - Surgical Anatomy	3
MEDR906 - Trauma	3
MEDR911 – Non-Trauma Urgent Surgical Situations	3
MEDR916 - Surgical Methodology	3
Specialization	**84**
MEDR930A - Seminars and Conferences Residency	0
MEDR930B - Seminars and Conferences Residency	0
MEDR930C - Seminars and Conferences Residency	0
MEDR930D - Seminars and Conferences Residency	12
MEDR941A - Residency Rotation in Surgery I	6
MEDR941B - Residency Rotation in Surgery I	6
MEDR941C - Residency Rotation in Surgery I	6
MEDR941D - Residency Rotation in Surgery I	6
MEDR950A - Residency Rotation in Neurosurgery	6
MEDR950B - Residency Rotation in Neurosurgery	6
MEDR950C - Residency Rotation in Neurosurgery	6
MEDR950D - Residency Rotation in Neurosurgery	6
MEDR950E - Residency Rotation in Neurosurgery	6
MEDR950F - Residency Rotation in Neurosurgery	6
MEDR950G - Residency Rotation in Neurosurgery	6
MEDR950H - Residency Rotation in Neurosurgery	6
Total	**96**

Diploma of Specialized Studies - Obstetrics and Gynecology (ob-gyn) (Hybrid[i])

Mission

The obstetrics and gynecology residency program will train physician leaders who provide innovative, compassionate, and comprehensive health care for women by caring about the health of mother and fetus and providing the latest innovation in the field in the respect of ethical principles and social beliefs.

Program Educational Objectives

1. Graduates must use their basic and clinical knowledge acquired during the specialization path in order to support and treat the mother and fetus, and female diseases within the specialty, but without forgetting their skills in general practice.
2. Must support the patient psychologically and morally, and the family and entourage for better therapeutic compliance.
3. Must improve their knowledge and skills in parallel to the new technological discoveries and put them to the service of patients according to the rules of professionalism and ethics.
4. Have to practice their profession in accordance with the principles of quality, in particular the principles of efficiency and equity.
5. Must share their knowledge and promote prevention principles and other public health principles.

Program Outcomes

At the end of the program, the young ob-gyns will:

a. Master the basic knowledge and clinical knowledge of the specialty in order to analyze the clinical situation, to propose a course of action and the appropriate treatment and be ready to act quickly in urgent cases.
b. Acquire deep knowledge in other specialties (surgery, urology, endocrinology).
c. Be able to take charge of a patient and or mother/fetus, and provide moral and psychological support to her and her entourage.
d. Be prepared to use new knowledge and new techniques to improve their practice.
e. Master the gestures and techniques (US, surgical, delivery, endoscopy) proper to their specialty and apply them according to the rules of professionalism and ethics.
f. Collaborate with other clinical or paraclinical specialists, respecting the principle of efficiency and in the best interest of the patient.
g. Share their knowledge with peers, students and other healthcare professionals.
h. Promote the principles of prevention and other public health principles (specific to their prenatal diagnosis, STD, etc. without forgetting their skills as generalists).

[i] Hybrid: Courses offered in French and/or English

Degree Requirements

Common Core	**12**
MEDR901 - Surgical Anatomy	3
MEDR906 – Trauma	3
MEDR911 – Non-Trauma Urgent Surgical Situations	3
MEDR916 - Surgical Methodology	3
Specialization	**72**
MEDR930A - Seminars and Conferences Residency	0
MEDR930B - Seminars and Conferences Residency	0
MEDR930C - Seminars and Conferences Residency	0
MEDR930D - Seminars and Conferences Residency	12
MEDR941A - Residency Rotation in Surgery I	6
MEDR941B - Residency Rotation in Surgery I	6
MEDR941C - Residency Rotation in Surgery I	6
MEDR941D - Residency Rotation in Surgery I	6
MEDR952A - Residency Rotation in Gynecology	6
MEDR952B - Residency Rotation in Gynecology	6
MEDR952C - Residency Rotation in Gynecology	6
MEDR952D - Residency Rotation in Gynecology	6
MEDR952E - Residency Rotation in Gynecology	6
MEDR952F - Residency Rotation in Gynecology	6
Total	**84**

Diploma of Specialized Studies – Ophthalmology (Hybrid[i])

Mission

The mission of the ophthalmology residency program is to train future ophthalmologists in both clinical and academic ophthalmology. The residents' responsibilities have been meticulously structured to maximize the educational experience. This program will serve as a guideline for training centers enabling them to meet the Arab, European and American standards as set out by the different Boards.

Program Educational Objectives

1. Graduates must use their basic and clinical knowledge acquired during the specialization path in order to support and treat the patient within the specialty, but without forgetting their skills in general practice.
2. Must support the patient psychologically and morally, and the family and entourage for better therapeutic compliance.
3. Must improve their knowledge and skills in parallel to the new technological discoveries and put them to the service of patients according to the rules of professionalism and ethics.

[i] Hybrid: Courses offered in French and/or English

4. Have to practice their profession in accordance with the principles of quality, in particular the principles of efficiency and equity.
5. Must share their knowledge and promote prevention principles and other public health principles.

Program Outcomes

At the end of the program, the young ophthalmologists will:

a. Master the basic knowledge and clinical knowledge of the specialty in order to analyze the clinical situation, to propose a course of action and the appropriate treatment and be ready to act quickly in urgent cases.
b. Acquire deep knowledge in other specialties, both medical and surgical, related to the specialty and their future practice.
c. Be able to take charge of a patient and provide moral and psychological support to the patient and entourage.
d. Be prepared to use new knowledge and new techniques to improve their practice.
e. Master the gestures and techniques (diagnostic procedures, non-surgical management, and surgical management) proper to the specialty and apply them according to the rules of professionalism and ethics.
f. Collaborate with other clinical or paraclinical specialists, respecting the principle of efficiency and in the best interest of the patient.
g. Share his knowledge with his peers, students and other healthcare professionals.
h. Promote the principles of (prevention) and other public health principles (specific to their specialty without forgetting their skills as generalists).

Degree Requirements

Common Core	**12**
MEDR922 – Anatomy, Embryology and Physiology of the Eye	3
MEDR923 - Ophthalmic Investigation Methods, Surgical Methodology in Ophthalmology and External Ocular Pathologies	3
MEDR924 - Anterior Segment Pathologies	3
MEDR925 - Posterior Segment Pathologies and Neuro-ophthalmology	3
Specialization	**60**
MEDR930A - Seminars and Conferences Residency	0
MEDR930B - Seminars and Conferences Residency	0
MEDR930C - Seminars and Conferences Residency	0
MEDR930D - Seminars and Conferences Residency	12
MEDR941A - Residency Rotation in Surgery I	6
MEDR941B - Residency Rotation in Surgery I	6
MEDR964A - Residency Rotation in Ophthalmology I	6
MEDR964B - Residency Rotation in Ophthalmology II	6
MEDR964C - Residency Rotation in Ophthalmology III	6
MEDR964D - Residency Rotation in Ophthalmology IV	6
MEDR964E - Residency Rotation in Ophthalmology V	6
MEDR964F - Residency Rotation in Ophthalmology VI	6
Grand Total	**72**

Diploma of Specialized Studies - Orthopedic Surgery and Traumatology (Hybrid[i])

Mission

The mission of the orthopedic surgery residency training program is to provide the trainees with the knowledge, clinical and surgical skills in all areas of orthopedic surgery necessary for either academic or private practice at the highest possible level of competence, and all of this in line with the highest standards of ethics towards patients and collaborators.

Program Educational Objectives

1. Graduates must use their basic and clinical knowledge acquired during the specialization path in order to support and treat the patient within his specialty but without forgetting his skills in general practice.
2. Must support the patient psychologically and morally, and the family and entourage for better therapeutic compliance.
3. Must improve their knowledge and skills in parallel to the new technological discoveries and put them to the service of patients according to the rules of professionalism and ethics.
4. Have to practice their profession in accordance with the principles of quality, in particular the principles of efficiency and equity.
5. Must share their knowledge and promote prevention principles and other public health principles.

Program Outcomes

At the end of the program, the young orthopedic surgeons will:

a. Master the basic knowledge and clinical knowledge of the specialty in order to analyze the clinical situation, to propose a course of action and the appropriate treatment and be ready to act quickly in urgent cases.
b. Acquire deep knowledge in other specialties (general surgery, vascular surgery and neurosurgery) in order to better perform their practice.
c. Be able to take charge of a patient and provide moral and psychological support to the patient and entourage.
d. Be prepared to use new knowledge and new techniques to improve their practice.
e. Master the gestures and techniques proper to the specialty (tools, materials, surgery, cast) and apply them according to the rules of professionalism and ethics (to be defined).
f. Collaborate with other clinical or paraclinical specialists, respecting the principle of efficiency and in the best interest of the patient.
g. Share their knowledge with peers, students and other healthcare professionals.
h. Promote the principles of prevention and other public health principles (specific to bones and joints) without forgetting their skills as generalists.

[i] Hybrid: Courses offered in French and/or English

Degree Requirements

Common Core	**12**
MEDR901 - Surgical anatomy	3
MEDR906 – Trauma	3
MEDR911 – Non-Trauma Urgent Surgical Situations	3
MEDR916 - Surgical Methodology	3
Specialization	**72**
MEDR930A - Seminars and Conferences Residency	0
MEDR930B - Seminars and Conferences Residency	0
MEDR930C - Seminars and Conferences Residency	0
MEDR930D - Seminars and Conferences Residency	12
MEDR941A - Residency Rotation in Surgery I	6
MEDR941B - Residency Rotation in Surgery I	6
MEDR941C - Residency Rotation in Surgery I	6
MEDR941D - Residency Rotation in Surgery I	6
MEDR947A - Residency Rotation in Orthopedics	6
MEDR947B - Residency Rotation in Orthopedics	6
MEDR947C - Residency Rotation in Orthopedics	6
MEDR947D - Residency Rotation in Orthopedics	6
MEDR947E - Residency Rotation in Orthopedics	6
MEDR947F - Residency Rotation in Orthopedics	6
Total	**84**

Diploma of Specialized Studies – Pathology (Hybrid[i])

Mission

The mission of the pathology residency program is to provide trainees the opportunity to acquire the subject knowledge, procedural skills, professional attitudes and practical experience. The main challenge remains the multidisciplinarity of both the diseases and the specialists to collaborate with.

Program Educational Objectives

1. Graduates must use their basic and clinical knowledge acquired during the specialization path in order to diagnose diseases and support the team for the best treatment of the patient.
2. Must collaborate with colleagues (their lab skills, their clinical skills) for a better diagnosis.
3. Must improve their knowledge and skills in parallel to the new technological discoveries and put them to the service of patients according to the rules of professionalism and ethics.
4. Have to practice their profession in accordance with the principles of quality, in particular the principles of efficiency and equity.

[i] Hybrid: Courses offered in French and/or English

Program Outcomes

At the end of the program, the young pathologists will:

a. Master the basic knowledge in order to analyze the specimen, to then propose an adequate diagnosis.
b. Acquire deep knowledge in other specialties (nearly everything) to integrate the morphological pattern in the pathology of the disease.
c. Be prepared to use new knowledge and new techniques to improve their practice.
d. Master the gestures and techniques (biopsy, autopsy, cytopathology) plus those proper to the specialty and apply them according to the rules of professionalism and ethics.
e. Collaborate with other clinical or paraclinical specialists, respecting the principle of efficiency and in the best interest of the patient.
f. Share their knowledge with peers, students and other healthcare professionals.

Degree Requirements

Common Core	**12**
MEDR929 - Cellular and Histological Physiology	3
MEDR930 - Morbid Processes	3
MEDR931 - Pathology of Organs and Systems	3
MEDR932 - Pathology of the Skin, the Central Nervous System and Soft Tissue System	3
Specialization	**60**
MEDR930A - Seminars and Conferences Residency	0
MEDR930B - Seminars and Conferences Residency	0
MEDR930C - Seminars and Conferences Residency	0
MEDR930D - Seminars and Conferences Residency	12
MEDR966A - Residency Rotation in Pathology I	6
MEDR966B - Residency Rotation in Pathology II	6
MEDR966C - Residency Rotation in Pathology III	6
MEDR966D - Residency Rotation in Pathology IV	6
MEDR966E - Residency Rotation in Pathology V	6
MEDR966F - Residency Rotation in Pathology VI	6
MEDR966G - Residency Rotation in Pathology VII	6
MEDR966H - Residency Rotation in Pathology VII	6
Grand Total	**72**

Diploma of Specialized Studies – Pediatrics (Hybrid[i])

Mission

The pediatrics residency program mission provides residents with a broad exposure to the health care of children and substantial experience in the management of diverse pediatric pathologic conditions. Primary care, preventive health care, ethical issues, and discussions of

[i] Hybrid: Courses offered in French and/or English

the cost of diagnostic tests, procedures, and therapies are all a part of this program. Also, the program will introduce them to subspecialties of child medicine.

Program Educational Objectives

1. Graduates must use their basic and clinical knowledge acquired during the specialization path in order to support and treat the patient within the specialty, but without forgetting their skills in general practice.
2. Must support the patient psychologically and morally, and the family and entourage for better therapeutic compliance.
3. Must improve their knowledge and skills in parallel to the new technological discoveries and put them to the service of patients according to the rules of professionalism and ethics.
4. Have to practice their profession in accordance with the principles of quality, in particular the principles of efficiency and equity.
5. Must share their knowledge and promote prevention principles and other public health principles.

Program Outcomes

At the end of the program, the young pediatricians will:

a. Master the basic knowledge and clinical knowledge of child medicine in order to analyze the clinical situation, to propose a course of action and the appropriate treatment and be ready to act quickly in urgent cases.
b. Acquire knowledge in all pediatric specialties.
c. Be able to take charge of a patient and provide moral and psychological support to the patient and entourage.
d. Be prepared to use new knowledge and new techniques to improve their practice.
e. Master the gestures and techniques proper to the specialty and apply them according to the rules of professionalism and ethics.

Degree Requirements

Common Core	**12**
MEDR902 - Pediatric Emergencies	3
MEDR912 - Pediatric and Neonatal Resuscitation	3
MEDR913 - Basic Principles in Pediatrics	3
MEDR914 - General Pediatrics Guidelines	3
Specialization	**60**
MEDR930A - Seminars and Conferences Residency	0
MEDR930B - Seminars and Conferences Residency	0
MEDR930C - Seminars and Conferences Residency	0
MEDR930D - Seminars and Conferences Residency	12
MEDR961A - Residency Rotation in Pediatrics	6
MEDR961B - Residency Rotation in Pediatrics	6
MEDR961C - Residency Rotation in Pediatrics	6

MEDR961D - Residency Rotation in Pediatrics	6
MEDR961E - Residency Rotation in Pediatrics	6
MEDR961F - Residency Rotation in Pediatrics	6
MEDR961G - Residency Rotation in Pediatrics	6
MEDR961H - Residency Rotation in Pediatrics	6
Total	**72**

Diploma of Specialized Studies – Psychiatry (Hybrid[i])

Mission

The mission of the psychiatry residency program is to promote the development of post-graduate psychiatrists who will be exceptional communicators, skillful psychotherapists, highly competent practitioners, and effective leaders. They will value lifelong learning, adhere to the highest ethical standards of the profession, and serve the community as role models.

Program Educational Objectives

1. Graduates must use their basic and clinical knowledge acquired during the specialization path in order to support and treat the patient within the specialty, but without forgetting their skills in general practice.
2. Must provide psychological support to the patient, and the family and entourage and empower social support for a better therapeutic response.
3. Must provide psycho-education to the patient, and the family and entourage in order to increase compliance to treatment and reduce relapses.
4. Must remain up to date and improve their knowledge and their skills in parallel to the new medical advances and put it to the service of patients according to the rules of professionalism and ethics.
5. Have to practice their profession in accordance with the principles of quality, in particular the principles of efficiency and equity.
6. Must share their knowledge and promote prevention principles and other public health principles.

Program Outcomes

At the end of the program, the young psychiatrists will:

a. Master the basic knowledge and clinical knowledge of psychiatry in order to analyze the clinical situation, to propose a course of action and the appropriate treatment and be ready to act quickly in urgent cases (suicide, self-harm, harm to others…).
b. Acquire deep knowledge in other specialties (especially in neurology).
c. Be able to take charge of a patient and provide moral and psychological support to the patient and entourage.

[i] Hybrid: Courses offered in French and/or English

d. Be prepared to remain up to date in their knowledge and use it to improve their practice.
e. Master psychiatry and apply their knowledge according to the rules of professionalism and ethics.
f. Collaborate with other clinical or paraclinical specialists, respecting the principle of efficiency and in the best interest of the patient.
g. Share their knowledge with peers, students and other healthcare professionals.
h. Promote the principles of prevention and other public health principles (specific to psychiatry without forgetting their skills as generalists).

Degree Requirements

Common Core	**12**
MEDR910 - Medical Emergencies	3
MEDR926 - Medical Pathologies I	3
MEDR933 - Psychiatric Pathologies I	3
MEDR934 - Psychiatric Pathologies II	3
Specialization	**72**
MEDR930A - Seminars and Conferences Residency	0
MEDR930B - Seminars and Conferences Residency	0
MEDR930C - Seminars and Conferences Residency	0
MEDR930D - Seminars and Conferences Residency	12
MEDR940A - Internship Residency I	6
MEDR940B - Internship Residency I	6
MEDR967A - Residency Rotation in Psychiatry I	6
MEDR967B - Residency Rotation in Psychiatry II	6
MEDR967C - Residency Rotation in Psychiatry III	6
MEDR967D - Residency Rotation in Psychiatry IV	6
MEDR967E - Residency Rotation in Psychiatry V	6
MEDR967F - Residency Rotation in Psychiatry VI	6
MEDR967G - Residency Rotation in Psychiatry VII	6
MEDR967H - Residency Rotation in Psychiatry VIII	6
Total	**84**

Diploma of Specialized Studies – Pulmonology (Hybrid[i])

Mission

The mission of the pulmonology residency program is to educate MD graduates to evaluate and manage critically-ill patients requiring advanced pulmonology therapies, through a multidisciplinary team approach. They will be introduced to all subspecialties, in particularly intensive care and critical patient care.

[i] Hybrid: Courses offered in French and/or English

Program Educational Objectives

1. The graduates must use their basic and clinical knowledge acquired during the specialization path in order to support and treat the patient within the specialty, but without forgetting their skills in general practice.
2. Must support the patient, psychologically and morally, and the family and entourage for better therapeutic compliance.
3. Must improve their knowledge and skills in parallel to the new technological discoveries and put them to the service of the patient according to the rules of professionalism and ethics.
4. Have to practice their profession in accordance with the principles of quality, in particular the principles of efficiency and equity.
5. Must share their knowledge and promote prevention principles and other public health principles.

Program Outcomes

At the end of the program, the young pulmonologists will:

a. Master the basic knowledge and clinical knowledge in pulmonology in order to analyze the clinical situation, to propose a course of action and the appropriate treatment and be ready to act quickly upon urgent cases.
b. Acquire deep knowledge in other specialties (cardiology, intensive care, ENT, etc.).
c. Be able to take in charge of a patient and provide moral and psychological support to them and the entourage.
d. Be prepared to use new knowledge and new techniques to improve their practice.
e. Master the gestures and techniques (endoscopy) proper to the specialty and apply them according to the rules of professionalism and ethics.
f. Collaborate with other clinical or para-clinical specialists, respecting the principle of efficiency and in the best interest of the patient.
g. Share their knowledge with his peers, students and other healthcare professionals.
h. Promote the principles of (prevention) and other public health principles (specific to pulmonology without forgetting their skills as generalists).

Degree Requirements

Common Core	**12**
MEDR910 - Medical Emergencies	3
MEDR926 - Medical Pathologies I	3
MEDR927 - Medical Pathologies II	3
MEDR928 - Medical Pathologies III	3
Specialization	**60**
MEDR930A - Seminars and Conferences Residency	0
MEDR930B - Seminars and Conferences Residency	0
MEDR930C - Seminars and Conferences Residency	0
MEDR930D - Seminars and Conferences Residency	12
MEDR940A - Internship Residency I	6

MEDR940B - Internship Residency I	6
MEDR940C - Internship Residency I	6
MEDR940D - Internship Residency I	6
MEDR955A - Residency Rotation in Pulmonology	6
MEDR955B - Residency Rotation in Pulmonology	6
MEDR955C - Residency Rotation in Pulmonology	6
MEDR955D - Residency Rotation in Pulmonology	6
Total	**72**

Diploma of Specialized Studies – Radiology (Hybrid[i])

Mission

The mission of the diagnostic radiology residency program is to offer rich and diverse clinical experiences, a didactic curriculum, mentoring, and opportunities to train and educate residents to become experts in their field, skilled in their practice, excellent team workers and devoted teachers. X rays, ultrasounds, magnetic resonance and other technologies to come will transform them to the “eyes” of modern medicine.

The radiology program promotes the use of therapeutic skills in interventional radiology.

Program Educational Objectives

1. Graduates must use their basic and clinical knowledge acquired during their pre-graduate and postgraduate path in order to diagnose and in some cases treat.
2. Must help colleagues for the best diagnosis and treatment of the patient.
3. Must improve their knowledge and skills in parallel to the new technological discoveries and put them to the service of patients according to the rules of professionalism and ethics.
4. Have to practice their profession in accordance with the principles of quality, in particular the principles of efficiency and equity.

Program Outcomes

At the end of the program, the young radiologists will:

a. Master the basic, clinical and technical knowledge in order to propose diagnosis.
b. Acquire deep knowledge in other specialties (all).
c. Be able to take charge of a patient and provide expertise in a team working for the best treatment.
d. Be prepared to use new knowledge and new techniques to improve their practice.
e. Master the gestures and techniques (diagnostic and treatment) proper to the specialty and apply them according to the rules of professionalism and ethics.
f. Collaborate with other clinicians, respecting the principle of efficiency and in the best interest of the patient.
g. Share their knowledge with peers, students and other healthcare professionals.

[i] Hybrid: Courses offered in French and/or English

Degree Requirements

Common Core	**12**
MEDR903 - Semiology in Radiology	3
MEDR906 - Trauma	3
MEDR910 - Medical Emergencies	3
MEDR911 – Non-Trauma Urgent Surgical Situations	3
Specialization	**60**
MEDR930A - Seminars and Conferences Residency	0
MEDR930B - Seminars and Conferences Residency	0
MEDR930C - Seminars and Conferences Residency	0
MEDR930D - Seminars and Conferences Residency	12
MEDR962A - Residency Rotation in Radiology	6
MEDR962B - Residency Rotation in Radiology	6
MEDR962C - Residency Rotation in Radiology	6
MEDR962D - Residency Rotation in Radiology	6
MEDR962E - Residency Rotation in Radiology	6
MEDR962F - Residency Rotation in Radiology	6
MEDR962G - Residency Rotation in Radiology	6
MEDR962H - Residency Rotation in Radiology	6
Grand Total	**72**

Diploma of Specialized Studies – Urology (Hybrid[i])

Mission

The mission of the urology specialty program is to contribute to the improvement of the productivity of the medical community by providing experts trained with the information, procedural skills, professional attitudes and practical experience in the specialty.

Program Educational Objectives

1. Graduates must use their basic and clinical knowledge acquired during the specialization path in order to support and treat the patient within the specialty, but without forgetting their skills in general practice.
2. Must support the patient psychologically and morally, and the family and entourage for better therapeutic compliance.
3. Must improve their knowledge and skills in parallel to the new technological discoveries and put them to the service of patients according to the rules of professionalism and ethics.
4. Have to practice their profession in accordance with the principles of quality, in particular the principles of efficiency and equity.

[i] Hybrid: Courses offered in French and/or English

5. Must share their knowledge and promote prevention principles and other public health principles.

Program Outcomes

At the end of the program, the young urologists will:

a. Master the basic knowledge and clinical knowledge of the specialty in order to analyze the clinical situation, to propose a course of action and the appropriate treatment and be ready to act quickly in urgent cases.
b. Acquire deep knowledge in other specialties (surgery, ob-gyn, nephrology).
c. Be able to take charge of a patient and provide moral and psychological support to the patient and entourage.
d. Be prepared to use new knowledge and new techniques to improve their practice.
e. Master the gestures and techniques (endoscopic, manometric) proper to the specialty and apply them according to the rules of professionalism and ethics.
f. Collaborate with other clinical or paraclinical specialists, respecting the principle of efficiency and in the best interest of the patient.
g. Share their knowledge with peers, students and other healthcare professionals.
h. Promote the principles of prevention and other public health principles (specific to their specialty without forgetting their skills as generalists).

Degree Requirements

Common Core	**12**
MEDR901 - Surgical anatomy	3
MEDR906 – Trauma	3
MEDR911 – Non-Trauma Urgent Surgical Situations	3
MEDR916 - Surgical Methodology	3
Specialization	**72**
MEDR930A - Seminars and Conferences Residency	0
MEDR930B - Seminars and Conferences Residency	0
MEDR930C - Seminars and Conferences Residency	0
MEDR930D - Seminars and Conferences Residency	12
MEDR941A - Residency Rotation in Surgery I	6
MEDR941B - Residency Rotation in Surgery I	6
MEDR941C - Residency Rotation in Surgery I	6
MEDR941D - Residency Rotation in Surgery I	6
MEDR948A - Residency Rotation in Urology	6
MEDR948B - Residency Rotation in Urology	6
MEDR948C - Residency Rotation in Urology	6
MEDR948D - Residency Rotation in Urology	6
MEDR948E - Residency Rotation in Urology	6
MEDR948F - Residency Rotation in Urology	6
Total	**84**

Course Descriptions

BCH320 Structural Biochemistry 3 cr.
Pre-requisites CHM317 Or CHM311 Or CHE311
This course is based on an understanding of the different biochemical processes taking place in the human body. Students will learn about the basic formations in biochemistry, so they are then able to competently address all areas related to medical biochemistry. Structural biochemistry defines the structure of the various molecules of living matter such as carbohydrates, lipids, amino-acids, proteins, enzymes, nucleotides and vitamins.

BCH421 Metabolic Biochemistry 3 cr.
Pre-requisites BCH415 Or BCH410 Or BCH300 Or BCH320 Or BCM320
Understanding all vital processes requires knowledge of the biochemical reactions and their integration in metabolic pathways. This course covers two basic areas of molecular biochemistry which are the production and storage of energy, and the biosynthesis of macromolecules. The course starts with the metabolism of carbohydrates, the main producer of energy in the cell. Several topics are devoted to the study of glycogen metabolism, glycolysis, the Krebs cycle and the pentose phosphate pathway. Then lipid metabolism (β oxidation, fatty acid synthesis, cholesterol synthesis), and on to protein metabolism (transamination, urea cycle) and then nucleotide metabolism.

BIO377 Biochemistry and Molecular Biology Laboratory 1 cr.
This lab is divided into two parts: a biochemistry part and a molecular biology part. In the biochemistry sessions, the students are initiated into the methods used to measure the levels of lipids, proteins and carbohydrates in the serum of patients. In the second part of this lab, the students are introduced to molecular biology methods. They are allowed to practice most of the concepts covered in the course of molecular biology: genomic and DNA plasmid extractions, PCR amplification, enzyme digestion, SDS-PAGE, Western blot and bacterial transformation.

BIO413 Molecular Biology 3 cr.
Pre-requisites BIO411 Or MEDL200
The course begins with a review of nucleic acids and demonstrates the methods for their extraction, separation and analysis. Secondly, the course extensively studies the regulation of gene expression and provides an update on the changes to the nucleic acids transcriptionally, post- transcriptional and translational. Finally, detailed molecular analysis techniques, cloning, PCR, sequencing and development of DNA banks are explained.

CHM317 Organic Chemistry 3 cr.
Pre-requisites CHM212
Organic chemistry is an introduction to the structure, reactivity, and properties of organic compounds. This course is intended to introduce students to the major concepts in organic chemistry and prepare them for the upper level classes in chemistry and biochemistry and the organic requirements for medical schools. Topics include: introduction and review, electronic structure and bonding in organic molecules; nomenclature of organic compounds; structure and properties of alkanes, cycloalkanes, and alkyl halides; stereoisomerism and chirality of organic compounds; and the structure, properties and reactivity of alkynes and alkenes.

CHM377 General Chemistry and Physics Laboratory 1 cr.
Pre-requisites CHM212
In its chemistry parts the objective of the course is to introduce the students to the basic techniques used in a chemistry laboratory, including solution preparations, titration, distillation and recrystallization and aspirin synthesis. The physics part of this lab aims to achieve: the experimental

measurement of the latent heat of vaporization at constant volume, the experimental study of the magnetic field, the operational amplifiers and the RLC circuit.

MEDL200 Cytology and Human Cell Pathologies 3 cr.
This course will allow the students to acquire knowledge of the essential principles of cell structure and functions. Structural and functional heterogeneity of cells, characteristics, location and sequence of main cellular events, signaling molecules and mechanisms of their action, biological membranes, their structural organization and functions, transport across membranes, the cell surface, its specializations, cell adhesion and communication, cell junctions, cell organelles, cell nucleus, its changes during the cell cycle and cell death will all be developed in this course. Furthermore, the students will study specific readings and literature independently in accordance with the topics of the course and they will analyze medical cell biology articles.

MEDL205 General Histology 3 cr.
The purpose of this course is the theoretical and practical acquisition of the fundamental basics in general functional histology. Outline: the histology techniques, supporting tissues, epithelial, muscle tissue, nerve tissue, hematopoietic tissue.
Methodology: theoretical acquisitions in lectures, tutorials and practical TD TP. Personal research work to strengthen and deepen these acquisitions. This course prepares the students for the understanding of the histology of organs.

MEDL210 Musculoskeletal Anatomy 3 cr.
The teaching of the anatomy of the musculoskeletal system has changed in recent years in the direction of simplification, a return to the essential, eliminating many unnecessary details. The program of the musculoskeletal system concerns the descriptive and topographic anatomy of the upper limbs and lower spine including the sacrum and the anatomy of the skull and rib cage.

MEDL215 Biostatistics and Introduction to Epidemiology 3 cr.
Pre-requisites MAT218 Or MAT216
This course introduces statistical information. It includes: information regarding how to organize and summarize data, how to reach decisions about a large body of data by examining only a small part of the data, the use of statistical data in medical literature and using frequently used statistical methods of data analysis.

MEDL220 Human Anatomy 3 cr.
This course introduces the students to the human body and its many complex structures. The structure and function of important organs will be demonstrated, discussed and related to common surgical scenarios and current research. Each part of the course will focus on a specific area of the human body. This will help the students to apply their understanding of basic anatomy to common clinical scenarios and research.

MEDL300 Human Embryology 3 cr.
This course helps the students understand how a well-organized and complete individual develops from the zygote (single totipotent) following inductions in chains. The aim is also to understand that the development of the human body is dependent on endogenous factors (regulatory genes) and is also dependent on external or environmental factors. This course is closely related to anatomy and also helps students to understand the anatomy of the adult.

MEDL310 Human Cellular Physiology 3 cr.
Pre-requisites BIO211 Or MEDL200
This class is a cellular human physiology course for students entering the medical professions. The students will study human cell functions and relate them to cell structure. Furthermore, this course

involves the structure and function of the principal systems of the human body, as it pertains to how the body systems relate to one another in organization, adaptation, and homeostasis. While the course will focus on examining basic mechanisms in cell physiology, there will be a thread of discussion of disease mechanisms throughout preparing the students for the clinical physiology courses.

MEDL315 Human Parasitology and Mycology 3 cr.
Human parasitology and mycology involves the study of animals or fungal organisms that might be pathogenic to their host. The course will explore the importance of parasites and fungi, their biological classification and the diagnostic techniques used in their identification. Opportunistic diseases (such as toxoplasmosis, cryptococcal disease, and aspergillosis in the setting of HIV) will be of particular importance in this course. Furthermore, there will be a focus on tropical parasitic diseases that are common to our region and that require the ability to make a rapid diagnosis and initiate the appropriate specific treatment (as is the case with malaria and amebiasis). The course will include clinical cases that will be discussed to maximize the understanding and grasp of relevant content and ideas

MEDL320 Histology of Organs 3 cr.
This course will familiarize the students with the structure of different organs in the human body. It will integrate the data learned in the general histology courses. Some physiological hints will be explained.

MEDL321 Cytology and Histology Laboratory 1 cr.
This course will initiate students into recognizing the histological structure of primary tissues in the human body. They will learn the basic functions of each tissue and the place it occupies in the organs. They will become aware of the importance of each structure for the good functioning of the organs.

MEDL325 Physiology I 3 cr.
Pre-requisites MEDL310 Or SCS325
The course is a complete review of the different systems in their normal and physiological situation. Neurology: the motor, somatosensory, vegetative reflexes, cortical, and vigilance states, emotions and fluid studies (CSF circulation) and metabolism. Endocrine: regulating the release and action of different hormones with clinical implications of their excesses and their disability. Gastric, intestinal and hepatic: general concepts, digestive, liver and biliary secretion, intestinal absorption, digestive motility and continence mechanism. The purpose of this course is to enable the students to thoroughly study the nervous, endocrine, gastric and hepatic systems functioning in normal conditions. It prepares students for the understanding of semiology (endocrine, neurology, gastric, hepatic) and their pathology.

MEDL330 Homeostasis Physiology 3 cr.
Pre-requisites MEDL310 Or SCS325
This course is given to medical students who have taken basic cell physiology and body anatomy. At this point of their training, the students will be introduced to the detailed functions of three major organs: the kidneys, the lungs and the heart. These three organs maintain the homeostasis of the body, namely the body fluid status, the acid/base balance, blood pressure, and gaseous exchanges.

MEDL335 Biophysics 3 cr.
This course introduces the students to different types of radiation, explains their effects on the organism and defines the basic principles of radioprotection. It illustrates the physics of the different imaging modalities (XRay, US, CT, MRI, PET), their utility in clinical practice and their optimal usage. Molecular imaging enables visualization of the cellular function and the follow up of

the molecular process in organisms by using biomarkers. It has numerous potentialities and helps diagnose cancer and neurological diseases.

MEDL400 General Pathology 3 cr.
Pre-requisites MEDL320 Or SCS320
The students will become aware of the lesions related to morbid processes and their morphological appearances in tissues. This will be carried out with some clinical, biological, physiopathological and epidemiological data. An overview of the different anatomo-pathological techniques will be provided.

MEDL405 Immunology 3 cr.
This class is a fundamental immunology course for students entering the medical professions. The students will study immune system physiopathology which is typically divided into two categories: innate and adaptive responses. This course includes the anatomy of central and peripheral lymphoid organs and functions of immune cells (T and B lymphocytes, NK cells, dendritic cells) and molecules (MHC, TCR, BCR, complement system) in physiological and pathological situations such as transplantation, infections, tumors and autoimmunity. The second part of the course provides the core information required to understand diseases with an immunological basis. It covers the underlying pathophysiology, the signs and symptoms of disease, the investigations required (mainly the immunologic laboratory tests intended to aid in clinical diagnosis). It also includes a brief review of immunohematology and blood transfusion issues.

MEDL410 Microbiology 3 cr.
The course will provide a foundation for the infectious diseases course. To achieve this the course has the following objectives to: understand the mechanisms by which pathogens cause infectious diseases at the environmental, molecular and cellular levels and the implications that these mechanisms have on both treatment and prophylaxis; identify the main pathogenic bacteria, their epidemiology, the infections that they cause, as well as the notions of pathogen-specific antibiotic treatment and prophylaxis; explore the general laboratory techniques and methods used in the diagnosis of infections and in the identification of specific disease-causing pathogens.

MEDL411 Parasitology and Microbiology Laboratory 1 cr.
The experimental work supports the ideas explained in the course and introduces microbiological and experimental approaches. It includes bacteriological analysis of samples and a review of cytobacteriological bronchopulmonary secretions as well as blood culture. It deals with the cytobacteriological examination of urine and urethral smears.

MEDL420 Surgical Semiology 3 cr.
This course discusses and explains the different signs and symptoms related to surgical pathologies as well as providing an introduction to how to take a medical history and do a physical exam.

MEDL425 Epidemiology 3 cr.
Pre-requisites STA220 Or MEDL215
This integrated course is a multi-disciplinary series of lectures and tutorials covering basic issues in epidemiology and biostatistics. The overall aim of this course is to familiarize students with concepts and measures of vital events, health, disease, disability and death. It also introduces students to epidemiologic methods related to identification of disease risk and protective factors, and to the assessment of causal associations and inferences. Special attention is given to presenting the contents in the context of the situation in Lebanon where possible. The statistical component of the course will present an overview of statistical estimation and hypothesis-testing procedures, and an introduction to relevant probability models.

MEDL430 General Pharmacology and Toxicology 3 cr.
Pre-requisites MEDL325 And MEDL330
The objective of this course is to familiarize the students with medications. It explains the different phases the medication has to go through before being manufactured and used on the market, the fate of medications in the body as well as the mechanism of action of the medications. The students will become familiar with major side effects of medications, drug-drug interactions and precautions to be taken while prescribing medications in specific populations.

MEDL435 Medical Genetics 3 cr.
The course will focus on human genetics: fundamental aspects, applications and methods. It will include principles of classical genetics and genomics, chromosomal studies, cytogenetic and molecular approaches, genetic variations, population genetics and patterns of inheritance (monogenic, polygenic, and complex).

MEDL445 Economics and Health Management 3 cr.
This course is an introduction to theoretical health systems in the world giving students an insight into different economic, social and ethical aspects. The course covers principles of management focusing on hospital management.

MEDL450 Medical Semiology 3 cr.
The objectives of this course are to teach the students about the basics of physical exam, the signs and symptoms along with the associated biological and radiological signs related to the different syndromes and diseases in medicine.

MEDL455 Emergency First Aid and Introduction to Hospital 1 cr.
This course is for students entering the medical professions. This class is divided in two sessions: 1. Emergency first aid including CPR, first aid care of dislocation and neck fracture and back injuries, and bleeding emergencies; 2. Introduction to the different wards of a teaching hospital, and rotating in small groups to surgical and medical wards - ICU, pain, emergency, pediatrics requiring primary and essential skills.

MEDM500 Clinical Pharmacology and Toxicology 3 cr.
Pre-requisites MEDL430 Or SCS420
This course will cover all the major classes of medications. For each class of medications, the following subjects will be covered (including but not limited to): therapeutic use of the class, mechanism of action, pharmacological properties, pharmacokinetics, side effects, drug-drug interactions, and use of the medications in specific populations (pregnancy, lactation, renal failure, liver failure).

MEDM505 Electrocardiology and Hemodynamics 3 cr.
This course covers multiple topics regarding dysfunction of the cardiovascular system, mainly in electrocardiology and cardiac mechanics.
After a quick review of normal physiology, cardiac pathologies will be presented with a focus on recognized diseases, mainly those related to dysrhythmias and heart failure. The course is presented by cardiologists, a cardiac anesthesiologist and a cardiovascular surgeon, each of them with a different expertise in the field. Consequently, we expect that this course will give you a solid basis in the cardiovascular pathologies relevant to the course and prepare students adequately for the future therapeutics courses.

MEDM510 Cardiovascular Pathology 3 cr.

This course will deal with cardiac pathology, including different parts (coronary, myocardial, endocardial, pericardial and valvular), in a way to be useful to the GP in dealing with his patient especially in critical and chronic cases.

MEDM515 Pulmonary Pathology 3 cr.

Following the acquisition of physiology, pathophysiology and clinical symptomatology , the course of medical and surgical lung diseases, coupled with clinical training and access to records of hospitalized patients, allows students to get to know the different lung diseases in their various aspects; clinical presentation, diagnosis, assessment , differential diagnosis and therapeutic approaches that any general practitioner should know.

This course focuses on a range of lung diseases; infections, interstitial diseases, obstructive diseases, asthma, neoplasm, vascular disease, pleural disease, and respiratory distress.

MEDM520 Pathologies of the Urinary Tract 3 cr.

This is a urology-nephrology course that enables the students to study, diagnose and treat male and female urinary tract diseases, and the male reproductive system diseases. It familiarizes them with common urological problems including urinary obstruction, urinary incontinence, infections, and tumors of the urogenital tract, etc. It also teach students nephrological pathologies so they can recognize the diagnosis and pathophysiology of renal diseases (tubular, glomerular, and vascular), and differentiate between acute and chronic renal failure. It enables the students to understand the essential concepts of urology for future daily practice.

MEDM525 Endocrine and Metabolic Diseases 3 cr.

This course aims to introduce, elaborate upon and explore diseases of the endocrine system and some of the frequent metabolic disorders to the medical students in order to help them in establishing a good GP practice.

MEDM530 Specialized Pathology 3 cr.

This course will give the students the tools to diagnose lesions in different organs of the human body. It will let them recognize the abnormal appearance of the tissues in a given organ when subject to a pathological process.

MEDM531 Pathology Laboratory 3 cr.

These lab courses will introduce the students to real tissue preparation and enable them to put into practice what they have learned in the oral presentations they received in the anatomical pathology courses.

MEDM535 Gastrointestinal Disease 3 cr.

Pre-requisites MED511 Or MEDL450 And MED516 Or MEDL450 And MED521 Or MEDL420

This course covers medical and surgical diseases of the digestive tract As such, students will learn a significant pathology for their medical education. At the end of the course, students will have acquired the basic knowledge of the discipline, to prepare successfully for their medical degree and to adequately prepare for testing and specialization contests.

MEDM540 Hepato Biliary and Pancreas Pathology 3 cr.

Pre-requisites MED511 Or MEDL450 And MED516 Or MEDL450 And MED521 Or MEDL420

This course explores the pathologies of the liver, biliary tract and pancreas.

Delivery will be shared between gastroenterologists and surgeon teachers.

This course will aim to be complete and sufficient for students to acquire the basic knowledge necessary for their training as general practitioners or specialists.

MEDM545 Obstetrics and Gynecology 3 cr.

This course allows the students to recognize the various obstetric and gynaecologic conditions beginning with normal delivery and ending with the different surgical gynaecologic pathologies. The content of this course is the following: normal delivery, its presentation, surveillance, and complications; spontaneous abortions, vulvar and vaginal pathologies, uterine pathologies, ovarian and tubal pathologies, breast tumors, hemorrhages, infertility, hormonal problems; puberty, menstrual cycle, menopause.

MEDM550 Hospital Training 3 cr.

During the rotation, the students must be able to recall and use all their knowledge in semiology and pathology in order to:

1. Interrogate the patient and the family regarding the patient's medical history.
2. Perform a complete and thorough clinical examination.
3. Write a good medical observation based on the collection of data and the clinical examination.
4. Respect of ethics and deontology.

MEDM555 Hematology Clinical Biology 3 cr.

Pre-requisites (MED601Or MEDM510) And (MED606 Or MEDM520) And (MED616 Or MEDM535 And MEDM540) And MED536 Or MEDM525 And MEDM515

The first part of the Clinical Biology course, hematology, will discuss the basic concepts required to understand the physiology of blood cells, bone marrow and blood-forming organs, as well as, hemostasis. This understanding can then be used to properly interpret laboratory tests and make treatment and management plans. There will be a special emphasis on both the cytologic and immunophenotypic diagnostic aspect of hematological diseases.

The second part of the course, clinical chemistry, will teach the foundations of clinical biochemistry that are necessary to understanding biochemical investigations. By using clinical cases as teaching material, the students will gain the knowledge and skills to make appropriate use of biochemical tests for the diagnosis and management of disease.

MEDM560 Dermatology and Plastic Surgery 3 cr.

Pre-requisites (MED511 Or MEDL450) And (MED516 Or MEDL450) And (MED521 Or MEDL420)

This is a course of dermatology and plastic surgery delivered to medical students to get them acquainted with common dermatological pathologies and give them knowledge of treatments for skin pathologies and plastic surgery.

MEDM565 Ear Nose and Throat Pathology 3 cr.

Pre-requisites (MED511 Or MEDL450) And (MED516 Or MEDL450) And (MED521 Or MEDL420)

This course will develop ENT pathology concerning the ear pathologies, and functional hearing disturbances, nose and sinus diseases, oropharynx pathologies (laryngeal and cervical), and facial pathologies, in order to help the GP to treat the most frequent, to detect the most critical and follow up the most dangerous.

MEDM600 Hemato-Oncology 3 cr.

This course is divided into two parts: part one is on solid tumors; part two is on hematologic malignancies. The first session is an introduction to the course, followed by sessions on the carcinogenesis and principles of cancer’s therapy, then a detailed one on prevention and early detection. The other sessions are about oncologic emergencies, paraneoplastic syndromes and detailed sessions focused on the most prevalent and the most lethal cancers as well on those that

show some exemplarity. The second part describes the most common hematologic malignancies as well as those that need particular care as they are extremely dangerous.

MEDM605 Infectious Diseases 3 cr.

The purpose of this course is to deliver to the students a thorough knowledge of different infectious diseases; those which are the most useful for a general practitioner because of their prevalence, their severity, and the presence of possible therapeutic resources or their didactic interest. It will outline different disease processes and diagnostic procedures for each and allow the student to have hospital diagnostic and therapeutic responsibilities in decision-making procedures.

MEDM610 Systemic Diseases and Internal Medicine 3 cr.

Pre-requisites (MED511 Or MEDL450) And (MED516 Or MEDL450) And (MED521 Or MEDL420)

This course consists of descriptions of the various rheumatic diseases most frequently observed in internal medicine and general medicine, to rapid diagnosis and plan a course of action that is both therapeutic and educational.

MEDM615 Pediatrics 3 cr.

This course is intended to provide a rapid overview of common pediatric topics. This course emphasizes the ability of the medical student to gather and analyze data and formulate a treatment plan. In addition, an overview of the most frequent surgical situations in childhood is analyzed.

MEDM620 Neurological and Neurosurgical Diseases 3 cr.

Pre-requisites (MED511 Or MEDL450) And (MED516 Or MEDL450) And (MED521 Or MEDL420)

The purpose of this course is to deliver to the students a thorough knowledge of surgical and medical diseases of the nervous system; those that are the most useful for a general practitioner because of their prevalence, their severity, the presence of possible therapeutic resources or their didactic interest. It will outline different disease processes and diagnostic procedures for each and allow the students to have hospital diagnostic and therapeutic responsibilities in decision-making procedures.

MEDM625 Hospital Internship II 3 cr.

During internship, the students must be able to recall all their knowledge in semiology and pathology in order to gain skills to: interrogate the patient and the family regarding the patient's medical history; perform a complete and thorough clinical examination; write a good medical observation based on the collection of data and the clinical examination; develop diagnostic hypotheses and discuss them with the residents and the attending physicians; elaborate a tailored plan of investigations based on a clear structure; and respect ethics and deontology.

MEDM630 Pathology of the Musculoskeletal System 3 cr.

Pre-requisites (MED511 Or MEDL450) And (MED516 Or MEDL450) And (MED521 Or MEDL420)

The purpose of this course is to enable students to acquire the basic knowledge that any general practitioner should know, to be able to make diagnoses in everyday bone and joint diseases. The course includes concepts of pediatric orthopedics, ideas on degenerative and infectious diseases and, finally, traumatology.

MEDM635 Psychiatric Disorders 3 cr.

Modern psychiatry has expanded its focus to other areas beyond alienation, such as anxiety in all its forms, somatoform disorders, pain, psycho-oncology, eating disorders, sexuality, etc. It is estimated that around 25% of patients seen in general practice suffer from psychiatric symptoms or disorders. It is essential that future doctors receive more training in these newly recognized diseases that represent a quarter of their professional activity. Training in conventional psychiatry

(such as schizophrenia) is no longer sufficient. The purpose of this course is to learn the basics in the diagnosis and treatment of the major psychiatric disorders found in child and adult psychiatry.

MEDM640 Forensic and Medical Law 3 cr.

This course enables students to understand the basic concepts of forensics. It describes the Lebanese legislation (laws and decrees) and their rights and duties. The content deals with aspects regarding consideration of a corpse, lifting the body and procedure of the autopsy, violence and victimization, and forensic expertise. The course introduces the law, structure of the Lebanese judiciary, the doctor's relationship with the law as well as the three components of medical law (medical liability, patient rights and bioethics).

MEDM645 Public Health and Work Medicine 3 cr.

This course deals with public health reasoning, communicable diseases, the physical environment, food security and nutrition, chronic conditions, injuries, international health, humanitarian crises, the fight against pain, transplants, and patients' rights. It enables students to acquire basic public health concepts and understand a fair approach to public health (move from the patient to the population, from the disease to the population's risk).

MEDM650 Clinical Reasoning and Risk Management 3 cr.

This course describes and elaborates on the process of reasoning facing a clinical situation, dealing with the best use of the knowledge gained by the students through the learning process considering above all the safety of the patient, of the team and finally themselves.
The course will be divided into 3 parts: (1) The reasoning process (2)The risk management (3) The ethical problems, with clinical examples concerning in particular organ transplantation.

MEDM655 Hospital Training III 3 cr.

Pre-requisites MEDM625 Or MED591

During the internship, the students must be able to recall all their knowledge in semiology and pathology in order to gain skills to: interrogate the patient and the family regarding the patient's medical history; perform a complete and thorough clinical examination; write a good medical observation based on the collection of data and the clinical examination; develop diagnostic hypotheses and discuss them with the residents and the attending physicians; elaborate a tailored plan of investigations based on a clear structure; and respect ethics and deontology.

MEDD700 Hospital Internship IV 1 cr.

During their internship, the students must be able to integrate all their knowledge in semiology and pathology in order to: interrogate the patient and family regarding the patient's medical history; perform a complete and thorough clinical examination; write a good medical observation based on the collection of data and the clinical examination; develop diagnostic hypotheses and discuss them with the residents and the attending physicians; elaborate a tailored plan of investigations based on a clear structure; propose and participate in the development of an adapted therapy; and respect the rules of ethics and deontology.

MEDD710 Introduction to Medical Research 3 cr.

This course is designed to teach students how to collect and analyze medical information. The course evaluates medical research and introduces students to the research methodology. Finally, the course focuses on ethics in research as well as some financial issues.

MEDD715 Medical and Surgical Therapeutics Seminars I 3 cr.

Pre-requisites MEDD700

The course assembles in two parts a broad spectrum of pathologies (the more frequent in daily practice of a general practitioner) in medical and surgical areas and helps the students to assess frequent and urgent situations in matters of diagnosis and therapeutics.

MEDD720 Hospital Training V 3 cr.
Pre-requisites MEDD700

During their internship, the students must be able to integrate all their knowledge in semiology and pathology in order to: interrogate the patient and family regarding the patient's medical history; perform a complete and thorough clinical examination; write a good medical observation based on the collection of data and the clinical examination; develop diagnostic hypotheses and discuss them with the residents and the attending physicians; elaborate a tailored plan of investigations based on a clear structure; propose and participate in the development of an adapted therapy; and respect the rules of ethics and deontology.

MEDD725 Medical and Surgical Critical Care 3 cr.
The aim of the course is to prepare future generalists for airway techniques, CPR techniques, analgesic techniques and other critical care and anesthesia skills to use in critical situations for their patients.

MEDD730 Medical and Surgical Therapeutics Seminars II 3 cr.
The course assembles in two parts a broad spectrum of pathologies (the more frequent in daily practice of a general practitioner) in medical and surgical areas and helps the students to assess frequent and urgent situations in matters of diagnosis and therapeutics.

MEDD735 Hospital Training VI 3 cr.
During their internship, the students must be able to integrate all their knowledge in semiology and pathology in order to: interrogate the patient and family regarding the patient's medical history; perform a complete and thorough clinical examination; write a good medical observation based on the collection of data and the clinical examination; develop diagnostic hypotheses and discuss them with the residents and the attending physicians; elaborate a tailored plan of investigations based on a clear structure; propose and participate in the development of an adapted therapy; and respect the rules of ethics and deontology.

MEDD800 Hospital Training VII 1 cr.
During their internship, the students must be able to integrate all their knowledge in semiology and pathology in order to: interrogate the patient and family regarding the patient's medical history; perform a complete and thorough clinical examination; write a good medical observation based on the collection of data and the clinical examination; develop diagnostic hypotheses and discuss them with the residents and the attending physicians; elaborate a tailored plan of investigations based on a clear structure; propose and participate in the development of an adapted therapy; and respect the rules of ethics and deontology.

MEDD805 Hospital Training VIII 3 cr.
During their internship, the students must be able to integrate all their knowledge in semiology and pathology in order to: interrogate the patient and family regarding the patient's medical history; perform a complete and thorough clinical examination; write a good medical observation based on the collection of data and the clinical examination; develop diagnostic hypotheses and discuss them with the residents and the attending physicians; elaborate a tailored plan of investigations based on a clear structure; propose and participate in the development of an adapted therapy; and respect the rules of ethics and deontology.

MEDD810 Hospital Training IX 3 cr.

During their internship, the students must be able to integrate all their knowledge in semiology and pathology in order to: interrogate the patient and family regarding the patient's medical history; perform a complete and thorough clinical examination; write a good medical observation based on the collection of data and the clinical examination; develop diagnostic hypotheses and discuss them with the residents and the attending physicians; elaborate a tailored plan of investigations based on a clear structure; propose and participate in the development of an adapted therapy; and respect the rules of ethics and deontology.

MEDD815 Hospital Training X 3 cr.

During their internship, the students must be able to integrate all their knowledge in semiology and pathology in order to: interrogate the patient and family regarding the patient's medical history; perform a complete and thorough clinical examination; write a good medical observation based on the collection of data and the clinical examination; develop diagnostic hypotheses and discuss them with the residents and the attending physicians; elaborate a tailored plan of investigations based on a clear structure; propose and participate in the development of an adapted therapy; and respect the rules of ethics and deontology.

MEDD820 Hospital Training XI 3 cr.

During their internship, the students must be able to integrate all their knowledge in semiology and pathology in order to: interrogate the patient and family regarding the patient's medical history; perform a complete and thorough clinical examination; write a good medical observation based on the collection of data and the clinical examination; develop diagnostic hypotheses and discuss them with the residents and the attending physicians; elaborate a tailored plan of investigations based on a clear structure; propose and participate in the development of an adapted therapy; and respect the rules of ethics and deontology.

MEDD850A Thesis of Medicine 9 cr.

The medical students are asked for a thesis which is intended to deliver basic principles that form the foundation for scientific investigation and prepare students with the fundamentals for development of research. They will use, under the supervision of their tutors, a clinical research method, and research the literature and public information in support of their work, to provide a written document to be discussed in front of a jury.

MEDR901 Surgical Anatomy 3 cr.

This course deals with the knowledge of applied anatomy according to different surgical approaches. It teaches residents how to evaluate the anatomical and surgical risk of different approaches and master the urgent actions to be performed using anatomical knowledge.

MEDR902 Pediatric Emergencies 3 cr.

This course gives students a clear indication of what they need to prioritize. It provides an educational road map. At the end of this course, the learners should be able to manage all situations in the emergency room, like interpreting a standardized ECG, and list a differential diagnosis to all essential pathologies received in ED. This course is more practical than theoretical. It is a process of collecting, synthesizing, and interpreting information to aid decision-making.

MEDR903 Semiology in Radiology 3 cr.

The course enables residents to identify, understand and interpret radiologic signs in different pathologies.

MEDR904 Principles of Anesthesia and Critical Care Medicine 3 cr.

This course is given to the residents in anesthesiology as an introduction and an upgrading of their basic knowledge in anesthesia to all future specialists in this field.

MEDR906 Trauma 3 cr.
This course allows residents to understand and evaluate traumatic emergencies and classify clinical syndromes. They become familiar with the study of the circumstances and the know-how to establish a diagnostic approach. They learn to master the urgent actions to be executed and chart the course of action and ensure medical care.

MEDR907 Anesthesia according to the Surgical/Medical Procedure 3 cr.
This course aims to prove that, independently of the patient status and medical background, anesthesia can differ according to the intervention (procedure) to be carried out.

MEDR908 Anesthesia according to the Status and Medical background of the Patient 3 cr.
This course aims to prove that, independently of the intervention (procedure) to do, anesthesia can differ according to the patient status and medical background.

MEDR909 Anesthesia in Children, Shocks and Aggressions 3 cr.
This course is an upgrading in special areas and subspecialties in particular in pediatric patients. Also, critical care situations and aggressions will be discussed extensively.

MEDR910 Medical Emergencies 3 cr.
This course helps residents recognize urgent situations requiring immediate intervention. It describes an appropriate diagnostic approach and teaches them to apply the basic principles of management with proper prioritization of solving problems and taking actions.

MEDR911 Non-trauma Urgent Surgical Situations 3 cr.
This course allows residents to understand and evaluate non traumatic emergencies and classify clinical syndromes. Residents study the circumstances and the know-how to establish a diagnostic approach. They learn how to master the urgent actions to be executed and chart the course of action and ensure medical care.

MEDR912 Pediatric and Neonatal Resuscitation 3 cr.
This course is an educational program that introduces the concepts and basic skills of pediatric and neonatal resuscitation. By completing this course, the teachers are responsible for determining the level of competence and qualifications required for residents to assume clinical responsibility for resuscitation cases in hospital.

MEDR913 Basic Principles in Pediatrics 3 cr.
This course is essential to check that residents have acquired the basics during their M.D. and to guide them to the specific resources of their specialty. It will lead them to understand the challenges faced by children living in resource-poor settings.

MEDR914 General Pediatrics Guidelines 3 cr.
The guidelines are developed by the AAP in response to the lack of standardized guidelines for international health training in pediatric residencies. Residents are encouraged to utilize and adapt these guidelines to assess their progress in meeting the objectives of their training.

MEDR916 Surgical Methodology 3 cr.
This course allows residents to understand the basic principles of surgery. They learn how to support a patient pre- and post-operatively. They learn how to guarantee the follow up of procedures and manage complications and know the latest updates in surgery.

MEDR918 Principals in ENT 3 cr.

During the first year, courses are held for the residents in the basic sciences of Ear, Nose and Throat (ENT) (such as embryology, anatomy and physiology of the ENT and head and neck), at the Eye & Ear Hospital.

MEDR919 Surgical Anatomy in ENT 3 cr.

This course will cover a large number of the ENT diseases which are found in the pediatric population. It will also deal with surgical anatomy aspects related to ENT.

MEDR920 Semiology and Pathology of the Ear, the Nose and the Sinuses 3 cr.

This course will cover the special ENT diseases which are diseases of the regions of the nose and the ear. The course will also develop the techniques to explore these special regions.

MEDR921 Semiology and Pathology of the Head and Neck 3 cr.

This course will cover the head and neck pathology which includes diseases, injuries and malformations.

MEDR922 Anatomy and Embryology and Physiology of the Eye 3 cr.

During the first year, courses are held for the residents in the basic sciences of ophthalmology (such as embryology, anatomy and physiology of ocular structures) at the Eye & Ear Hospital.

MEDR923 Ophthalmic Investigation Methods, Surgical Methodology in Ophthalmology and External Ocular Pathologies 3 cr.

This academic credit is held all year long, the courses being given at the Eye & Ear department in the form of clinical cases and/or presentations which may be prepared by the residents themselves in the presence of attending physicians who may discuss specific cases with residents. Emphasis is placed on methods of examination in ophthalmology.

MEDR924 Anterior Segment Pathologies 3 cr.

This covers anterior segment pathologies, diseases of the orbit, pediatric ophthalmology and neuro-ophthalmology.

MEDR925 Posterior Segment Pathologies and Neuro-ophthalmology 3 cr.

This covers posterior segment pathologies, diseases of the orbit, pediatric ophthalmology and neuro-ophthalmology.

MEDR926 Medical Pathologies I 3 cr.

This course helps residents master their knowledge in physiology, clinical findings, diagnosis and differential diagnosis, investigations and treatment of frequent diseases in cardiology, gastro-intestinal medicine, and hematology (benign and malignant).

MEDR927 Medical Pathologies II 3 cr.

This course helps residents master their knowledge in physiology, clinical findings, diagnosis and differential diagnosis, investigations and treatment of frequent diseases in pneumology, neurology, oncology and dermatology.

MEDR928 Medical Pathologies III 3 cr.

This course helps residents master their knowledge in physiology, clinical findings, diagnosis and differential diagnosis, investigations and treatment of frequent diseases in internal medicine, rheumatology, endocrinology, infectious diseases, nephrology and dermatology.

MEDR929 Cellular and Histological Physiology 3 cr.
This course aims to upgrade the basic knowledge about cell and tissue physiology in order to understand the morphology and the pathological transformations.

MEDR930 Morbid Processes 3 cr.
This course aims to upgrade the basic knowledge of the morbid processes at the microscopic level to understand more about pathophysiology and diseases.

MEDR930A-B-C-D Seminars and Conferences 12 cr.
Seminars and conferences represent both a learning and assessment tool knowing that the theoretical education of the resident remains mostly a personal work that begins with reading books and articles, preparing conferences and is ongoing with continuing medical education and self-learning (erudition). During development, the “apprentice doctors” must initially attend and listen to their elders, then submit records to the staff, then present lectures to peers and seniors locally (hospital) and in a local congress and finally in an international congress. In parallel and concerning teaching, it begins with clinical teaching to the youngest and finishes during university courses.

MEDR931 Pathology of Organs and Systems 3 cr.
This course discusses the pathology of all organs and systems on the microscopic and macroscopic levels.

MEDR932 Pathology of the Skin, the Central Nervous System and Soft Tissue System 3 cr.
This course discusses the pathology of the skin, the central nervous system and soft tissue system on the microscopic and macroscopic levels.

MEDR933 Psychiatric Pathologies I 3 cr.
Psychiatry is the branch of medicine concerned with the bio-psycho-social study of the etiology, assessment, diagnosis, treatment and prevention of mental, emotional and behavioral disorders, alone or as they coexist with other medical or surgical disorders across the life span. Upon completion of training, the residents are expected to be competent specialists in psychiatry. Residents must demonstrate the requisite knowledge, skills and attitudes for effective patient-centered care and service to a diverse population across the life span. The residents must acquire a working knowledge of the theoretical basis of psychiatry, including its foundations in the basic medical sciences and research. In all aspects of specialist practice, the residents must be able to address issues of gender, sexual orientation, age, culture, ethnicity and ethics in a professional manner.

MEDR934 Psychiatric Pathologies II 3 cr.
Psychiatry is the branch of medicine concerned with the bio-psycho-social study of the etiology, assessment, diagnosis, treatment and prevention of mental, emotional and behavioral disorders, alone or as they coexist with other medical or surgical disorders across the life span. Upon completion of training, the residents are expected to be competent specialists in psychiatry. Residents must demonstrate the requisite knowledge, skills and attitudes for effective patient-centered care and service to a diverse population across the life span. The residents must acquire a working knowledge of the theoretical basis of psychiatry, including its foundations in the basic medical sciences and research. In all aspects of specialist practice, the resident must be able to address issues of gender, sexual orientation, age, culture, ethnicity and ethics in a professional manner.

MEDR937 Medical Microbiology 3 cr.
The medical microbiology course aims to: understand the collection, transport and processing of different microbiological samples; explore the general laboratory techniques and methods used in the diagnosis of infections and in the identification of specific disease-causing micro-organisms; survey the main pathogens in bacteriology, virology, parasitology and mycology - their epidemiology, the clinical infections that they cause as well as treatment and prophylaxis.

MEDR938 Medical Biochemistry 3 cr.
This course will explore the theoretical principles, interferences and clinical interpretation of the different tests that are performed in clinical chemistry. Furthermore, residents will learn the mechanisms, proper methods of operation, maintenance and quality control of the lab equipment used to measure various chemical parameters.

MEDR939 Clinical Hematology 3 cr.
The clinical hematology course will teach the students the theory of hematology, lab techniques in hematology and the proper extension of hematology lab investigations to the clinical setting.

MEDR940A-B-C-D Internship Residency I 24 cr.
The core curriculum is the phase in which residents will acquire all the basic theoretical knowledge of their specialty as well as multidisciplinary expertise in relation to the specialty. During this phase, residents improve basic clinical skills (diagnostic, medical strategy and treatment), improve their technical skills in the specialty, their organizational skills, their communication skills, during the study of the curriculum and beyond, as well as their ethical and professional skills.

MEDR941A-B-C-D Residency Rotation in Surgery 24 cr.
The core curriculum is the phase in which residents will acquire all the basic theoretical knowledge of their specialty as well as multidisciplinary expertise in relation to the specialty. During this phase, residents improve basic clinical skills (diagnostic, medical strategy and treatment), improve their technical skills in the specialty, their organizational skills, their communication skills, during the study of the curriculum and beyond, as well as their ethical and professional skills.

MEDR946 Polyvalent Clinical Pathology 3 cr.
This course will explore quality control, management and administrative issues related to laboratory functioning. The students will also deepen previously acquired knowledge in clinical microbiology, clinical chemistry and clinical hematology.

MEDR947A-B-C-D-E-F Residency Rotation in Orthopedics 36 cr.
The core curriculum is the phase in which residents will acquire all the basic theoretical knowledge of their specialty as well as multidisciplinary expertise in relation to the specialty. During this phase, residents improve basic clinical skills (diagnostic, medical strategy and treatment), improve their technical skills in the specialty, their organizational skills, their communication skills, during the study of the curriculum and beyond, as well as their ethical and professional skills.

MEDR948A-B-C-D-E-F Residency Rotation in Urology 36 cr.
The core curriculum is the phase in which residents will acquire all the basic theoretical knowledge of their specialty as well as multidisciplinary expertise in relation to the specialty. During this phase, residents improve basic clinical skills (diagnostic, medical strategy and treatment), improve their technical skills in the specialty, their organizational skills, their communication skills, during the study of the curriculum and beyond, as well as their ethical and professional skills.

MEDR949A-B-C-D-E-F Residency Rotation in General Surgery 36 cr.

The core curriculum is the phase in which residents will acquire all the basic theoretical knowledge of their specialty as well as multidisciplinary expertise in relation to the specialty. During this phase, residents improve basic clinical skills (diagnostic, medical strategy and treatment), improve their technical skills in the specialty, their organizational skills, their communication skills, during the study of the curriculum and beyond, as well as their ethical and professional skills.

MEDR950A-B-C-D-E-F-G-H Residency Rotation in Neurosurgery 48 cr.

The core curriculum is the phase in which residents will acquire all the basic theoretical knowledge of their specialty as well as multidisciplinary expertise in relation to the specialty. During this phase, residents improve basic clinical skills (diagnostic, medical strategy and treatment), improve their technical skills in the specialty, their organizational skills, their communication skills, during the study of the curriculum and beyond, as well as their ethical and professional skills.

MEDR951A-B-C-D-E-F-G-H-I-J Residency Rotation in Cardiovascular and Thoracic Surgery 60 cr.

The core curriculum is the phase in which residents will acquire all the basic theoretical knowledge of their specialty as well as multidisciplinary expertise in relation to the specialty. During this phase, residents improve basic clinical skills (diagnostic, medical strategy and treatment), improve their technical skills in the specialty, their organizational skills, their communication skills, during the study of the curriculum and beyond, as well as their ethical and professional skills.

MEDR952A-B-C-D-E-F Residency Rotation in Gynecology 36 cr.

The core curriculum is the phase in which residents will acquire all the basic theoretical knowledge of their specialty as well as multidisciplinary expertise in relation to the specialty. During this phase, residents improve basic clinical skills (diagnostic, medical strategy and treatment), improve their technical skills in the specialty, their organizational skills, their communication skills, during the study of the curriculum and beyond, as well as their ethical and professional skills.

MEDR953A-B-C-D Residency Rotation in Internal Medicine 24 cr.

The core curriculum is the phase in which residents will acquire all the basic theoretical knowledge of their specialty as well as multidisciplinary expertise in relation to the specialty. During this phase, residents improve basic clinical skills (diagnostic, medical strategy and treatment), improve their technical skills in the specialty, their organizational skills, their communication skills, during the study of the curriculum and beyond, as well as their ethical and professional skills.

MEDR954A-B-C-D Residency Rotation in Cardiology 24 cr.

The core curriculum is the phase in which residents will acquire all the basic theoretical knowledge of their specialty as well as multidisciplinary expertise in relation to the specialty. During this phase, residents improve basic clinical skills (diagnostic, medical strategy and treatment), improve their technical skills in the specialty, their organizational skills, their communication skills, during the study of the curriculum and beyond, as well as their ethical and professional skills.

MEDR955A-B-C-D Residency Rotation in Pulmonology 24 cr.

During the residency, the students must be able to integrate all their knowledge in physiology, pathophysiology, semiology and pathology in order to: interrogate the patient and family regarding the patient's active and past medical history; perform a complete and thorough clinical examination; write a good medical observation based on the collection of data and the clinical

examination; develop diagnostic hypotheses and discuss them with the other residents and the attending physicians; elaborate a tailored plan of investigations and treatment based on a clear structure and common sense and respect of ethics and deontology.

MEDR956A-B-C-D Internship Residency in Neurology 24 cr.
The core curriculum is the phase in which residents will acquire all the basic theoretical knowledge of their specialty as well as multidisciplinary expertise in relation to the specialty. During this phase, residents improve basic clinical skills (diagnostic, medical strategy and treatment), improve their technical skills in the specialty, their organizational skills, their communication skills, during the study of the curriculum and beyond, as well as their ethical and professional skills.

MEDR957A-B-C-D-E-F-G-H Residency Rotation in Hematology-Oncology 48 cr.
The core curriculum is the phase in which residents will acquire all the basic theoretical knowledge of their specialty as well as multidisciplinary expertise in relation to the specialty. During this phase, residents improve basic clinical skills (diagnostic, medical strategy and treatment), improve their technical skills in the specialty, their organizational skills, their communication skills, during the study of the curriculum and beyond, as well as their ethical and professional skills.

MEDR958A-B-C-D Residency Rotation in Gastroenterology 24 cr.
The core curriculum is the phase in which residents will acquire all the basic theoretical knowledge of their specialty as well as multidisciplinary expertise in relation to the specialty. During this phase, residents improve basic clinical skills (diagnostic, medical strategy and treatment), improve their technical skills in the specialty, their organizational skills, their communication skills, during the study of the curriculum and beyond, as well as their ethical and professional skills.

MEDR959A-B-C-D Internship Residency Nephrology 24 cr.
The core curriculum is the phase in which residents will acquire all the basic theoretical knowledge of their specialty as well as multidisciplinary expertise in relation to the specialty. During this phase, residents improve basic clinical skills (diagnostic, medical strategy and treatment), improve their technical skills in the specialty, their organizational skills, their communication skills, during the study of the curriculum and beyond, as well as their ethical and professional skills.

MEDR960A-B-C-D-E-F-G-H Residency Rotation in Anesthesia 48 cr.
The core curriculum is the phase in which residents will acquire all the basic theoretical knowledge of their specialty as well as multidisciplinary expertise in relation to the specialty. During this phase, residents improve basic clinical skills (diagnostic, medical strategy and treatment), improve their technical skills in the specialty, their organizational skills, their communication skills, during the study of the curriculum and beyond, as well as their ethical and professional skills.

MEDR961A-B-C-D-E-F-G-H Residency Rotation in Pediatrics 48 cr.
The core curriculum is the phase in which residents will acquire all the basic theoretical knowledge of their specialty as well as multidisciplinary expertise in relation to the specialty. During this phase, residents improve basic clinical skills (diagnostic, medical strategy and treatment), improve their technical skills in the specialty, their organizational skills, their communication skills, during the study of the curriculum and beyond, as well as their ethical and professional skills.

MEDR962A-B-C-D-E-F-G-H Residency Rotation in Radiology 48 cr.

The core curriculum is the phase in which residents will acquire all the basic theoretical knowledge of their specialty as well as multidisciplinary expertise in relation to the specialty. During this phase, residents improve basic clinical skills (diagnostic, medical strategy and treatment), improve their technical skills in the specialty, their organizational skills, their communication skills, during the study of the curriculum and beyond, as well as their ethical and professional skills.

MEDR963A-B-C-D-E-F Residency Rotation in ENT 36 cr.

The core curriculum is the phase in which residents will acquire all the basic theoretical knowledge of their specialty as well as multidisciplinary expertise in relation to the specialty. During this phase, residents improve basic clinical skills (diagnostic, medical strategy and treatment), improve their technical skills in the specialty, their organizational skills, their communication skills, during the study of the curriculum and beyond, as well as their ethical and professional skills.

MEDR964A-B-C-D-E-F Residency Rotation in Ophthalmology 36 cr.

The core curriculum is the phase in which residents will acquire all the basic theoretical knowledge of their specialty as well as multidisciplinary expertise in relation to the specialty. During this phase, residents improve basic clinical skills (diagnostic, medical strategy and treatment), improve their technical skills in the specialty, their organizational skills, their communication skills, during the study of the curriculum and beyond, as well as their ethical and professional skills.

MEDR965A-B-C-D Residency Rotation in Emergency Medicine 24 cr.

The core curriculum is the phase in which residents will acquire all the basic theoretical knowledge of their specialty as well as multidisciplinary expertise in relation to the specialty. During this phase, residents improve basic clinical skills (diagnostic, medical strategy and treatment), improve their technical skills in the specialty, their organizational skills, their communication skills, during the study of the curriculum and beyond, as well as their ethical and professional skills.

MEDR966A-B-C-D-E-F-G-H Residency Rotation in Pathology 48 cr.

The core curriculum is the phase in which residents will acquire all the basic theoretical knowledge of their specialty as well as multidisciplinary expertise in relation to the specialty. During this phase, residents improve basic clinical skills (diagnostic, medical strategy and treatment), improve their technical skills in the specialty, their organizational skills, their communication skills, during the study of the curriculum and beyond, as well as their ethical and professional skills.

MEDR967A-B-C-D-E-F-G-H Residency Rotation in Psychiatry 48 cr.

The core curriculum is the phase in which residents will acquire all the basic theoretical knowledge of their specialty as well as multidisciplinary expertise in relation to the specialty. During this phase, residents improve basic clinical skills (diagnostic, medical strategy and treatment), improve their technical skills in the specialty, their organizational skills, their communication skills, during the study of the curriculum and beyond, as well as their ethical and professional skills.

MEDR968A-B-C-D Residency Rotation in Dermatology 24 cr.

The core curriculum is the phase in which residents will acquire all the basic theoretical knowledge of their specialty as well as multidisciplinary expertise in relation to the specialty. During this phase, residents improve basic clinical skills (diagnostic, medical strategy and treatment), improve their technical skills in the specialty, their organizational skills, their communication skills, during the study of the curriculum and beyond, as well as their ethical and professional skills.

MEDR969A-B-C-D-E-F-G-H Residency Rotation in Clinical Biology 48 cr.

The core curriculum is the phase in which residents will acquire all the basic theoretical knowledge of their specialty as well as multidisciplinary expertise in relation to the specialty. During this phase, residents improve basic clinical skills (diagnostic, medical strategy and treatment), improve their technical skills in the specialty, their organizational skills, their communication skills, during the study of the curriculum and beyond, as well as their ethical and professional skills.

Higher Institute of Nursing Sciences

Affiliated to the Faculty of Medicine and Medical Sciences

Overview

The Higher Institute of Nursing Sciences is a university foundation of teaching and research attached to the Holy Spirit University of Kaslik (USEK) and conforming to its statutes.

- In 1981, Our Lady of Help School of Nursing was set up within the premises of Our Lady of Help Hospital at Jbeil (Byblos) in order to provide a training for hospital nurses.
- In 1984, the Ministry of National Education accorded it the status of Institute of training in Nursing Care, dependent on the Department of Technical Education.
- In 1999, this foundation was transformed into a University Institute attached to Holy Spirit University of Kaslik and was accorded the status of Higher Institute of Nursing Sciences by virtue of Decree N° 1948 dated 21/12/1999.

The mission of the Institute is to provide a professional education at university level. This education should allow students to give all the nursing care required for the improvement of public health, the prevention of sickness and the treatment of patients, as well as to fill responsible positions in hospitals and specialized services.

Administration and Full-time Faculty

Prof. Jean-Claude Lahoud, Professor, Director
Mr. Charbel El Houwayek, Lecturer
Mrs. Sylvana Imad-Matta, Secretary

Program of Study - Undergraduate Program

Bachelor of Science in Nursing Sciences (Hybrid[i])

Mission

The mission of the department is to train university-level nurses to provide preventive, curative, and palliative care, and to promote, preserve or restore health. Such interventions contribute to the education and to the health of individuals or groups of people and take place, whether autonomously or collaboratively, within the framework of a multidisciplinary team in all areas of activity in the nursing profession.

Program Educational Objectives

1. Graduates will have the theoretical, technical and relational knowledge needed to understand and take care of the health needs of individuals or groups of people within the framework of a multidisciplinary team.
2. Graduates will conduct self-assessment, scientific curiosity and critical awareness in order to improve the quality of nursing care and professional practices, and have the ability to acquire new knowledge quickly and adapt to various situations.

[i] Hybrid: Courses offered in French and/or English

3. Graduates will have values based on respect for individuals and their rights, thus exercising professional ethical behavior, allowing them to make informed decisions and act with autonomy and responsibility within the scope of their function.

Program Outcomes

a. An ability to apply knowledge of mathematics and applied and/or natural sciences to areas relevant to the discipline.
b. An ability to design and conduct experiments, or test hypotheses, as well as to analyze and interpret data.
c. An ability to formulate or design a system, process, procedure or program to meet desired needs.
d. An ability to function on multidisciplinary teams.
e. An ability to identify and solve technical or scientific problems.
f. An understanding of professional and ethical responsibility.
g. An ability to communicate effectively.
h. The broad education necessary to understand the impact of technical and/or scientific solutions in a global and societal context.
i. A recognition of the need for and an ability to engage in life-long learning.
j. Knowledge of contemporary issues.
k. An ability to use the techniques, skills, and modern scientific and technical tools necessary for professional practice.

Degree Requirements

General Education	**30**
General Education - Arts and Humanities	3
General Education - Civic Engagement	2
General Education - English Communication	3
General Education – History of Lebanon	3
General Education - Quantitative Reasoning	3
General Education - Science and Health	6
General Education - Sports	1
General Education - Religious Sciences	3
NTR211 - Fundamentals of Human Nutrition	3
PSY201 - Introduction to Psychology	3
Specialization	**80**
SIN240 - Introduction to Nursing Sciences	3
SIN242 - Human Anatomy and Physiology	3
SIN243 - Basic Nursing Care	3
SIN245 - Clinical Training and First Aid	3
SIN246 - Elderly Nursing Care	3
SIN260 - Clinical Internships I	2
SIN265 - Clinical Internships II	2
SIN270 - Clinical Internships (Summer)	1

SIN323 - Public and Community Health and Nursing Care	3
SIN340 - Pharmacology - Toxicology	3
SIN342 - Pediatric Pathology and Nursing Care	3
SIN343 - Respiratory Pathology and Nursing Care	3
SIN345 - Psychiatry and Nursing Care	3
SIN346 - Nutritional Endocrine Pathology and Nursing Care	3
SIN347 - Cardiovascular Pathology and Nursing Care	3
SIN348 - Digestive Pathology and Nursing Care	3
SIN349 - Sense Organs Pathology and Nursing Care	3
SIN350 - Urinary Pathology and Nursing Care	3
SIN360 - Clinical Internships III	2
SIN365 - Clinical Internships IV	2
SIN370 - Clinical Internships of Liability (Summer)	1
SIN441 - Obstetrics-Gynecology and Nursing Care	3
SIN442 - Infectious Diseases - Microbiology and Nursing Care	3
SIN443 - Neurological Pathology and Nursing Care	3
SIN444 - Pathology of the Musculoskeletal System and Nursing Care	3
SIN445 - Hematology-Oncology and Nursing Care	3
SIN446 - Medical-Surgical Intensive Care and Nursing Care	3
SIN450 - Administration and Professional Organization	3
SIN460 - Clinical Internships V	2
SIN465 - Clinical Internships VI	2
Total	**110**

Course Descriptions

SIN240 Introduction to Nursing Sciences 3 cr.

This course aims at teaching current medical vocabulary. It introduces students to the history of the profession and the various concepts and theories of nursing. It is a theoretical course on basic nursing care: hygiene, comfort and vital parameters. Furthermore, the students are introduced to the study of the basic needs of human beings according to influential nurse, researcher, theorist and author, Virginia Henderson, in addition to the care process and handling the nursing care file. It concludes with an exploration of professional ethics through brainstorming.

SIN242 Human Anatomy and Physiology 3 cr.

This course provides a general overview of the human anatomy and the organization of the various human body systems. It introduces the basics of the normal functioning of an organ, starting with the structural and functional unit that is the cell and ending with the most organized systems and the links among them. Students will become acquainted with these essential key concepts, and will learn to master them, as they are essential for the assimilation and understanding of the pathophysiology and pathology.

SIN243 Basic Nursing Care 3 cr.

Pre-requisites SIN240

The course teaches basic knowledge about child health from birth to adolescence and the description of associated nursing health care, in particular prevention and detection of pathologies and specific risks from the stages of early childhood to adolescence. This theoretical course covers the basics of nursing competencies, known as "cross- sectional care". Students will deepen their knowledge of the nursing care process with an introduction to the concept of nursing diagnosis.

SIN245 Clinical Training and First Aid 3 cr.

This course familiarizes students with the basic knowledge of the functioning of the various systems of the body and their main diseases. In addition, awareness of accident prevention, infectious diseases and those related to current lifestyle (sedentary lifestyle, poor eating habits, etc.), prevention and cancer screening will be covered. This is a practical course where students will learn through activities; they will be taught how to conduct first aid practices, including all the steps to follow when facing life-threatening emergencies or accidents (a first aid certificate is delivered by the Lebanese Red Cross).

SIN246 Elderly Nursing Care 3 cr.

Pre-requisites SIN243

This course explores the role of the elderly in society, the aging physiology and psychological difficulties facing the multiple losses due to old age. Specific diseases and pathologies of the elderly will be examined and the associated nursing and basic care will be taught.

SIN260 Clinical Internship I 2 cr.

Internships are where students learn and practice basic nursing care procedures in a hospital setting, including hygiene care, comfort of the patient, and monitoring of vital parameters. This internship experience will introduce students to the structure and organization of a hospital, the role of each member of the team, the opportunity to observe patient care procedures in hospital wards, and practical experience in basic care and hygiene monitoring as studied.

SIN265 Clinical Internship II 2 cr.

This internship focuses on the observation and participation by students in providing care to preschool and school children, adolescents and the elderly in daycare centers, schools and hospices.

Observation and implementation of the healthcare and basic nursing care procedure as studied and demonstrated during the course will be put into practice, which will provide students with essential practical experience.

SIN270 Clinical Internships (Summer) 1 cr.
Students will participate in two full-time internships to gain experience in the implementation and enhancement of basic theoretical knowledge and skills studied during the first two semesters.

SIN323 Public and Community Health and Nursing Care 3 cr.
This course introduces students to the elements that influence health, helps them to identify information resources that allow and facilitate the knowledge of a community, and to practice nursing in different community health and public health environments with different clientele living with particular health problems.

SIN340 Pharmacology - Toxicology 3 cr.
The pharmacology course includes theoretical teaching and bibliographic research. The theoretical training consists of two parts: general and specific pharmacology. The first part is based on the fundamental concepts in pharmacology, and the second part talks about the drugs used for diseases of different systems. This second part introduces the therapeutic classes, the most frequently prescribed drugs, and the more recent drugs on the market. It also provides practical remarks and notes, and preventive measures, while focusing on the profession of nursing in particular, for a better and easier practice in situ. Regarding the practical part, students will choose a topic they would like to deal with among a series of suggested topics. Then, students will be asked to prepare a written report, followed by a short oral presentation about their research topic, allowing all students to benefit from all subjects discussed. This course is specifically designed for nursing students, as it provides them with the essential concepts and practical recommendations that will be important for them later on in the workplace. The toxicology course covers all acute situations and cases of toxic origin that an ER doctor or nurse may face. The groups of the most important toxic substances seen are studied as well as medicines, drugs, corrosives, and chemical weapons, etc.

SIN342 Pediatric Pathology and Nursing Care 3 cr.
Pre-requisites SIN241 and SIN242
This course acquaints students with the prevailing exemplary pathologies, and the most urgent and serious neonatal cases, emergency infant, young child and adolescent cases and situations, as well as the various methods of preventing these diseases. It also describes the most common pediatric syndromes or diseases requiring surgical treatment. Students will acquire the theoretical knowledge needed for the care and supervision of a child in a neonatal period, in the hospital and in society. This useful knowledge is essential for any nursing student wishing to be a health promoting agent within the community.

SIN343 Respiratory Pathology and Nursing Care 3 cr.
Pre-requisites SIN241 and SIN242
In this course students will revisit in detail the physiological anatomy of the respiratory tract system, including the main pathologies of pneumology and nursing care associated with the diagnosis, and the medical treatment and surgical management of these diseases. The role of nurses combating the health consequences, prevention, and cessation of smoking is also a focus subject tackled on this course.

SIN345 Psychiatry and Nursing Care 3 cr.
This course describes the major psychiatric illnesses and explores the various available treatments of these diseases.

SIN346 Nutritional Endocrine Pathology and Nursing Care 3 cr.

Pre-requisites SIN241 and SIN242

This course offers a clinical and para-clinical description of the various endocrine syndromes, their treatment and the role of the nurse with patients showing these symptoms. The course describes also the various endocrine pathologies requiring surgery, detailing the medical indications, surgical techniques, complications to be faced and the role of the nurse with patients. It also introduces them to the nutrition and nutritional strategies in situations of abuse and various pathologies that may benefit from nutritional care, such as diabetes, kidney disease, dyslipidemia, obesity and cardiovascular disease.

SIN347 Cardiovascular Pathology and Nursing Care 3 cr.

Pre-requisites SIN241 and SIN242

The nursing care part of the course revisits the physiological anatomy of the cardiovascular system, a description of the main diseases in cardiology and the nursing care responsibilities related to the diagnosis, as well as the medical treatment and surgical management of these diseases. The cardiac surgery part of the course covers the main surgery procedures of the heart and thoracic aorta, detailing surgical pathologies, the principle of procedure as well as the major surgical complications and their treatment.

SIN348 Digestive Pathology and Nursing Care 3 cr.

Pre-requisites SIN241 and SIN242

This course provides an understanding of the basics of physiopathology and an assimilation of the basic concepts of the various digestive and liver diseases and their consequences, in order to design and manage the care of patients. It accurately describes the nursing care of patients with digestive diseases.

SIN349 Sense Organs Pathology and Nursing Care 3 cr.

Pre-requisites SIN241 and SIN242

This course teaches students about the elementary physiopathology of the sense organs and how to assimilate the fundamentals of the various eye, ENT sphere, and skin diseases and their consequences, in order to design and manage the treatments and care for patients without any complications. Learning about the prevention measures, the application of the nursing care process and the establishment of the nursing diagnoses are fundamental to this course.

SIN350 Urinary Pathology and Nursing Care 3 cr.

Pre-requisites SIN241 and SIN242

This course teaches students the basic concepts of the physiopathology of the male urinary and genital tract and its various pathologies: general introduction, etiology, symptoms, clinical and para-clinical evaluation, complications, therapeutic steps and the nursing role that arises. It includes a detailed description of the nursing care of patients with major urinary pathologies.

SIN360 Clinical Internship III 2 cr.

This course teaches students the basic concepts of the physiopathology of the male urinary and genital tract and its various pathologies: general introduction, etiology, symptoms, clinical and para-clinical evaluation, complications, therapeutic steps and the nursing role that arises. It includes a detailed description of the nursing care of patients with major urinary pathologies.

SIN365 Clinical Internship IV 2 cr.

This internship will facilitate the development of knowledge and theoretical/practical skills in relation to nursing care, clinical assessment in the nursing field, the organization of care and the patient/care provider relationship. Knowledge acquisition in this internship is preferably centered on the teaching of diseases and nursing care, which is provided in parallel during the course.

SIN370 Clinical Internships of Liability (Summer) 1 cr.

These two full-time internships include one in psychiatry, aiming to develop knowledge, and another in the theoretical/practical skills studied over the last two semesters.

SIN441 Obstetrics-Gynecology and Nursing Care 3 cr.

Pre-requisites SIN241 and SIN242

The first part of the course covers general information about pregnancy and possible nursing interventions for patients in the delivery room and postpartum. The second part provides an understanding of the basics of the different pathologies in gynecology in order to oversee the care of patients and avoid any complications. In both parts, learning preventive measures, applying nursing care processes and the establishing nursing diagnoses are essential knowledge and skills to acquire.

SIN442 Infectious Diseases – Microbiology and Nursing Care 3 cr.

Pre-requisites SIN241 and SIN242

This course covers infectious disease mechanisms including ecological, molecular and cellular, and the implications of these mechanisms for the treatment and prophylaxis. The focus will be on the integration of basic concepts of antibiotic treatment and specific prophylaxis and general methods of diagnosing bacterial infections and pathogens requiring technical methods. Students will study the most common infectious diseases, treatments, prevention methods and the specific nurse responsibilities for these pathologies, along with a study of nosocomial infections and the role of the nurse (AD) in their prevention.

SIN443 Neurological Pathology and Nursing Care 3 cr.

Pre-requisites SIN241 and SIN242

This course provides an understanding of elementary physiopathology and the basic concepts of the different pathologies of the nervous system and their consequences, in order to design and manage the care of patients and avoid complications as much as possible. In addition, learning about prevention, the application of the nursing process and the establishment of nursing diagnoses are important aspects of this course.

SIN444 Pathology of the Musculoskeletal System and Nursing Care 3 cr.

Pre-requisites SIN241 and SIN242

This course provides essential knowledge in how to manage major trauma orthopedic conditions and basic nursing care skills in orthopedic pathologies trauma. Students will be introduced to clinical presentation, the means of diagnosis, and the therapeutics of mechanical rheumatic and inflammatory diseases, in addition to a description of the nursing care procedures undertaken with patients with musculoskeletal trauma and orthopedic pathologies.

SIN445 Hematology-Oncology and Nursing Care 3 cr.

Pre-requisites SIN241 and SIN242

This course is designed to provide students with the necessary information to understand the various benign and malignant hematological diseases, and cancer diseases. The various parts of the course allow students to understand the basic mechanisms of disease formation and help them adopt the related treatments. It accurately describes the nursing care procedures for patients with hematological disorders and cancerous diseases.

SIN446 Medical-surgical Intensive Care and Nursing Care 3 cr.

Pre-requisites SIN241 and SIN242

This course helps students understand and assimilate the basic concepts of the different pathologies in intensive care units and their consequences, in order to design and manage the type

of care required for patients in critical conditions. It describes in detail the nursing care procedures to be given to critically-ill patients.

SIN450 Administration and Professional Organization 3 cr.
This course is an introduction to professional organization and the knowledge and skills related to leadership and nursing care procedures management in view of delivering a better community service.

SIN460 Clinical Internship V 2 cr.
This internship is for the development of knowledge and theoretical/practical skills in relation to nursing care, clinical assessment in the nursing field, the organization of care and the patient/care provider relationship. It is preferable that this knowledge acquisition is centered on the teaching of diseases and nursing care, which is provided in parallel during the course.

SIN465 Clinical Internship VI 2 cr.
Last training internship: consolidation of acquired skills.

Faculty of Music

Overview

On October 31, 1970, from among all the universities in the Middle East and North Africa, the Holy Spirit University of Kaslik was the first to undertake the initiative of founding, within the Faculty of Letters, the Institute of Musicology. It would be unnecessary to highlight how much Lebanon and the whole region was in need of such initiative.

This Institute was established, thanks to the efforts deployed particularly by Rev. Fr. Louis Hage, Founder and Director of the Institute from 1970 until 1986, and Rev. Fr. Etienne Sacre, President of the University between 1968 and 1974.

Since 1986, the number of students has considerably increased. In order to educate them and respond to their aspirations, while simultaneously following the evolution of music as a science and an art in other countries, the University firstly added some more sections. Then, in 1993, it took the decision to transform the Institute of Musicology into the Faculty of Music; this was thanks to the dynamism of Rev. Fr. Youssef Tannous, Director of the Institute between 1986 and 1993 and the first Dean of the Faculty of Music between 1993 and 1995.

The Faculty of Music consists of the following departments/programs:

Undergraduate programs

- Bachelor of Arts in Music - Musicology
- Bachelor of Arts in Music - Music Education
- Bachelor of Arts in Higher and Specialized Music Education - Music Composition
- Bachelor of Arts in Higher and Specialized Music Education - Musical Instrument
- Bachelor of Arts in Higher and Specialized Music Education - Occidental Classical Singing
- Bachelor of Arts in Higher and Specialized Music Education - Solfeggio/Dictation

Graduate programs

- Research Master in Music – Musicology
- Research Master in Music - Music Education

Doctoral programs

- Ph.D. in Music and Higher and Specialized Music Education

Administration and Full-time Faculty

Rev. Fr. Badih El Hage, Associate Professor, Dean, Head of the Doctoral Commission, Director of the Centre for musical and Sound Heritage
Dr. Youssef Abi Raad, Assistant Professor, Associate Dean
Dr. Edward Yerwant Torokian, Associate Professor, Head of Music Scripture Studies
Dr. Kifah Fakhouri, Associate Professor
Rev. Fr. Milad Tarabay, Associate Professor
Rev. Fr. Youssef Tannous, Associate Professor

Programs of Study - Undergraduate Programs

Bachelor of Arts in Music – Musicology (Hybrid[i])

Mission

The Music Faculty is committed to developing confident, creative, and skilled musicians.
The Music Faculty provides opportunities for students of all majors to enhance their musical knowledge and skill, through participation in a wide variety of academic courses, performance studies, and field experiences.
As a vital part of the University, the Music Faculty promotes the musical arts of regional, national and international communities within the University.

Program Educational Objectives

1. Graduates will be engaged in active music making and a good selection of presentations.
2. Graduates will demonstrate desire and ability to generate innovative ideas and use effective means of communicating them.
3. Graduates will show a mature, confident, analytical and critical approach to current activities in music and the media, which is based on an awareness and understanding of broader cultural issues.

Program Outcomes

a. Student will develop knowledge and skills on a major instrument or voice and the ability to sight read
b. Develop skills and understanding of music language and composition in a variety of styles, periods, and genres, in both Western European tradition and non-Western cultures.
c. Develop skills of criticism and defend musical judgment, with reference to contextual meaning and aesthetic value in own work, and the work of others.
d. Develop a comprehensive knowledge and understanding of Western musical history and its analysis, and for Arab and Lebanese music traditions.
e. Develop technical skills and musical awareness for performance and leadership of both small and large choirs.
f. Develop skills that prepare students for careers in musical performance and private teaching of performance; also advanced study and independent practice, including significant technical mastery to solve professional problems, and a coherent set of artistic/intellectual goals that are evident in their work.
g. Develop knowledge and skills in the use of technology as it applies to notating, arranging, recording, and composing music.

[i] Hybrid: Courses offered in French and/or English

h. Develop a comprehensive knowledge and understanding of musical instruments; their classification systems, and the technical aspects related to their constructions and sound qualities and their use and importance in a composition.
i. Develop knowledge and understanding of a variety of music businesses and industry practices.
j. Develop a working knowledge of music as it relates to and enhances the theater and religious experience.
k. Develop and demonstrate understanding and appreciation of diverse non-Western music.
l. Develop research skills and the foundational background necessary to explore the social and cultural development of music from around the globe and demonstrate understanding of musical traditions and their influences.

Degree Requirements

General Education	**30**
General Education - Behavioral and Social Sciences	3
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - Science and Health	3
General Education - Sports	1
MUS203 - Music Computing	3
MUS225 - Sacred Music	3
MUS235 - Film Music	3
MUS237 - Lebanese Music	3
MUS245 - Music and Theater	3
MUS300 - Management and Marketing of the Artistic Activities	3
Common Core	**54**
HRP210 - Harmony I	2
HRP220 - Harmony II	2
MUC201 - Chamber Music I	1
MUC202 - Chamber Music II	1
MUC303 - Chamber Music III	1
MUC304 - Chamber Music IV	1
MUSC210 - Choral singing I	1
MUSC215 - Choral Singing II	1
MUSC220 - Music Critique I	1
MUSC225 - Music Critique II	1
MUSC230 - History of the 17th Century Music	2
MUSC235 - Analysis of the 17th Century Music	2
MUSC240 - Arab Music I	2
MUSC245 - Music Languages	2
MUSC310 - Choral Singing III	1
MUSC315 - Choral Singing IV	1
MUSC320 - Music Critique III	1
MUSC325 - Music Critique IV	1

MUSC340 - Musical Forms	2
MUSC350 - History of the 18th Century Music	2
MUSC355 - Analysis of the 18th Century Music	2
MUSC405 - Organology and Instrumentation	2
MUSC420 - Choir Conducting I	1
MUSC425 - Choir Conducting II	1
MUSC435 - Musical Acoustics	2
MUSC450 - History of the 19th Century Music	2
MUSC455 - Analysis of the 19th Century Music	2
MUSISC - Secondary Instrument Level I	2
MUSPIV1 - Instrument/Vocal	6
SDO201 - Solfeggio/Dictation I	2
SDO202 - Solfeggio/Dictation II	2
SDO303 - Solfeggio/Dictation III	2
Specialization	**12**
MUG310 - Initiation to Musicology	2
MUG325 - Musicological Research	2
MUG400 - Specialized Course	2
MUG405 - Arab Music II	2
MUG415 - Sociology of Music	2
MUG420 - World Music	2
Total	**96**

Bachelor of Arts in Music - Music Education (Hybrid[i] & Eng.)

Mission

The Music Faculty is committed to developing confident, creative, and skilled musicians. The Music Faculty provides opportunities for students of all majors to enhance their musical knowledge and skill through participation in a wide variety of academic courses, performance studies, and field experiences.
As a vital part of the University, the Music Faculty promotes the musical arts, of regional, national, and international communities – within the University.

Program Educational Objectives

1. Graduates will be engaged in active music making and a good selection of presentations.
2. Graduates will demonstrate their desire and ability to generate innovative ideas and use effective means of communicating them.
3. Graduates will show a mature, confident, analytical and critical approach to current activities in music and the media, which is based on an awareness and understanding of broader cultural issues.

[i] Hybrid: Courses offered in French and/or English

Program Outcomes

a. Students will develop knowledge and skills on a major instrument or the voice, and the ability to sight read.
b. Develop skills and understanding of music language and composition in a variety of styles, periods, and genres; in both Western European tradition and non-western cultures.
c. Develop skills of criticism and defend musical judgment, with reference to contextual meaning and aesthetic value in their own work, and the work of others.
d. Develop a comprehensive knowledge and understanding of Western musical history and its analysis, and also for Arab and Lebanese music traditions.
e. Develop technical skills and musical awareness for performance and leadership of both small and large choirs.
f. Develop skills that prepare them for careers in musical performance and private teaching of performance, also in advanced study and independent practice. This includes significant technical mastery, in order to solve professional problems, and a coherent set of artistic/intellectual goals that are evident in their work.
g. Develop knowledge and skills in the use of technology, as it applies to notating, arranging, recording, and composing music.
h. Develop a comprehensive knowledge and understanding of musical instruments, their classification systems, and the technical aspects related to their constructions and sound qualities - also their use and importance in a composition.
i. Develop knowledge and understanding of a variety of music businesses and industry practices.
j. Develop a working knowledge of music as it relates to and enhances the theatre and religious experience.
k. Develop an understanding of child growth and development and the principles of learning, related to music.
l. Develop the ability to teach music to a variety of age groups in a range of classroom and ensemble settings (K-12 and special learners) in an effective management of classes based on methods and materials currently utilized in music education settings.

Degree Requirements

General Education	**30**
General Education - Behavioral and Social Sciences	3
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - Science and Health	3
General Education - Sports	1
MUS203 - Music Computing	3
MUS225 - Sacred Music	3
MUS235 - Film Music	3
MUS237 - Lebanese Music	3

MUS245 - Music and Theatre	3
MUS300 - Management and Marketing of the Artistic Activities	3
Common Core	**54**
HRP210 - Harmony I	2
HRP220 - Harmony II	2
MUC201 - Chamber Music I	1
MUC202 - Chamber Music II	1
MUC303 - Chamber Music III	1
MUC304 - Chamber Music IV	1
MUSC210 - Choral Singing I	1
MUSC215 - Choral Singing II	1
MUSC220 - Music Critique I	1
MUSC225 - Music Critique II	1
MUSC230 - History of the 17th Century Music	2
MUSC235 - Analysis of the 17th Century Music	2
MUSC240 - Arab Music I	2
MUSC245 - Music Languages	2
MUSC310 - Choral Singing III	1
MUSC315 - Choral Singing IV	1
MUSC320 - Music Critique III	1
MUSC325 - Music Critique IV	1
MUSC340 - Musical Forms	2
MUSC350 - History of the 18th Century Music	2
MUSC355 - Analysis of the 18th Century Music	2
MUSC405 - Organology and Instrumentation	2
MUSC420 - Choir Conducting I	1
MUSC425 - Choir Conducting II	1
MUSC435 - Musical Acoustics	2
MUSC450 - History of the 19th Century Music	2
MUSC455 - Analysis of the 19th Century Music	2
MUSISC - Secondary Instrument Level I	2
MUSPIV1 - Instrument/Vocal	6
SDO201 - Solfeggio/Dictation I	2
SDO202 - Solfeggio/Dictation II	2
SDO303 - Solfeggio/Dictation III	2
Specialization	**12**
EMU300 - Musical Awakening: Rhythmic and Psychomotricity	2
EMU305 - Music Education Methods	2
EMU310 - Scholar Musical Teaching I	2
EMU315 - Scholar Musical Teaching II	2
EMU320 - Specialized Musical Teaching	1
EMU405 - Music and Psychology	3
Total	**96**

Bachelor of Arts in Higher and Specialized Music Education - Music Composition (Hybrid[i])

Mission

The Department of Higher Specialized Music Education at USEK University is committed to preparing, inspire and motivating students for excellence in professional careers in performance, composition and training.
The Department provides a unique music culture and fosters the highest standards of teaching and supports the establishment of creative engagement through its own accomplishments, the work of its department members and staff and the achievement of its graduates.
The Department strives to meet the educational needs of its diverse students through instruction, performance, scholarship, and public service; and generates creative music activities that have local, national and international significance.

Program Educational Objectives

1. Graduates will meet standards of musical performance (through applied music studies, ensembles and master classes).
2. Graduates will demonstrate competence in content-based areas of music history and analysis, advanced theory and musicianship, and music technology.
3. Graduates will demonstrate competence in skill-based areas of ear training, sight singing, improvisation, composition and conducting.
4. Graduates will demonstrate a working knowledge (an appropriate level of technical and interpretative performance skills), repertory in their major and performing skills - completely and expressively and providing leadership as a soloist, and as a member of performing ensembles.
5. Graduates will demonstrate the ability to apply creative approaches to problem-solving and self-directed study, to conceive and realize musical programs and events.

Program Outcomes

a. Student will develop skills and understanding of music language and composition in a variety of styles, periods, and genres in both Western European tradition and Non-Western cultures.
b. Develop skills of criticism and defend musical judgment, with reference to contextual meaning and aesthetic value in their own work, and the work of others.
c. Develop a comprehensive knowledge and understanding of Western musical history and its analysis, and for the Arab and Lebanese music traditions.

[i] Hybrid: Courses offered in French and/or English

d. Develop technical skills and musical awareness for performance and leadership of both small and large choirs.
e. Develop knowledge and skills in the use of technology, as it applies to notating, arranging, recording, and composing music.
f. Develop a comprehensive knowledge and understanding of musical instruments, their classification systems, and the technical aspects related to their constructions and sound qualities and their use and importance in a composition.
g. Develop knowledge and understanding of a variety of music businesses and industry practices.
h. Develop a working knowledge of music as it relates to and enhances the theater and religious experience.
i. Develop an acute ability to hear, analyze, read, write, and harmonize music at a basic level.
j. Acquire sufficient understanding of advanced music theory, musical forms, processes, and structures, and use this knowledge in compositional and performance contexts.
k. Develop knowledge and skills on a major instrument or voice, and the ability to read at sight.

Degree Requirements

General Education	**30**
General Education - Behavioral and Social Sciences	3
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - Science and Health	3
General Education - Sports	1
MUS203 - Music Computing	3
MUS225 - Sacred Music	3
MUS235 - Film Music	3
MUS237 - Lebanese Music	3
MUS245 - Music and Theatre	3
MUS300 - Management and Marketing of the Artistic Activities	3
Common Core	**32**
MUSC210 - Choral Singing I	1
MUSC215 - Choral Singing II	1
MUSC220 - Music Critique I	1
MUSC225 - Music Critique II	1
MUSC230 - History of the 17th Century Music	2
MUSC235 - Analysis of the 17th Century Music	2
MUSC240 - Arab Music I	2
MUSC245 - Music Languages	2
MUSC310 - Choral Singing III	1
MUSC315 - Choral Singing IV	1
MUSC320 - Music Critique III	1

MUSC325 - Music Critique IV	1
MUSC340 - Musical Forms	2
MUSC350 - History of the 18th Century Music	2
MUSC355 - Analysis of the 18th Century Music	2
MUSC405 - Organology and Instrumentation	2
MUSC420 - Choir Conducting I	1
MUSC425 - Choir Conducting II	1
MUSC435 - Musical Acoustics	2
MUSC450 - History of the 19th Century Music	2
MUSC455 - Analysis of the 19th Century Music	2
Specialization	**34**
CMU201 - Music Composition I	3
CMU202 - Music Composition II	3
CMU303 - Music Composition III	4
CTP210 - Counterpoint I	2
CTP220 - Counterpoint II	2
CTP330 - Counterpoint III	3
CTP440 - Counterpoint IV	4
HRP330 - Harmony III	3
HRP440 - Harmony IV	4
PNO304 - Piano IV	3
SDO304 - Solfeggio/Dictation IV	3
Total	**96**

Bachelor of Arts in Higher and Specialized Music Education - Musical Instrument (Hybrid[i])

Mission

The Department of Higher Specialized Music Education at USEK is committed to preparing, inspiring and motivating students to achieve excellence in professional careers in performance, composition and training.

The Department provides a unique music culture and fosters the highest standards of teaching and supports the establishment of creative engagement through its own accomplishments, the work of its department members and staff and the achievement of its graduates.

The Department strives to meet the educational needs of its diverse students through instruction, performance, scholarship, and public service; and generates creative music activities that have local, national and international significance.

[i] Hybrid: Courses offered in French and/or English

Program Educational Objectives

1. Graduates will meet standards of musical performance (through applied music studies, ensembles and master classes).
2. Graduates will demonstrate competence in content-based areas of music history and analysis, advanced theory and musicianship, and music technology.
3. Graduates will demonstrate competence in skill-based areas of ear training, sight singing, improvisation, composition and conducting.
4. Graduates will demonstrate a working knowledge (an appropriate level of technical and interpretative performance skills), repertory in their major and performing skills - completely and expressively and providing leadership as a soloist, and as a member of performing ensembles.
5. Graduates will demonstrate the ability to apply creative approaches to problem-solving and self-directed study, to conceive and realize musical programs and events.

Program Outcomes

a. Student will develop skills and understanding of music language and composition in a variety of styles, periods, and genres in both Western European tradition and Non-Western cultures.
b. Develop skills of criticism and defend musical judgment, with reference to contextual meaning and aesthetic value in their own work, and the work of others.
c. Develop a comprehensive knowledge and understanding of the history of Western music and its analysis, and for the Arab and Lebanese music traditions.
d. Develop technical skills and musical awareness for performance and leadership of both small and large choirs.
e. Develop knowledge and skills in the use of technology, as it applies to notating, arranging, recording, and composing music.
f. Develop a comprehensive knowledge and understanding of musical instruments, their classification systems, and the technical aspects related to their constructions and sound qualities and their use and importance in a composition.
g. Develop knowledge and understanding of a variety of music businesses and industry practices.
h. Develop a working knowledge of music as it relates to and enhances the theater and religious experience.
i. Develop skills that prepare them for careers in musical performance and private teaching of performance, and advanced study and independent practice, including significant technical mastery to solve professional problems, and a coherent set of artistic/intellectual goals that are evident in their work.
j. Acquire artistic and technical skills, collaborative competence, and knowledge of repertory requisite for artistic self-expression in his major performance area.

Degree Requirements

General Education	**30**
General Education - Behavioral and Social Sciences	3
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - Science and Health	3
General Education - Sports	1
MUS203 - Music Computing	3
MUS225 - Sacred Music	3
MUS235 - Film Music	3
MUS237 - Lebanese Music	3
MUS245 - Music and Theatre	3
MUS300 - Management and Marketing of the Artistic Activities	3
Common Core	**32**
MUSC210 - Choral Singing I	1
MUSC215 - Choral Singing II	1
MUSC220 - Music Critique I	1
MUSC225 - Music Critique II	1
MUSC230 - History of the 17th Century Music	2
MUSC235 - Analysis of the 17th Century Music	2
MUSC240 - Arab Music I	2
MUSC245 - Music Languages	2
MUSC310 - Choral Singing III	1
MUSC315 - Choral Singing IV	1
MUSC320 - Music Critique III	1
MUSC325 - Music Critique IV	1
MUSC340 - Musical Forms	2
MUSC350 - History of the 18th Century Music	2
MUSC355 - Analysis of the 18th Century Music	2
MUSC405 - Organology and Instrumentation	2
MUSC420 - Choir Conducting I	1
MUSC425 - Choir Conducting II	1
MUSC435 - Musical Acoustics	2
MUSC450 - History of the 19th Century Music	2
MUSC455 - Analysis of the 19th Century Music	2
Specialization	**34 out of 45**
Instrument IV	3
Instrument V	3
Instrument VI	3
Instrument VII	4
Instrument VIII	4
MUA201 - Arab Instrumental Ensemble I	1
MUA202 - Arab Instrumental Ensemble II	1
MUA303 - Arab Instrumental Ensemble III	1
MUA304 - Arab Instrumental Ensemble IV	1

MUA405 - Arab Instrumental Ensemble V	1
MUA406 - Arab Instrumental Ensemble VI	2
MUC201 - Chamber Music I	1
MUC202 - Chamber Music II	1
MUC303 - Chamber Music III	1
MUC304 - Chamber Music IV	1
MUC405 - Chamber Music V	1
MUC406 - Chamber Music VI	2
MUSISC - Secondary Instrument Level I	2
PAC201 - Accompaniment Practice I	1
PAC202 - Accompaniment Practice II	1
PAC303 - Accompaniment Practice III	1
PAC304 - Accompaniment Practice IV	1
PAC405 - Accompaniment Practice V	1
PAC406 - Accompaniment Practice VI	2
PPB201 - Public Performance I	1
PPB202 - Public Performance II	2
PPB303 - Public Performance III	2
Total	**96**

Bachelor of Arts in Higher and Specialized Music Education - Occidental Classical Singing (Hybrid[i])

Mission

The Department of Higher Specialized Music Education at USEK is committed to preparing, inspiring and motivating students to achieve excellence in professional careers in performance, composition and training.

The Department provides a unique music culture and fosters the highest standards of teaching and supports the establishment of creative engagement through its own accomplishments, the work of its department members and staff and the achievement of its graduates.

The Department strives to meet the educational needs of its diverse students through instruction, performance, scholarship, and public service; and generates creative music activities that have local, national and international significance.

Program Educational Objectives

1. Graduates will meet standards of musical performance (through applied music studies, ensembles and master classes).
2. Graduates will demonstrate competence in content-based areas of music history and analysis, advanced theory and musicianship, and music technology.

[i] Hybrid: Courses offered in French and/or English

3. Graduates will demonstrate competence in skill-based areas of ear training, sight singing, improvisation, composition and conducting.
4. Graduates will demonstrate a working knowledge (an appropriate level of technical and interpretative performance skills), repertory in their major and performing skills - completely and expressively and providing leadership as a soloist, and as a member of performing ensembles.
5. Graduates will demonstrate the ability to apply creative approaches to problem-solving and self-directed study, to conceive and realize musical programs and events.

Program Outcomes

a. Student will develop skills and understanding of music language and composition in a variety of styles, periods, and genres in both Western European tradition and Non-Western cultures.
b. Develop skills of criticism and defend musical judgment, with reference to contextual meaning and aesthetic value in their own work, and the work of others.
c. Develop a comprehensive knowledge and understanding of the history of Western music and its analysis, and for the Arab and Lebanese music traditions.
d. Develop technical skills and musical awareness for performance and leadership of both small and large choirs.
e. Develop knowledge and skills in the use of technology, as it applies to notating, arranging, recording, and composing music.
f. Develop a comprehensive knowledge and understanding of musical instruments, their classification systems, and the technical aspects related to their constructions and sound qualities and their use and importance in a composition.
g. Develop knowledge and understanding of a variety of music businesses and industry practices.
h. Develop a working knowledge of music as it relates to and enhances the theater and religious experiences.
i. Develop skills that prepare them for careers in musical performance and private teaching of performance, and advanced study and independent practice, including significant technical mastery to solve professional problems, and a coherent set of artistic/intellectual goals that are evident in their work.
j. Acquire artistic and technical skills, collaborative competence, and knowledge of repertory requisite for artistic self-expression in a chosen major performance area.

Degree Requirements

General Education	**30**
General Education - Behavioral and Social Sciences	3
General Education - Civic Engagement	2
General Education - English Communication	3

General Education - Science and Health	3
General Education - Sports	1
MUS203 - Music Computing	3
MUS225 - Sacred Music	3
MUS235 - Film Music	3
MUS237 - Lebanese Music	3
MUS245 - Music and Theatre	3
MUS300 - Management and Marketing of the Artistic Activities	3
Common Core	**32**
MUSC210 - Choral Singing I	1
MUSC215 - Choral Singing II	1
MUSC220 - Music Critique I	1
MUSC225 - Music Critique II	1
MUSC230 - History of the 17th Century Music	2
MUSC235 - Analysis of the 17th Century Music	2
MUSC240 - Arab Music I	2
MUSC245 - Music Languages	2
MUSC310 - Choral Singing III	1
MUSC315 - Choral Singing IV	1
MUSC320 - Music Critique III	1
MUSC325 - Music Critique IV	1
MUSC340 - Musical Forms	2
MUSC350 - History of the 18th Century Music	2
MUSC355 - Analysis of the 18th Century Music	2
MUSC405 - Organology and Instrumentation	2
MUSC420 - Choir Conducting I	1
MUSC425 - Choir Conducting II	1
MUSC435 - Musical Acoustics	2
MUSC450 - History of the 19th Century Music	2
MUSC455 - Analysis of the 19th Century Music	2
Specialization	**34**
CHO304 - Occidental classical singing IV	3
CHO405 - Occidental classical singing V	3
CHO406 - Occidental classical singing VI	3
EMS305 - Didactics and Physiology of the voice and the ear	1
EVO201 - Occidental vocal ensemble I	1
EVO202 - Occidental vocal ensemble II	1
EVO303 - Occidental vocal ensemble III	1
EVO304 - Occidental vocal ensemble IV	1
EVO405 - Occidental vocal ensemble V	1
EVO406 - Occidental vocal ensemble VI	1
HRP220 - Harmony II	2
PNO303 - Piano III	2
PPB201 - Public Performance I	1
PPB202 - Public Performance II	2
PPB303 - Public Performance III	2

SDO303 - Solfeggio-Dictation III	2
SDO304 - Solfeggio-Dictation IV	3
SFA201 - Accompanied Solfeggio I	2
SFA202 - Accompanied Solfeggio II	2
Total	**96**

Bachelor of Arts in Higher and Specialized Music Education - Solfeggio/Dictation (Hybrid[i])

Mission

The Department of Higher Specialized Music Education at USEK is committed to preparing, inspiring and motivating students to achieve excellence in professional careers in performance, composition and training.

The Department provides a unique music culture and fosters the highest standards of teaching and supports the establishment of creative engagement through its own accomplishments, the work of its department members and staff and the achievement of its graduates.

The Department strives to meet the educational needs of its diverse students through instruction, performance, scholarship, and public service; and generates creative music activities that have local, national and international significance.

Program Educational Objectives

1. Graduates will meet standards of musical performance (through applied music studies, ensembles and master classes).
2. Graduates will demonstrate competence in content-based areas of music history and analysis, advanced theory and musicianship, and music technology.
3. Graduates will demonstrate competence in skill-based areas of ear training, sight singing, improvisation, composition and conducting.
4. Graduates will demonstrate a working knowledge (an appropriate level of technical and interpretative performance skills), repertory in their major and performing skills - completely and expressively and providing leadership as a soloist, and as a member of performing ensembles.
5. Graduates will demonstrate the ability to apply creative approaches to problem-solving and self-directed study, to conceive and realize musical programs and events.

Program Outcomes

a. Student will develop skills and understanding of music language and composition in a variety of styles, periods, and genres in both Western European tradition and Non-Western cultures.

[i] Hybrid: Courses offered in French and/or English

b. Develop skills of criticism and defend musical judgment, with reference to contextual meaning and aesthetic value in their own work, and the work of others.
c. Develop a comprehensive knowledge and understanding of the history of Western music and its analysis, and for the Arab and Lebanese music traditions.
d. Develop technical skills and musical awareness for performance and leadership of both small and large choirs.
e. Develop knowledge and skills in the use of technology, as it applies to notating, arranging, recording, and composing music.
f. Develop a comprehensive knowledge and understanding of musical instruments, their classification systems, and the technical aspects related to their constructions and sound qualities and their use and importance in a composition.
g. Develop knowledge and understanding of a variety of music businesses and industry practices.
h. Develop a working knowledge of music as it relates to and enhances the theater and religious experiences.
i. Develop the ability to hear, analyze, read and write music at an advanced level.
j. Develop an acute ability to identify and work conceptually with the elements of music at an advanced level.
k. Develop a background in music and musicianship that prepares them for a wide range of further educational and vocational activities that include solfeggio and dictation as a basic component.

Degree Requirements

General Education	**30**
General Education - Behavioral and Social Sciences	3
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - Science and Health	3
General Education - Sports	1
MUS203 - Music Computing	3
MUS225 - Sacred Music	3
MUS235 - Film Music	3
MUS237 - Lebanese Music	3
MUS245 - Music and Theatre	3
MUS300 - Management and Marketing of the Artistic Activities	3
Common Core	**32**
MUSC210 - Choral Singing I	1
MUSC215 - Choral Singing II	1
MUSC220 - Music Critique I	1
MUSC225 - Music Critique II	1
MUSC230 - History of the 17th Century Music	2
MUSC235 - Analysis of the 17th Century Music	2
MUSC240 - Arab Music I	2

MUSC245 - Music Languages	2
MUSC310 - Choral Singing III	1
MUSC315 - Choral Singing IV	1
MUSC320 - Music Critique III	1
MUSC325 - Music Critique IV	1
MUSC340 - Musical Forms	2
MUSC350 - History of the 18th Century Music	2
MUSC355 - Analysis of the 18th Century Music	2
MUSC405 - Organology and Instrumentation	2
MUSC420 - Choir Conducting I	1
MUSC425 - Choir Conducting II	1
MUSC435 - Musical Acoustics	2
MUSC450 - History of the 19th Century Music	2
MUSC455 - Analysis of the 19th Century Music	2
Specialization	**34**
CCA201 - Arab Choral Singing I	1
CCA202 - Arab Choral Singing II	1
CTP210 - Counterpoint I	2
EMS305 - Didactics and Psychology of the Voice and the Ear	1
EVO201 - Occidental Vocal Ensemble I	1
EVO202 - Occidental vocal ensemble II	1
HRP220 - Harmony II	2
PNO202 - Piano II	2
SDA201 - Arab Solfeggio I	2
SDA202 - Arab Solfeggio II	2
SDO304 - Solfeggio-Dictation IV	3
SDO405 - Solfeggio-Dictation V	3
SDO406 - Solfeggio-Dictation VI	3
SFA201 - Accompanied Solfeggio I	2
SFA202 - Accompanied Solfeggio II	2
SFA203 - Accompanied Solfeggio III	2
STR210 - Transposed Solfeggio I	2
STR220 - Transposed Solfeggio II	2
Total	**96**

Programs of Study - Graduate Programs

Research Master in Music – Musicology (Hybrid[i])

Mission

The Music Faculty is committed to developing confident, creative, and skilled musicians.
The Music Faculty provides opportunities for students of all majors to enhance their musical knowledge and skill through participation in a wide variety of academic courses, performance studies, and field experiences.
As a vital part of the University, the Music Faculty promotes the musical arts of regional, national, and international communities within the University.

Program Educational Objectives

1. Graduates will be engaged in active music making and a good selection of presentations.
2. Graduates will demonstrate their desire and ability to generate innovative ideas and use effective means of communicating them.
3. Graduates will show a mature, confident, analytical and critical approach to current activities in music and the media, which is based on an awareness and understanding of broader cultural issues.

Program Outcomes

a. Student will develop an advanced level of technical skill on a major instrument or voice and the ability to sight read at.
b. Develop an acute ability to identify and work conceptually with the elements of music at an advanced level
c. Develop an advanced knowledge and understanding of Western musical history and its analysis of the twentieth century.
d. Develop knowledge and skills in the use of technology, as it applies to notating, arranging, recording, and composing music.
e. Develop technical skills and musical awareness for choir performance.
f. Develop advanced knowledge of research, scholarly reading comprehension and writing techniques.
g. Develop an understanding of what is meant by the notion of property, and how the relationship between a legal person and a 'thing', which is the object of a proprietary interest, differs from other legal relationships.
h. Develop techniques for writing music for instrumental ensembles and electro-acoustic instrumentation.

[i] Hybrid: Courses offered in French and/or English

i. Develop up-to-date knowledge and understanding of a variety of music businesses and industry practices.
j. Develop personal perspectives on the philosophical issues concerning music esthetics.

Degree Requirements

Common Core	**28**
CTP510 - Counterpoint I	2
MUSC505 - Choral Singing VII	1
MUSC510 - Choral Singing VIII	1
MUSC525 - Music Computing III	3
MUSC605 - History of the 20th Century Music	3
MUSC610 - Analysis of the 20th Century Music	3
MUSC615 - Research Methodology	2
MUSC620 - Research Methodology in Music	1
MUSC690A - Master Thesis	6
MUSPIV2 - Instrument/Vocal	3
SDO540 - Solfeggio/Dictation IV	3
Specialization	**8 out of 14**
MUSC530 - Electro-acousmatic Music	2
MUSC535 - Musicological Meetings	2
MUSC625 - Orchestration	2
MUSC630 - Philosophy and Music	2
MUSC640 - Music and Mass Media	2
MUSC645 - Law and Music	2
MUSC650 - Comprehensive Analysis	2
Total	**36**

Research Master in Music - Music Education (Hybrid[i])

Mission

The Music Faculty is committed to developing confident, creative, and skilled musicians.
The Music Faculty provides opportunities for students of all majors to enhance their musical knowledge and skill through participation in a wide variety of academic courses, performance studies, and field experiences.
As a vital part of the University, the Music Faculty promotes the musical arts of regional, national, and international communities within the University.

Program Educational Objectives

1. Graduates will be engaged in active music making and a good selection of presentations.
2. Graduates will demonstrate desire and ability to generate innovative ideas and use effective means of communicating them.

[i] Hybrid: Courses offered in French and/or English

3. Graduates will show a mature, confident, analytical and critical approach to current activities in music and the media, which is based on an awareness and understanding of broader cultural issues.

Program Outcomes

a. Student will develop an advanced level of technical skill on a major instrument or voice and the ability to sight read.
b. Develop an acute ability to identify and work conceptually with the elements of music at an advanced level
c. Develop an advanced knowledge and understanding of Western musical history and its analysis of the twentieth century.
d. Develop knowledge and skills in the use of technology as it applies to notating, arranging, recording, and composing music.
e. Develop technical skills and musical awareness for choir performance.
f. Develop advanced knowledge of research, scholarly reading comprehension and writing techniques.
g. Develop an understanding of what is meant by the notion of property, and how the relationship between a legal person and a 'thing', which is the object of a proprietary interest, differs from other legal relationships.
h. Develop techniques for writing music for instrumental ensembles and Electro-Acoustic instrumentation.
i. Develop knowledge of music techniques, materials, and use of equipment for music growth assessments, remedial plans, and treatment implementation in various educational situations.

Degree Requirements

Common Core	**28**
CTP510 - Counterpoint I	2
MUSC505 - Choral Singing VII	1
MUSC510 - Choral Singing VIII	1
MUSC525 - Music Computing III	3
MUSC605 - History of the 20th Century Music	3
MUSC610 - Analysis of the 20th Century Music	3
MUSC615 - Research Methodology	2
MUSC620 - Research Methodology in Music	1
MUSC690A - Master Thesis	6
MUSPIV2 - Instrument/Vocal	3
SDO540 - Solfeggio/Dictation IV	3
Specialization	**8 out of 14**
MUSC530 - Electro-acousmatic Music	2
MUSC540 - Curriculum and Music Teaching Handbooks	2
MUSC625 - Orchestration	2

MUSC630 - Philosophy and Music	2
MUSC635 - Psycho-Musical and Music Therapy Techniques	2
MUSC645 - Law and Music	2
MUSC650 - Comprehensive Analysis	2
Total	**36**

Programs of Study - Doctoral Programs

Ph.D. in Music and Higher and Specialized Music Education (Hybrid[i])

The Doctorate Program seeks to help student become self-directed, evidence-based learners through the ability to access and critically evaluate the reliability of all databases and resources related to music subjects.

Originality will lie more in the way in which theoretical and conceptual understandings are applied in managerial and organizational contexts than in simple extension of those theories and concepts.

In addition to the applied character of the doctorate thesis, it is also action-based and transformational in that students will be challenged to change their managerial practices.

Degree Requirements

Specialization	**60**
Ph.D. Seminars	15
Ph.D. Dissertation	45
Total	**60**

[i] Hybrid: Courses offered in French and/or English

Course Descriptions

CCA201-2 Arab Choral Singing I-II 1 cr.

The Arabic choir offers an opportunity to practice singing an Arabic vocal repertoire, and to discover the richness of Arabic music and its forms through singing, interpreting different styles and exploring vocal genres.

CHO304 Occidental Classical Singing IV 3 cr.

Continuation of technique exercises
- Vocalises: Bordogni.
  Seidler 40 –Part IV
  Concone 15 op. 12 for high voice and medium
  Concone 40 op. 17 for bass and baritone
  Panofka 12 for soprano and mezzo-soprano
- Vocalise in modern style
- Melodies
  G. Hue – J'ai pleuré en rêve
  H. Duparc – Extase, Chanson triste, Soupir etc…
  Dvorjak – Songs My Mother Taught Me
  E. Chausson – Les temps des lilas, Apaisement
  Glinka – Le doute
  Grieg – Chanson de per Gunt ect…
- Romantic Lied
  Schubert – de Winterreise – An die Musik,
  Der Lindenbaum, Die Post, Die Krahe, Fruhlingstraum, Der Leiermann
  De die schone Mullerin – Ungeduld, Das Wandern, Wohin…
  De Schwanengesang – Die Taubenpost, Sérénade, Liebesbotschaft,Aufenthalt, Abschied, Ihr Bild …
  Des lied de Schumann facile et des mélodies de Ch. Gounod: Venise,
  Ave Maria, Biondina, Au rossignol.
- Opera for SATB, MB. and BR. Mozart
  Le Nozze di Figaro, Don Giovanni, Cosi fan tutte, La flûte enchantée, L'Enlèvement au Sérail, La finta giardinera…
  Ch. Gounod – Faust, A. Thomas – Mignon, Bizet – Carmen, Meyerbeer – L'Africana, Lers Huguenots…
- Oratorio or Cantata for SATB, MS. and BR
  Haendel – Joshua , Belshazzar, Jephte, Judas Maccabaeus, Samson, La Resurreziona, Occasional Oratorio, Salomon, Messie,…
  Bach – Oratorio de Noêl, Magnificat, Oratorio de Pâques, Les Passions selon Saint Mathieu, les Passions selon Saint Jean, Ich habe Genug will den Kreuzstab gerne tragen,…

CHO405 Occidental Classical Singing V 3 cr.

- Bordogni 36 for high and medium voice
- Continuation of technique exercises
- Melodies :
  G. Faure- Claire de lune, Les roses d'Ispahan, Toujours, Les Berceaux, Au bord de l'eau, Après un rêve.
  G. Enescu- Sept Chansons de Clément Marot Rachmaninoff
  Rêve, je suis seul de nouveau,

Vocalise : Silence d'une nuit orageuse, Ne t'en va pas.
Melodies from: Berlioz, Bizet, Chopin…

- Lied:

Schumann – In der Fremde, Mondnacht, Wehmut, …
De Dichterliebe – Ich grolle Nicht, Ich hab im Traum Geweinet, Hor ich daq Liedchen Klingen, Allnachtlich im Traume, Das ist ein Floten und Geigen
Aussi continuation des lied de Schubert – Der Wanderer, Heiden – Roslein, Die Forelle, Der Doppelgange, Der Tod und das Madchen, Erlkonig…

- Oratorio or Cantata for SATB, MS. and BR

Haydn - La création , Les Saisons
Mendelsohn – Paulus, Elijah

- Opera for SATB, MB. and BR

Rossini – Il barbière de Seviglia
Guillome Tell
L'Italiana in Algieri
Donizetti – Don Pasquale
L'Elisir l'Amore
Lucia di Lammermour…
A. Borodine – Prince Igor
Moussorgsky – Boris Godounov
Khovanshina
Glinka – Ruslan et ludmilla
A Lfe for the Tzar
R. Korsakoff – The Golden Cockerel
Jacques Halévy – La Juive …

CHO406 Occidental Classical Singing VI 3 cr.

Technique exercises

- Melodies

Tchaikosky – Pourquoi? Non, lui seul le savait; Au milieu du bal, Auprès de la fenêtre.
Ravel - Don Quichotte à Dulcinée, Histoire Naturelle (5), Deux mélodies Hébraiques
Cinq mélodies populaires grecques,…
Debussy- Beau soir, Mandoline, Romance, En Sourdine, Claire de lune, Il pleure dans mon cœur…
Aussi des mélodies de Poulenc, Hindemith, Honegger…

- Opera:

Bellini – La Sonnambula
I Puritani
Norma…
Flotows- Martha
Weber- Freischutz
Oberon
Euryanthe…
U. Giordano- Andréa Chénier
P. Mascgni- Cavalleria Rusticana
R. Leoncavallo- Pagliacci
G. Puccini- Manon Lescaut, Tosca, Madame Butterfly, Turandot, Suor Angelica, La Fanciulla del west…
Massenet- Manon
Zandonai- Francesca da Rimini

- Lied:

Brahms- Sonntag, Wiegenlied, Vergebleches Standchen, Sonntag, Immer leiser wird mein Schlummer, Meine Liebe ist Grun, Von Ewiger Liebe…
H. Wolf- Verborgenheit, Gesang Weylas: Morike Lieder

Der Musikant, Nachtzauher: Eichendorff Lieder
Mignon, IN dem schatten meine Locken; Spanische Liederbuch
Und Willst du deinen Liebsten, Ich hab in Penna einen Liebsten Wonnen: Italianische Liederbuch…

CMU201 Music Composition I 3 cr.
Pre-requisites HRP 220
Composition of short melodies and songs with piano accompaniment, based on tonal harmony: use of 7th of dominant chords with melodic foreign notes (passing notes and cambiata).

CMU202 Music Composition II 3 cr.
Pre-requisites CMU 201
Composition of melodies and songs in different classic genres (dances, marches, chorales, etc.), using the resources of harmonic and contrapuntal technique.

CMU303 Music Composition III 4 cr.
Composition for instrumental and vocal in the modal harmony (Arabic music included), jazz and different styles of the Occidental repertoire. Composition for String Quartet in a free style (harmony, counterpoint, contemporary or mixture).

CTP210 Counterpoint I 2 cr.
2 parts A. 1st and 2nd species (note against note and two against one) B. 3rd and 4th species (4 notes against one and syncopations) C. 5th species (Florid Counterpoint).

CTP220 Counterpoint II 2 cr.
Pre-requisites MPR301 Or MPR512 Or MPR363 Or CTP210
Counterpoint of 3 and 4 parts - A. Cp. to 3 parts, B. Cp. to 4 parts, C. Cp. Invertible.

CTP330 Counterpoint III 2 cr.
Pre-requisites MPR 302 Or MPR 522 Or MUP 463 Or CTP 220
Counterpoint of 3 and 4 parts - A. Cp. to 3 parts, B. Cp. to 4 parts, C. Cp. invertible

CTP440 Counterpoint IV 4 cr.
Pre-requisites MPR 303 Or MUP 563 Or CTP 330
The Fugue. A. The first elements of the fugue: exhibition, counter-exhibition, theme, answer. B. The second elements of the fugue (entertainment, strata, pedal), with analysis of Bach's fugues. C. Composition of two fugues: one on a given theme, the other on a new theme.

CTP510 Counterpoint I 2 cr.
A. 1st and 2nd species (note against note and two against one).
B. 3rd and 4th species (4 notes against one and syncopations).
C. 5th species (Florid Counterpoint).

EMS305 Didactics and Psychology of the Voice and the Ear 1 cr.
Singing is an art and a profession. This course treats the anatomy, the physiology, the acoustics, the phonetics and the technique of the voice and the ear.

EMU300 Musical Awakening: Rhythm and Psychomotricity 2 cr.

Introduction: The rhythm in our everyday life. The course will consist of a theoretical part: rhythm and development: A child's timeline - rhythm and education: incidents that accompany rhythm concerning schooling. Also a practical part: Perception of rhythm through body: Discovering the pulse: The construction of rhythm according to the normal developmental stages: Rhythm and coordination: How to follow rhythm with the body (individually or in groups) Coordinate body movement with rhythm: Reproduction and creation of rhythm: Reproduction of the rhythmic structure: Creating and elaborating on rhythm through the body: Rhythm and instruments of percussion - Introduction of instruments of percussion in infants: Creation of rhythm.

EMU305 Music Education Methods 2 cr.

This course provides an introduction to the best known Western music education methods: Carl Orff, Zoltan Kodály, Edgar Willems, Emile Jaques-Dalcroze, Marcel Corneloup, Maurice Chevais, Maurice Martenot, suzuki etc.

EMU305 Music Education Methods 2 cr.

This course provides an introduction to the best known Western music education methods: Carl Orff, Zoltan Kodály, Edgar Willems, Emile Jaques-Dalcroze, Marcel Corneloup, Maurice Chevais, Maurice Martenot, suzuki etc.

EMU310 Educational Musical Teaching I 2 cr.

Musical training, in a perspective of evolution continues throughout the cycle 1, 2 and 3, developing the listening sense of students, their creative potential with regard to the sound world - and skills to express themselves and to communicate through music. The topics of this course are: how to teach music to children in cycle 1, 2 and 3; the role and purpose of music education in both primary and elementary classes; and the effects of music education on the personality of the child. It will examine in particular the following points: - Communicating to the child the pleasure that music gives. - Appropriating the musical content of a musical play and exploiting its inherent expressive elements. - Applying elements of technique and rules for ensemble music. - Sharing experience of interpretation and appreciation. - Examining an excerpt of musical work or a musical performance with regards to content items. - Examining an excerpt from a musical work with regards to socio-cultural aspects (2nd and 3rd cycles).

EMU315 Educational Musical Teaching II 2 cr.

This course in musical education focuses on education in complementary and secondary classes. The music program in these classes revolves around three complementary and interdependent skills: - Creating musical works, interpreting musical works and appreciating music. In the music program, the word work is used in its broadest sense; it refers to both the achievement of the student and the composer.

EMU320 Specialized Musical Teaching 1 cr.

The objectives of the course are: - discovering how music can be an additional means of communication for the disabled child; - exploring musical situations developed with children with disabilities; - promoting the relationship of special needs students with their environment (other children, professionals, parents etc.) by music. It deals with the issues and the values of integration today and the importance of the artistic practice of people with disabilities: access to culture, to museums etc. It also studies cases of students with different disabilities and their musical practices. A visit to institutions dealing with children with disabilities, in order to have direct observation practice, would be an integral part of this course.

EMU405 Music and Psychology 3 cr.

Music psychology is the empirical study of how humans perceive and experience music, and the resulting impact on individual, group and cultural behavior. This course will encompass an introductory exploration of music psychology across a lifespan. It explains the different stages of the musical development of the baby, child and adolescent at the sensory-motor, social/emotional, psychomotor and intellectual/communicative levels.

EVO201-2 / 303-4/ 405-6 Occidental Vocal Ensemble I - II - III - IV - V - VI 1 cr.

The student, guided by a teacher, must work with a group of singers and display a progressive quality of interpretation and an important degree of musical maturity.

HRP210 Harmony I 2 cr.

Pre-requisites MPR209 Or MPR210 Or MUP353 Or MUP356 Or MUP355 Or THO220

Figured Bass and given Song: A. - Realization of a given bass with 3 sound chords (root position, 1st and 2nd inversions). - Harmonization of a song given with 3 chord sounds (all positions). B. Modulations to the adjacent and distant tones, uni-tonal and modulating harmonic movements, figured bass and given song. C. Chords of the dominant 7th, with and without fundamental, regular and exceptional resolution: given bass and given song.

HRP220 Harmony II 2 cr.

Pre-requisites MPR201 Or MPR212 Or MPR205 Or MUP259 Or MUP261 Or HRP210

Figured Bass.

A. - Chords of the Dominant 9th major and minor, with and without fundamental - Chords of the 7th in various species.

B. - Changes, delays and pedals.

C. - The foreign notes: changes, delays, pedals, notes of passage, anticipation, appoggiatura, etc.

HRP330 Harmony III 3 cr.

Pre-requisites MPR 201 Or MPR 205 Or MUP 259 Or MUP 261 Or HRP 220

Given chant. A. - Chords of the Dominant 9th major and minor, with and without fundamental - Chords of the 7th in various species. B. - Alteration, Delays and Pedals. C. - The foreign notes: alteration, delays, pedals, notes of passage, anticipation, appoggiatura etc.

HRP440 Harmony IV 4 cr.

Pre-requisites MPR 203 or MUP 459 or HRP 330

Harmonization in different styles: A. - Modal Harmony. B. -Jazz Harmony. C. - Harmony in different styles (from Baroque music to contemporary music).

MUA201-2 / MUA303-4 / MUA405 Arab Instrumental Ensemble I - II - III - IV - V 1 cr.

The student, guided by a teacher, must work with a group of instrumentalists in which he/she is to demonstrate a progressive quality of playing and a high-level degree of musical maturity.

MUA406 Arab Instrumental Ensemble VI 2 cr.

The student, guided by a teacher, must work with a group of instrumentalists in which he/she is to demonstrate a progressive quality of playing and a high-level degree of musical maturity.

MUC201-2 / MUC303-4 / MUC405 **Chamber Music I – II – III – IV – V** **1 cr.**

The aim of this music performance course is to provide the opportunity for the students as performers to come together with other like-minded musicians in an ensemble setting to rehearse and perform from the chamber orchestra repertoire. In this course we will focus on overall concepts of self and ensemble expression, engagement, participation, and performance. We will also address musical concepts of ensemble and individual balance, blend, intonation, phrasing, dynamics, articulation, tone, rhythmic precision, color, and ensemble clarity. We are going to listen to ourselves, to each other and to the composer's voice.

MUC406 **Chamber Music VI** **2 cr.**

The aim of this music performance course is to provide the opportunity for the students as performers to come together with other like-minded musicians in an ensemble setting to rehearse and perform from the chamber orchestra repertoire. In this course we will focus on overall concepts of self and ensemble expression, engagement, participation, and performance. We will also address musical concepts of ensemble and individual balance, blend, intonation, phrasing, dynamics, articulation, tone, rhythmic precision, color, and ensemble clarity. We are going to listen to ourselves, to each other and to the composer's voice.

MUG310 **Initiation to Musicology** **2 cr.**

This course offers an introduction to musicology; it aims to develop students' critical thinking in areas of historiography, musical meaning, and aesthetics. It introduces students to some of the methodologies employed in upper level courses in music, to some of the musicianship skills required in such studies. It develops student knowledge of exemplary works of Western classical music from the period under study, and focuses on how to critically discuss such music within the disciplinary conventions of musicology. This course is designed as an introduction to a wide range of musical styles, techniques and circumstances as well as methods of study in music.

MUG325 **Musicological Research** **2 cr.**

This course is an introduction to musicological research. It includes four parts: objects and methods, sources, musicological research and presentation standards. It is essentially practical and aims to help future musicologists and researchers become apprentices in their undergraduate studies.

MUG400 **Specialized Course** **2 cr.**

This course is open to current and transdisciplinary musical concerns. The concept for transdisciplinarity does not define a degree of specialization, but rather refers to a type of approach that allows the addressing of contemporary issues based on various disciplines and different fields of knowledge, placing the reflection beyond the mere juxtaposition of the subjects studied. The first set gives rise to learning activities that allow the student identify major issues of contemporary concern, to demonstrate the contribution of various disciplines in the understanding of a problem, through theories, concepts and methods of analysis. The second set invites the students to confront the real world and deal with a contemporary problem in a research piece where, after they have identified and analyzed the problem, they will have to justify the relevance of their proposed solutions.

MUG405 **Arab Music II** **2 cr.**

This course offers an analytical study of the older forms of music and Arabic Song: longa, Samai, Dulab, Tahmila, Bachraf, Taqsím, Mawwals, Qasîda, Taqtouqa, Mouwashah, Dawr etc.

MUG415 **Sociology of Music** **2 cr.**

This course explores the influence of music on the individual and on society and the influence of society on the musician and composer - and thereby on the music industry. It concentrates on the socialization processes and the factors affecting musical behavior. It also deals with the formation of self-musical

image in accordance with the musical image of society, expectations, competition and cooperation, leadership and self-confidence, creativity and the aesthetic values of creativity etc.

MUG420 World Music 2 cr.
This course deals with music from a variety of world traditions, including Brazilian, Irish, South Indian, Chinese, Japanese, American Jazz, Mexican, Spanish, and European music. It includes both a learning repertoire and discovering how music is taught in different cultural settings.

MUS203 Music Computing 3 cr.
The course is intended for students interested in the world of sound (training, recording, publishing and editing), as well as musical production. This is a theoretical course illustrated by multimedia examples and completed by practical application sessions.

MUS225 Sacred Music 3 cr.
This course is an introduction to music in its relation to religion. It includes general concepts on religion, philosophy, the sacred and their rapport with music. Subjects to study: the function of sacred music, the relationship of religion with music, tradition and renewal in sacred music; sacred music categories, forms and genres of sacred music, classification of sacred songs in the Maronite Church, and the characteristics of sacred music etc.

MUS235 Film Music 3 cr.
This course will concentrate on how to listen to a film in an analytical and critical manner. This will allow film music to go from being an unconscious experience to a conscious experience. It will focus on the evolution of the unique art of film music, especially its meanings, functions, associations, techniques, and styles. Topics will include the interaction between visual and musical elements, looking at significant film scores/soundtracks and composers.

MUS237 Lebanese Music 1 cr.
This course is designed to: 1 – Sensitize students to Lebanese folk music. 2 - Make them aware of the danger that threatens this music: a Heritage endangered. The disappearance of the songs with the disappearance of the circumstances and opportunities serving their raison d'être. The disappearance of the 'old', guardians and deliverers of the tradition. A heritage uncollected, not recorded in a scientific way. 3 – Let them discover the diversity of forms: mostly little known and unknown forms. 4 - Study of the poetic-musical internal structure of each form of traditional song.

MUS245 Music and Theater 3 cr.
This workshop course is intended to introduce the performers (actors, singers, musicians) to meet the requirements of their profession, in terms of stage presence, communication, impact and the dramatic action (in any communication there is an inner life and a dramatic effect to produce). The objectives of this workshop are to:
- master a sense of rhythm
- master the techniques of relaxation and concentration
- understand and discover their bodies and know how to involve them
- develop self-confidence
- develop creativity and imagination
- develop stage presence, i.e. justify it, give it meaning and enrich it with an internal life
- mastering the meaning of space
- master the techniques of improvisation
- create dramatic connections with all possible scenographic elements
- be able to work in a group.

MUS300 Management and Marketing of Artistic Activities 3 cr.

This course is designed to give students the basic concepts, current practices and modern training for management and marketing in several areas. It is addressed to students pursuing studies in music. It will give them a practical managerial introduction to complete and innovative management and marketing - as they are applied in artistic events. It will help them learn how to organize, to implement and manage an artistic event.

MUSC210 Choral Singing I 3 cr.

Choral singing closely follows the course of history. Each year the students learn to interpret, in the context of Western choral singing of the Faculty, the corresponding repertory according to the current history course.

MUSC210 Choral Singing I 3 cr.

Choral singing closely follows the course of history. Each year the students learn to interpret, in the context of Western choral singing of the Faculty, the corresponding repertory according to the current history course.

MUSC210 Choral Singing I 1 cr.

Choral singing closely follows the course of history. Each year the students learn to interpret, in the context of Western choral singing of the Faculty, the corresponding repertory according to the current history course.

MUSC215 Choral Singing II 1 cr.

Choral singing closely following the course of history. Each year the students learn to interpret, in the context of Western choral singing of the Faculty, the corresponding repertory according to the current history course.

MUSC220-5 / MUSC320-5 Music Critique I – II – III – IV 1 cr.

This course includes a guided reading and musical critique, taking in readings in the literature and the science of music. Each student will have to read a book (or chapters in a book) per semester and present the content to others. The criticism is about:

- Various reports and interviews, mainly in the field of contemporary musical creation.
- Conception, realization and animation of a series of programs devoted to classical, modern and contemporary music.
- A roundtable around musical works by various composers.
- A report on a festival and concerts presented as part of this festival.
- Leaflet of a compact disc, published flyers or texts in concert programs.
- Symposia concerning music and conferences contained therein.

MUSC230 History of 17th Century Music 2 cr.

This course will consist of an investigation of the principal styles of European music from ancient Greece to the time of Bach and Handel. It will focus on a panoramic view of the main events, composers, genres, forms, schools, language and problems of the music during those periods.

MUSC235 Analysis of 17th Century Music 2 cr.

This course will provide a deep analysis (form, genre, structure, themes, rhythm, orchestration and harmonic and polyphonic writing, language, general nature of the work) of musical styles and composition, in examples mostly selected from Greek, Medieval, Renaissance, and Baroque Music.

MUSC240 Arab Music I 2 cr.

This course aims to teach the students about Arab music in all its categories, popular and art music, theoretical and practical, the Maghreb and the Mashreq. Several titles and themes will be discussed:

the general history of Arabic music, the maqams, the Arab musical scale and the modal system, the rhythms and musical writings of: Ibn Al-Munajjim, Al-Kindi and Al-Farabi.

MUSC245 Music Language 2 cr.

The goal of this course is to give to the students a general idea about the evolution of musical language from its beginning to the twentieth century: the scale of harmonics; the cycle of fifths, consonance and attraction, tolerance, habituation, equalization, the formation of the scales, relative pitch and absolute pitch, the organization of the sounds in space and in time, the melodic order and the harmonic order, the chromatic scale; the irregular and altered scales; from ditonic scale to heptatonic scale; accuracy and the acoustic systems; the equal temperament.

MUSC310-5 / MUSC505-10 Choral Singing III – IV – VII – VIII 1 cr.

Choral singing closely follows the course of history. Each year the students learn to interpret, in the context of Western choral singing of the Faculty, the corresponding repertory according to the current history course.

MUSC340 Musical Forms 2 cr.

The examination of the form is a fundamental element of any analysis, because the form depends on the various components of a work, namely melody, rhythm, instrumentation, dynamics, tonal course, elements of unity and contrast ratio, relationship between text and music if it is a voice composition and other components. To understand musical forms, is to discern the sound architecture.

MUSC350 History of 18th Century Music 2 cr.

This course opens on the years that mark the death of Jean-Sébastien Bach, the decline of the baroque era, with the dawn of the classical musical style. It deals with the following subjects: French (from 1661 to 1764) music, music of the Germanic countries around Bach and Handel, English music in the 18th century, the birth and diffusion of classicism in Polish music, music in Spain, the music in Italy from the death of Carissimi to the end of the eighteenth century, classicism in Austria and the German-speaking countries, from the death of Telemann to the death of Beethoven, the formation of the classical style in Europe and the classical masters: Haydn and Mozart.

MUSC355 Analysis of 18th Century Music 2 cr.

Analysis of corresponding parts in the history course of the 18th century.

MUSC405 Organology and Instrumentation 2 cr.

This course studies different musical instruments from antiquity to the present day, including the history, classifications, mechanics, acoustics, development, manufacturing, the different families of instruments, and helps deepen the concept of instrumentation and know the specificity of each instrument, in terms of timbres, register, transposition, combination of timbers, transcription, etc.

MUSC420 Choir Conducting I 1 cr.

This course aims to train musicians on vocals, choirs and choir conducting. It includes concepts about the human voice and its education, the choir and its training, the conductor of the choir (values, posture, technique, behavior, etc.), choral conducting (departure gesture, the fermata, the stop gestures, the syncopation and offbeat, repeat, etc). This course includes exercises on the evolution of the musical ear, on conductor gestures, on the conducting of simple meters (2/4, 3/4, 4/4).

MUSC425 Choir Conducting II 1 cr.

This course deepens the knowledge learned in choral I. Continuing to work on the technique of direction, on the didactics of voices, on polyphonic conducting, on meters and more complicated rhythmic formulas, the student will also learn how to prepare a piece for choir, how to deal with technical difficulties, how to practice with the choir and how to direct before an audience. By watching

movies about great choir masters and orchestra rehearsals, we observe their actions and their methods of work.

MUSC435 Musical Acoustics 2 cr.
This course concentrates on: vibratory motion of typical musical sound sources, propagation of sound, wavelength, period and frequency, pressure and acoustic intensity, the acoustic impedance speed, etc; perceived pitch, loudness and timbre of a sound; the objectively measurable properties of a sound wave; explaining how sound is generated - transformed by the musical instruments and the human voice; defining the reverberation time of a hall, using a formula relating reverberation time to the volume of the hall and the absorption of its surfaces, and discussing the acoustical properties desirable in concert halls and opera houses; microphones, amplifiers, speakers and sound captation acoustic treatment and correction.

MUSC450 History of 19th Century Music 2 cr.
This course explores the music of the Romantic era. 1 - Characteristics of Romantic music: themes of Romanticism, individuality of style, expressive subjects, nationalism and exoticism, the use of timbers to obtain a variety of sensations and atmospheres, the use of chromatic harmony, contrasts in nuances etc. 2. Vocal music, program music, the Romantic Symphony, the brief forms and developed forms. 3. Romantic composers: Beethoven, Schubert, Schumann, Chopin, Liszt, Mendelssohn, Berlioz, Tchaikovsky, Smetana, Dvorak, Brahms, Verdi, Puccini, Wagner, Mahler.

MUSC455 Analysis of 19th Century Music 2 cr.
Analysis of corresponding parts in the history course of the 19th century.

Secondary instrument level I 2 cr.
Students will perform on another instrument rather than the major one they have chosen in their MUSPIV I and in additional to the singing program they decided to do.

MUSC525 Music Computing III 3 cr.
This course helps both musicians, students and engineers better design their music, providing access to its standard and technique of DIGITAL AUDIO, that presents to the manipulator enormous facilities, such as the creation of libraries containing thousands of “sampled sounds” ready to be used, the registration of an infinity of its tracks in M.I.D.I and more than 64 tracks in audio, the correction of false notes and tempo, the notation and printing of scores and many other mundane tasks of our time, which were considered impossible in the audio field, twenty years ago. Humans are the only creators and innovative elements and computers are their tools, used in the fulfilment of their work in a faster and more sophisticated way. Finally, students put into practice what they have acquired and completed: a project showing their knowledge in the field of the M.I.D.I and audio.

MUSC530 Electro-acousmatic Music 2 cr.
This course of enables students to study sound perception and its physical causes and, by extension, all the elastic vibrations of the audio signal. This course explores studies the electro- acoustic series from the microphone to the speaker. It envisages two types of work: live sound and recording at the studio. This course has two parts - theoretical and practical, that allow students to use this electro-acoustic equipment in a scientific and professional manner.

MUSC535 Musicological Meetings 2 cr.
This course articulates in two ways. - Scientific: conferences, interviews and discussions around a musicological theme following meetings with musicians, and musicologists, of the famous amateurs. - Cultural: proposed manifestation of various and varied cultural demonstrations (movies, theater, music, reading of musicological texts, etc.).

MUSC540 Curriculum and Music Teaching Handbooks 2 cr.

This course deals with Lebanese curriculum of music education and its development over the years (sixties to the present day). It also deals with the textbook as a multifaceted tool; the textbook from here and elsewhere, from yesterday to tomorrow. In a cross-cultural aim, taking into account both the specificity of our culture and the trend towards globalization, this course introduces students to prepare a syllabus for the musical material to teach in interrelation with other subjects, using technological means, and taking into account the importance of group work.

MUSC605 History of 20th Century Music 3 cr.

This course discusses: The different currents and musical styles of the 20th century: Impressionism, symbolism, neo- classicism, expressionism, dodecaphony, serial music, electronic music, electroacoustic and concrete music, random music. The characteristics of the 20th century are also studied: the importance given to the different timbres of instruments especially percussion instruments and their use in a new way. Percussion instruments become prominent and numerous, reflecting the interest of this century for unusual rhythms and timbres (tone colors). Fundamental changes in the treatment of chords. The traditional distinction between dissonance and consonance is abandoned. New structures of chords: Polychord (new structure not based on third but on fourths), and tone cluster etc. The exploration of alternatives to the traditional tonal system. The musicians of this period are also discussed: Debussy, Ravel, Stravinsky, Schoenberg, Berg, Webern, Bartok.

MUSC610 Analysis of 20th Century Music 3 cr.

Analysis of corresponding parts in the history course of the 20th century.

MUSC615 Research Methodology 2 cr.

This course aims to foster the ability to research, to develop a working process, to master the method specific to science, to find simple, authentic and objective, methods to organize the stages of data collection, and to carry out the results of scientific research. This course discusses: The key concepts, names and references, drafting and presentation protocols, the different stages of a scientific work from the position of the problem, to the collection of data - until the final draft.

MUSC620 Research Methodology in Music 1 cr.

The objective of this course is to teach students how to summarize, analyze, and present information that they will have to handle during their work in musicology. In addition to learning how to calculate the various statistical indicators, attention will be paid to the choice of the most appropriate statistical methods, depending on the nature of the data and the interpretation of statistical results.

MUSC625 Orchestration 2 cr.

The purpose of this course is: 1- Empowering students to make orchestrations or musical arrangements from a specific format (Piano Sonata) for any format orchestral format (Duo, Trio Quartet, Chamber etc.). 2- Teaching them how to reduce orchestral scores to piano score. The student will: - learn the fundamentals of arranging for different orchestral ensembles. - acquire the basic element such as writing a melody/harmony for strings, woodwinds, brass and percussions. - examine and analyze orchestral scores from the repertoire. - anticipate musical colors and texture, as created by instrumental combinations.

MUSC630 Philosophy and Music 2 cr.

Philosophy and music and not Philosophy of Music because music is an art, a science, a school, and creativity; it is not, therefore, just a concept addressed by philosophy diagnosing, analyzing and criticizing. It is an objective epistemological and analytical approach, implicating the philosophy of music, as a latter attempt to understand humans and help them understand the mysteries of the universe, the sound, the melody, and the rhythm. It also does not exclude this scenography, because

fantasy creator is mostly interested in the colors of the Sun of reality and the vibrant life of existence. After trying to get closer to the music and its place in human knowledge priorities, we will identify the most important theories of philosophers who read this art and built philosophical representations for this art in general, and the role of avant- garde music, in particular. What is the relationship of music with humans, with society, with the world, with God etc. ? This is one of the questions we will try to answer in this course.

MUSC635 Psycho-Musical and Music Therapy Techniques 2 cr.

This course covers the theories and processes of music therapy, the history of the profession, and a survey of basic principles, methods, techniques, and applications. Students will visit facilities where music therapy is practiced, observe music therapists in action, and discuss the role of music in therapy within a wide variety of clinical and community settings. In addition, they will be introduced to music therapy practices in different countries, through published literature.

MUSC640 Music and Mass Media 2 cr.

Mass media refers collectively to all media technologies capable of reaching and influencing a large audience. This course studies music through and in relation with the mass media of today:
the television, the radio, movies, the written press cartoons, CD and DVD, display posts. the web and internet

MUSC645 Law and Music 2 cr.

This course provides (according to the specialization) specific information on: - the rights of authors and performers, the role and the functioning of authors' societies (Sacem, SDRM, SACD), and interpreters (Adami, Spedidam), and producers, - the right to work, including for employees of a show, for the hiring of artists, the amount of fees, taxes, - music contracts, which govern the dissemination of live performance, audiovisual production, musical or phonographic edition and career management, - legislation and legal rules concerning the management of associations and cultural enterprises, - the organization and the occasional production of shows, therules for amateur musicians - the legal developments related to new technologies and Internet; contracts and obligations concerning teachers, such as salary scale and indemnity.

MUSC650 Comprehensive Analysis 2 cr.

The aim of this course is to analyze, in order to understand and transfer a written musical piece developed in any time, style, genre, or form.

Main Instrument/Vocal 6 cr.

The students will use suitable playing or singing techniques with any instrument or singing program of their choice. They are asked to achieve levels I, II, and III.

Main Instrument/Vocal 3 cr.

The students will use suitable playing or singing techniques with any instrument or singing program of their choice. They are asked to achieve level IV.

PAC201-2 / PAC303-4 / PAC405 Accompaniment Practice I - II - III - IV - V 1 cr.

This course offers an introduction to the many particular skills that the professional accompanist needs, including:

- knowledge and experience in duo repertoire and chamber music
- competencies in sight-reading and transposition
- experience in playing for choir rehearsals

- experience in vocal coaching
- experiences in orchestral accompaniment

PAC406 Accompaniment Practice VI 2 cr.

This course offers an introduction to the many particular skills that the professional accompanist needs, including:

- knowledge and experience in duo repertoire and chamber music
- competencies in sight-reading and transposition
- experience in playing for choir rehearsals
- experience in vocal coaching
- experiences in orchestral accompaniment

PNO303 Piano III 2 cr.

Pre-requisites MPR402 Or MPR323 Or MUP202 Or PNO202

Exercises: -SCHMIT and then Hanon (No. 21-31)

Scales: -major and minor with arpeggios + inversions and in opposite direction over 2-3-4 octaves + chromatic scale starting with each note.

Studies: -CZERNY Op. 849 "studies of the mechanism" (10 studies)
- CZERNY "Small velocity" Op. 636 (12 studies)

Bach: -"Small Preludes and Fughettas", only the preludes (at least 8 preludes)

Pieces: - “From Bach to the Present Day" volume II, III.
- les classiques favorites, volume II
- SCHUMANN "Album for the Young" op. 68
- PROKOFIEV "Music for Children" Op. 65 No. 1-2-3-5-6-10-12
-KHACHATURIAN "Children's Album" No. 1-2-3-4.
-KABALEWSKI “Plays for Children” Op. 27 (No. 8 up to 16)
- TSCHAIKOWSKI: “Children” Op Album. 39
- BARTÓK: Mikrokosmos book 3 - For Children Book I.
- “Piano Pieces for children”
- CHOPIN: Mazurka op. 68 no 2 - 3.

13 Pieces per course + 2 sonatinas (one of Beethoven and one of Clementi)

PNO304 Piano IV 3 cr.

Pre-requisites MPR403 Or MPR433 Or MUP301 Or PNO303

Exercises: - the little Pischna Scales: - major and minor arpeggios + inversions and in the opposite direction on 4 octaves + the third and tenth with arpeggios + chromatic range with reverse starting with each note.

Studies: - Moskowsky Op. 91 issue 1 - Czerny, "Study of velocity" (to choose 24 studies, either a single book or both)

Bach: -"two-part Inventions" (at least 8 inventions) Pieces: - Mozart sonatas easy (N ° 5 k283, N ° 16 k545) - Haydn No. 2 in e minor No. 7 in d major No. 11 in g major No. 43 in c major (depending on the Edition Peters) - Beethoven No. 19 - 20 - Chopin : Waltz No. 3-6-10

Mazurka Op. 7 No 1 – 2

Op. 24 No 3, Op. 67 No 2 – 3 – 4, Op. 68 No.4 - Favorite classics, volume II and III - Debussy: the little Negro - Prokofiev: "Music for Children" op. 65 No. 4 - 9.

-Bartok: Mikrokosmos book IV - For Children book II To do:

2 complete sonatas (or 6 movements of the sonatas) and 6 pieces (Romantic and modern) or 1 whole Sonata and 8 pieces.

PPB201 Public Performance I 1 cr.
The student, guided by a teacher, must give a public performance in which he/she is to demonstrate an interpretation of quality with a certain degree of musical maturity.

PPB202 Public Performance II 2 cr.
The student, guided by a teacher, must give a public performance in which he/she is to demonstrate a high-standard of interpretation and a high-level degree of musical maturity.

PPB303 Public Performance III 2 cr.
The student, guided by a teacher, must give a public performance in which he/she is to demonstrate a high-standard of interpretation and a high-level degree of musical maturity.

SDA201-2 Arab Solfeggio I - II 2 cr.
Solfeggio Antoine Farah No. 41-66

SDO201 Solfeggio/Dictation I 2 cr.
Pre-requisites MUP157 Or MPR220 Or SDO101
1st course
a- Solfeggio parlati : Pozzoli: Primo corso du n°1 au n°31
b- Solfeggio cantati: - Pozzoli: Primo corso du n°1 au n°31.
c- Dictation : - Noël Gallon du n°1 au n°20. - melodic intervals : 5th, 4th, octave, 3rd Maj and min, 2nd Maj and min.

SDO202 Solfeggio/Dictation II 2 cr.
Pre-requisites MPR221 Or MPR211 Or MUP257
2nd course
a- Solfeggio parlati : - Pozzoli: Primo corso du n°32 au n°60.
b- Solfeggio cantati: Pozzoli: Primo corso du n°32 au n°60.
c- Dictation : - Noël Gallon du n°21 au n°40. - melodic intervals : Triton, 6th Maj and min, 7th Maj and min.

SDO303 Solfeggio/Dictation III 2 cr.
Pre-requisites MPR222 Or MPR321 Or MUP258 Or SDO202
3rd course
a- Solfeggio parlati : - Pozzoli: appendice al primo corso du n°1 au n°31.
b- Solfeggio cantati: - Pozzoli: appendiceal prima corso du no1 au no27.
c- Dictation:-Noel Gallon du no41 au no60. - melodic intervals: all intervals, and major and minor chords.

SDO304 Solfeggio/Dictation IV 3 cr.
Pre-requisites MPR223 Or MPR431 Or MUP357 Or SDO303
4th course
a- Solfeggio parlati : - Pozzoli: secondo corso du n°1 au n°36.
b- Solfeggio cantati: - Pozzoli: secondo corso du n°1 au n°28.
c- Dictation : - Noël Gallon du n°61 au n°80. - Noël Gallon (2 voix) du n°1 au n°20.

SDO405 Solfeggio/Dictation V 3 cr.
Pre-requisites MPR224 Or MPR541 Or MUP358 Or SDO304
a- Solfeggio parlati :
- Pozzoli: Secondo corso du n°37 au n°68.
b- Solfeggio cantati:
- Pozzoli: Terzo corso du n°1 au n°25.

c- Dictée / Dictation :
- Noël Gallon du n°81 au n°100.
- Noël Gallon (2 voix) du n°21 au n°40.
- Accords à trois sons : 5ème ag et 5ème dim (à l'Etat fondamental).
- Chords of 3 sounds : 5th aug and dim (at the root position)

SDO406 Solfeggio/Dictation VI 3 cr.
Pre-requisites MPR225 Or MPR457 Or SDO405
Spoken Solfege: Il Nouvo Pozzoli Vol. 2: N. 59-90 (+ Ornaments 5 exercises)
A: N. 59-72 (Alternation of 7 keys, irregular meters, jazz style)
B: N. 73-84 (ditto most difficult and irregular and proportional time groups)
C: N. 85-98 (Idem more difficult)
Pages 70-71-72, N. 1, 2, 3, 4, 5.
Singing Solfege: Pozzoli (former) Appendix al Terzo Corso: N. 1 – 40
A: N. 1-13 (various 2nd, 3ce, 4te)
B: N. 14-25 (various 5te, 6te, 7th, 9th, chromaticism)
C: N. 26-40 (ornaments, enharmonic, Oriental and defective scales, modes)

SDO540 Solfeggio/Dictation IV 3 cr.
Pre-requisites MPR223 Or MPR431 Or MUP357 Or SDO303
4th course
a- Solfeggio parlati : - Pozzoli: secondo corso dun o1 au no36.
b- Solfeggio cantati: - Pozzoli: secondo corso du n o1 au no28.
c- Dictation : -Noel Gallon du no61 au no80. -Noel Gallon (2 voix) du no1 au no20.

SFA201-2-3 Accompanied Solfeggio I - II - III 2 cr.
The “accompanied solfeggio” course consists of singing solfeggio exercises, according to its level, accompanied by a pianist; this accompaniment is usually written by the author of the music theory manual for all levels. In this course students put their theoretical solfeggio into living practice and adapt it for a joint execution; to an aesthetic interpretation (phrasing, nuances and agogic respect) and a solid mastery of the intonation.

STR210 - STR220 Transposed Solfeggio I - II 2 cr.
In music, transposition refers to the process, or operation, of moving a collection of notes (pitches or pitch classes) up or down in pitch by a constant interval.The circumstances that could lead a musician to transpose, either at sight or by rewriting the score, are diverse. One of the most common is the accompaniment to a singer whose tessitura is unsuited to the original key. Musicians playing a transposing instrument (clarinet, Horn, trumpet...) can be also brought to this practice, when they play a part that was not originally written for their instrument.
The transposition at sight is to decrypt and transpose the score at the same time. It is a challenge requiring conversion training, more cerebral than spontaneous. Several methods are possible, but the most widely recognized, is the "transposition by the keys”, which consists of replacing the key used in the score – G clef, for example - by another key which gives the note corresponding to the transposition. At the same time, we need to change the armor and in some cases, accidentals - sharps, flats, etc. - indicated punctually on the score, using mathematical logic.

Faculty of Philosophy and Humanities

Overview

The Faculty of Philosophy and Humanities, founded in 1949 by the Lebanese Maronite Order, strives to promote a university education which responds to the requirements of its milieu. It addresses a public curious about human phenomena, and prepares the socio-political and cultural management of human resources.

Since its foundation, the Faculty has continued to develop. It confers all university educational levels approved by the Lebanese Republic in the fields of Philosophy, Social Sciences, Clinical and Practical Psychology and the Educational Sciences (Teaching, Educational Administration, Technology of Education, Supervision and Pedagogical Coordination, Accompaniment of People with special educational needs).

Its fundamental charter is the practice of full intellectual freedom. Its conscious and organized educational activity is based on the famous Kant citation: “Man can never become a man without education.”

The Faculty of Philosophy and Humanities consists of the following departments/programs:

Department of Philosophy

- Bachelor of Arts in Philosophy
- Master of Arts in Philosophy
- Master of Arts in Philosophical Anthropology
- Master of Arts in Political Philosophy and Ethics
- Ph.D. in Philosophy

Department of Social Sciences

- Bachelor of Arts in Social Sciences
- Bachelor of Arts in Social Sciences - Labor and Social Intervention
- Master of Arts in Social Sciences
- Master of Arts in Social Sciences - Labor and Social Intervention
- Ph.D. in Social Sciences

Department of Psychology

- Bachelor of Arts in Psychology
  Emphasis:
  - Clinical Psychology
  - Industrial Psychology
- Master of Arts in Psychology - Clinical Psychology
- Master of Arts in Psychology - Health Psychology
- Master of Arts in Psychology - School Psychology
- Ph.D. in Psychology

Department of Educational Science

- Bachelor of Arts in Education Basic Education
- Bachelor of Arts in Education - Early Childhood Education
- Teaching Diploma - Options:
  - Chemistry

  - Computer Sciences
  - Education (Basic Education Cycles I & II)
  - Educational Sciences (Philosophy)
  - Educational Sciences (Social Sciences)
  - English Language and Literature
  - French Language and Literature
  - History
  - Life Sciences
  - Mathematics
  - Music
  - Physics
  - Visual And Performing Arts
- Master of Arts in Education - Basic Education
- Master of Arts in Education - Administration of Education
- Master of Arts in Education - Accompaniment of People with Special Educational Needs
- Master of Arts in Education - Supervision and Pedagogical Coordination
- Master of Arts in Education - Technology of Education
- Ph.D. in Education

Administration and Full-time Faculty

Rev. Fr. Jean Reaidy, Professor, Dean
Dr. Karine Nasr Demerjian, Assistant Professor, Associate Dean
Prof. Hoda Matar Nehmé, Professor, Head of the Doctoral Commission
Prof. Marie Fayad, Professor, Head of Philosophy Department
Dr. Mirna Abboud Mzaouak, Associate Professor, Head of Social Sciences Department
Dr. Nadine Zlaket, Assistant Professor, Head of Psychology Department
Dr. Fr. Farid El Moujabber, Assistant Professor
Prof. Fr. Georges Hobeika, Professor
Prof. Fr. Jean Akiki, Professor
Dr. Randa Abi Aad, Assistant Professor

Programs of Study - Undergraduate Programs

Bachelor of Arts in Philosophy (Hybrid[i])

Mission

The principal mission of the philosophy degree program is to provide undergraduates and graduates with a broad and intensive training in philosophy and offer them the opportunity to develop critical thinking competencies, in order to analyze the major issues of our time and to have the ability to handle complex logical arguments.

These skills will empower them to enter the labor market and gain access to higher education and research.

Program Educational Objectives

1. Graduates will become qualified teachers and professionals in philosophy in secondary education schools.
2. Graduates will make careers in interdisciplinary environments such as journalism and media.
3. Graduates will demonstrate all the skills necessary to pursue a graduate course and carry out excellent research.
4. Graduates will become leaders in the conversion of thinking.

Program Outcomes

a. Students will correlate the various fields of human sciences, and target the interaction between philosophy and other sciences.
b. Define the key concepts of philosophy and delineate the historical and theoretical issues that give it meaning and value.
c. Recognize that philosophical wisdom is transboundary, and prioritize the Arab world and the Far Eastern world.
d. Rigorously approach a research methodology that combines epistemological, ethical and technological principles.
e. Assess the contribution of classical philosophy and tradition as the foundation of modernity.
f. Reframe Greek philosophy within Arab-Islamic thought.
g. Develop a rational approach to compare the different currents or tendencies and philosophical schools.
h. Create questioning situations that highlight reflection upon ontological and anthropological problems.
i. Build up an ethical-political knowledge and integrate it into action.
j. Formulate a metaphysical problem within a strictly philosophical perspective.
k. Validate the parameters of meaning in their various linguistic, artistic and religious expressions.
l. Structure and diagram a philosophical work and report critical synthesis.

[i] Hybrid: Courses offered in French and/or English

m. Put into practice the knowledge acquired, evaluate training, and master the fundamental skills pertaining to teaching philosophy and pedagogy

Degree Requirements

General Education	**30**
General Education - Arts and Humanities	6
General Education - Behavioral and Social Sciences	6
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Quantitative Reasoning	3
General Education - Science and Health	3
General Education - Sports	1
General Education - Religious Sciences	3
Common Core	**15**
MTR222 - University Working Methodology	3
PHI201 - Introduction to Philosophy	3
PHI433 - Far-East Philosophy	3
PSY201 - Introduction to Psychology	3
SOC201 - Introduction to Sociology	3
Common Core - Electives	**3 out of 6**
PHI449 - Islamology	3
PHI456 - Modern and Contemporary Arab Thought	3
Specialization	**45**
PHI210 - Greek Philosophy	3
PHI301 - Medieval Philosophy	3
PHI325 - Philosophical Reading	3
PHI327 - Philosophical Anthropology	3
PHI333 - Modern Philosophy	3
PHI419 - Philosophy and Sciences	3
PHI420 - Logic and Philosophy of Knowledge	3
PHI445 - Metaphysics	3
PHI447 - Moral and Political Philosophy	3
PHI448 - Arabic-Muslim Thought in the Middle Ages	3
PHI453 - Hermeneutics	3
PHI455 - German Idealism	3
PHI458 - Contemporary Philosophy I : The Phenomenology	3
PHI459 - Contemporary Philosophy II: Existentialism	3
PHI485 - Philosophy and Societies	3
Capstone	**3**
PHI375 - Internship	3
Total	**96**

Bachelor of Arts in Social Sciences (Hybrid[i])

Mission

The mission of the Social Science degree program is to train undergraduate students with skills to enable them to be teachers and future social actors who drive their companies toward a socially equitable development - civically, economically and politically. The students learns to deal with social issues and examine all forms of Middle Eastern and Mediterranean policy.

The Bachelor's training prepares the students for research, particularly that concentrating on the exploration of their society; to engage in it as a promoters of progress, peace and development.

These skills empower students to integrate into the labor market, access higher education and excel in research.

Program educational Objectives

1. Graduates will become teachers or trainers in the fields of social sciences in schools and public and private institutional spaces.
2. Graduates will become coordinators of research projects.
3. Graduates will become administrators responsible in the areas of planning and evaluation pertaining to action and social, socio- economic and cultural politics.

Program Outcomes

a. Students will identify the various social science disciplines through their history and their theoretical and conceptual orientations.
b. Define the flows and sociological concepts that form the basis of the Bachelor's degree and introduce the Master's program in Social Sciences.
c. Apply the concepts and theoretical approaches in the areas of specialization in social sciences.
d. Interpret theories of communication perceived as psycho-sociological objects and apply specific communication practices to the group or the general public.
e. Recognize the construction process of personality through the gradual conquest of self and in interaction with the social environment.
f. Adopt the methods, approaches and techniques of social sciences research within an epistemological and ethical perspective.
g. Implement statistical techniques of data collection and interpretation of results.
h. Conduct a survey and analyze the demographic data.
i. Implement the coordination of components of a research project.
j. Sociologically analyze a concrete organization and its institutional environment and distinguish the existing associative dynamics in Lebanon.

[i] Hybrid: Courses offered in French and/or English

k. Correlate socio-economic theories and financial development and conflict with the components of business and community settings.
l. Validate training with a view to teaching or a social function.

Degree Requirements

General Education	**30**
General Education - Arts and Humanities	6
General Education - Behavioral and Social Sciences	6
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Quantitative Reasoning	3
General Education - Science and Health	3
General Education - Sports	1
General Education - Religious Sciences	3
Common Core	**15**
MTR222 - University Working Methodology	3
SOC218 - Statistics Applied to Human Sciences I	3
SOC318 - Statistics Applied to Human Sciences II	3
SOC325 - Psycho-Sociology of Communication	3
SOC360 - Social Sciences Methods	3
Common Core – Electives	**3 out of 6**
PSY318 - Personality and Self Development	3
PSY330 - Social Psychology	3
Specialization	**42**
SOC201 - Introduction to Sociology	3
SOC210 - Introduction to Anthropology	3
SOC310 - Sociology, Fundamental Concepts	3
SOC411 - Financial Economics	3
SOC421 - The Sociology of Deviance	3
SOC422 - Political Sociology	3
SOC423 - Organizational Sociology and Labor	3
SOC426 - Theories and Practices of Development	3
SOC430 - Sociology of Religion	3
SOC431 - Sociology of the Family	3
SOC432 - Sociology of Conflicts	3
SOC435 - Social Protection Policy	3
SOC438 - Demographic Analysis	3
SOC460 - Survey Techniques	3
Capstone	**6**
SOC466 - Internship / Laboratory / Workshop	6
Total	**96**

Bachelor of Arts in Social Sciences - Labor and Social Intervention (Hybrid[i])

Mission

The mission of the Labor and Social Intervention Bachelor's program is to train undergraduate students with skills, allowing them to become social workers who are part of the changes, and social and socio-cultural issues and enable them to lead their society to a socially equitable development - civically, economically and politically.

The Bachelor's training prepares students for social intervention and research, particularly those focused on social change and exploration of their company, to engage them in social cohesion promotion, progress, peace and development. These skills empower students to enter the labor market, access higher education and excel in research.

Program Educational Objectives

1. The graduates will become responsible for collective social projects: socio-cultural, socio-educational, socio-political, socio-economic and socio-religious.
2. The graduates will become coordinators and service providers for children, youth, seniors, etc.
3. The graduates will become Local Development Workers in NGOs and Municipalities, or through projects conducted by international organizations.
4. The graduates will become responsible for social support in the business environment.

Program Outcomes

a. Students will define the perspectives and the sociological and anthropological concepts that constitute a theoretical foundation to work and social action.
b. Identify methods, approaches and social science research techniques in an epistemological and ethical perspective.
c. Define the concepts, theories and approaches to labor and social intervention, which form the basis of the Bachelor's degree and introduce the Master's program.
d. Identify areas of action for work and social intervention on various socio-cultural, socio-educational, socio-political, socio-economic and socio religious-plans.
e. Establish a specific pre-project of social intervention in an institutional or community setting.
f. Recognize the process of construction of personality through the gradual conquest of self and in interaction with the social environment.
g. Delineate the components of the institutional functioning of social structures and interpret social marketing concepts.
h. Interpret communication theories perceived as psycho sociological objects and apply specific communication practices to the group or the general public.
i. Explain the circumstances and the transformations which are those of the contemporary family and apply the techniques of family intervention.
j. Define strategies for action in social intervention in respect of different types of groups.

[i] Hybrid: Courses offered in French and/or English

k. Set up a group for project planning in institutions.
l. Implement statistical techniques of data collection and interpretation of results.
m. Correlate the socio-political theories and those of development with institutional components of community settings.
n. Integrate the collection and analysis of demographic data in understanding the communities.
o. Implement a pre-local development project.
p. Analyze the components of an organization and its institutional environment, and distinguish the existing associative dynamics in Lebanon.
q. Distinguish different approaches to comprehension and conflict resolution in institutional settings.
r. Validate a training for social intervention in the business environment.

Degree Requirements

General Education	**30**
General Education - Arts and Humanities	6
General Education - Behavioral and Social Sciences	6
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Quantitative Reasoning	3
General Education - Science and Health	3
General Education - Sports	1
General Education - Religious Sciences	3
Common Core	**15**
MTR222 - University Working Methodology	3
SOC218 - Statistics Applied to Human Sciences I	3
SOC318 - Statistics Applied to Human Sciences II	3
SOC325 - Psycho-Sociology of Communication	3
SOC360 - Social Sciences Methods	3
Common Core – Electives	**3 out of 6**
PSY318 - Personality and Self Development	3
PSY330 - Social Psychology	3
Specialization	**39**
SOC201 - Introduction to Sociology	3
SOC210 - Introduction to Anthropology	3
SOC335 - Labor and Social Intervention, the Fundamental Concepts	3
SOC345 - Labor and social Intervention Fields	3
SOC355 - Social Marketing and Management of Social Structures	3
SOC422 - Political Sociology	3
SOC423 - Organizational Sociology and Labor	3
SOC426 - Theories and Practices of Development	3
SOC432 - Sociology of Conflicts	3
SOC435 - Social Protection Policy	3
SOC438 - Demographic Analysis	3

SOC464 - Project and Evaluation Techniques	3
SOC465 - Social Intervention and Social Groups	3
Capstone	**6**
SOC466 - Internship / Laboratory / Workshop	6
Specialization – Electives	**3 out of 6**
SOC421 - The Sociology of Deviance	3
SOC431 - Sociology of the Family	3
Total	**96**

Bachelor of Arts in Psychology (Hybrid[i])

Emphasis

- Clinical Psychology
- Industrial Psychology

Mission

The Department of Psychology seeks to train competent people in various fields of study: cognitive, clinical, pathological, social, labor and development psychology. This education aims at giving human behavior a scientific explanation and understanding the psychic functioning that underlies it. The training helps students command, on the one hand, theoretical, methodological and practical knowledge. On the other hand, it prepares them to practice the profession of psychologist and researcher. These skills empower them to enter the labor market and gain access to higher education and research.

Program Educational Objectives

1. Graduates will make careers in guidance, counseling, support and psychological counseling within a pluralistic team in the different institutions; from early childhood to adulthood.
2. Graduates will make careers in the field of psychological practice in clinical and scholarly domains, in specialized rehabilitation and training centers, in hospitals or in prison centers for youths and adolescents.
3. Graduates will demonstrate the necessary skills to pursue a postgraduate course and excel in research.

Program Outcomes

a. Students will define key concepts of the different domains of psychology, which constitute the basis of the bachelor's degree and introduce the Master's program.
b. Distinguish the different theoretical perspectives of social psychology, develop conceptual skills of communication and put into practice group functioning.
c. Rigorously adopt a methodological and statistical analysis of the scientific approach in psychology, which combines the epistemological, ethical, technological and static principles.
d. Recognize the foundations of the psychology of child, adolescent and adult development, and highlight the relative characteristics of each stage.

[i] Hybrid: Courses offered in French and/or English

e. Correlate the basic notions of psychoanalysis and target the relationship between theory and analytical practice in clinical settings.
f. Examine the personality across the different theoretical and psychometric perspectives of psychology.
g. Delineate psychopathology existent from early childhood to adulthood.
h. Adopt the models and methods of consulting advice and guidance toward education, training and careers.
i. Analyze through cognition, biology and neurobiology, thepsyche and human behavior, normal and pathological in its environment.
j. Validate the clinical approach, maintenance procedures and clinical examination and the method of testing at the level of the child, adolescent and adult.
k. Put into practice the acquired knowledge and evaluate training.
l. Put into practice the fundamental concepts of ergonomics while placing them as priority work-health and work-time relations and analyzing sociologically the institutional environment.
m. Develop psychological management of management issues, developments of labor and their consequences.

Degree Requirements

General Education	**30**
General Education - Arts and Humanities	6
General Education - Behavioral and Social Sciences	6
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Quantitative Reasoning	3
General Education - Science and Health	3
General Education - Sports	1
General Education - Religious Sciences	3
Common Core	**42**
MTR222 - University Working Methodology	3
PSY214 - Developmental Psychology	3
PSY305 - Clinical Psychoanalysis 1	3
PSY311 - Theories and Models of Personality	3
PSY315 - Psychology and Health	3
PSY325 - Introduction to Psychosomatics	3
PSY330 - Social Psychology	3
PSY370 - Counselling and Ethics	3
PSY422 - Cognitive Psychology	3
PSY433 - Fundamental Psychobiology	3
PSY467 - Group Management Functioning and Dynamics	3
SOC218 - Statistics Applied to Human Sciences I	3
SOC318 - Statistics Applied to Human Sciences II	3
SOC325 - Psycho-Sociology of Communication	3
Emphasis: Clinical Psychology	**24**

PSY337 - Child and Adolescent Psychopathology	3
PSY335 - Developmental clinical psychology	3
PSY437 - Adult Psychopathology	3
PSY445 - Clinical Psychoanalysis 2	3
PSY469 - Communication Techniques and Clinical Examination	3
PSY470 - Adult psychological exam	3
PSY480 - Personality Study with Projective Techniques	3
Capstone	
PSY475 - Internship of Clinical Psychology	3
Emphasis: Industrial Psychology	**24**
SOC423 - Organizational sociology and labor	3
SOC460 - Survey methodology	3
PSY366 - Personal and professional development in occupational Psychology	3
PSY378 - Practice of the evaluation in industrial psychology	3
PSY415 - Ergonomic analysis	3
PSY439 - Psychopathology of Work	3
PSY455 - Psychological management of human resources	3
Capstone	
PSY479 - Internship of Industrial Psychology	3
Total	**96**

Bachelor of Arts in Education - Basic Education (Hybrid[i])

Offered in Main Campus Kaslik and in RUC Zahle

Mission

The main mission of the basic education undergraduate program is to train future teachers with moral, human and ethical, values, and an ability for scientific reasoning skills confirmed in education at the primary level (in cycles I and II) and an ability to manage a class independently and responsibly.

These skills empower future teachers to integrate into the labor market, access higher education and research.

Program Educational Objectives

1. Graduates will become qualified teachers who will engage their skills for the promotion of education at the forefront of technology and professional and ethical knowledge.
2. Graduates will make careers in schools, especially in primary schools and will be education specialists adapted to training in sub cycles I and II.
3. Graduates will demonstrate all the skills necessary to pursue a graduate course and excellent research.
4. Graduates will become leader teachers in imparting knowledge and design, and the evaluation of teaching - teaching those who undergo the process of learning.

[i] Hybrid: Courses offered in French and/or English

Program Outcomes

a. Rigorously adopt a research methodology that combines the epistemological, ethical and technological principles.
b. Identify the various fields of education, and the different learning theories and know how to apply them in educational practice.
c. Distinguish the grammatical and linguistic specificities of the language, used as a language of teaching and oral and written communication, in order to conduct educational analysis on different kinds of texts
d. Ethically and humanely manage a classroom group (or small group classes).
e. Reproduce an artistic flair that gives all teaching practices soft and flexible behavioral skills.
f. Formulate and integrate the educational objectives into different didactic situations, in order to achieve the practical activities that support the theoretical approaches in language teaching.
g. Integrate technological tools in teaching, by developing the use of TICE to link the professionalism and creativity of the teacher to the excellent use of the TIIC.
h. Evaluate objectively and scientifically student performances and learning outcomes.
i. Validate the quality of education, and organize, plan and construct a course, which is expressed in lessons.
j. Ensure the transfer of mathematical knowledge in the school context, using logical reasoning from various approaches.
k. Make scientific analyzes and investigations and determine the effectiveness of science education and the steps to be taken in order to properly acquire it.

Degree Requirements

General Education	**30**
General Education - Arts and Humanities	6
General Education - Behavioral and Social Sciences	6
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Quantitative Reasoning	3
General Education - Science and Health	3
General Education - Sports	1
General Education - Religious Sciences	3
Common Core	**18**
EDU201 - History of Education	3
EDU215 - Techniques of Expression	3
EDU318 - Issues in Syntax	3
MTR222 - University Working Methodology	3
PSY214 - Developmental Psychology	3
SOC218 - Statistics Applied to Human Sciences I	3
Specialization	**42**
EDU 305 - Class Management	3
EDU 310 - Learning Theories	3

EDU 322 - Phonetics / Phonology	3
EDU 325 - Digital Resources for School Education	3
EDU 330 - General Didactics	3
EDU 345 - Applied linguistics to teaching French	3
EDU 423 - Evaluation in Education	3
EDU 425 - ICT and Professional Teacher Development	3
EDU 434 - French Language Specialized Didactics I	3
EDU 440 - Pedagogical Analysis of Texts	3
EDU 416 - Teaching Social Studies, Movement and Theatre **OR** EDU 419 - Specialized Didactics in Mathematics I **OR** EDU 444 - Specialized Didactics of Life and Earth Sciences I	3
EDU 421 - Young Adult's and Children's Literature **OR** EDU 420 - Specialized Didactics in Mathematics II **OR** EDU 445 - Specialized Didactics of Life and Earth Sciences II	3
EDU 454 - French Language Specialized Didactics II	3
EDU 469 - Video / « Serious Games » in Schools	3
Capstone	**6**
EDU470A - Internship: Classroom Observation and Practice	6
Total	**96**

Bachelor of Arts in Education - Early Childhood Education

Mission

The main mission of the Early Childhood Education undergraduate program is to train future teachers in ethical values and scientific reasoning skills suitable for an early Childhood level (from 0 – to – 8 years), and to develop their ability to manage classroom responsibility.

The program prepares the specialized teacher in all disciplines because he/she will be responsible of the class.

These skills empower future specialized teachers to integrate into the labor market access higher education and research.

Program Educational Objectives

1. Graduates will become qualified teachers, able to engage their skills for the promotion of education using contemporary technology and professional and ethical knowledge.
2. Graduates will forge careers in schools, especially in Early Childhood Education and will be education specialists adapted to training in the areas of early education (0-8).
3. Graduates will demonstrate all the skills necessary to pursue a graduate course and excellent research opportunities.
4. Graduates will become leader teachers in imparting knowledge and design, and the evaluation of teaching - teaching those who undergo the process of learning.

Program Outcomes

a. Students will compare the various fields of human sciences, focusing on the interaction between education and the aforementioned sciences.
b. Rigorously adopt methods and materials in early education.

c. Communicate orally through language exchanges and encouraging classroom communication by capturing their students' attention.
d. Identify the different learning theories of Early Years Education and know how to apply them in educational practice.
e. Check and analyze the levels of English language and distinguish the linguistic specificities of the target language taught and used as a language of teaching and communication.
f. Ethically and humanely manage a classroom group (or small group classes).
g. Develop an artistic flair that gives teaching practices soft and flexible behavioral skills.
h. Consider the educational objectives, and formulate and integrate them into different didactic situations.
i. Deal with theoretical issues of specialized English language teaching.
j. Achieve practical activities that support theoretical approaches in teaching.
k. Examine the particularities of different types and kinds of texts and conduct an educational analysis based on a study of the context in which the products are set.
l. Integrate technological tools in early education.
m. Ensure the transfer of mathematical knowledge in the early years education context, using logical reasoning from various approaches.
n. Ensure the transfer of science language in the early years education context and the effectiveness of science education and the steps in it.
o. Evaluate student performances and learning outcomes objectively and scientifically.
p. Validate the quality of education, and organize, plan and construct a course, in the form of teaching sessions.

Degree Requirements

General Education	**30**
General Education - Arts and Humanities	6
General Education - Behavioral and Social Sciences	6
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Quantitative Reasoning	3
General Education - Science and Health	3
General Education - Sports	1
General Education - Religious Sciences	3
Common Core	**18**
EDU204 - Home, School, and Community Relations	3
EDU208 - Introduction to Teaching and Learning	3
EDU304 - Theories of Early Childhood Education	3
EDU309 - Technology in Early Childhood Education	3
PSY219 - Perceptual Motor Development	3
PSY307 - Child Growth and Development	3
Specialization	**42**
EDU212 - Foundations of Education	3
EDU305 - Class Management	3

EDU315 - Early Childhood Curriculum: Science	3
EDU316 - Early Childhood Curriculum: Mathematics	3
EDU323 - English Phonology	3
EDU330 - General Didactics	3
EDU336 - Teaching Language Art for Children	3
EDU339 - Methods and Materials in Early Education	3
EDU414 - Survey of Children's Literature	3
EDU424 - Teaching Social Studies, Movement and Theatre	3
PSY425 - Creative and Cognitive Experiences for Young Children	3
EDU427 - Theories of Education Play	3
EDU435 - Workshop in Early Education	3
EDU447 - Evaluation and Assessment in Early Education	3
Capstone	**6**
EDU478A-B - Practicum: Early Childhood Education	6
Total	**96**

Teaching Diploma

Options / Majors

- Chemistry
- Computer Sciences
- Education (Basic Education Cycles I & II)
- Educational Sciences (Philosophy)
- Educational Sciences (Social Sciences)
- English Language and Literature
- French Language and Literature
- History
- Life Sciences
- Mathematics
- Music
- Physics
- Visual And Performing Arts

Mission

The main task of the educational degree program [DE] is to train graduates to become professional teachers in their specialization. This program is the length of a postgraduate academic year, and delivers quality training to would-be teachers that reinforces their basic training and allows them to enter the labor market with a solid knowledge in their specialization and the skills to teach. .

Program Educational Objectives

1. Graduates become specialist teachers in the public and private educational sectors.
2. Graduates will undertake research in the field of contemporary specialized didactics and school programs.

3. Graduates, equipped with a psychological, philosophical, sociological and ethical knowledge, will learn to interpersonal communication skills and group management in a class.
4. Graduates will be teaching project planners by putting into practice the theoretical knowledge acquired using multidisciplinary resources, and by implementing specialized evaluation techniques.

Program Outcomes

a. Students will analyze problem areas related to the didactics and functioning of the school system (Lebanese in particular).
b. Develop knowledge relating to areas of teaching in their specialization.
c. Create didactic situations and possible solutions to problems in context.
d. Integrate the educational use of technological tools to apply new known techniques used in the world of ICT.
e. Discern the relationship between philosophy and education and make use of this aspect in the theme of the course.
f. Develop a notional and conceptual synthesis related to social stratification as a school differentiator.
g. Deepen the psychic needs of the child as well as the psychological management of groups and the educational relationship in the classroom.
h. Identify the major epistemological trends and apply them in teaching practice and mental operations in cognitive dominance.
i. Develop skills and gather essential data for evaluation and apply them in a variety of assessment practices.

Degree Requirements - Education (Basic Education Cycles I & II)

Common Core	**12**
EDU312 - Philosophy of Education	3
EDU400 - The Teacher's Ethical Skills	3
EDU485 - Specialized Evaluation in Education	3
SOC311 - Sociology of Education	3
Specialization	**12**
EDU429 - Didactics of Life and Earth Science	3
EDU464 - French Language Didactics	3
EDU517 - Mathematics Didactics	3
EDU561 - Internship/Workshop/laboratory	3
Total	**24**

Degree Requirements

Common Core	**12**
EDU312 - Philosophy of Education	3
EDU485 - Specialized Evaluation in Education	3
SOC311 - Sociology of Education	3
PSY334 - Psychology of education	3

Or PSY400 - Group-class Psychology and Educational relationship	
Common Core – Electives	**3 out of 6**
EDU400 - The Teacher's ethical skills	3
EDU480 - Pedagogic Analysis and Integration of Educational Mediatized Materials	3
Specialization - Option: Chemistry	**9**
ECH470 - Specialized Didactics I	3
ECH471 - Specialized Didactics II	3
ECH490 - School Internship	3
Specialization - Option: Computer Sciences	**9**
EIN470 - Specialized Didactics I	3
EIN471 - Specialized Didactics II	3
EIN490 - School Internship	3
Specialization - Option: Educational Sciences (Philosophy)	**9**
EDU431 - Specialized didactics I (PH)	3
EDU538 - Specialized didactics II (PH)	3
EDU561 - Internship/Workshop/Laboratory	3
Specialization - Option: Educational Sciences (Social Sciences)	**9**
EDU428 - Specialized didactics I (SCO)	3
EDU548 - Specialized didactics II (SCO)	3
EDU561 - Internship/Workshop/Laboratory	3
Specialization - Option: English Language and Literature	**9**
ELL470 - Specialized Didactics I	3
ELL471 - Specialized Didactics II	3
ELL490 - School Internship	3
Specialization - Option: French Language and Literature	**9**
ELF470 - Specialized Didactics I	3
ELF471 - Specialized Didactics II	3
ELF490 - School Internship	3
Specialization - Option: History	**9**
EHI470 - Specialized Didactics I	3
EHI471 - Specialized Didactics II	3
EHI490 - School Internship	3
Specialization - Option: Life Sciences	**9**
ESV470 - Specialized Didactics I	3
ESV471 - Specialized Didactics II	3
ESV490 - School Internship	3
Specialization - Option: Mathematics	**9**
EMT470 - Specialized Didactics I	3
EMT471 - Specialized Didactics II	3
EMT490 - School Internship	3
Specialization - Option: Music	**9**
EMU470 - Specialized Didactics I	3
EMU471 - Specialized Didactics II	3
EMU490 - School Internship	3
Specialization - Option: Physics	**9**

EPY470 - Specialized Didactics I	3
EPY471 - Specialized Didactics II	3
EPY490 - School Internship	3
Specialization - Option: Visual and Performing Arts	**9**
EVS470 - Specialized Didactics I	3
EVS471 - Specialized Didactics II	3
EVS490 - School Internship	3
Total	**24**

Programs of Study - Graduate Programs

Master of Arts in Philosophy (Hybrid[i])

Mission

The principal mission of the Master's program in philosophy is to prepare students for careers in the second cycle of secondary and higher education, and research in philosophy. The program provides them with philosophical competencies, which act in the transformations and thoughts of science, politics, religion and arts.

Program Educational Objectives

1. Graduates will be able to become secondary school teachers within educational establishments.
2. Graduates will be able to have careers as assistant professors in universities and as budding researchers in the research laboratories of philosophy.
3. Graduates will be able to make careers in the various fields of journalism, in areas of cultural and religious mediation, in institutions and national, international political and ethical organizations, and in the field of diplomatic missions.
4. Graduates will demonstrate all the skills necessary to pursue a Doctoral course and excel in research.

Program Outcomes

a. Students will adopt an appropriate rigorous working method, which combines all technological, ethical, and epistemological principles, and put into practice the drafting of preparatory work, the purpose of which justifies the realization of a pre-project in philosophy.
b. Analyze the basic principles of intercultural dialogue in its correlation with the dialogical will and highlight open debates on various controversial issues of interculturalism.
c. Correlate the main mutations of philosophy (will, art, communication) and develop critical thinking.
d. Address problems of political philosophy and assess the complex relationships between governance and societal change.
e. Deepen the phenomena - limits of existence (God, transcendental birth, death etc.) in their correlative relationships and deduct, through the phenomenological method, their impact on the human experience.
f. Formulate the great questions of religion and clear the paradoxical relationship of the distinctive elements that separate and reconcile faith and reason.
g. Delimit the meaning of the concept of love, identify its ambiguities and show what stems from it as problems of conscience communication within the human experience.
h. Question the concept of art in its correlation with the values of beauty, and recognize the dual aspect of its autonomy and its heteronomy.

[i] Hybrid: Courses offered in French and/or English

Degree Requirements

Common Core	**6**
MTR575 - Research Methodology in Humanities	3
PHI596 - Philosophy Project	3
Specialization	**24**
PHI514 - Will to Power Philosophy	3
PHI515 - Philosophy and Intercultural Dialogue	3
PHI516 - Philosophy of Art	3
PHI517 - Philosophy of Love	3
PHI671 - Philosophy and Communication	3
PHI681 - Philosophy and Religion	3
PHI682 - Political Philosophy Problems	3
PHI683 - Philosophical Approaches of Phenomena-Existence Limit	3
Capstone	**6**
PHI690A - Philosophy Dissertation	6
Total	**36**

Master of Arts in Philosophical Anthropology (Hybrid[i])

Mission

The principal mission of the Master's program in Philosophical Anthropology is to prepare students for careers in the second cycle of secondary and higher education, as well as in research in Philosophical Anthropology. The program equips the students with the analytical tools, with philosophical competencies (Philosophical anthropology particularly), and provides them with the methods of collective work and the conduction of philosophical anthropology projects within the SOPHIA Laboratory. Philosophical anthropology knowledge enables students to integrate the labor market, affluent of knowledge in philosophical anthropology that allows them to access to doctoral courses.

Program Educational Objectives

1. Graduates will become teachers in secondary education in educational institutions.
2. Graduates will become university instructors and will enter research careers in Philosophical Anthropology.
3. Graduates will make careers in the various fields of journalism, in areas of culture, religious and social mediation, in humanist and ethical organisms, and in the field of diplomatic missions.
4. Graduates will make career in the advanced search for intercultural dialogue since they acquire a global representation of the human being (his motivations, his mental abilities, his dual nature: material and spiritual, etc.) they will demonstrate excellent mediators among societies with pluralistic identities.
5. Graduates will be pledged to all the necessary skills that prepare them to pursue doctoral studies and excel in research, specialized in Philosophical Anthropology.

[i] Hybrid: Courses offered in French and/or English

Program Outcomes

The students, holders of a Master's in philosophical anthropology will be able to:

a. Acquire a rigorous working method which enables the graduate to deal with the epistemological, ethical and technological principles, and put into practice the drafting of preparatory work whose purpose justifies the enactment of a project in philosophical anthropology.
b. Analyze the basic principles of intercultural dialogue in its correlation with the dialogical willpower related to political and ethical foundations of the social contract and address issues arising on the level of philosophical anthropology.
c. Reframe the history of the individual through the great moments in the evolution of his consciousness from himself in order to ensure whether the Post humanism fits into the historicity of the same individual or else it is seized as the end of humanism
d. Objectify the triple dialectic relationship to self, to others and to the world, through a philosophy of communication and different philosophies of otherness.
e. Analyze the constitutive dimension of interiority and the experience of transcendence in its various manifestations.
f. Argue the triple theoretical dimension of freedom (metaphysical, ethical, and psychological) in an anthropological approach to suggest concepts such as growth, progress, change, etc.; in various fields mainly in the economy and the environment.
g. Write a thesis in Philosophical Anthropology

Degree Requirements

Common Core	**6**
MTR575 - Research Methodology in Humanities	3
PHI596 - Philosophy Project	3
Specialization	**24**
PHI515 - Philosophy and Intercultural Dialogue	3
PHI683 - Philosophical Approaches of Phenomena-Existence Limit	3
PHI671 - Philosophy and Communication	3
PHA510 - Anthropology of Interiority	3
PHA520 - Philosophy of Otherness	3
PHA525 - Humanism, Post-Humanism	3
PHI670 - Multiculturalism and Identities	3
PHA530 - Philosophy of Freedom	3
Capstone	**6**
PHI690A - Philosophy Dissertation	6
Total	**36**

Master of Arts in Political Philosophy and Ethics (Hybrid[i])

Mission

The principal mission of the program of Masters in Political Philosophy and Ethics is to prepare students for careers in the second cycle of secondary and higher education, as well as in research in political philosophy and ethics. The program equips the students with the analytical tools, the methods of collective work and the conduction of ethico- political projects in enterprises, local authorities, public and private institutions, and governmental and nongovernmental agencies. Philosophical knowledge enables students to integrate the labor market, affluent of knowledge in political philosophy and ethics that allows them to access to doctoral courses.

Program Educational Objectives

1. Graduates will become teachers in secondary education in educational institutions
2. Graduates will become university instructors and will enter research careers in political philosophy and ethics.
3. Graduates will make a career in enterprises as well as in private and public organizations, and will be entitled for the practice of work as a team, particularly with non-philosophers in situations of liability - politicians, lawyers, institutional frameworks, doctors, etc.
4. Graduates will develop into excellent mediators, provided with methods of resolution or conflict management on the various individual, grouping and political plans.
5. Graduates will be pledged to all the necessary skills that prepare them to pursue doctoral studies and excel in research, specialized in political philosophy and ethics.

Program Outcomes

The students, holders of a Master's in political philosophy and ethics, will be able to:

a. Acquire a rigorous working method which enables the graduate to deal with the epistemological, ethical and technological principles, and put into practice the drafting of preparatory work whose purpose justifies the enactment of a project in political and ethical philosophy.
b. Analyze the basic principles of intercultural dialogue in its correlation with the dialogical willpower related to political and ethical foundations of the social contract and address issues arising on both levels, moral and political philosophy
c. Review the political and ethical positions in order to know how to debate their arguments and counter- arguments, and treat ethico-political issues registered in its existing state of scholarly debate.
d. Objectify the triple dialectic relationship to self, to others and to the world, through a philosophy of mediation and communication.
e. Address the problems of political philosophy and evaluate the complex relationships between governance and social mutation.
f. Review the relationship between philosophy and religion, examine their relationship of reciprocity in their quest for meaning and redeem the principled position of

[i] Hybrid: Courses offered in French and/or English

philosophers and theologians facing the various open spaces in spiritual communications posed by the binomial, faith and reason.

g. Cross-examine the dialectical relationship of the triad of positive law, pure law, natural law, wonder at their light, about the phenomenality of terrorism, identify boundaries between violence and "more than violence" and redeem the dialectical relationship between legality and legitimacy.
h. Write a thesis in political philosophy and ethics.

Degree Requirements

Common Core	**6**
MTR575 - Research Methodology in Humanities	3
PHI596 - Philosophy Project	3
Specialization	**24**
PHI515 - Philosophy and Intercultural Dialogue	3
PHI535 - Philosophy and ethics of the social contract	3
PHI545 - Philosophy of mediation and conflict management	3
PHI650 - Phenomenality of terrorism and natural right	3
PHI655 - “Care” Philosophy	3
PHI671 - Philosophy and Communication	3
PHI681 - Philosophy and Religion	3
PHI682 - Political Philosophy Problems	3
Capstone	**6**
PHI690A - Philosophy Dissertation	6
Total	**36**

Master of Arts in Social Sciences (Hybrid[i])

Mission

The mission of the Master’s Program in social sciences is to form sociologists equipped with moral, human and ethical values, and rich in skills, in terms of research and teaching in the social sciences.

These skills empower students to integrate into the labor market, gain access to Doctoral studies and excel in teaching and research, especially in the field of sociology.

Program Educational Objectives

1. Graduates in social sciences will become strategic research managers in research laboratories, administration, and public as well as in private organizations.
2. Graduates in social sciences will become a teachers, trainers and coordinators for social and economic sciences in communal and ministerial school settings.
3. Graduates in social sciences will become heads of service (position: 3rd category) in public institutions.

[i] Hybrid: Courses offered in French and/or English

4. Graduates will demonstrate all the skills necessary to pursue a Doctoral course and propose an innovative field within the scope of social sciences.

Program Outcomes

a. Students will formulate problems relating to various fields of social sciences.
b. Appropriate a working method which combines the epistemological, ethical, and technological principles and quantitative and qualitative techniques used within the framework of research.
c. Pilot logistical operations of a social science research project.
d. Develop thematic axes for social science training workshops.
e. Prepare teaching sequences of sociology and economics tailored to the curriculum of the Lebanese program.
f. Build specialized didactic tools adapted to the teaching of social sciences.
g. Evaluate the content and teaching methods in social sciences.
h. Propose research topics in social sciences tailored to school settings.
i. Categorize the different types of institutions through their social, socio-economic and socio-cultural functions.
j. Evaluate the contribution of economic policies.
k. Validate the fitness levels that the public institutions exert on individuals.
l. Prepare a research project which leads to the Master's thesis.

Degree Requirements

Common Core	**5**
MTR575 - Research Methodology in Humanities	3
MTR681 - Quantitative Methods in Humanities	2
Specialization	**25**
SOC506 - Institutional Sociology	3
SOC511 - Short-term and Structural Adjustment of Economic policies	3
SOC513 - Ethnology	3
SOC521 - Urban and Rural Sociology	3
SOC596 - Project/Internship in Social Sciences	3
SOC637 - Specialized Didactics in Social Sciences	3
SOC638 - Sociology of Minorities	3
SOC639 - Sociology of Culture and Leisure	3
SOC683 - Internship in Social Sciences	1
Capstone	**6**
SOC690A - Social Science Dissertation	6
Total	**36**

Master of Arts in Social Sciences - Labor and Social Intervention (Hybrid[i])

Mission

The mission of the Master's program in labor and social intervention (SIT) is to train social born workers with moral, ethical and human values and skills, which are rich in terms of research and social intervention.

These skills will empower students to integrate the job market, give them access to Doctoral studies and excel in research.

Program Educational Objectives

1. The graduate in labor and social intervention will become a director or general secretary of a society or a social structure: public or private institutions.
2. The graduate will become a consultant in terms of social welfare of the institutions and companies.
3. The graduate will become head of social projects; socioeconomic, sociocultural and local development.
4. The graduate will demonstrate all the skills necessary to pursue a Doctoral course and propose an innovative field pertaining to the fields of labor and social intervention.

Program Outcomes

a. Integrate the components of institutional, legal, social and economic frameworks in the management strategies of public and private institutions.
b. Establish the main uses of governance in associative and organizational environments.
c. Appropriate the tools needed to manage a social organization in both public and private sectors.
d. Discuss administrative strategies related to social entrepreneurial action.
e. Estimate the profitability of relationships with the environment, in terms of social responsibility of institutions and companies.
f. Appreciate the levels of social commitment of a company.
g. Evaluate contribution of the social actions of the company, in terms of sustainable development.
h. Manage the types of groups in different societal and cultural situations.
i. Develop an action plan of social marketing appropriate to public and private organizations.
j. Integrate constitutive dimensions of sustainable development in social, socioeconomic or sociocultural projects.
k. Incorporate the two dimensions of culture and leisure in community interventions.
l. Collaborate with relevant bodies in the definition or reformulation of local development policies.
m. Appropriate a working method which empowers the Master's student to combine the epistemological, ethical, and technological principles and the statistics used in the context of research.
n. Prepare a research project which leads to the Master's thesis.

[i] Hybrid: Courses offered in French and/or English

Degree Requirements

Common Core	**5**
MTR575 - Research Methodology in Humanities	3
MTR681 - Quantitative Methods in Humanities	2
Specialization	**25**
SOC597 - Project/internship in work and social intervention	3
TIS605 - Management and group facilitation	3
TIS610 - Sociology of the administration and public action	3
TIS615 - Social marketing	3
TIS620 - Internship in Work and social intervention	1
TIS625 - Sociology of culture and leisure	3
TIS630 - Governance and ethics	3
TIS635 - Social responsibility and sustainable development	3
TIS640 - Advanced practices in community social intervention	3
Capstone	**6**
TIS690A - Social Science Dissertation; Option : Work and Social Intervention	6
Total	**36**

Master of Arts in Psychology - Clinical Psychology (Hybrid[i])

Mission

The mission of the program is to train competent people specialized in various aspects of clinical psychology. This training is interested in the functioning of the human as a member of a group or a particular culture. It addresses normal processes as well as mental disorders. Specialized training in clinical psychology enables students to jointly master the theoretical, methodological and practical knowledge, on the one hand, and on the other hand, it prepares them to pursue the profession of a psychologist and researcher. These skills empower students to integrate into the labor market, to gain access to the Doctorate and excel in research.

Program Educational Objectives

1. Graduates will make careers in the field of orientation, counseling, assistance and psychological accompaniment within a pluralistic team, in different institutions from early childhood to adulthood.
2. Graduates will be qualified psychologists, professional and ethical in the performance of psychological practice in the clinical domain, in rehabilitation and specialized training centers, in hospitals or in detention centers for youths and adolescents.
3. Graduates will demonstrate all the skills necessary to pursue a Doctoral course and excel in research.

[i] Hybrid: Courses offered in French and/or English

Program Outcomes

a. Students will adopt an appropriate a methodological and statistical analysis of the scientific approach in psychology, which combines the epistemological, ethical, technological and static principles.
b. Recognize the key concepts, methods and models of psychology in the clinical and familial practice.
c. Correlate the basic concepts of psychotherapy and target the relationship between the psychotherapeutic theory and practice within clinical settings.
d. Examine and define mental and addictive disorders through various psychopathological perspectives.
e. Analyze, starting from cognition and neuropsychology, the psyche and the behavior of the human, normal and pathological, in their stressful and traumatic environment.
f. Put into practice the acquired learning and evaluate the training.

Degree Requirements

Common Core	**15**
MTR575 - Research Methodology in Humanities	3
MTR681 - Quantitative Methods in Humanities	2
PSY531 - Clinical Cognitive Neuropsychology	3
PSY532 - Psychotherapies	3
PSY595 - Project of Psychology	2
PSY630 - Ethics and Deontology	1
PSY635 - Thematic Seminar in Psychology	1
Specialization	**12**
PSY552 - Taxonomy and Psychopathology	3
PSY576 - Clinical Issues	3
PSY600 - Stress, Trauma and Disability	3
PSY672 - Addictions	3
Specialization - Electives	**3 out of 6**
PSY578 - The Family Clinic	3
PSY682 - Psychology of Family Ties	3
Capstone	**6**
PSY690A - Psychology Dissertation	6
Total	**36**

Master of Arts in Psychology – Health Psychology (Hybrid[i])

Mission

The mission of the program is to train competent people specialized in various aspects of health psychology. This training is interested in the functioning of man as a member of a group or a particular culture. It addresses normal processes as well as mental disorders. Specialized training in health psychology enables students to jointly master the theoretical, methodological and practical knowledge, on the one hand, and on the other hand, it

[i] Hybrid: Courses offered in French and/or English

prepares them to pursue the profession of health psychology and researcher. These skills empower students to integrate the labor market, to gain access to the doctorate and excel in research.

Program Educational Objectives

1. Graduates will make career in the field of assistance and psychological accompaniment within a pluralistic team in the different institutions from childhood to adulthood;
2. Graduates will be qualified psychologists, professional and ethical in the performance of psychological practice in centers of rehabilitation and specialized training, in hospitals or in centers of incarceration for youth and adolescents.
3. Graduates will demonstrate all the skills necessary to pursue a doctoral course and excel in research.

Program Outcomes

Students holding a Master in Health Psychology will be able to:

a. Appropriate, in a rigorous manner, a methodological and statistical analysis of the scientific approach in psychology that combines the epistemological, ethical, technological and static principles.
b. Recognize the key concepts, methods and models of psychology in health psychology.
c. Correlate the basic concepts of psychotherapy and target the relationship between the psychotherapeutic theory and practice in health settings.
d. Examine and define mental and addictive disorders related ton psychology health through various psychopathological perspectives.
e. Analyze, starting from cognition and neuropsychology, the psyche and the behavior of the human, normal as pathological, in his stressful and traumatic environment.
f. Put into practice the acquired learning and evaluate the training.

Degree Requirements

Common Core	**15**
MTR575 - Research Methodology in Humanities	3
MTR681 - Quantitative Methods in Humanities	2
PSY630 - Ethics and Deontology	1
PSY595 - Project of Psychology	2
PSY635 - Thematic Seminar in Psychology	1
PSY531 - Clinical Cognitive Neuropsychology	3
PSY532 - Psychotherapies	3
Specialization	**15**
PSY548 - Personality and Health	3
PSY564 - Evaluation Methods And Techniques In Health Psychology	3
PSY600 - Stress, Trauma And Disability	3
PSY672 - Addictions	3
PSY684 - Counseling And End Of Life Support	3
Capstone	**6**
PSY690A - Psychology Dissertation	6
Total	**36**

Master of Arts in Psychology – School Psychology (Hybrid[i])

Mission

The mission of the program is to train competent people specialized in various aspects of school psychology. This training is interested in the functioning of man as a member of a group or a particular culture. It addresses normal processes as well as mental disorders. Specialized training in school psychology enables students to jointly master the theoretical, methodological and practical knowledge, on the one hand, and on the other hand, it prepares them to pursue the profession of a psychologist and researcher. These skills empower students to integrate the labor market, to gain access to the doctorate and excel in research.

Program Educational Objectives

1. Graduates will make career in the field of orientation, counseling, assistance and psychological accompaniment within a pluralistic team in the different institutions from early childhood to adulthood;
2. Graduates will be qualified psychologists, professional and ethical in the performance of psychological practice and the support of youth and adolescents in the schools.
3. Graduates will demonstrate all the skills necessary to pursue a doctoral course and excel in research.

Program Outcomes

Students holding a Master in School Psychology will be able to:

a. Appropriate, in a rigorous manner, a methodological and statistical analysis of the scientific approach in psychology that combines the epistemological, ethical, technological and static principles.
b. Recognize the key concepts, methods and models of psychology in the scholar and familial practice.
c. Correlate the basic concepts of psychotherapy and target the relationship between the psychotherapeutic theory and practice in scholar settings.
d. Examine and define mental and behavior disorders through various psychopathological perspectives.
e. Analyze, starting from cognition and neuropsychology, the psyche and the behavior of the human, normal as pathological, in his stressful and traumatic environment.
f. Put into practice the acquired learning and evaluate the training.

Degree Requirements

Common Core	**15**
MTR575 - Research Methodology in Humanities	3
MTR681 - Quantitative Methods in Humanities	2
PSY630 - Ethics and Deontology	1
PSY595 - Project of Psychology	2
PSY635 - Thematic Seminar in Psychology	1
PSY531 - Clinical Cognitive Neuropsychology	3

[i] Hybrid: Courses offered in French and/or English

PSY532 - Psychotherapies	3
Specialization	**12**
PSY536 - Learning Disabilities: Dyslexia, Dysorthography, Dyscalculia	3
PSY537 - Behavioral Disorders at School	3
PSY569 - Psychological Assessments in School	3
PSY668 - Digital Activities Development	3
Specialization - Electives	**3 out of 6**
PSY578 - The Family Clinic	3
PSY570 - School Psychologist Interventions	3
Capstone	**6**
PSY690A - Psychology Dissertation	6
Total	**36**

Master of Arts in Education - Accompaniment of People with Special Educational Needs (Hybrid[i])

Mission

The primary mission of the Master program in Educational Sciences, option: Accompaniment of people with special needs is to train high-calibre accompanists at the level of learning mechanisms and their specificities intended for Pupils with special educational needs. Accompanists are destined to continue extensive graduate studies and conduct research concerning knowledge of the specialized instructional practices and mobilizing multiple scientific approaches adapted to professional situations in the field of disability among people with SEN. The book training on the job market for professionals who work in the field of special education and who have expert skills in the design of training schemes is focused on support for special educational needs.

Program Educational Objectives

1. Graduates will become teachers and trainers in the field of coaching people with special educational needs, and this is meant for addressing the needs of diverse school settings, particularly in the integration of persons with Disabilities.
2. Graduates will make a career in educational establishments and will adapt themselves easily to the individual and social problems presented by students with special needs, based on international declarations.
3. Graduates will have the essential capacity to integrate into teaching and coaching the professional practices that meet special needs education and to work in an environment that is becoming more diverse and pluralistic.
4. Graduates will become focused professionals in the special needs education equipped with a teaching nurtured by approachable and innovative research. They will demonstrate all the skills necessary to pursue a postgraduate pathway that leads to the Ph.D., and excel in research.

[i] Hybrid: Courses offered in French and/or English

Program Outcomes

Students holding a Master in Accompaniment of People with Special Educational Needs will be able to:

a. Define useful knowledge and fundamental concepts in the methodology of social science research and acquire a working method that empowers the post-doctoral students to conjugate the epistemological, ethical, technological and statistical concepts used within the scope of research.
b. Produce a pre-preparatory project to the final thesis, in one of the fields of education.
c. Recognize the different ways and forms of special needs education in its social and educational enrollment and database useful to the understanding of the problems of people with special needs: the different social representations, physical impairments, learning disabilities and brain dysfunction.
d. Identify the integration policies of people with special educational needs, based on international declarations and different legislations that govern the relation to people with disabilities, as well as local, regional and international context.
e. Describe the relationship that exists among psychomotor activities of people with special educational needs, the mind and affectivity based on a comprehensive psycho-educational approach of the child.
f. Conceive teaching / learning situations for the contents to be learned, according to the processes applied to people with special needs.
g. Integrate the various professional practices that allow the student in training to become familiar with the various techniques that empower the individual with SEN to adapt to academic and social context.
h. Put into practice the knowledge and skills acquired in the internship carried out in specialized educational schools or special education centers.
i. Prepare a research project that leads to the Master's thesis.

Degree Requirements

Common Core	**8**
MTR575 - Research Methodology in Humanities	3
SEN590 - Project: Supporting People with SEN	2
MTR681 - Quantitative Methods in Humanities	2
EDU502 - Training Ethics	1
Specialization	**22**
SEN505 - Introduction to Special Education	3
SEN510 - Psychological Approaches to Handicap	3
SEN515 - Special Education Legislations	3
SEN605 - Practice: Supporting People with SEN	3
SEN610 - Psychomotor Activities for People with SEN	3
SEN615 - Learning Processes Applied to People with SEN	3
PSY677 - Neurosciences, Cognition & Learning difficulties	3
SEN680 - Internship	1
Capstone	**6**
SEN690A - Thesis : EDSC/SEN	6
Total	**36**

Master of Arts in Education - Administration of Education (Hybrid[i])

Offered in Main Campus Kaslik and in RUC Zahle

Mission

The main mission of the Master's program in educational management is to train educational administrators and equip them with moral, ethical, and human values, and a new organizational culture that allows them to exercise strategic leadership in connection with the mission of the establishment. The training offers the labor market multidimensional skill administrators, mastering the governance of an educational organization and ready to make comprehensive studies in educational administration or in curriculum and learning, and access Doctoral studies and research.

Program Educational Objectives

1. Graduates will become Heads of Schools who will place their knowledge and skills in the service of the promotion of school management at the forefront of professional and ethical practice.
2. Graduates will become Executive Directors, quality accreditors prepared to address the changes achieved in the world of education and confront the various modes of governance of educational institutions in Lebanon and elsewhere.
3. Graduates will make careers in public and private schools, being provided with effective tools for managing an educational organization, to lead human resources management and to develop the autonomy of the school.
4. Graduates will demonstrate all the skills necessary to pursue a doctoral course and propose an innovative research field falling within the school management and the problems of educational and administrative scope.

Program Outcomes

a. Students will appropriate a working method which combines the epistemological, ethical, technological and statistical concepts used in the context of research.
b. Produce a pre-project within the field of management in education for the final dissertation.
c. Identify concepts, conceptual and operational models, and tools for a better understanding of the field of educational management, as well as theories on the contemporary issue of knowledge.
d. Define the responsibility of the director, innovator and constructor of team building, which essentially falls within the corporate governance and management of the educational project prearranged for the establishment.
e. Correlate laws, decrees, and the basic texts from the Lebanese educational system, to develop skills in educational legislation.
f. Interpret the data provided by the administrative management theories to accompany the acceleration of change in education, plan an educational policy based on the ongoing part of life and manage diversity in the school environment.

[i] Hybrid: Courses offered in French and/or English

g. Identify administrative, economic, educational and humanitarian management styles to reflect on professional practices observed or experienced within the school context.
h. Describe the components of a curriculum and conceptions renewed at that level, according to the changes and transformations operated on the teaching programs.
i. Analyze the social, economic and strategic issues of the educational systems, as well as in terms of quality issues.
j. Assess the performance of the educational establishment in light of the criteria of quality, while involving the tasks performed by the actors and the results which flow from this.
k. Prepare a research project which leads to the Master's thesis.

Degree Requirements

Common Core	**8**
EDU502 - Training Ethics	1
EDU591 - Project in Education Management	2
MTR575 - Research Methodology in Humanities	3
MTR681 - Quantitative Methods in Humanities	2
Specialization	**18**
EDU503 - Educational Legislation in Lebanon	2
EDU504 - Introduction to the Administration of Education	2
EDU511 - Financial Management of Educational Institutions	2
EDU514 - Curriculum Design and Educational Policies	2
EDU522 - Strategic and Operational Planning in Education	2
EDU602 - Management of Human Resources in Education	2
EDU610 - Evaluation of Establishment and Success	2
EDU620 - Leadership in Education Management	2
EDU630 - Management of Change in Education	2
Capstone	**6**
EDU696A - Educations Sciences Dissertation ; Option : Administration of Education	6
Specialization – Electives	**4 out of 8**
EDU523 - Issues of Education Systems	2
EDU524 - The Knowledge Society, Sociological and Philosophical Approaches	2
EDU660 - Thematic Seminar in Education Management	2
EDU661 – Internship	2
Total	**36**

Master of Arts in Education - Basic Education (Hybrid[i])

Mission

The main mission of the Master's program in educational sciences, basic education option is to train teachers specialized in didactics intending to pursue thorough graduate studies and carry out research on innovative pedagogical issues. The aim of this training is to reach personal and professional dimensions that lead students to a good professional integration in response to major curriculum reforms in an environment increasingly diverse and plural. The training delivers to the labor market teacher trainers who can integrate into their teaching new educational techniques and have access to doctoral studies.

Program Educational Objectives

1. Graduates become teachers and trainers equipped with a broad, versatile and coherent training, which facilitates decompartmentalization and paves the way for exchange between the disciplines.
2. Graduates will make careers in educational institutions and will address the changes achieved in the world of education and curricula by adapting easily to the current and future challenges of the teaching profession.
3. Graduates will possess the essential capabilities to integrate the ICT in their teaching and work in an environment increasingly diversified and pluralistic.
4. Graduates will become specialized teachers with a teaching nurtured by open and innovated research. They will demonstrate all the skills necessary to pursue a postgraduate course that leads to the PhD and excel in research.

Program Outcomes

a. Students will define useful knowledge and fundamental concepts into a methodology of social science.
b. Produce a pre-preparatory project to the final thesis, in one of the areas of teaching.
c. Recognize theories of learning in relation to didactic practices.
d. Interpret the data offered by innovative educational issues and their impact on the world of education.
e. Identify the supervision, coordination and training in light of recent educational concepts.
f. Describe the components of a curriculum and designs renewed at that level, with educational changes and transformations.
g. Analyze the problems of French language instruction in an Arabic medium according to data of applied linguistics.
h. Compare different international approaches to comparative education.
i. Develop teaching/learning situations for the learning contents, based on new technologies.
j. Integrate ICT into the preparation of didactic situations.
k. Prepare a research project which leads to the Master's thesis.

Degree Requirements

[i] Hybrid: Courses offered in French and/or English

Common Core	**8**
EDU596 - Project/Internship in Education	3
MTR575 - Research Methodology in Humanities	3
MTR681 - Quantitative Methods in Humanities	2
Specialization	**22**
EDU513 - Linguistics Applied to Teaching	3
EDU514 - Curriculum Design and Educational Policies	2
EDU519 - Didactics Issues	3
EDU525 - From Distance Learning to E-Learning	2
EDU541 - Comparative Education	3
EDU601 - Educational Supervision and Coordination	3
EDU678 - Innovative Pedagogical Issues	3
EDU680 - From Theory to Practice in Education	3
Capstone	**6**
EDU690A - Dissertation in Education Sciences; Option : Basic Education	6
Total	**36**

Master of Arts in Education - Supervision and Pedagogical Coordination (Hybrid[i])

Mission

This Master is a further elaboration and professional development, for a better approach to different training situations, namely the supervision, support and pedagogical intervention in schools and among teachers. It deepens the engineering of training and focuses on knowledge, the questioning of practices of trainers and adaptation approaches to cope with the changes and to anticipate developments in education. The training that it offers to the Master's students is theoretical, methodological and practical; it aims at adopting the professional competencies by developing the ability of students to design, organize, manage and control training activities in the school context.

Program Educational Objectives

1. The Graduates will become well-oriented trainers to the use of methods and practices of coordination, supervision and pedagogical intervention in order to train and support teachers and organize courses at schools.
2. The graduates will develop competencies at the level of career guidance for high school students and school support to students with learning difficulties, and the reason for this is meeting the needs of educational institutions.
3. The Graduates will have the essential capabilities to develop formative potentialities in the educational relationships and manage communication among members of the educational community in the school.
4. The Graduates will have pedagogical intervention in educational establishments to practice training. They will become specialized trainers and will show all the skills necessary to pursue a postgraduate course leading to Ph.D. and excel in research.

[i] Hybrid: Courses offered in French and/or English

Program Outcomes

a. Define useful knowledge and basic concepts in methodology of research in human sciences and to devise a working method that empowers the Master's students to combine the epistemological, ethical, technological and statistical concepts used in the context of research.
b. Produce a pre- preparatory project to the final thesis, in one of the areas of teaching.
c. Interpret the principles that the trainer must follow to complete the training, at the pedagogical, relational and didactic level.
d. Identify the accompaniment process and the pedagogical intervention and their implementation in educational contexts, among teachers.
e. Analyze supervisory activities in subjects of educational coordination.
f. Recognize the databases of the initial and continuous training of teachers in addition to organizational modalities and scheduling of the training sessions.
g. Design appropriate communication situations to manage and facilitate the exchange among partners in school.
h. Describe the needs of students with learning difficulties, to propose remedial activities and promote school support.
i. Correlate terms of career guidance provided to secondary school students and help them to map out the options for their future profession.
j. Apply the knowledge and skills acquired in the internship with coordinators and trainers in educational establishments.
k. Prepare a research project leading to the Master's thesis.

Degree Requirements

Common Core	**8**
MTR575 - Research Methodology in Humanities	3
SPC590 - Project, Epistemology and Ethics	3
MTR681 - Quantitative Methods in Humanities	2
Specialization	**22**
SPC505 - Fundamentals of Pedagogical Training	3
SPC510 - Educational and Professional Guidance	3
EDU601 - Educational Supervision and Coordination	3
SPC515 - School Support and the Analysis of Students' Needs	3
SPC520 - Pedagogical Intervention and Accompaniment	3
SPC605 - Institutional Communication	3
SPC610 - Innovative Approaches	2
SPC680 - Internship in Supervision and Pedagogical Coordination	2
Capstone	**6**
SPC690A - Thesis : EDSC/SPC	6
Total	**36**

Master of Arts in Education - Technology of Education (Hybrid[i])

Mission

The main mission of the Master's program in educational technology is to train education technology specialists with professional skills and moral, human and ethical values. The program educates professional instructors and trainers in education who can respond to challenges created by the ICT educational context. The training paves the way for the key functions in technology and combines knowledge in the humanities with those of technological order. It delivers to the labor market training arrangement designers, educational materials and projects responding to the demands within educational technology.

Program Educational Objectives

1. Graduates will make careers in the field of educational technology. They will become project managers, and consultants in senior management, equipped with multidisciplinary knowledge pertaining to the human sciences and those of the technological order.
2. Graduates will become professionals in educational technology and designers, evaluators of training environments, mastering processes and instrumentation and capable of managing change in educational programs.
3. Graduates will design training materials and will pilot technological devices, being equipped with models and effective tools to implement computerized teaching techniques and multimedia projects.
4. Graduates will demonstrate all the skills necessary to pursue a Doctoral course and propose innovative research falling within the field of educational technology and problems of educational and technological reach.

Program Outcomes

a. Students will appropriate a working method which empowers the Master's students to combine the epistemological, ethical, technological and statistical concepts used in the context of research.
b. Produce a pre preparatory project to the final thesis, in one of the areas of technology in education.
c. Identify philosophical and sociological theories on contemporary issue of knowledge as well as theories of communication and transmission means of information.
d. Examine the historical approach of technology for education and declination of modes of an integrated training of different forms of e-learning and online educational resources.
e. Receive an aesthetic training that includes knowledge of iconic works, cinema and television.
f. Reproduce the essential data for a techno-educational approach to the physical management of CTBT and usage of software and platforms in educational training.

[i] Hybrid: Courses offered in French and/or English

g. Develop the competencies of analysis and design of educational video games, focusing on the "Serious Games" online, which have an educational objective.
h. Describe the components of a curriculum and designs, renewed at this level, depending on the changes and transformations operated on educational programs.
i. Prepare educational projects by ordering steps and distributing the tasks to be performed by the actors involved; with ethics and fairness.
j. Examine concrete examples in the field of current research in ICT based on a theme representing a particular disciplinary or methodological approach.
k. Prepare a research project which leads to the Master's thesis.

Degree Requirements

Common Core	**8**
EDU600 - ICT Project Management	3
MTR575 - Research Methodology in Humanities	3
MTR681 - Quantitative Methods in Humanities	2
Specialization	**20**
EDU514 - Curriculum Design and Educational Policies	2
EDU515 - Theories of Information and Communication	2
EDU524 - The Knowledge Society, Sociological and Philosophical Approaches	2
EDU525 - From distance learning to e-learning	2
EDU526 – Media's Education	2
EDU527 - Thematic Seminar in Educational Technology	2
EDU533 - Tools for ICTE and Distance Education	2
EDU534 - Templates and Web 2 Tools and Mobile Learning	2
EDU621 - ICT and Professional Identities of Trainers	2
EDU662 - Internship	2
Capstone	**6**
EDU693A - Education Sciences Dissertation, Option: Technology of Education	6
Specialization - Electives	**2 out of 4**
EDU604 - Video Games and Serious Games	2
EDU606 - Educational Resources Online for School Education	2
Total	**36**

Programs of Study - Doctoral Programs

Ph.D. in Philosophy (Hybrid[i])

Mission

The mission of the program seeks to promote philosophy, as a discipline of instruction, communication and culture. The program offers the labor market multidimensional skills in philosophy.

The program offers all the necessary skills to achieve success and proposes an innovative research field falling within the questions of philosophy.

[i] Hybrid: Courses offered in French and/or English

Program Educational Objectives
To train future Higher Education teachers and researchers in philosophy.

Program Outcomes
Ph.D. holders will be able to teach within the Higher Education field and conduct and produce scientific research.

Degree Requirements

Specialization	**60**
Ph.D. Seminars by Doctoral College	15
Ph.D. Dissertation	45
Total	**60**

Ph.D. in Social Sciences (Hybrid[i])

Mission
The mission of the program seeks to promote sociology as a discipline of instruction, communication and also culture. The program offers the labor market multidimensional skills in sociology.

The programs offers all the necessary skills to success and propose an innovative research field falling within the domains of sociology.

Program Educational Objectives
Train the future Higher Education teachers and researchers in sociology

Program Outcomes
Ph.D. holders will be able to teach within the Higher Education field and to conduct and produce scientific research.

Degree Requirements

Specialization	**60**
Ph.D. Seminars by Doctoral College	15
Ph.D. Dissertation	45
Total	**60**

Ph.D. in Psychology (Hybrid[i])

Mission
The mission of the program seeks to promote psychology as a discipline of instruction, communication and also culture. The program offers the labor market multidimensional skills in psychology.

The program offers all the necessary skills for success and proposes an innovative research field falling within the domains of psychology.

[i] Hybrid: Courses offered in French and/or English

Program Educational Objectives
To train future Higher Education researchers and professionals in psychology.

Program Outcomes
Ph.D. holders will be able to teach within the Higher Education field and to conduct and produce scientific research.

Degree Requirements

Specialization	**60**
Ph.D. Seminars by Doctoral College	15
Ph.D. Dissertation	45
Total	**60**

Ph.D. in Education (Hybrid[i])

Mission
The mission of the program seeks to promote education as a discipline of instruction, communication and culture.

The program offers multidimensional skills in education to the labor market.

The programs offers all the necessary skills for success and proposes an innovative research field dealing with the problems of education.

Program Educational Objectives
Training future Higher Education teachers and researchers in Education.

Program Outcomes
Ph.D. holders will be able to teach within the Higher Education field and conduct and produce scientific research.

Degree Requirements

Specialization	**60**
Ph.D. Seminars by Doctoral College	15
Ph.D. Dissertation	45
Total	**60**

[i] Hybrid: Courses offered in French and/or English

Course Descriptions

ECH470 Specialized Didactics I 3 cr.

The course is designed for students with a degree in chemistry (or biochemistry). It aims to introduce students to the methods that allow the acquisition of appropriate skills for the teaching of chemistry. The course focuses on the Lebanese Curriculum in the intermediate cycle, considering fast outputs in order to address the fundamental parts of the third cycle of basic and secondary education, to ensure harmony and continuity between different parts of the chemistry program.

ECH471 Specialized Didactics II 3 cr.

The course focuses on Lebanese Curriculum at the secondary level, emphasizing the use of educational resources: the strategies, methods, educational activities (planning, testing, and evaluation) and choice of teaching materials. Upon completion of the course, the student will be able to adapt to the methods and theories of teaching and model, induce, deduce, abstract, apply and impart knowledge in chemistry.

EDU201 History of Education 3 cr.

Through a multidisciplinary approach that places education at the crossroads of philosophical, psychological and sociological considerations, this course provides a notional and conceptual framework to situate the different authors in relation to their "educational models" and the teaching strategies arising therefrom, emphasizing the importance given to the learner, society and educational practices in a constitutive interaction of the pedagogical profile of each author.

EDU204 Home, School, and Community Relations 3 cr.

The course is an exploration of home-school relations. It focuses on developing an understanding of traditional and non-traditional families, structural and life style variations and parenting in diverse cultures and at-risk families. Implications from this understanding will guide the development of a parent involvement plan which will include effective ways to communicate with parents, discussions with parents, and how to plan parent meetings and home visits. Special attention will be given to cultural and family situations, which affect young children, such as divorce, child abuse and neglect, illness or death of family members and life in a violent society.

EDU208 Introduction To Teaching and Learning 3 cr.

This course introduces students to theories and research concerning teaching and learning, and helps them apply theory in the school classroom. Students have the opportunity to view films and videos related to education, to explore children's literature, and to participate in role-playing, simulations, and peer teaching. Discussion of the following are included: theories of learning; learning styles; motivation; research on effective teaching and effective schools; assessment and evaluation techniques; how to interpret test scores; and how to explain them to parents. Fifteen hours of field experience will be included.

EDU212 Foundations of Education 3 cr.

This course combines a broad survey of the social, historical, and philosophical foundations of education with in-depth study of selected areas pertinent to education; such as, structures and governance of schools, professionalism, teacher effectiveness, and curriculum models. An Issues Approach is emphasized to develop a more realistic view of the teaching profession and to foster a better understanding of the major debates in education.

EDU215 Techniques of Expression 3 cr.

This course aims to implement essential techniques to improve the oral and written expression of students. At the level of oral expression, it proposes strategies for successful transmission of a verbal message by putting the emphasis on the words and the framework of the communication (body language, voice, intonation, etc.). At the level of writing, it analyzes and decodes all the documents through an effective reading. We shall consider processing a wide range of techniques for the development of the means and forms of written communication (letter, resume, transcript, interview, static and moving image).

EDU304 Theories of Early Childhood Education 3 cr.

This course offers a theoretical comparative study of the history, theory, goals, programs, approaches and related research underlying early childhood. Students will examine how theory influences practice in a variety of early childhood education models, including the Bank Street model, Headstart, open education, Montessori schools, behavioral analysis, Piagetian, Vygotskian, and Reggio Emilia approaches.

EDU305 Class Management 3 cr.

This course is an opportunity to analyze what happens in the classroom and guide future teachers to the development of the first elements of a class management model. It aims to familiarize the students with all the elements of planning, organization and supervision in the conduct of the class, which can prevent discipline problems in the classroom and to create an atmosphere and environment conducive to learning (how to motivate, encourage curiosity, stimulate; how to function in daily life or adapt its operation through a variety of group dynamics to increase the maximum participation of students, autonomy and commitment to work, school). In another more relational aspect, this course aims to develop the competence to manage the relationships between actors in a class group, while respecting each individual in the group, to regulate conflict and establish a consistent operation attuned to all learning in the classroom. For this, an understanding of the behavior of difficult students and an identification of communication strategies with these students is of importance.

EDU309 Technology in Early Childhood Education 3 cr.

This course offers an overview of current technological trends that can be used to assist in classroom instruction. The course examines technology's relationship to educational theory and how technology is becoming a part of current reforms in educational practice, and how a foundation in technological skills is critical to becoming an effective teacher. Students will explore and apply a wide range of technology currently used in education. Emphasis will be given to the examination of the use of recent technologies, computers and the Internet, and their application in Kindergarten. Ways to incorporate multimedia production for educators in the classroom will be explored. Traditional audio-visual aides will be explored. Students are expected to plan lessons utilizing technologies.

EDU310 Learning Theories 3 cr.

This course is given with the purpose of developing a classification of large trends found in contemporary theories of education, starting from a descriptive and critical study of the theories (academic, social, psycho-cognitive, technological and socio-cognitive) to come up with strategies serving as contextual references to the learning process.

EDU312 Philosophy of Education 3 cr.

This course focuses on the main axes of the philosophy of education, which is a reflection concerning education as real human development as it was designed by the great masters - Greek thinkers. Three axes are the backbone of the course. The first axis is that of Greek education and Greek

philosophy- Socrates, Plato, Aristotle. Special attention will be devoted to Seneca. The second axis focuses on education at the time of the Renaissance; 15th century and the end of the 16th century; Montaigne and Pascal. The third axis focuses on education during the century of enlightenment - Rousseau and Kant.

EDU315 Early Childhood Curriculum: Science 3 cr.

This course provides students with knowledge of introducing sequential science concepts for the appropriate stages of cognitive development of young children and offers experience in developing the content, methods, and materials for directing children in science activities. Emphasis will be placed on how science can be integrated throughout the day school curriculum and become a valued functional tool.

EDU316 Early Childhood Curriculum: Mathematics 3 cr.

The student will develop concept-oriented strategies in math with a primary emphasis is on thinking, reasoning and understanding and developing the ability to investigate how and why things happen in math in young children. The course focuses on developmentally appropriate learning activities using materials to cultivate logical thinking skills in children. The kinds of activities to be included in the preschool curriculum are also studied.

EDU318 Issues in Syntax 3 cr.

This course aims to develop in the students an alternative approach of a very different French syntax than that learned during their school years. It proposes to go beyond traditional grammar, reaching towards a more rational use of the language. Each grammatical concept starts from the observation of linguistic facts present in a brief text. The observation is guided and the questions lead students to implement previously acquired knowledge, upon which will be anchored new knowledge.

EDU322 Phonetics/Phonology 3 cr.

This course will develop diction competencies of future teachers. Students will first be asked to distinguish between phonetics and phonology. They will then learn the International Phonetic Alphabet; knowledge that will give them access to all the features of the phonetics of the French language. All the rules of pronunciation and diction will be subsequently addressed (pronunciation of sounds, letters, accents, links, intonation) to finally reach a correct and expressive reading of a poetic corpus - narrative or theatrical. All theoretical information will be immediately followed by practical exercises that will be based on the very practice of students. These, through listening exercises and diction, will be asked to identify their shortcomings and those of others, to explain and to address them gradually.

EDU323 English Phonology 3 cr.

This course is designed as an introduction to current phonological theory, with application to descriptions of the phonological systems of English and Arabic. Regular course work includes: phonetic and phonological systems; contrastive analysis; phonemes and allophones; types of transcription; vowel and consonant system: spelling and pronunciation, metrical and prosodic theories. Instruction will focus on problem sounds for Arab learners studying English so that they will be able to recognize and produce consonants, vowels, stress and intonation of the English language correctly. Students will have the opportunity to practice identifying and producing speech sounds.

EDU325 Digital Resources for School Education 3 cr.

This course provides a concrete discovery of digital resources for education namely typology of digital resources for education, online research methodology, and the analysis of digital resources for education and problems of their pedagogical uses. Today the modes of course preparation at all levels of education and training are based increasingly on consultation and integration of educational

resources found online. Training institutions are facing the emergence of teaching practices of communities, personal sites of all kinds and commercial offers, resources where the proliferation does not facilitate the teacher's task. This course's main purpose is to present the diversity of these resources, access modes to the latter, but also to give future teachers the key to analyze, in order to help them integrate these into their teaching practices.

EDU330 General Didactics 3 cr.
This course covers the basic concepts of general didactics and pedagogical principles to be understood in the ideas of curriculum, curriculum development and planning of learning situations. It also provides the basic data essential for the development of didactic situations, the analysis of the links between the elements of the educational triangle and principles essential to make the teaching contract successful in various school settings. The course allows the student to apply teaching from the competency-based approach and the problem situation, and specify the use of educational objectives; their classification and formulation, as well as their integration into different learning situations.

EDU336 Teaching Language Art For Children 3 cr.
This course presents techniques and methods for encouraging the development of language and perception skills in young children, and stresses improvement of vocabulary, speech, and methods of stimulating discussion. Surveying children's literature, examining elements of quality storytelling and story reading, and stressing the use of audio-visual materials are all important elements of this course. Through observations and reading students will focus on how humans acquire and develop language. Problems related to bilingualism, language development, and choice of appropriate program activities and materials for young children are emphasized.

EDU339 Methods and Materials in Early Education 3 cr.
This course is designed to acquaint students with principles of learning and classroom procedures for optimum experiences for young children. It focuses on developmentally appropriate methods and material for use in kindergarten educational settings. The emphasis is on kindergarten children aged three years and above. Topics include classroom arrangement, scheduling, selection of materials, curriculum planning using themes and integrated units.

EDU345 Applied Linguistics to Teaching French 3 cr.
The course focuses on didactics/linguistics relationships, on the application of linguistic theories in the teaching and learning of second languages and on linguistic intervention fields in the class of language. The topics covered address fundamental concepts related to general linguistics, lexical semantics, morphology, syntax and the use of the statements in oral and written texts. In addition, this course provides criteria to be considered in the teaching of a second language and the analysis of errors made by students during their learning, to remedy and even prevent them.

EDU400 The Teacher’s Ethical Skills 3 cr.
After acquiring teaching skills, this course will focus on the teacher's ethical skills in order to give meaning to education by working to certain principles. The course, aimed at undergraduate students of education, considers the ethical element of the teacher's mission. It will allow an awareness of the challenges and ethical issues facing teachers in their profession and will engage them in ethical reflection on topics posed in everyday action.

EDU414 Survey of Children's Literature 3 cr.
This introductory course is designed to provide an overview of trade books appropriate for children from preschool through to age six. In this course students survey the broad range of literature

written for children. Emphasis is placed on selecting genres (prose and poetry) appropriate to the developmental stage of children, gaining familiarity with multicultural literature, understanding the distinguishing the characteristics of different genres, developing visual literacy with respect to picture books, evaluating the quality of literature for children, and how child's individual development affects interest and use of literature. Investigating internet and traditional library resources support student' learning course content.

EDU416 Teaching Social Studies, Movement and Theater 3 cr.
This course introduces students to creative and cultural expression through the theater. Particular attention is paid to the volume of theatrical education as a means eventually helping young children develop language, outperform their vocabulary, and adjust language skills and gestures. Students develop, during their learning, a repertoire of activities and approaches emphasizing the flexibility of maintenance, gesture, movement and dynamism, etc.

EDU419 Specialized Didactics in Mathematics I 3 cr.
This course will enable students to develop professional skills to teach math according to the methods of active teaching, to introduce young students to transform the basic math skills into intellectual instruments, which will enable them to build solid knowledge and develop critical thinking and synthesis.

EDU420 Specialized Didactics of Mathematics II 3 cr.
Pre-requisites EDU419
This course seeks to deepen didactic concepts such as differentiated instruction, interdisciplinarity, project based pedagogy, etc. It aims to develop in students the skills, which will enable them to design, build and manage learning situations; thereby ensuring the intellectual, psychic, moral, and social development of students.

EDU421 Young Adults' and Children's Literature 3 cr.
The course of child and youth literature offers students an opportunity to comprehend the literature addressed to young people according to two approaches. In the first approach, which is informative and analytical, the emphasis will be on the wide variety of genres proposed for youth, on the analysis of its components and the different procedures of scripture utilized. A second practical approach offers students different modes and ways to exploit these works, with young people in BCD and reading workshops, in order to promote the pleasure of reading and writing.

EDU423 Evaluation in Education 3 cr.
The content of this course will develop the conceptual notions in evaluation in light of the various theories. It initiates the future teachers into the process of evaluation, exploring taxonomy, docimological rules, forms and functions of evaluation and terms of interpretation. It prepares students for mastering the techniques of evaluation, notably the evaluation grids, addressing the objects of measurement that structure the education system (namely, the operating targets, or how to assess a teacher's skills), and also the textbook or the school.

EDU424 Teaching Social Studies, Movement and Theatre 3 cr.
This course emphasizes the richness of cultural and creative expression through social studies, creative art and theatre. Special attention will be given to culture and its impact on language development. Theory, curriculum, methods and materials for teaching social studies and theatre are studied in order to provide experiences in directing children in these areas. Students will develop a repertoire of activities and approaches, emphasizing the child's participation.

EDU425 ICT and Professional Teacher Development 3 cr.

The course introduces the mastery of observation techniques, natural and manipulated, and necessary for the comprehension of the meaning of the practices of users of ICT in the teaching world. At all levels of training, the use of technology for the teacher provokes pedagogical upheavals that question the postures of the actors in the educational system. Professional postures are facing, on the one hand, the new “cultural” uses of "digital nature"; on the other hand, the tools and programs developed by the training systems. If the myth of the suppression of teachers is no longer appropriate, what are the new competencies of teachers? What is the new knowledge? What are the new professions? This course will put these issues in perspective. It will address certification issues as well as the study of collaborative online practices and uses of digital work environments.

EDU427 Theories of Education Play 3 cr.

This course addresses creativity and play in kindergarten and studies the functions of play in the development and education of the young child (from birth through to age six). Included in the course are the following: research on the stages and the levels of play; methods for supporting and fostering play and creativity for parents, educators and caregivers; and strategies for assessing creativity and play. The developmental phases and ways of supporting and fostering play and using play for understanding children will be surveyed and discussed. Fifteen hours of classroom observation/participation will be required.

EDU428 Specialized Didactics I (SCO) 3 cr.

This course is designed for students holding a degree in Social Sciences or in Sociology.

It aims at introducing students, preparing for their teaching degree (Teaching Diploma), to methods that allow them to acquire skills specific to teaching economic and sociological sciences.

The course focuses on the Lebanese curriculum in high school.

The teaching methods are based on the close connection between theoretical instruction and its practical implementation (the socialization process, social and economic changes, structural and conjectural policies, etc.)

EDU429 Didactics of Life and Earth Science 3 cr.

This course mainly addresses the epistemology that responds to questions relating to the means capable of fostering the transmission and appropriation of scientific knowledge. It includes techniques of science education, in order to know the specification of experiments or science book, which became the primary teaching tool accompanying learners during schooling. The course deals with the process of teaching and learning of science by “situation-problem”.

EDU431 Specialized Didactics I (PH) 3 cr.

This course is designed for students holding a Bachelor’s in philosophy. It is intends to introduce students preparing for a Teaching Diploma (Diplôme d’Enseignement) to methods that allow them to acquire skills specific to the teaching of philosophy.

The course focuses on the Lebanese curriculum (and European) in high schools.

The teaching methods are based on the close connection between theoretical instruction and its practical implementation (read, operate, and analyze a philosophical reflection, a text or a thought, etc.)

EDU434 French Language Specialized Didactics I 3 cr.

Students preparing a degree in Educational Sciences - Basic Education, will be called upon to address issues related to specialized didactics of the French language and prepare practical sheets for classroom application. The areas covered will be those of understanding and speaking and those of reading literacy, covering all classroom activities with language lessons (listening, comprehension and oral expression) and reading (text and iconographic documents). A methodology offering an inductive approach will be applied in the preparation of lessons and assessment criteria will be proposed in respect of each activity.

EDU435 Workshop in Early Education 3 cr.

Intensive practical study in a selected area of early education.

EDU440 Pedagogical Analysis of Texts 3 cr.

The course aims, as a first step, to appropriate the fundamental data for the processing and analysis of educational texts, with an emphasis on the different levels of study and representative patterns. The pedagogical analysis is based on a linguistic approach and the study of the context in which the statements are produced. Secondly the course covers the fundamental data that highlight the characteristics of different types and kinds of texts and the elements essential for the structuring of ideas around various situations of writing, in order to produce a variety of texts.

EDU444 Specialized Didactics of Life and Earth Sciences I 3 cr.

This course aims to develop, in students, professional skills needed to teach science in a competency-based approach and an investigative approach. In this course, students will also be prepared to adopt in class the methods of active learning for interactive teaching.

EDU445 Specialized Didactics of Life and Earth Sciences II 3 cr.
Pre-requisites EDU444

This course seeks to deepen didactic concepts such as differentiated instruction, interdisciplinarity, project based pedagogy, etc. It aims to develop in students the skills to enable them to design, build and manage learning situations, ensuring the intellectual, psychic, moral, and social development of students.

EDU447 Evaluation and Assessment in Early Education 3 cr.

This course places an emphasis on the educator's role as observer and evaluator of status and change in school behavior and achievement. It acquaints the student with a variety of formal and informal techniques assessment used for observing, recording, and analyzing the development and the perceptual, motor, cognitive, and social-affective performance of children. Assessment of children will be analyzed by looking at a variety of assessment activities that can be done with children. A range of methods and techniques from direct observation to standardized testing will be surveyed.

EDU454 French Language Specialized Didactics II 3 cr.
Pre-requisites EDU434

This course will present a working approach relating to areas of written expression and knowledge of the language. Students preparing a degree in Educational Sciences -Primary school level, will be required to deepen their knowledge of theoretical concepts in the specialized didactics of the French language, particularly in literacy, and to acquire work processes ready to prepare fact sheets relating to preparing lessons in targeted areas. The work done by students in this course will aim to realize the application of theoretical and practical knowledge in the school context, through an internship conducted in schools.

EDU464 French Language Didactics 3 cr.

In this course specific educational issues relating to the teaching of the French language and in French language in cycles I and II primary are addressed. It deepens levels of analysis of the French language within the school context, and the specifics of the areas of teaching of this language plus the knowledge relating to the methods of language teaching. Didactic situations will be analyzed with reference to content and methodological opinions proposed by the Lebanese curriculum.

EDU469 Video / Serious Games in Schools 3 cr.

The course presents video games created at the forefront of technology, but which leave a serious impact on the concept of leisure and Ludo science. The course objective is to demonstrate the educational interest of an activity called "video game creation at school" to make students understand the potentialities and the difficulties associated with the use of video games for learning. Students learn to develop competencies of analysis and design of pedagogical video games to define learning objectives and write synopses of audio visual materials to achieve the desired objectives. The term "Serious Games" is used to refer to games for utility purposes and within a formative goal. The time component to the "Serious Games" video focuses on online games, on the computer, or on a gaming console, that have a combined educational objective in a ludic operation. Beyond the theoretical approach, the course allows students to create games, from scratch, through relatively simple software.

EDU470A Internship: Classroom Observation and Practice 6 cr.

This training course is for third year students who aspire to teach in primary grades P1 and P2. It allows them to have access to classes, to see closely the didactic practices and better understand their personal characteristics, in order to get ready for professional life. The purposes referred to are: becoming familiar with the concrete realities of school education; addressing the teaching career with ease; and becoming integrated within the school system.

EDU480 Pedagogic Analysis and Integration of Educational Mediatized Materials 3 cr.

In this course, students learn to analyze different educational mediatized documents. Specifically, they will seek to incorporate them in teaching situations in the classroom. Starting from newspapers, radio and television series, this course will introduce the main forms of media (news, documentaries, editorial children's shows, commercials, ads ...). It will also aim to instill in students the skills necessary for the analysis and the implementation of mediatized educational tools.

EDU485 Specialized Evaluation in Education 3 cr.

This course covers essential data for the evaluation of learning and classroom assessment management. Key concepts falling within this domain will be presented, analyzed and discussed, in order to develop, within each discipline, the concept of evaluation that is appropriate. A thorough treatment of the tests will be the subject of an analysis at the level of certain ideas related to tests: the validity of tests and their feasibility, analysis of the types of items, and the way to present them in trials. The way to manage classroom assessment will be addressed through the development of instruments and assessment tools, in accordance with the objectives of the curricula. This course includes various techniques for the preparation and correction of tests, the establishment of scales and scoring. The concept of competence is addressed in an evaluative context, related to formative assessment and in relation with the learning objectives, in order to form an assessment at the end of the educational sequences.

EDU502 Training Ethics 1 cr.

The course firstly introduces the students to the basic concepts of philosophical ethics (the righteous, the good, moral conscience, fundamentalism, coherence, relativism), and the main

contemporary doctrines. Secondly, the course analyzes the major ethical problems posed by educational practice and the educational institution, such as social justice, education facing moral pluralism, education for citizenship, respect for others, human rights, ethics of education practitioners, training and professional integration. Upon completion of the course the students will be able to analyze the ethical issues related to educational practice and design of educational systems and develop a normative argument on these issues.

EDU503 Educational Legislation in Lebanon 2 cr.

The course covers the fundamental texts of the Lebanese Constitution related to education, school administration, control modes, the school pact, compulsory education, with multiple decrees and texts simultaneously organizing teaching in pre-school, basic education, secondary and university, and management of education. Upon completion of the course the students will have acquired skills in the relevant laws, decrees, diplomas and educational systems and become familiar with the Official Bulletin of Education and the Official Journal, the Education Code and any appropriate form of structure.

EDU504 Introduction to the Administration of Education 2 cr.

The course is a form of general introduction to educational management function; perceived primarily as the establishment and the efficient organization of all the resources necessary to achieve the objectives of a private or public organization, as regards production or service. It prepares students for entry level as a School Manager. The course emphasizes an awareness of concepts, conceptual and operational models, as well as useful tools for a better understanding of this field of practice and reading of the phenomena that underlie it. It aims to promote the educational management, functions and roles implemented by School Managers. Upon completion of the course, the students will be familiar with the language related to education management.

EDU511 Financial Management of Educational Institutions 2 cr.

This course is designed to introduce those who are entitled to engage in leadership positions in educational institutions - in such a case the holders of Master II in Educational Sciences - to financial management of their schools, to improve profitability, and to control the risk; especially as by virtue of their positions, they assume significant financial responsibilities (scheduling etc.). For this purpose the course will train them to: prepare accounts or basic financial documents (budget, income statement and balance sheet) specific to educational institutions; manage the cash of their establishment through the projection of its financial flows (cash flow, expenses and predictable monthly income); know how to choose the most profitable investment projects for their educational institution, through the financial evaluation of the latter; and regularly assess the financial management of their institution, through a series of ratios, in order to correct deficiencies in time

EDU513 Linguistics Applied to Teaching 3 cr.

The content of this course will focus on the implementation of linguistic theories in the teaching and learning of the French language and the fields of linguistic intervention in the language class. It will also examine how the current psycholinguistic theories help to better understand the process of acquisition of the second language and the factors that facilitate or make the acquisition difficult. It will likewise cover the problems of teaching French (the phenomenon of interference between Arabic and French, analysis of typical errors, bilingual education, and sociolinguistic fallout).

EDU514 Curriculum Design and Educational Policies 2 cr.

The study of theories of explicit and implicit programs will be the subject of this seminar. This study will cover the basics for the design, development, management and implementation of programs. An analysis of the theoretical and practical aspects of the programs' evolution requires consideration at several levels: the role of objectives in curriculum planning, the analysis of needs, building contents, stages of implementation of these programs, revision of evaluation models and the theoretical

aspects structuring the different disciplines. This study will be accompanied by the discussion of issues that arise during the implementation of renovated programs and successive transformations carried out on the educational programs throughout their implementation.

EDU515 Theories of Information and Communication 2 cr.

Knowledge is an entirety of intelligible information. Information is the primary background for knowledge. Communication is the information in motion or the approaches of information transmission from a source to the user. Since the theory of Shanon EC, which describes the most basic aspects of communication systems, information theory was made more precise, and has now become indispensable in the conception of any communication system, in the broadest sense of the term. The communicational contribution of the approaches of behaviorism, media, functionalism, polo altism, the Frankfurt School, Mcluhanism, will be addressed in a historical and sociological perspective. The delivery of a course on the subject is done precisely to set the limits of the twentieth century theories, and grapple with the digital age and what ensues (nanotechnology, cybernetics, and genetics), because humanity is confronted with new questions.

EDU517 Mathematics Didactics 3 cr.

The course introduces students to didactic approaches which, following various experiments, put at their disposal effective tools to address the mathematical concepts and practices of class within this discipline. Mathematical logic and, thereafter, appropriate language remain a concern accompanying the various phases of this course. The course enables students to be able to reason according to the criteria of formal logic, to analyze, assess and make a judgment based on a synthesis at all levels of the curriculum.

EDU519 Didactics Issues 3 cr.

This course implements, in didactic situations, appropriate techniques to deepen the teaching practice. These techniques fall within exam preparation, correction, fun activities, organization and class preparation. In conjunction, this course presents the techniques essential to lead the workshop in the job and in selected situations, by putting forward related educational solutions. This course also presents appropriate teaching methods to be adopted in the classroom, according to the didactic situations as they arise and at the level of the learners.

EDU522 Strategic and Operational Planning in Education 2 cr.

Planning is intended as a work of reflection and organization that addresses the following issues: understanding the value and the role of education, defining strategies for educational policy, determining priorities, expectations and needs of the educational institution, perceiving education as "an on-going- share-of-life", adopting the concept of "consultation" in the workplace and fostering closer links between the worlds of education and work. Then the course develops educational planning and analyzes the practice. It identifies the fundamental principles and examines the challenges posed by the planning of complex operations by addressing the social, political and economic issues.

EDU523 Issues of Education Systems 2 cr.

The challenges to education systems are, at certain moments in the course of history, strongly influenced by rapid and sudden mutations and the inevitable interaction of disciplines of all leaning. This course examines three strands. Firstly, quality material issues: a) the knowledge issue, b) the issue of centralization, c) the issue of resources, d) the issue of social integration, e) the issue of the data of comparability. Then, social issues: a) the fight against violence, b) fight against absenteeism, c) fight against educational inequality and against school failure. Finally, the strategic and policy issues: a) work to improve the quality of education and training systems, b) facilitate access of all to education, c) to open up education and training to the world.

EDU524 The Knowledge Society, Sociological and Philosophical Approaches 2 cr.

The digital revolution has enabled the emergence of new forms of thought, sociality, culture and policy involving new forms of pedagogical and educational projects that highlight the need to carry out a reflection on a series of questions. The course provides information on the theoretical and methodological approaches in the sociology of uses, to analyze the types of reactions and social and cultural appropriation of ICT and media (rejection, resistance, adoption, embezzlement, etc.).

The course also deals with philosophical approaches that question today's society, explores important issues concerned with theoretical debates and empirical case studies on issues specific to sources of knowledge, changes, namely digital communities, neighborhoods and digital identities, globalization of production and consumption of information, the emergence of a knowledge-based society in perpetual change, instability of knowledge and, at the same time, the massive growth of knowledge and consequences at the level of the individual and the community. The course also tries to think about education articulated in debates, issues and positions, that the sociophilosophical approach does not fail to deploy. The course interrogates the various structuring themes of the educational issue, whether it be the desire, experience, language, modernity, nature and freedom, critical thinking, person, knowledge, meaning, values, etc.

EDU525 From Distance Learning to E-Learning 2 cr.

Since the mid-nineteenth century each new technology has been proposed for use in education and distance learning systems (correspondence courses, cinema, radio, television, computer-assisted instruction, etc.), without education itself changing profoundly. Today the Internet has penetrated into training and educational systems, and reduced the traditional boundaries between lectures, distance learning and self-training. These divisions are no longer appropriate.

The course aims at taking a historical approach towards technology for education and training modes of variation-integration of different forms of E-Learning.

EDU526 Media Education 2 cr.

The diffusion of digital creative content and the multiplication of online and mobile distribution platforms create new challenges for media literacy. In today's world, it is necessary to develop analytical capabilities to better understand - intellectually and emotionally - digital media. Media literacy requires esthetic training that includes knowledge of iconic works, cinema and TV, from the point of view of their forms, their modes of signification, history of representations, and basic benchmarks for the training of the mind; especially for students immersed in the world of images from birth. It also requires a mastery of languages, through which attention is paid to the means as such (channels, but also the formal constraints, strategies, rhetoric, organization, etc.), to the extent that they induce and produce sense. It is required, therefore, to form the critical mind of students in such a way as to raise questions, make choices, build consistency, to question the validity and operation of any message that can be read like an extract from the real (information, testimony, documents, etc.). Also they need to perceive the implicit aims, to master the form and content and respect certain norms, some deontology, in the way of communicating. An education for citizenship is about learning to move in a universe dominated by the media, to resist manipulation of all kinds, to confront the sources, to form a personal opinion, to affirm individual tastes, to reinvest personal codes for use and express themselves freely, while respecting a certain number of communication and ethical rules.

EDU527 Thematic Seminar in Educational Technology 2 cr.

As part of this course, a training scheme is offered to students. Students undergoing training may follow a research seminar that appeals to international stakeholders. In a project teaching logic, students will draw upon computerized tools at their disposal, and will design a situation of teaching/learning from the perspective of research and development. For this purpose experimental facilities (laboratory ICTE) will be available on their website. Students will also examine concrete

examples in the field of current research in ICTE, with emphasis on methodology (Investigational Device designs, data analysis, etc.). Presentations will be held to deepen a given theme; each representing a particular disciplinary or methodological approach. Students will develop and implement a project of information and research communication. Students will focus on technological activities that can lead to gains in learning and / or lead to change in teaching and learning.

EDU533 Tools for ICTE and Distance Education 2 cr.

This course introduces learners to a techno-pedagogical approach aimed at the material management of the ICTE (computer equipment, software configuration of machines), software tools and their uses in education, types of environments for the educator, and educational software packages, synchronous and asynchronous learning platforms, etc.

EDU534 Templates, Web 2 Tools and Mobile Learning 2 cr.

This course is complementary to the course "Tools for ICTE and Distance Education". It focuses on the learning and the implementation of the main applications of the Internet in education. The course is based initially on a presentation of research on the uses of educational resources available on the World Wide Web, wikis, blogs, RSS feeds, but also issues intrinsically linked to the development of tools for Web 2.0 or Mobile Learning such as legal problems (copyright, traces, etc.), technological constraints, the semantic web and its applications to research. In the second phase, students will have implemented, through simulations, the different elements presented.

EDU538 Specialized Didactics II (PH) 3 cr.

A follow on form the course of "specialized didactics I", this course will teach students to prepare, give and assess philosophy lessons, both in terms of content and teaching modalities. In terms of content, the course deals with principles that should guide the preparation of lessons in philosophy, in particular, the importance of philosophical concepts, arguments, authors and the history of thought. At the methodological level, students will, through practical work, prepare lessons on philosophy taking into consideration the particularities of the teaching / learning process and the specificity of content in philosophy. The practice will focus on adequate assessment methods for critical judgments and study of philosophical texts.

EDU541 Comparative Education 3 cr.

In the first part, the content of this course will focus on the comparison between the different educational systems of the world (French, American, Australian, Chinese, Japanese, etc.). Students will be prepared to understand the basic concepts related to this area and to analyze, through the stages of its evolution, the factors that led to its emergence and expansion. They will, likewise, be initiated to understand the current trends in comparative research through several thematic studies, with the aim of establishing criteria for comparison. In the second part, the course covers the comparison between the different educational styles and systems in Arab countries, in order to identify divergence and convergence. This viewpoint will place Lebanese students in relation to the regional educational contexts and give them the opportunity to compare them with the Lebanese educational context.

EDU548 Specialized Didactics II (SCO) 3 cr.

Starting from a didactic problematic, this course focuses on the central issues that structure the field of social and economic sciences: that of the epistemology of relevant knowledge and fundamental sociological and economic concepts.

This course intends to deepen students' theoretical and didactic knowledge in sociology and economics, updating them according to the contemporary trends and procedures of teaching methods.

EDU561 Internship/Workshop/Laboratory 3 cr.

As part of their teaching practice student will attend classes to observe educational practices in a school context, and gather material for their descriptive and analytical report. Students must demonstrate how they can integrate technological tools and apply new techniques used in the world of ICT for educational purposes.

EDU591 Project in Education Management 2 cr.

This training activity is intended as a seminar, the ultimate goal of which is to enable the students to devise a research project in the field of management education. The seminar is linked to all the teachings and, in a special way, in social science research methodology. Students are supported during the course towards the realization of the first steps in the construction of their research project. The main objective assigned to this seminar is to build a research project, which will be finalized in the dissertation. After attending the seminar, the students are required to submit a final written project (20 typescript pages). Epistemology forms part of the course. This is a study of the concepts and methods of the various trends of modern epistemology, which originated in the early ”epistemological breaks" that separate the pre-scientific period of the classical rational sciences and highlight their implications in the renovation of the statuses of science, epistemology and history of science.

EDU596 Project/Internship in Education 3 cr.

This training activity is intended as a seminar, the ultimate goal of which is to enable the students to devise a research project in the field of education. The seminar is linked to all the teachings and, in a special way, in social science research methodology. Students are supported during the course towards the realization of the first steps in the construction of their research project. The main objective assigned to this seminar is to build a research project, which will be finalized in the dissertation. After attending the seminar, the students are required to submit a final written project (20 typescript pages). Epistemology forms part of the course. This is a study of the concepts and methods of the various currents of modern epistemology, which originated in the early “epistemological breaks" that separate the pre-scientific period of the classical rational sciences and highlight their implications in the renovation of the statuses of science, epistemology and history of science.

EDU600 ICT Project Management 3 cr.

Credits are allocated in the course for three aspects. 1 Cr: Is based on project management theories and therefore equips the students with elements that allow them to develop a project, starting from the phase of the analysis requirement needs to the project evaluation phase. It is creating these devices (development of specifications); within a context of usage of the ICTE along with theoretical insights and practices that will be given on devices using technology, the latter ranging from web-based training to the establishment of distance training, passing by hybrid devices. Three areas will be prioritized: - the analysis of the devices to be implemented (describe the needs of the ICTE in training, analyze systemic constraints); - the design of these devices (development of specifications); - their evaluation (evaluative approach and self-assessment). 1Cr: Epistemology forms part of the course. This is a study of the concepts and methods of the various trends of modern epistemology, which originated in the early ”epistemological ruptures" that separate the pre-scientific period from the classical rational science and highlight their implications in the renovation of the articles of science, epistemology and history of science. 1Cr: Ethics of the Training: This part of the course introduces the students to the basic concepts of philosophical ethics (the righteous, the good, the moral conscience, fundamentalism, consistency, relativism), and the main contemporary doctrines. In the second stage, the course analyzes the major ethical problems arising from educational practices and the educational institution such as social justice, education facing the moral pluralism, education for citizenship, respect of other, human rights, ethics of the practitioners of education,

training and professional integration. Upon completion of this course, students will be able to analyze the ethical issues related to educational practices and the design of educational systems and develop a normative argument on these issues.

EDU601 Educational Supervision and Coordination 3 cr.

This course will focus on the supervision and pedagogical coordination produced from the educational and administrative needs of educational institutions and from the objectives targeted by the managers of these institutions, the directors, executive board and teaching staff. The discussed sub themes will also focus on the competencies and the different functions of the coordinator as a trainer, evaluator, manager of education and a member of the teaching staff; as well as on its relations with those responsible for the cycle and the director of school. Techniques and working methods articulating theory and practice will be analyzed at these levels, to focus on interpersonal relationships in the school and the management of learning.

EDU602 Management of Human Resources in Education 2 cr.

The course enables students to consolidate their personnel management knowledge in an environment of education. It examines the various management models of human resources, personnel flows (recruitment, selection, training, evaluation) payment systems, task analysis, skills, work systems and the influence of systems and leadership. Upon completion of the course, the students will be able to analyze practices in human resource management, diagnose the strengths and weaknesses of human resource management practice and the range of relevance of action, known and mobilized in a situation of theoretical references of human resources management.

EDU604 Video Games and Serious Games 2 cr.

This course consists of a presentation of video games made in the forefront of technology and marketed to the general public, leaving a serious impact on the concept of leisure and Ludo science. Its objective is to demonstrate the educational value of a business called "creation of video games in school" for students to seize the opportunities and challenges related to the use of video games for learning. Students will learn to develop analysis and design of educational video games skills. They will also learn how to set learning goals and write audiovisual synopses for achieving the objectives. The term "Serious Games" is used to designate games utilized for utilitarian purposes, particularly in a formative purpose. However, we will focus on the "Serious Games" video - online games, computer, or on a gaming console, which have a combined educational objective to ludic operation. The "Serious Games" are used in the world of training, as in the world of marketing. Beyond the theoretical approach, the course will allow students to create, from scratch, games - through relatively simple software.

EDU606 Educational Resources Online - For School Education 2 cr.

This course provides a concrete discovery of digital resources for education, namely typology of digital resources for education, online Research Methodology, and analysis of digital resources for education and problems of their educational uses. Today the modes of preparation at all levels of education and training are relying more and more on the consultation and the integration of educational resources found online. Training institutions are faced with the emergence of teaching practices of communities, personal websites of all kinds and commercial offers of resources, the proliferation of which does not facilitate the trainer's job. This course's main purpose is to introduce the diversity of these resources, the access modes to the latter, but also to give future teachers the key to analyze, in order to help them integrate these issues into their faculty practices.

EDU610 Evaluation of Establishment and Success 2 cr.

The course familiarizes students of educational management with new concepts in the evaluation of institutions: accreditation, quality assurance, qualification results, self-assessment and external evaluation. It presents the conditions that guarantee that quality, seen as a tool for improvement,

has been achieved; hence the necessity of establishing adequate evaluation criteria upon which to rely, in order to certify that the institution has reached the required level of quality and performance. This course focuses on a transparent self-assessment and ethical approach, which calls the institution to challenge the results of its work and its various functions. The course also analyzes the needs that arise from these types, such as training of administrative staff, training of teachers and interpersonal relationships, with the aim of ensuring and maintaining in balance the continuous improvement process of institutions.

EDU620 Leadership in Education Management 2 cr.

The course provides training in leadership and reserves room for innovation and creativity in the field of management in education. It defines "what management means" with an emphasis on a characteristic of educational administrators, who ensure the achievement of the organizational goals that they manage. That is, to ensure collaboration, within the greatest possible mobilization of the most important resources of the institution: the academic and administrative staff. The administrator also needs to know how to evaluate individual needs to be able to provide the maximum motivation. Holding a clear function of power and a competence of variable geometry, a director, who would be a leader, must have competencies and well-defined skills. These can be put into several groups: a) In the area of pedagogical leadership and human abilities - a tolerance of stress, the knowledge of how to listen to others, discretion, the maintenance of harmony in the institution, the ability of oral communication, and the ability to communicate in writing, the general culture, the knowledge of how to analyze problems of administrative and educational orders, know how to put the administration in the service of education, reason properly, organize and decide, delegate responsibilities, involve employees and partners in solving problems, and having sensitivity, or the ability to perceive the needs and personal concerns of others, resolve conflicts, etc. ; b) In terms of motivation and personal will - personal motivation, the creation of a strong and developed learning environment, be a builder of teams (team building) and a taker of visionary risks, develop negotiation with the environment and not just remain a manager of educational organizations, escape the chaos and randomness, integrate educational values (a headteacher who has a well-integrated educational philosophy, a philosophy that is the result of the synthesis of the great ideas of the past, but remains open to new ideas and change), creativity, or the ability to generate innovative solutions, educational strategy and knowledge of teaching methods.

EDU621 ICT and Professional Identities of Trainers 2 cr.

The course raises awareness of the mastery of techniques of observation, both traditional and computerized and necessary for the understanding of the meaning of the practices of users of ICTE in the teaching world. At all levels of training, the use of technology, for teaching an educator, causes upheavals that question the postures of the actors in the educational system. Professional postures are confronted, on the one hand, with the new "cultural" practices of "digital nature" and, on the other hand, with the tools and programs developed by the training systems. If the myth of the suppression of teachers is no longer appropriate, what are the new competencies of teachers? What are the new professions? This course will put these issues into perspective. It will address certification issues, as well as the study of collaborative online practices and the uses of digital work environments.

EDU630 Management of Change in Education 2 cr.

The course develops education manager skills, which promote and support processes of transformation of professional practice in different educational contexts; also to be able to make appropriate and informed choices of change strategies in education. The course examines the implications of the role of agents in educational change in a context of complex problems, and, furthermore, analyzes the consequences of accelerated change in school management today and tomorrow.

EDU660 Thematic Seminar in Education Management 2 cr.

The seminar is an open space to all specific issues in management in education. It may include: 1-Sociological analysis of organizations: a) implicit theories of organizations, b) the elements of an organization (structures, contingency, goals, systems, systems of actors, shapes and organizational strengths), c) the characteristics of educational organizations: bureaucratic logic, professional, adhocratic, loosely coupled system, etc.; 2- Evaluation and piloting of educational systems: this is the implementation of reforms, implementation of innovation, management methods and evaluation of educational and training institutions; 3- Interpersonal communication and group management: this is an awareness of attitudes and preferred modes of communication in interpersonal and group levels. The seminar includes training in the analysis of the main phenomena linked to interpersonal communication in a group management context and development of intervention approaches in groups; 4- The management of diversity in schools. At this point, the manager will learn to identify and analyze the various issues related to the diversity of clientele in the school environment. Studies and analyses of models fostering the integration of the immigrated youth (in Western countries) or those who have adverse living conditions, due to wars that are changing the demography of the Middle East. The focus will be on otherness; 5-Qualitative and quantitative information necessary at all stages of educational planning. This seminar will enable students to acquire and apply the knowledge and techniques needed to build and use information systems for planning and management of education. N.B. Other topics could also serve as an object of the thematic seminar.

EDU661 Internship 2 cr.

The course is intended for every student who aspires to the position of education manager. It is an implementation of the knowledge and skills acquired in education management, taking into account the multidimensional reality of primary and secondary schools. The course also aims to foster a process of reflexive analysis on professional practice as well as to update profiles for the staff of the education manager.

EDU662 Internship 2 cr.

As part of this course, students in the Master's program of the Technology of Education will be prepared to master the techniques of observation necessary to understand the meaning of the practices carried out by users of the instruments and the ICTE devices. This course enables students to further explore the effects of the integration of the ICTE in educational institutions, research laboratories or any other company involved in the implementation of the CTB, and analyze concrete experiences in the field. The practices included in this course represent an approach to help students develop projects, based on the methods observed in the targeted context so that they can build the tools indispensable for achieving the ICTE project. A presentation of research carried out by students in technology workshops will be a complementary activity to observation and that highlights the independence and student creativity.

EDU678 Innovative Pedagogical Issues 3 cr.

Education and Modernity

The objective of this seminar will focus on the study of the impact of social, technological, economic and media-dominated changes on education in the era of modernity. Several issues concerning the challenges which education is constantly facing will arise, such as the global or social crises threatening the development of education and affecting the positive representations, which are designing new pedagogies. A redefinition of the relationship between school and society will be vital and a review of new educational realities in the computer age is essential.

EDU680 From Theory to Practice in Education 3 cr.

In light of learning theories, methods and techniques already encountered throughout their academic career, students will make a reflexive analysis on their educational intervention and study

situations and cases relating to classes of primary cycles 1 and 2. They will, in turn, propose educational practices concerning these situations. This analysis of teaching practices focuses on implications for the school intervention and the relationship between theoretical and practical teaching. Examples are the choice of approaches, methods and means of teaching used according to the subject being taught, student characteristics, classroom management, and appropriate instrumentation.

EHI470 Specialized Didactics I 3 cr.

The course is designed for students who hold a degree in History. It aims at introducing students in TD to methods that allow the acquisition of skills required for the teaching of history. The course focuses on the Lebanese Curriculum in the secondary cycle. The teaching methods are done in close connection between theoretical teaching in teaching practice by having the ability to read a map, explain an engraving, examine and use a historical text, analyze events and transmit historical knowledge through the many examples that reflect a situation or event.

EHI471 Specialized Didactics II 3 cr.

This course reflects the history program planned by the Lebanese Curriculum. After the course, the student will know the appropriate methods and theories for teaching history and be able to analyze, deduce, construct a coherent understanding and pass it on.

EHI490 School Internship 3 cr.

This course allows the student to put into practice his/her acquired knowledge, experience the possibilities of change, verify, consolidate or make changes in teaching methods, and become familiar with different learning methods. At the end of the course, the student will submit a report.

EIN470 Specialized Didactics I 3 cr.

This course studies concepts, trends, and skills needed to design and teach curriculum materials for informatics education; analysis and evaluation of informatics curriculum; methods and techniques of teaching informatics at the school level; includes demonstrations and observation of actual computer lab sessions.

EIN471 Specialized Didactics II 3 cr.

This course reviews various concepts, trends, and skills needed to design and teach curriculum materials for informatics education.
Students will take part in observations and practice in classroom situations under the guidance of university course instructors and cooperating schoolteachers.

EIN490 School Internship 3 cr.

Students will take part in observations and practice in classroom situations under the guidance of university course instructors and cooperating schoolteachers.

ELL470 Specialized Didactics I 3 cr.

The objective of this course is to train students in the study, analysis and utilization of literary texts (excerpts and complete texts) in middle and high schools, following the methodical reading grid, and the analytical review and literary essay grids.

ELL471 Specialized Didactics II 3 cr.

The objective of this course is to train students in discursive grammar, its textual inclusion, as well as its reinvestment in writings, within the middle and high schools, following constructivist methods.

ELL490 School Internship 3 cr.

Students will complete an observation internship in an elementary level class and in secondary level class for six uninterrupted weeks. The internship shall cover a complete teaching unit where they document their observations in a logbook (subject to supervision by the internship supervisor appointed by the related department). At the end of the internship, students will be called to give two simulations before the internship supervisor: one in an elementary level class and another in a secondary level class.

ELF470 Specialized Didactics I 3 cr.

The objective of this course is to train students in the study, analysis and utilization of literary texts (excerpts and complete texts) in middle and high schools, following the methodical reading grid, and the analytical review and literary essay grids.

ELF471 Specialized Didactics II 3 cr.

The objective of this course is to train students in discursive grammar, its textual inclusion, as well as its reinvestment in writings, within the middle and high schools, following constructivist methods.

ELF490 School Internship 3 cr.

Students will complete an observation internship in an elementary level class and in secondary level class for six uninterrupted weeks. The internship shall cover a complete teaching unit where they document their observations in a logbook (subject to supervision by the internship supervisor appointed by the related department). At the end of the internship, students will be called to give two simulations before the internship supervisor: one in an elementary level class and another in a secondary level class.

EMT470 Specialized Didactics I 3 cr.

The course is designed for students who hold a degree in Mathematics. It aims at introducing students in TD to methods that allow the acquisition of skills specific to the teaching of Mathematics. The course focuses on the Lebanese Curriculum in the Intermediate cycle, and addresses fundamental parts of the second cycle of basic education to ensure harmony and continuity between the different parts of the mathematics program. It focuses on other concepts that are not included in the program and are useful to allow students to comfortably reach a higher level.

EMT471 Specialized Didactics II 3 cr.

This course considers the mathematical program planned by the Lebanese curriculum and to focuses on core parts of the intermediate cycle program and prerequisites for university to ensure harmony and continuity between the different parts of the Lebanese educational system. It introduces students to the use of educational resources: the strategies, methods, educational activities (planning, testing, and evaluation) and the choice of appropriate teaching materials and technology. After the course, the student will know the appropriate methods and theories in teaching and be able to model, to analyze, to induce, to deduce, to abstract and to apply.

EMU470 Specialized Didactics I 3 cr.

This course deals with specialized teaching for pre-school and primary music education; its aims:

1. Study and integration of the basic principles of active musical pedagogy.
2. Study and experimentation of various processes to awaken and develop the music faculties of the child (rhythmic sense, auditory attention, inner hearing, voice emission and singing, instrumental, body, dramatic and creative expression, improvisation...).

3. Acquisition and knowledge of repertories from traditional and contemporary music and instrumental ensembles favorable to a musical pedagogy for pre-school and primary students.
4. Presentation, adaptation and creation of teaching material and exercises-games intended for these same groups of children according to the approach by skills.
5. Planning, organization and evaluation of learning.

EMU471 Specialized Didactics II 3 cr.

This course deals with teaching in elementary school; its aims:

1. Study and integration of the basic principles of active musical pedagogy.
2. Study and experimentation of various processes to develop musical faculties of youth (rhythm, listening and appreciation, individual and group singing, instrumental, body expression, reading and writing, public performance and creativity, improvisation...).
3. Acquisition and knowledge of repertories from traditional and contemporary music and instrumental ensembles favorable to a musical pedagogy for elementary students.
4. Presentation, adaptation and creation of teaching material and activities intended for these same groups of children according to the approach by skills.
5. Planning, organization and evaluation of learning.

EMU490 School Internship 3 cr.

In this course, the student is required to develop professional autonomy and acquire an adequate mastery of skills for teaching, related to the diversity of schools milieu and taking into consideration development stages of children. Trainee teachers prepare lesson plans, chooses teaching approaches, implementing disciplinary, didactic and pedagogic knowledge and evaluates their educational practice through reflexive analysis. This internship is for a period of 21 days during which the candidate teaches music classes in three different schools for a period of one week in each school.

Support and coaching meetings between a designated supervisor and the trainee teacher are planned at the University throughout the training. The internship also includes a period of preparation at the University and provides time for reports writing, estimated to be 24 hours.

EPY470 Specialized Didactics I 3 cr.

The nature of physics and its implication in teaching; critical study of various physics teaching techniques; survey and practice in the utilization of instructional materials.

EPY471 Specialized Didactics II 3 cr.

A review of various physics curriculum projects and programs; curriculum planning, microteaching, and practicum in classroom observation and teaching.

ESV470 Specialized Didactics I 3 cr.

The course covers the following: the nature of science and its implication in teaching; critical study of various science teaching techniques; survey and practice in the utilization of instructional materials.

ESV471 Specialized Didactics II 3 cr.

The course covers the following: a review of various science curriculum projects and programs; curriculum planning, microteaching, and practicum in classroom observation and teaching.

EVS470 Specialized Didactics I 3 cr.

This course is designed for students holding a degree in Visual and Performing Arts. It aims to introduce students learning a TD to didactic methods concerned with image.

The course requires students analyze and produce images for educational purposes.

This is a course with double dimension, theoretical and practical.

EVS471 Specialized Didactics II 3 cr.

This course develops methods and scenic arts practices for educational and therapeutic purposes, such as psychodrama.
Its objectives are to facilitate relations, develop capacity for expression, representation, creativity, etc.

EVS490 School Internship 3 cr.

This course aims to enable the student to put into practice his/her acquired knowledge, experience the possibilities of change, verify, consolidate or make changes to the acquired methods and become familiar with different learning methods. At the end of the course the student is required to write a detailed course report conforming to the internship protocol prepared by the head of DE.

MTR222 University Working Methodology 3 cr.

This course will provide first year students in humanities with essential methods for the preparation of their work during the years of study at the University. These methods are common to all material and address different levels, ranging from exercises promoting correct educational attitudes in the introduction to the methods of work, the investigation of a text, and finally, to the mastery of speech essential to establish exchange with others, orally and in writing, and to assert with confidence and autonomy. In addition, the objectives of this course will address data essential for the design, drafting and the realization of research work.

MTR575 Research Methodology in Humanities 3 cr.

The course aims to introduce a working method, in order to conduct scientific research. It is mainly about conducting research required at the level of Master's thesis and implementing the different stages of scientific research, ranging from the position of the problem until the drafting and final presentation of the research. Furthermore, regarding a research topic, the course looks at how to select a problematic and devise relevant hypotheses, choose an appropriate technique and then apply it. Students will learn how to communicate the results of research in the form of a clear, rigorous and scientific text. The purpose of this course is to master the design, drafting and submission of the dissertation.

MTR681 Quantitative Methods in Humanities 2 cr.

This course introduces students to the multiple uses of statistics and contexts from which data is drawn. It allows them to acquire mastery of statistical concepts used in their research and be able to conduct proper investigations. This course provides the Master's students with the basic knowledge that enables them to act with autonomy in surveys and data processing. It enables them to systematize the stages of an investigation through data collection, data organization, analysis and interpretation of data. Students also learn to use statistical tools for compiling the data and analysis of results.

PHA510 Anthropology of Interiority 3 cr.

This course focuses on man, being of desires. From a phenomenological approach of the constitutive dimension of interiority and the founding experience of lack, he is interested in the communicability of the inner life and his achievements in contemplation and in action. A privileged place is conferred to the modalities of expression of such an experience, notably in the mysticism and art. The inner experience is always experience of transcendence. The course will reflect on the manifestations of transcendence, its modalities and modulations, as well as the metamorphosis of the self and the relationship between inner experience and language. Among the important specific issues will be addressed that of the ineffable and the paradox of a "discourse on" the ineffable, that of a possible (or impossible) knowledge to the inner experience and that of the interest of inner experience for philosophy.

PHA520 Philosophy of Otherness 3 cr.

The self-questioning have always been simultaneously questioning about the other. The fundamental course focuses primarily on the onto-theological issue of otherness, founder of me starting from, notably, the now classic approaches of Buber, Levinas, Scheler, Marcel but also recent works of Housset on the person vocation and the communitarian dimension for example. It also finds an original development by Edith Stein in her dissertation on empathy or its feminine phenomenology.

PHA525 Humanism, Post-Humanism 3 cr.

Retracing the history of the individual through the great moments of evolution of his consciousness from himself and from those of the history of knowledge and societies (the emergence of the individual, the advent of the machine, neuroscience, digital technologies ...), this course offers a reflection on the following questions: Is it possible to define the human? Is Post-humanism engaged even in the historicity of the individual or does it allow itself to be indulged as the end of humanism? Can we speak of transhumanism in light of changes in the human? The approach of the ontological and ethical issues and implications of these questions is based primarily on the work of Steiner, Ellul, Stiegler, Jonas and Morin.

PHA530 Philosophy of Freedom 3 cr.

Based on the triple theoretical dimension of freedom (metaphysical, ethical and psychological), this course develops an anthropological approach to freedom in a very modern praxeological perspective which submits new easements in light of the growth of concepts, progress and change in areas such as the economy or the environment.

PHI201 Introduction to Philosophy 3 cr.

The course will introduce students to philosophical thinking and practice. It will cover, on the one hand, the main philosophical currents, highlighting their specificity and their creative input and, on the other hand, the most representative authors in the history of philosophical thought. In an effort not to separate these themes and the fundamental questions of mankind, the course attempts to show the relationship that develops between the aforementioned notions, with the aim of addressing their impact on certain world views that constantly interpolate us within contemporary societies.

PHI210 Greek Philosophy 3 cr.

This course is divided into two parts: the first part examines pre-Socratic sources that give students the proper tools to acquire philosophical thinking in their quest for the nature of things, and in their attempt to unveil both natural and human phenomena. It thus includes the main schools of thought such as the School of Miletus (Thales, Anaximander, Anaximenes), the Pythagorean school (Pythagoras), the Ionian school (Heraclitus), the Eleatic school (Parmenides), as well as the Sophists. The second part deals with Socrates, Plato and Aristotle.

PHI301 Medieval Philosophy 3 cr.

Pre-requisites PHI210

This course is designed to analyze the highlights of the thought of St. Augustine, St. Thomas Aquinas and Meister Eckhart. We seek, from the analysis of the Augustinian singular experience of truth, to understand in depth the issues relating to the problem of knowledge, the metaphysics of inner experience, the self-certainty based on the truth of God inherent in our interiority, temporality and eternity and the unitive and tripartite constitution of the same soul to the constitution of the Trinitarian life in God. We will study, starting from a critical reading of the writings of St. Thomas, the themes related to the receipt of Thomistic Aristotelian heritage, the question of creation and the evidence of the existence of God, the question of analogy and the problem of knowledge. A contemporary reading of the mystic Meister Eckhart, which largely contributed to the emergence of

German philosophical speculation, will be analyzed as well. The research will, at this level, tackle Eckhart's unitive structure of knowledge and life, that animates the vital relationship between God and man.

PHI325 Philosophical Reading 3 cr.

An analytical and critical reading of a philosophical text in its entirety is a necessary and formative exercise. After an introduction to the author and his work, and in context of the work in question, a reading workshop, directed and supervised by the teacher, will develop around the statements of work, comments and thematic overviews, for the establishment of a reference file. The workshop will be provided each semester by a different teacher, for a greater variety of approach. The work chosen by the teacher in charge of the course generally will correspond to its competences. It must, however, be a major and referential work in the history of thought. A list of authors will be established for this purpose, such as Plato, Aristotle, Augustine, Descartes, Kant, Hegel, Nietzsche, Heidegger, Husserl, Arendt, Derrida, Merleau-Ponty, etc. The work chosen will be announced at the beginning of each semester.

PHI327 Philosophical Anthropology 3 cr.

Pre-requisites PHI210

The question "What Is Man?" is at the heart of philosophical questioning. Starting from the anthropocentrism need of philosophy, the course firstly explores the meaning of the question about the essence of man through its history, the challenges imposed by the cyborg, the computational world or gender theory (Gehlen, Leach, Butler, Blumenberg, etc.). The course questions the difficulties of defining the human being through current changes by building on the thinkers of classical humanism and post-humanism. Secondly, the course presents the basic categories of philosophical anthropology and offers a thorough analysis of the being-in-relation (or the human being-in-relationships) and discussion of political, social and cultural implications, with reference to contemporary thinkers of otherness (Levinas, Buber, Marion, etc.)

PHI333 Modern Philosophy 3 cr.

Pre-requisites PHI301 or PHI210

The students will be introduced to two great philosophical currents, both stemming from the works of Francis Bacon, rationalism (Descartes, Leibniz and Spinoza) and empiricism (Locke, Condillac, Hume), leading to Kant's philosophy of knowledge - critical rationalism.

PHI375 Internship 3 cr.

The purpose of the course is to propose several approaches to the current teaching of philosophy in high schools, and to highlight the various and complex problems specific to this area. It is divided into three parts: the first is an appropriation of various acquired theories relative to the plan of pure didactics. The second is an appropriation of the acquired theories related to the specialized philosophy didactic. The third is testing these theories acquired by a teaching internship in schools, which confirms the skills already acquired by the student concerning both pedagogical and philosophical plans.

PHI419 Philosophy and Sciences 3 cr.

Pre-requisites PHI333

This epistemology course centers around a double axis: firstly it tackles the gnoseological question with an inquiry into the genesis of knowledge or the basic stages of the transition from anthropomorphism to anthropocentrism (Kepler, Galileo, Newton). Secondly it tackles methodology in reference to exact sciences and deals with the requirements of the elaboration of a scientific method: its different stages, the means it uses, in order to avoid, overcome or circumvent all sorts of epistemological conundrums that stand in the way of an objective scientific progress (Bachelard, Popper), with a thorough critical study of the validity of its founding criteria (Wittgenstein).

PHI420 Logic and Philosophy of Knowledge 3 cr.
Pre-requisites PHI333
This course initially outlines a perspective of language as an object of study that shows how much of the philosophy of the twentieth century developed as a "philosophy of language" (Analytic Philosophy). Secondly it deals with the general theoretical framework of the argument as a discursive act, based on the theory of acts of language (speech acts), that the two philosophers Longshaw John Austin and, later, John Searle paved the way for. Thirdly, general issues related to logic are discussed, and are treated by the induction and deduction master concepts - truth and validity. A brief discussion is given on the methods and endorsements of formalization. The formal approach is exemplified, when it comes to conducting the analysis and evaluation of simple deductive arguments, called syllogism.

PHI433 Far-Eastern Philosophy 3 cr.
The course is divided into two parts: the first part educates students to draw their knowledge from the sources of Far-Eastern philosophy and enhance their knowledge of the cultural environment therein. The second part allows students to comment on a range of texts relating to the two Chinese and Hindu traditions: LaoTse, Confucius, the schools and sacred writings of Indian Brahmanism, Buddhism and Vedanta.

PHI445 Metaphysics 3 cr.
Pre-requisites PHI210
The purpose of this course is to present a reflection on metaphysics and its relation to primitive philosophy, which discusses, for example, "The science of Being as Being." It is divided into three areas. The first focuses on Aristotelian metaphysics. The second reflects upon the problems of the world, the soul and God, from the analysis of two antithetical philosophers, Leibniz and Spinoza. The third examines the different theories of the nineteenth and twentieth century, taking an in-depth look into the philosophies which were eager to put an end to metaphysics; philosophies which are attributed to Kant, Nietzsche, Heidegger and Habermas.

PHI447 Moral and Political Philosophy 3 cr.
Pre-requisites PHI210
The course aims to consider a reflection on the foundations and the meaning of democracy, in order to find the place of morality in politics; knowing that the two concepts "moral" and "politics" are written mostly in separation rather than in conjunction. This is how we can understand the great debates relative to moral and political philosophy, from the ancient Greeks - particularly those of Plato and Aristotle - until modern or contemporary times. Starting with an approach to these two concepts, the course is essentially questioning, on one hand, the need for the interaction of these two areas of morality and politics, and also that of their separation. Students will analyze in-depth the answer to these questions by drawing on texts of classical and modern philosophers such as Plato, Aristotle, Kant, Machiavelli, Thomas Hobbes, Max Weber, Hannah Arendt and Julien Freund, who have pondered this topical issue.

PHI448 Arab-Muslim Thought in the Middle Ages 3 cr.
Pre-requisites PHI210
The course of Arab-Muslim philosophy is envisaged in the form of problems: the theory of Knowledge - the topic of Reason in Arab-Muslim philosophy and the question of the compatibility of Reason and Faith (Mu'tazila, Ibn Tufayl, Ibn Rushd); God - the traditional proofs of his existence and attributes (Ibn Sina); the Universe - the hierarchy of beings, creation or non-creation of the world (Ibn Sina, Ghazali, Ibn Rushd); morality and politics (Al-Farabi); sociology and history (Ibn Khaldûn); and the Mystique (Ibn 'Arabi, Al- Hallaj).

PHI449 Islamology 3 cr.

The course covers the range of religious sects and trends that have marked the history of Islam. The focus will be on the Umayyad and Abbasid periods that experienced the early schism in Islam within the divergence of views, in conjunction with the mastery of the profound meaning of the Qur'an, the invitation of the Prophet, the authenticity of the hadith, etc.; and the notion of government and the dimension of legality, frequently confused with moral and religious legitimacy. As a first step, the course covers the schools born at a pivotal moment in the history of Islam: the Kharijites, the Qadarites the Mu'tazilites, the Ash'arites, etc. Secondly the course will deal with ijtihad, the tqalîde among Maliki, Hanbali, and Hanifites Shafi'is on the Plan Sunni Islam, and Shi'ite strategy, Ja'fari, 'Alawite, etc., on the plan Shia Islam. The work will focus on this project of studies and interpretations relating to the concept of power in Islam. Wide room for manoeuver will be reserved for fiqh, the kalam, the allegorical exegesis, and falsafa - globally and within the framework of the course.

PHI453 Hermeneutics 3 cr.

Having originated within the context of biblical interpretation, hermeneutics was freed from its dogmatic and institutional limits to become a discipline that mediated and reconciled stylistics, trans-linguistics, word-for-word linguistics and dissertation analysis, as well as a reading of the world as text. It is the restoration and disclosure of meaning that interprets and identifies the significance of the written and spoken word. The course traces the journey that this discipline has made from Schleiermacher to Ricoeur, as well as Dilthey, Heidegger, Gadamer, Szondi, Jaussand and Appel.

PHI455 German Idealism 3 cr.
Pre-requisites PHI333

This course aims to analyze the truth systems constructed by Fichte, Hegel, Schelling and the great fundamental institutions that structure all idealist comprehension of the truth. This course will be divided into three parts. Firstly we will study Fichte and his vision of the fundamental task of philosophy. In this manner, we will look at the themes of the self-awareness, the Being and the Apparition according to his masterpiece “The Science of Knowledge” of 1812, and we will also examine Fichte’s three images of the Absolute and philosophy of religion, as they are developed in “Die Anweisung zum seligen Leben oder auch die Religionslehre”. Secondly, we will read “The Phenomenology of Spirit” of Hegel, which is based on the major philosophical orientations that form the systematical structure of the truth. The main analysis is over the dialectic of knowledge and the three moments of the autorealisation of the Spirit: Art, Religion and Philosophy. Lastly, we will study the evolution of Schellingian thought from 1801, with the emergence of the philosophy of absolute identity - until Schelling’s intermediate philosophy in Stuttgarter Privatvorlesungen.

PHI456 Modern and Contemporary Arab Thought 3 cr.

The course focuses on two distinct but complementary parts. The first socio-political and historical part is the source of modern Arab thought, born in the Ottoman Middle East, of language and Arab cultural heritage. At the origin of this modern thought, expressed in the Arabic language and in the service of the promotion of the Arab society, are Lebanese Christians, mostly, and in particular, Syrian and Egyptian. New concepts circulate, such as “tolerance”, “freedom”, "equality", "brotherhood", "citizenship", etc., allowing the contribution of new transnationalistic, Arabic and nationalistic ideas, operating progressively in favor of the introduction of a democratic political regime that would terminate the dictatorship and the cult of "me" politically translated into a sultanate recognized as the shadow of God on earth. The second part focuses on the emergence of a political, socialist, communist, progressive, Baathist, Nasserist, and democratic thought; work of the enlightened Christians and Muslims in the Arab world in search of a new national ideology, which tried to contribute to the emergence of a state concept, an identity that includes all the components

of a national community and a political philosophy capable of challenging the rapid changes within the global plan. The aim of the course is to enable students to grasp the dimension of Arab thought outside the religious framework that limits the concept of state and denies democracy the right to be admitted.

PHI458 Contemporary Philosophy I: Phenomenology 3 cr.
Pre-requisites PHI455
The main objective of this course is to study phenomenological thought in two particular ways. The first one analyzes the principles of phenomenology, in the manner elaborated by Edmund Husserl. The second one brings to light the numerous manifestations of the phenomenological practice and its particular development by the French phenomenological school, which is essentially represented by M. Merleau-Ponty, J. Derrida, E. Levinas, M. Henry and J.-L. Marion.

PHI459 Contemporary Philosophy II: Existentialism 3 cr.
Pre-requisites PHI458
Starting with the knowledge of Existentialism,"Kierkegaard, Heidegger and Sartre", the course initially questions their take on existential and "existentiale" philosophy, on contemporary thought, as well as on the distinction between Heidegger's philosophy and that of Sartre. Secondly, the course discusses major ontological questions raised by Existentialism such as freedom, anxiety, responsibility, death, and God. Finally, the course examines how structuralism in its foundations (Lévi-Strauss, Michel Foucault), presents itself as a critique of Existentialism.

PHI485 Philosophy and Societies 3 cr.
Pre-requisites PHI447

This course introduces students to a philosophical reflection upon the concept of society. Firstly, it attempts to identify the origin of society, through the problem related to the two corollary concepts of nature and culture. Secondly, the course tackles factors maintaining a social link, explaining the relationship between the state as artifact according to Aristotle, and political societies. There are thus different possible societies such as the individualistic society, communitarian society, holistic society, closed society, open society, etc. Finally, starting from a general approach to social institutions, the course questions the concept of distributive justice and what follows as a dilemma between procedural justice and communitarian justice; which leads ipso facto to a topical problem, that of justice as a social, political and legal recognition.

SOC201 Introduction to Sociology 3 cr.
This course provides a basic knowledge of general sociology: a) it presents an overview of the context of the event-emergence of sociology on the basis of the main founders and focuses on methodological perspectives and applied sociological methods and techniques; b) it focuses on the key principles of social themes, which description and definition have fueled and fed the many debates that are changing the discipline in the vast corpus of scientific knowledge. This course provides students with general sociology elements, sensitizes their "sociological perspective" and develops their critical reflection on various social issues.

PHI514 Will to Power Philosophy 3 cr.
The study of the will in philosophy focuses on the main question: To what extent is volition a free act? If the will expresses a complex dynamism that translates a pluralistic complicity between one or more desires or needs with any other discernment, to reach a decision, the transition to the act or the gratification of the desire is not always the product of a pure rationalization. Indeed, the study of philosophical texts of the post-idealistic period of Schopenhauer to Ricoeur, through Nietzsche and Freud, marks out the itinerary of a volition, which is affirmed by excess. So first, we ask the question of the historical development of wanting and not wanting, since antiquity to the present day, focusing on the analysis of the mystical and psychological approach of the term. Secondly, we

deepen the philosophical contributions of the Romantics and contemporary philosophers concerning volition as a free and premeditated act. Thirdly, we examine the issue of will, as it has been treated by any philosopher of modern and contemporary times.

PHI515 Philosophy and Intercultural Dialogue 3 cr.

This course focuses on a revisit of the issue of dialogical philosophy and its impact on the intercultural encounter and reciprocity. Its purpose is to show that no cultural entity can monopolize the space of the historical manifestation of the truth. It covers five specific areas: an attempt to define interculturalism in the era of global pluralism; a focused discussion on the controversial thesis of the clash of civilizations; a tight confrontation between the East and the West in what it conveys as essential and indispensable in terms of constitutive elements, intrinsic aspirations and repressed potentialities; a trial of the philosophical foundation of the concept of dialogue, with preferential reference to the thought of Martin Buber; an open debate on three controversial topics of multiculturalism, namely the universality of human rights, global citizenship and Eurocentrism. The basic philosophical presupposition that underlies the entire development of these areas is the realistic perception of pluralism of acts required to the critical analysis of reason, which assumes the meaning in its various interpretations.

PHI516 Philosophy of Art 3 cr.

The purpose of this course is a reflection on art and the values of beauty. Firstly, it studies the concept of the autonomy of art according to Kant, based on the criteria of beauty. Secondly, it deepens the concept of heteronomy of art, unique to the School of the German Romantics - Schlegel, Novalis, Tieck, etc. Thirdly, it analyzes the dual aspect of autonomy and heteronomy of art in Schiller‘s concept.

PHI517 Philosophy of Love 3 cr.

The purpose of the course is to delimit the meaning of the concept of love which finds its roots in the etymology of the word “philosophy” where the prefix “philein” is translated as love. It is divided into three parts. The first examines the relationship between the two terms “philein” and “philos”. The second examines the concept of love through relational philosophy; showing that if the experience of love is precisely one of the communication of consciousness, with the idea (Plato) that of the triad Eros - Philia- Agape, revealing the problem of communication of consciousness. The third component establishes a critical analysis of the highlights of the metamorphosis of love in its dialectical relation to the forms of art.

PHI535 Philosophy and Ethics of The Social Contract 3 cr.

The course focuses on the study of the power concept and the social and political contract from the perspectives of some classic and modern philosophers, theoreticians of the state. The course enables to identify a constellation of topical themes: natural law and positive law, violence and recognition, freedom and submission, etc. On completion of this course, only moral philosophy and social and political ethics are highlighted.

PHI545 Philosophy of mediation and conflict management 3 cr.

This course focuses on the issue of the conflict and its consequences. It allows taking stock of different theories of conflict and raise through the philosophy of mediation, fact finding: theorizing the conflict means that we cannot avoid it. Starting from the philosophical and sociological analyses, the course intends to approach the methods in resolution or conflict management based on dialogue, non-violent communication, negotiation, and mediation, on various individual, grouping, societal and political plans.

PHI650 Phenomenality of terrorism and natural right 3 cr.

The emergence of the terrorism phenomenon nowadays puts at risk the organization of a human world. Whether it is not rational in itself, its conditions of use remain rationalized. It is often a pure instrument, a mode of action in the service of a project. It is obvious that terrorism is outside the scope of law. This is at first to wonder about the possibilities of flouting the law in the name of a certain vision of natural law, the right to life, to existence, the right of every populace to have a state, a territory. Secondly, the required possibilities will be addressed to reconsider the concept of peace culture which has foundations that philosophy and humanities can be uncovered.

PHI655 "Care" Philosophy 3 cr.

The philosophy of care in the nineteenth century, actor and witness of new advances in science and technology, does it come to fill the ethical void in our modern and contemporary societies? The course debits on three pillars: the first studies philosophy of care in its four characteristics- the caring about, the taking care of, the care Given, and care- receiving? The second highlights the ambivalence of care: is it the pivot of a project of alternative society or screen concept, veiling under a set of political, economic or other problems? The third, which highlights the confrontation of this care theory with theories of justice, examines new questions and new perspectives in the way we define what we mean by a just and decent society.

PHI596 Philosophy Project 3 cr.

This training activity is intended as a seminar whose ultimate goal is to have the students devise a research project in the field of philosophy. The seminar is linked to all the teachings and especially to social science research methodology. Students are supported during the course, to the realization of the first steps in the construction of their research projects. The main object assigned to this seminar is to build a research project, which will be finalized in the Dissertation.

After attending the seminar, the students are required to submit a final written project (20 typescript pages). Epistemology forms part of the course. This is a study of the concepts and methods of the various currents of modern epistemology, which originated in the early "epistemological breaks" that separate the pre-scientific period of the classical rational science and highlight their implications in the renovation of the statuses of science, epistemology and the history of science.

PHI670 Multiculturalism and Identities 3 cr.

This course develops, from a cultural and political perspective, identity strategies, a philosophical reflection on the three concepts of difference, recognition and tolerance.

PHI671 Philosophy and Communication 3 cr.

The course aims to deepen the principal mutations in the philosophy of communication from the twentieth century and to develop critical reflection of the media. It covers two areas. Firstly, it interrogates the meaning of this new "paradigm" of contemporary philosophers who revisit the problem of truth in a post-metaphysical context (Jean-Marc Ferry). Hence the relationship of this new philosophy to analytical philosophy. Secondly, it studies the issue of communication and, more precisely, contemporary communication, through its various aspects, namely communication and relationship, communication and intersubjectivity, philosophy media, the Internet and new mass media. It places the media in contemporary culture, hermeneutical theory and the main methodological tools, criticism of cultural industries and reflexive appropriation of symbolic imagery, etc.

PHI681 Philosophy and Religion 3 cr.

The course focuses on the study of the complex relationships between philosophy and religion. Considering philosophy as reflexive, essentially rational attitude, and religion as a belief in the sacred and the supernatural, which can only be grasped by privileged people and appropriate methods, it releases the essential characteristics that marked the historical relations between the two religious and philosophical currents, thereby allowing them to define a position of principle regarding their mutual relations. Three components underpin this course. The first analyzes the fundamental aspects of philosophy, as human work and relative truth. The second explains the features of religion, revealed as the work of God and absolute truth. The third examines the reciprocal relationship between these two areas, and identifies the principled position of philosophers and theologians faced with the problems raised by the binomial Faith and Reason.

PHI682 Political Philosophy Problems 3 cr.

How to orient ourselves in the political world? Several specific courses regarding the various problems of political philosophy answer this question over more than one plan. A reasoned array of themes relevant to modern and contemporary political philosophy, are offered every year, alternately by professors and specialists in political philosophy. Each develops, according to their competencies, a problematic to look at with their students, covering: contractual and contractual theories, pure theory of law, pure law, natural law and positive law, legitimacy and legality, distributive and commutative justice, power and abuse of power, state and revolution, a phenomenological conception of state, etc.

PHI683 Philosophical Approaches of Phenomena-Existence Limit 3 cr.

The studies conducted in the framework of the rotating courses related to a specific thematic focus of phenomenology, are located in the most ample philosophical horizon of contemporary phenomenology. Each issue relating thereto is treated each year according to the choice of the researcher, the Professor in charge of the course. This main axis, around which rotate the problems of various courses, focuses on the study of phenomena-limit of existence. They specifically refer to the primordial events of life and affective tonalities fundamental to existence, which manifest an excess of sense and experience, overwhelming any representation made by a reflexive and intentional consciousness. Of these borderline phenomena revealing "phenomenality saturated and saturating" we quote: God, the world of life, transcendental birth, death, anguish, transcendental emotions, living flesh, live temporality and eternity, suffering, love, the experience of the other or the ethical paradox as well as the esthetic truth.

PSY201 Introduction to Psychology 3 cr.

This introductory course is also enrolled in general education as a prerequisite for students who will pursue psychology training. This course will provide students with the basic concepts in psychology and will facilitate their access to knowledge during their academic curriculum. It includes the following objectives: understanding psychology from a historical and a theoretical perspective (Gestalt, phenomenological, experimental, scientific, psychoanalytic and cognitive, etc.); understanding the various fields of psychology (clinical, experimental, developmental, educational, social, etc.) and the different methods used (experimental, clinical, psychometric, projective, etc.); providing an appropriate approach to personality issues - basic needs, affective and emotional (feelings, emotions), intellectual (cognition, memory) and social (social influence).

PSY214 Developmental Psychology 3 cr.

Pre-requisites PSY201

The course has two segments given in two sequential phases: Childhood and Adolescence 1st segment: childhood allows students to become familiar with basic concepts and notions of childhood developmental psychology (stages, phases and developmental factors); understand the major

theoretical approaches (maturational, behavioral, psychoanalytical, cognitive constructivism and psychosocial approaches); identify the main characteristics belonging to each developmental stage on the biological, intellectual, affective, sexual, social and moral level; 2nd segment: adolescence allows students to understand the adolescent phase in the developmental process, note each function belonging to this stage, pinpoint the process of self-consolidation, the construction of the identity, achieving maturity as well as choices and decision-making processes.

PSY219 Perceptual Motor Development 3 cr.

This course is a study of the physical, motor growth and development of children. It emphasizes the selection of activities that influence the development of perceptual motor skills in young children, and describes perceptual motor theory and practical application in child care programs. Focus will be placed on motor development and movement performance, and how these relate to cognitive and affective development.

PSY305 Clinical Psychoanalysis 1 3 cr.

Pre-requisites PSY201

This course is divided into two segments: the first segment enables students to recognize essential psychoanalytical notions based on Sigmund Freud's theories, particularly the discovery of the unconscious, psychic apparatus, psychosexual development and fundamentals of analytical therapy; the second segment allows students to identify leading figures in psychoanalysis, namely the post-Freudian authors (Anna Freud, Melanie Klein, etc.), as well as neo-Freudians (Alfred Adler, Carl G. Jung, etc.) The course aims to offer the students a means to adopt a psychoanalytical method of interpretation that can be applied in clinical psychology.

PSY311 Theories and Models of Personality 3 cr.

Pre-requisites PSY201

The course consists of two complementary sections: the first section concerns a personality study through different standpoints of psychoanalysis and dynamic psychology, existential and humanistic psychology, psychometrics and factor analysis, behavioral psychology and through theories of learning including various affiliated methods and theories; the second section helps students in learning the application of various personality assessment methods.

PSY315 Psychology and Health 3 cr.

Pre-requisites PSY201

This course develops the following: recognition of the theoretical and empirical foundations in psychology of health, their application on the dimensions and the psychological behavior of health and disease (styles and habits of life) in the predisposition, development and maintenance of physical illness, in health and the management of certain diseases.

The identification of themes related to the psychology of health (pain, stress, cancer, obesity, addictions, vulnerability, and others).

PSY318 Personality and Self-Development 3 cr.

Pre-requisites PSY201

The aim of this course is to explain the processes of personality construction through a progressive self-discovery. This is a multi-axial approach to the different dimensions of personality; its evolution and the interaction with the environment, will be addressed. This will provide a general overview of the concept of personality and its dynamic aspect from birth until old age. Also covered will be affective and social aspects in the relationship of the self to the world and, finally, "normal" vs. "pathological" personality development.

PSY325 Introduction to Psychosomatics 3 cr.
Pre-requisites PSY311
The course focuses on the field of psychosomatics and introduces different perspectives and schools examining somatic manifestations that are strongly associated with the psychological development of the individual. The course also studies symptomatology of psychosomatic disorders from early childhood to adulthood, resulting from psychological development. It also explains the different aspects of the therapeutic procedure addressing psychosomatic symptoms.

PSY330 Social Psychology 3 cr.
Pre-requisites PSY201 Or SOC201
Firstly, this course explains the basic concepts in the various fields of social psychology, namely values, norms, opinions, attitudes and roles, social interactions, communication and information. The course then develops the group notion and covers its theoretical perspectives (cohesion, interaction process, conflicts and resistances, etc.) and group animation (methods, techniques and applications). The practice of social interactions is inherent to this teaching (role play, information clips, case simulations, etc.).

PSY334 Psychology of Education 3 cr.
The course objective is to introduce and train the student in educational psychology and the different underlying theoretical principles of the discipline. The physiology of organic and psychological bases of cognitive functioning will be addressed (e.g. reading, language, memory, attention, etc.) as well as the cognitive educability and the problem of motivation, in addition to the pathological elements that can impede proper psychic functioning.

PSY335 Developmental Clinical Psychology 3 cr.
Pre-requisites PSY214
This course identifies the characteristics of the adult stage, crises and problems encountered during the different ages of the adult, maturity and crises (mid-life crisis, generational conflict, identity and professional problems of men and women, loss and mourning, etc.). In the second part, this course targets and analyzes the influence of environmental and cultural factors, attitudes, values and social representations.

PSY334 Psychology of Education 3 cr.
The course objective is to introduce and train students in educational psychology and the different theoretical principles underlying such a discipline. The physiology of organic and psychological bases of cognitive functioning will be addressed (e.g. reading, language, memory, attention, etc.) as well as cognitive educability and the problem of motivation; in addition to the pathological elements that can impede proper psychic functioning.

PSY337 Child and Adolescent Psychopathology 3 cr.
Pre-requisites PSY214
This course defines the theoretical bases of child and adolescent psychopathology. Themes are selected with respect of the priority of hereditary, congenital or acquired pathologies and progressing to other psychiatric disorders.
A recurrent therapeutic overview follows the definition and identification of various psychological disorders that enables the students to reinforce any understanding of the psychopathology.

PSY366 Personal and Professional Development in Occupational Psychology 3 cr.
Pre-requisites PSY311
The course objectives are: personal development (psychological orientation and counseling);and professional development (establishing the necessary link between personality and professionalism,

as the set of job-related skills needed to practice a trade). The course develops the following themes: key knowledge in Counseling Psychology; the main models and types of intervention in counseling; guidance in counseling and occupational mobility; knowledge of the different types of intervention (recruitment and guidance interview, review interview, counseling interview); and knowledge of various ethical and deontological aspects of human labor. At the end of the course, students will know how to conduct interviews in guidance, counseling, and support for personal and professional development.

PSY370 Counseling and Ethics 3 cr.
Pre-requisites SOC325
This course consists of two parts as follows: Part 1 (2 credits) raises awareness of the models and methods of guidance counseling to education, training and occupations; develops the concept of guidance and counseling as a helping relationship that supports young people in their educational and eventually professional paths, and adults in their working lives; allows the young psychologist in training to master the theories and the frameworks of the orientation (concept of professional project, representation of professional stereotypes, theories and strategies of the aid relation in counseling); Part 2 (1 credit) is reserved for the ethics of the psychologist in the workplace (code of ethics of the internationally recognized psychologist).

PSY378 Practice of Evaluation in Industrial Psychology 3 cr.
Pre-requisites PSY366
This course aims to teach students how to conduct an objective and scientific evaluation using instruments, trials and tests pertaining to the quality of work, workers' skills and organization system evaluation, in terms of productivity/performance. The course is based on a methodological approach covering: the cognitive analysis of daily activities and work situations; project management and its conformity with the aims and means; personality assessment; assessment of skills; assessment of work conditions (healthwise - prevention of occupational risks and safety); and assessment of professional and interpersonal relations. At the end of the course, students will know how to provide a dynamic interpretation of the results obtained using evaluation methods and are capable of justifying an opinion formulated and based on these results.

PSY400 Group-Class Psychology and Educational Relationship 3 cr.
This course is designed specifically for teachers who manage a class within a class. The course consists of two interrelated components: the dynamics of the class group located in the class, in the school context by studying its internal psychological functioning and laws governing it; the problem of the atmosphere of the class and the interactions that occur there. The psychology of the educational relationship considers first the psychological mechanisms at the base of the relationship, then the foundations of the educational relationship, and clarifies the criteria for a healthy educational relationship within the triad of parents, students and teachers.

PSY414 Initiation to Work Psychology 3 cr.
This course provides students with the fundamentals of the psychology of work. The course sets itself objectives of situating the psychology of work compared to its history, its evolution, distinguishing working conditions and studying their effects on workers (stress, satisfaction, motivation, etc.), and approaching the various areas of intervention of the psychologist's work (personnel management, training, psychological assessment, etc.).

PSY415 Initiation to Ergonomics 3 cr.
This course intends to define ergonomics (adapting work to the operator) within the framework of labor sciences and to present its approach to human beings at work, with the practical objective of improving the work situation, particularly – albeit not exclusively – the relationship between men and machine. The course presents a history of ergonomics, its trends (physical ergonomics, cognitive

ergonomics, macro-ergonomics, anthropo-technology, and design) and its methods (observation of activity, analysis of communications at work, simulation, etc.). It enables students to get to know the fundamental concepts of ergonomics: real work–prescribed work, task and activity, modus operandi, regulation, responsibility and constraint and labor analysis. It also covers labor-health and labor-time relations. It will be completed with a description of objectives and forms of action in ergonomics (correction, conception, organization, formation, etc.), and teaching will build on examples of ergonomic action.

PSY422 Cognitive Psychology 3 cr.
Pre-requisites PSY311
The course demonstrates how intelligence is implemented in cognitive activities such as attention, perception, memory, problem-solving, decision-making and reasoning. For each of these core activities, the information processing theories will be determined, as well the methods and techniques used by psychologists to understand, analyze and assess cognitive functioning.

PSY425 Creative and Cognitive Experiences For Young Children 3 cr.
This course prepares individuals to work with young children in creative age-appropriate activities and investigates affective classroom experiences through open-ended activities. It emphasizes theoretical and practical aspects of cognitive development for children ages 3 through 6 with a focus on planning integrated experiences and content in science, mathematics, and social sciences. It develops students' understandings of young children's creative expression through art, music, movement, play and drama, and emphasizes how to plan, implement, and evaluate appropriate learning experiences as well as selection of appropriate instructional materials.

PSY433 Fundamental Psychobiology 3 cr.
Pre-requisites PSY311
This course studies the physiological study of the human being, especially the biological human constitution and its influence on its psychological characteristics, the emotions, intellect, imagination, belief, etc., taking into account the important contribution of neurosciences. The course enables students to understand, from biology and neurobiology, the psyche and human behavior.

PSY437 Adult Psychopathology 3 cr.
Pre-requisites PSY335
This course identifies the psychiatric disorders of the adult; specifically their symptoms, etiologies, and the different modalities of management and treatment. It enables students to differentiate psychotic disorders (schizophrenia, delusional disorders), mood disorders (depression and bipolar disorders), anxiety and conversion disorders (OCD, phobia, panic disorder, GAD, conversion), alcohol and substance use disorders, as well as personality disorders. Another student objective for this course is to identify disorders, make differential diagnoses, and be introduced to the treatments used in psychiatry, in order to have a comprehensive understanding of adult psychopathology.

PSY439 Work Psychopathology 3 cr.
Pre-requisites PSY366
This course identifies the psychological problems caused by work: adjustment and adaptation to various working conditions, states of fatigue and neuroses of work, the concept of ‘burn out’, the problems caused by automation and the use of computers, the effects of unemployment on mental health, and the issue of the employment of sick and mentally disabled people. The course develops the topics of anxiety and stress at work, the causes of work stoppages, addiction to work, workaholism, etc.

PSY445 Clinical Psychoanalysis 2 3 cr.
Pre-requisites PSY305

The aim of this course is to develop further theories regarding personality structures and psychological disorders based on Freudian and post-Freudian concepts within contemporary psychoanalysis. More specifically, students will comprehend the relationship between theory and practice in the clinical framework, through a variety of theoretical constructs amongst current authors of the Psychoanalytical Society of Paris (Jean Bergeret, Pierre Marty, Françoise Dolto and others) and the International Lacanian Association (Jacques Lacan). Students will also be introduced to recent research from the European and American psychoanalytical schools, thus benefiting from the scientific activities and the recent publications of these schools.

PSY455 Psychological Management of Human Resources 3 cr.
Pre-requisites PSY414

This course is divided into two parts: - the first part includes the objectives, components and knowledge bases of the HR function within organizations; the second part addresses the psychological management of problematic issues pertaining to management, labor relations and their consequences. This course develops humanistic approaches (motivation-satisfaction-implication), interactionist approaches (illustrating the actors and their strategic approach) and symbolist approaches (illustration of corporate culture).

PSY467 Group Management Functioning and Dynamics 3 cr.
Pre-requisites PSY311 and PSY330

The course focuses on theoretical models of the functioning and management of groups, as well as on notions of inter-group communication and its application on different levels: group, family, individual and organizational. Students will be required to participate in a group dynamics session and write a summary report of their personal experience within the group.

PSY469 Communication Techniques and Clinical Examination 3 cr.
Pre-requisites PSY337

This course is twofold: validate the clinical approach, maintenance procedures and clinical examination and the method of testing at the level of the child and adolescent; use and review data analysis of different tests - intelligence test (verbal and non-verbal), personality tests (questionnaire, scales, etc.), projective tests (CAT, Black Legs, scéno -test, drawings, etc.), in order to establish a diagnosis of mental and psychic functioning and prognosis of evolution, adapted to children and adolescents.

PSY470 Adult Psychological Exam 3 cr.
Pre-requisites PSY335

This course enables the recognition and use of the psychometric tests adapted to adults: intelligence test, personality, recruitment or referral, psychopathology rating scale, etc. It also allows analysis, data processing and interpretation, in order to establish a diagnosis of mental functioning and evaluation prognosis. The students will learn to write a report (or psychological assessment) and to communicate the results as appropriate.

PSY475 Internship of Clinical Psychology 3 cr.

This internship aims to guide students who, at the end of their third academic year, choose to access the Master of Clinical Psychology. Students, in agreement with the Head of Department, undergo an internship in an institution that supports the various cases and offers students the opportunity to observe them, to become familiar with the clinical territory rich in problems whose solutions fall within the competence of the clinical psychologist. The duration of the internship lasts for one semester for four days a week and five hours a day, from 8:00 am to 13h. 20 hours per week; in other words, an hourly volume of 300 hours per semester.

PSY479 Internship of Industrial Psychology 6 cr.

The internship enables the students to learn about the functioning of organizations: public or private companies, administrations, associations, etc., and their place in economic and social life. The course is an introduction to the life of work, an openness to the system of communication and information within a company, a prerequisite for putting into practice the theoretical acquisition concerning human resources management and the management of contradictions in a particular undertaking. The phases of the course are: a) a stage of observation during which the trainee is limited to the observation of the progress of the work in contact with the leaders and, if possible, with staff, b) a stage of intervention, under the supervision of the organizational psychologist hired by the company, with cases, which constitute a problem within the institution. The response phase is controlled by the psychologist at work or under the control of the master psychologist of the course teacher. At the end of the course the students prepare a detailed report in which they present the company, describe the workings, the hierarchical distribution, the quality of work, the means put at the disposal of the worker to evolve or fall into mental impairment, working hours and respect for labor rights, possibilities of malfunctions, etc.

PSY480 Personality Study with Projective Techniques 3 cr.

Pre-requisites PSY311

The course is divided into two distinct but complementary parts: Psychodiagnostic Rorschach and the Thematic Apperception Test. Psychodiagnostic Rorschach aims to examine the theoretical models that govern the diagnostic range, prognosis and treatment of the Rorschach test, wherein all ages and issues are involved. Students will learn the basics of operating the Rorschach and acquire technical interpretation of the different indices of Rorschach. The Thematic Apperception Test (TAT) aims to understand the foundations of psychoanalytic interpretation of TAT by the method of Vica Shentoub and its successors; and the counting chart developed by the school, without excluding other interpretations. After a theoretical overview of the two projective tests, an application will be based on a case study of clinical protocols of children, adolescents and adults on a normality and pathology level.

PSY531 Clinical Cognitive Neuropsychology 3 cr.

This course aims to train students in the application of the major concepts and methods of cognitive psychology in the study of the dysfunction of consecutive cognition in brain damage. It aims to describe and decipher the cognitive and emotional disturbances related to brain and mental dysfunctions, which underlie them: dyslexia, spatial representations, selective attention, spatial hemineglígence of the knowledge of the object (agnosia, etc.). The analysis of these alterations also allows for testing theories of normal mental functioning.

PSY532 Psychotherapies 3 cr.

The course focuses on the different psychological therapeutic approaches, in terms of both the theoretical framework of their principles and application techniques: psychoanalysis, the psychotherapy of analytical inspiration, psychotherapy of humanistic inspiration (personalistic existential), the methods of relaxation, familial, sexual, institutional, behavioral and cognitive therapies, hypnosis, etc.

PSY536 Learning Disabilities: Dyslexia, Dysorthography, Dyscalculia 3 cr.

This course comprises:

1. An analysis of the learning processes in a classroom situation
2. A study of neuropsychological or cognitive constraints underlying the learning process
3. An analysis of the main acquisition models of reading, mathematics, and cross-curricular competencies, such as problem resolution coupled with the emotional and social development of the child as well as the adolescent.

4. The main disorders: (dyslexia, graphic disorders, the dysorthographia, dyscalculia), along with their diagnosis, their causes and their signs.
5. The impact on academic performance and adjustment problems which these disorders pose. The psycho-pedagogical measures to be undertaken

PSY537 Behavioral Disorders at School 3 cr.

This course sheds light on the different behavioral disorders, such as attention, hyperactivity, oppositional disorders, violence, shyness…This course analyzes the points mentioned hereinafter:

1. The principles and framework of intervention with students;
2. The cognitive and affirmative behavioral methods of intervention ;
3. The processes of assistance and collaboration with parents.

PSY548 Personality and Health 3 cr.

This course addresses the study of psychological factors related to the personality, namely the cognitive, emotional, behavioral and biological aspects which exert influence in the predisposition, development and management of certain diseases. The personality as a factor of vulnerability

PSY552 Taxonomy and Psychopathology 3 cr.

The objective of this seminar is to reflect on the history of classifications in psychopathology. The seminar provides insight into how nosography has transformed and enriched for over a century. Similarly, it focuses on the first descriptions of mental illnesses, on the evolution of ideas in psychopathology and the various etiologies found across the time. It takes its beginning from the descriptions of Bleuler, Charcot, Serious Capgras, etc., passing through the extremely rich writings of Henri Ey, until reaching the DSM and ICD.

PSY564 Evaluation Methods And Techniques In Health Psychology 3 cr.

This course addresses:

1. The training to evaluation, to diagnosis ;
2. The development of questionnaires, measurement scales and tests;
3. The observation and the clinical encounter;
4. The psychological assessments and the patient follow-up.

PSY569 Psychological Assessments in School 3 cr.

This course addresses:

1. Clinical and psychometric examinations at school: the examination stages, from the date of the application to the appearance of results;
2. Psychological testing in a school setting: intelligence and affectivity evaluation;
3. The annual assessment reports and the follow-up at the level of the child as well as the adolescent.

PSY570 School Psychologist Interventions 3 cr.

This course set sights on:

1. Being acquainted with the different tasks of the psychologist in a school setting, namely: the assistance, the Board, the interventions and participation in educational activities as well as in the school life.
2. Being able to put them into practice by children and adolescents in a school setting.

PSY576 Clinical Issues 3 cr.

This course examines clinical psychology: exploring its definition, its history, its method, its boundaries and the many application fields by showing how the models (psychodynamic, cognitive-behavioral, neuropsychological) influence clinical practice. Such teaching will be done

through a variety of clinical cases and illustrations and is spanned by a critical and constructivistic perspective.

PSY578 The Family Clinic 3 cr.

This course focuses on the different conceptual frameworks and methods of study in the psychology of family. It explores the different approaches - psychoanalytic (relationship and attachment); and systemic (morphology of the family relationship, the genogram, transgenerational). Then the pathology of family ties: pathology of intrafamilial communication. The course then looks at the various therapies.

PSY595 Project of Psychology 2 cr.

This training is a seminar aimed at enabling the students to conduct a research project in the field of psychology (clinical, health, school and work).

This seminar is linked to all courses and, in a special way, to the research methodology in Human Sciences. The students are assisted during the course in realizing the first steps of the research project. The main objective of this seminar is to build a research project which will be finalized in the Dissertation.

After attending the seminar, the students are required to submit a final written project (20 typescript pages).

Epistemology is a part of the course, covering a study of concepts and methods of the various trends of modern epistemology initiated in the early ”epistemological breaks" that separate the pre-scientific period from the classical rational science period and highlight their involvement in the renovation of the statuses of science, epistemology and history of science.

PSY600 Stress, Trauma and Disability 3 cr.

The course begins by looking at the concept of stress, specifically covering: evolution of conceptions on psychosocial determinants of health and disease, stress issues, the concept of stress, and definitions; the epidemiological model (prospective research, retrospective, quasi-prospective, and risk factors); the biological model (Pavlov, Cannon, Laborit, Selye); the psychoanalytic model (concept of trauma, conversion mechanism, the concept of protective shield, the concept of self-skin, post-stroke mechanism); the psychosomatic model (Groddeck, Alexander, critic of the typology of Dunbar; School of Marty, concept of operational thinking; contemporary American school, concept of alexithymia); Stress Assessment Methods (scales of "life events", of daily hassles, of perceived stress); transactional stress approach (theories of Lazarus and Folkman, primary assessment, secondary assessment, identification and assessment methods of different concepts - perceived stress, perceived control, social support, coping strategies); links between personality traits (locus of control, expectation, sense of coherence, self-efficacy, etc.); and coping and stress adjustment. The second part of the course examines Post Traumatic Stress Disorder (PTSD), covering topics on: definitions of trauma; the different approaches to trauma - (psychoanalytic approach for archaic trauma, cognitive approach (conditioning model of fear), neuropsychological approach (theory of Damasio); Trauma and Post Traumatic Stress Disorder; the various sources of PTSD; PTSD diagnostic criteria; psychosocial determinants of PTSD; protective factors of PTSD; PTSD Evaluation Methods; stress and war trauma; takeovers and prevention of PTSD; debriefing, hypnosis, EMDR, cognitive and behavioral therapies; Cells of Medico-Psychological Emergency (WAC); and specificities of takeovers in children and adolescents.

PSY630 Ethics and Deontology 1 cr.

This course aims to introduce students, and eventually practicing psychologists, to continuous ethical concerns, which must be part of the practice of each psychologist. This course analyzes ethical problems pertaining to the practice of the psychologist (benevolent neutrality, professional secrecy, professional integration, professional identity, etc.).

PSY635 Thematic Seminar in Psychology 1 cr.

Through this course, students will be able to follow a research seminar involving international speakers and specialists in psychology (clinical, health, school and work). They may study concrete examples falling within the scope of current research in psychology focusing on the methodology (research systems designs, data analysis, etc.). Presentations will be organized to develop a given theme, each representing a specific disciplinary or methodological approach.

PSY668 Digital Activities Development 3 cr.

The objective of this course is to address a set of theoretical and empirical works on the development of numerical cognition. The following points will be considered:

a. The pre-concept and concept construction of number in children;
b. The recent approaches to solving arithmetic problems;
c. The intervening disturbances in the development of numerical activities.

PSY672 Addictions 3 cr.

This course provides a generalintroduction to dependencies, the criteria of addiction, and the epidemiology of dependencies. It also looks at different drugs, addictions, the psychopathology of drug addicts, the takeover of a cure and post cure, and possible therapies in addictions. The alcoholic illness, psychopathology of dependent alcoholics, consumers at risk and problems, the care of alcohol addiction, eating disorders (bulimia, anorexia, etc.) will also be covered, as well as the addiction to medication, tranquillizers and hypnotics, and mental illnesses that lead to abuse of medicines.

PSY677 Neurosciences, Cognition & Learning difficulties 3 cr.

The course focuses on the brain's constitution and its various functions, on new research related to the human brain and the development of the child at all levels (cognitive, affective, psychomotor, etc.). The course provides an understanding of brain dysfunction and its effects in some children with special educational needs: memory impairment, attention disorder, behavior disorder (ADHD), dyslexia, dysgraphia, dyscalculia, etc.

PSY682 Psychology of Family Ties 3 cr.

The family will be addressed as institutional entity and place of transmission, psychic inheritance and identity crucible for individuals in their knowledge, beliefs, and hopes. The Lebanese fieldwork will focus on forms and structure of the family in the Lebanon link: study of the nature of the links between individuals to a family (children, parents, grandparents) and the representation they make will be comprehended as moral values, beliefs, changes in family models and identity changes arising therefrom, and the psychopathology of the inter and transgenerational situation.

PSY684 Counseling and End of Life Support 3 cr.

The objectives of this course aim to:

- Develop the skills of listening, reformulation and empathy to better understand the support relationship and end-of-life care;
- Identify, accept and learn to manage their own emotions pertaining to the difference, disease, disability and death.
- Assist the hospitalized person to take conscience of their resources;
- Be able to contribute to the psychological, moral and spiritual relief of the person who has reached the end- of- life.

SEN505 Introduction to Special Education 3 cr.

The course focuses on a general introduction to special education (or specialized), setting protruding roots, its emergence, its conception and its further development. Special education is rooted in the

rescue and instruction towards disadvantaged children. It is also based on an imprint resistance of creativity against the established order, evolving with the revolution of human rights and the emergence of the dignity concept of every human being, and it fortifies certain concepts that give it consolidation in the support it provides to the disadvantaged society. The fields of action of special education are children and adolescents and even adults in need of support by reason of their psychiatric, physical, or behavioral disabilities, or integration difficulties. The course intends to start from "making family" a) for children and adolescents consigned to oblivion, for special education which involves "making society"; b) for disabled children teenagers excluded from national education, education of integration and inclusion, to that of vocational integration, the concepts of right, the difference and equality opportunities, etc. Upon completion of the course, the student will understand the meaning of respect to each other and the weight of the social context in which this report is playing and enter "social issues" such as social disintegration, addictions, poor living conditions, disabilities, marginalization, etc.; and their history, their singularity, which have no standard answer to be applied.

SEN510 Psychological Approaches to Handicap 3 cr.

The course has two components:

1-A psychosocial approach to disability and social representations of disability: this part of the course focuses on the experience of a handicap that the psychology interprets and envisions the consequences over the individual, his life, his personality as well as on the different ways to respond. The social representations of disability determine the relations of social performers with the disabled person. The flap develops the main types of social representations: a) the representations that underlie and are underpinned by concepts that classify disability, b) the social representations, sources of exclusion, rejection, refusal of differences, c) the performances that bring to disability technical, human, physical and institutional aids, d) the representations that reduce the suffering affects which falls on the handicapped, e) the representations that integrate disability to the child.

2-A psycho-cognitive approach to disability: self-regulation and dysregulation in the mentally deficient person: diverse approaches of regulatory processes falling within psychology and developmental psychopathology, psychology of learning and cognitive psychology are elaborated in this course. Self-regulation is seen as a skill and as a result of learning. The impaired person, who cannot seem to manage, entails the concept of hetero-regulation, i.e. a control process carried out by another person.

SEN515 Special Education Legislations 3 cr.

The course focuses on the legislations governing the relation to people with disabilities and allows the student to know:

- The regulations that apply to legislation, and appropriate legislation for people with specific needs and special educational needs, in Lebanon and in the world; their regulatory and institutional environment; the historical contextualization of the current policies of adaptation and social and academic integration, health and medico-social fields;
- The legislative reforms and their development;
- The overall legal context of disability; (Construction-related rights, equipment, vehicles, devices for adaptation to social and educational integration, and appropriate ethical criteria);
- The concept of special education, the definition of the profession and the context of the intervention;
- The programs promoting the integration of people with special educational needs;
- The pilot projects intended to promote the professional integration (Role and Missions of associations and organizations dealing with SEN, coaching and support by the Ministries of Health, Labor and Welfare).

The course will also focus on a) the action of integration-inclusion that deals with the development of students with disabilities, specific recommendations to their home in the classroom and the

teacher-parent interaction for a partnership favorable to the inclusion of the person with special educational needs at the point of making a school project; ; b) legislative texts, both in the local, regional and international context, a comparative study between different regulatory frameworks interested in people with disabilities.

SEN590 Project: Supporting People with SEN 2 cr.

This training activity is intended as a seminar whose ultimate goal is to make the students devise a research project in the field of people with special educational needs. The seminar is linked to all the teachings and, in a privileged way, in the course of human sciences research methodology. The student is accompanied in achieving the first stages of the construction of the research project. The main object assigned to the seminar is to build a research project that will be finalized in the Dissertation. After attending the seminar, the student is expected to submit a final written project (20 typescript pages)-(1cr). Epistemology forms part of the course. This is a study of the concepts and methods of the various strands of modern epistemology which originated in the early “epistemological breaks” that separate the pre scientific period from the classical rational science and highlight their implications in the renovation of the statuses of Science, epistemology and history of sciences-(1cr).

SEN605 Practice: Supporting People with SEN 3 cr.

The course is designed as a professional practice of coaching people with SEN. It has two components:

1-Citizenship of the person with special educational needs expressed in: a) knowledge promoting the skills of mentally deficient person; b) standardization that can induce behaviors which bring the person with disabilities from the "norm" and adapt the person to the environment; c) social participation or inclusion which is a Twofold Dynamics: from the side of the person with disability and that of the environment in relation to the person.

2- Body and Communication, Theatre, Music, Plastic Arts; (Workshop of your choice)

The student in training can choose a component and work on it. The work is designed in the form of artistic workshop that allows the person with disabilities to express and communicate. It is a form of support to learn to accompany people with special educational needs in their desire to express themselves and flourish since their mental disabilities often deny other forms of expression such as dialectics, the writing or sometimes just the word.

The objective of the workshop is to help the trainee to: a) make Art a way that helps the person with special educational needs to restore self-image, b) become familiar with the different adapted techniques that empower the individual with special educational needs to master his behavior, to refine his temperament, to reduce anxiety, demote hyperactivity and identify the possibility of deviant behavior.

SEN610 Psychomotor Activities for People with SEN 3 cr.

The course focuses on the relationship between motor skills, mind, and emotions and promotes the overall approach of the child. It deals with the concepts and principles of theoretical and practical bases (games, exercises, techniques, postures), enabling them to: a) develop a good body scheme; good laterality; a perception of time and space, b) discriminate psychomotor disorders and their causes; c) prepare the prerequisites of all learning; and d) knowledge.

SEN615 Learning Processes Applied to People with SEN 3 cr.

The course focuses on the appropriate educational process for people with special educational needs: a) the knowledge to teach, how to understand and apprehend them, b) didactic aspects and situations, c) the organization of optimal conditions teaching / learning to enable students to develop the knowledge and skills and access to culture. The steps to be implemented are: a) a reflection that examines the nature and meaning of teaching / learning and which is responsible for showing the relationship between the student and the knowledge and the relationship between the

specialized teacher and didactics; b) an analysis of transpositive process is conducted to highlight the reference to knowledge, knowledge to be taught and the knowledge taught, c) development of the type of mediation to offer to the student in his acquisition of knowledge.

SEN680 Internship 1 cr.

The internship takes place in the partner institutions of training. The involvement of field partners, namely practitioner's trainers to take on trainees, their monitoring and certification of their practical training, requires close collaboration with employment services, represented in particular by the establishment of Directorate of compulsory education and special education schools or special education centers. The course is the subject of 250 hours of training, observation and professional practice in an advanced stage. The internship is held in various contexts ranging from the regular classroom to the professional class.

SOC201 Introduction to Sociology 3 cr.

This course provides a basic knowledge of general sociology: a) it presents an overview of the context of event-emergence of sociology on the basis of the main founders and focuses on the methodological perspectives and applied sociological methods and techniques; b) it focuses on the key principles of social themes, which description and definition have fueled the many debates that are changing this discipline within the vast corpus of scientific knowledge. This course provides the students with general sociology elements, sensitizes their "sociological perspective" and develops critical reflection on various social issues.

SOC210 Introduction to Anthropology 3 cr.

This course focuses on the complex question of humans and the place of anthropology within the science of humanity. It addresses the key conceptual notions of anthropological reflection (society, myth, ritual, tradition, symbol, etc.). Similarly, the course presents the components of the research framework, both practical and theoretical, of anthropological study. It develops the basic foundation of the entire social system and proposes the discovery of trends of current anthropological topicality and openness to contemporary anthropology. Upon completion of this course students will be able to understand the concepts of anthropology and its fundamental concern that allows it to guard against social, cultural, sexist and racial prejudice.

SOC218 Statistics Applied to Human Sciences I 3 cr.

Most of the analysis within human and social sciences and decision-making is founded on statistical data. Students work individually on data collected either in their research or in their professional lives. This course provides students with the tools and knowledge required to present, in tables and graphs, the data they have to handle, to analyze the characteristics of a statistical distribution to a character and to study the correlations between two variables. Particular attention is devoted to the choice of statistical methods and interpretation of results.

SOC310 Sociology; Fundamental Concepts 3 cr.
Pre-requisites SOC201

This course is based on an analysis of the basic notions and concepts necessary for any approach or field of study and sociological research. It notes, therefore, differences between concepts "encompassed" and concepts of "inclusivity", in order to cover external phenomena/internal to corporations. It addresses notions and concepts such as: culture, civilization, collective belief, modernity, habitus, norm, compliance, status and role, value, socialization, classes and social elite, etc. It develops in students a critical perspective in its comprehension of all social reality. After the course, the students will have gained an inductive construction of the concepts discussed and a mode of sociological thinking.

SOC311 Sociology of Education 3 cr.

This course focuses on the key concepts and theoretical foundations of the sociology of education. It includes a historical overview of the functioning of the school. It also explains the report of school social institutions and socio-economic and cultural parameters likely to influence the curriculum of students as well as their expectations and aspirations; reflecting "educational inequalities" and evaluating the role of policies and compensatory strategies. This course aims to develop the critical thinking of students about inequalities within the school system and enables them to undertake the documented analysis of 'social stratification' as 'school differentiator'.

SOC318 Statistics Applied to Human Sciences II 3 cr.

Pre-requisites STA201 or SOC218

This course introduces students to the concepts of statistical inference essential to research in the humanities and social sciences. Students are often required to collect information on samples of individuals and not on the entire population. They learn to draw conclusions about the population they are interested in, from the data collected on samples with prudence and necessary rigor. For this purpose, this course introduces the students to the laws of probability, the estimation of population parameters by an interval of confidence and benchmark testing of two, as well as many mediums, by analysis of variance.

SOC325 Psycho-Sociology of Communication 3 cr.

Pre-requisites PSY201

This course is divided into two parts. The first part includes a base of theoretical and conceptual skills of communication. This is how the communication will be detailed as a psycho-sociological object with its theories and ideologies, analyses of mass communication, psycho-sociological perspective, critique of contemporary currents analysis of communication and information, psycho-sociological reading of communication and professions. Analytical progress will be made on the study of public discourse in the media, and the media itself, through its policies, its positioning and audience. The second part focuses on practical skills. It includes listening, reformulation, argumentation, face to face communication, in groups or general public, as well as the mastery of oral intervention techniques to different types of audience and familiarization with media practices.

SOC335 Labor and Social Intervention, the Fundamental Concepts 3 cr.

Pre-requisites SOC201

This course is mainly based on an analytical explanation of the notional and conceptual fields used in social intervention; linking them to their different social and institutional uses as well as current social issues. It thus addresses several encompassing and encompassed notions and concepts including: planning, environment and space, individual, collective, social, societal, cultural, structural, intercultural, socio-cultural, community, etc., social pathology and therapy, social profitability, social development, underdevelopment, sustainable development, social change, partnership, co-operation, marginalization, social inclusion, awareness, commitment, citizenship, etc.

SOC345 Labor and Social Intervention Fields 3 cr.

Pre-requisites SOC335

This course enables students to understand the components of social intervention action on various socio-cultural, socio-educational, socio-political, socio-religious, and socio-economic plans related to community spaces, institutions and associations, through critically conscious, preventive and participant practices. Similarly, it aims to foster knowledge of cultural, socio-sportive and municipal structures. Upon completion of this course, the students will be able to identify the fields and practices of social intervention, to understand the issues related to the aforementioned fields and to think strategically as regards the levels of corresponding action.

SOC355 Social Marketing and Management of Social Structures 3 cr.

This course consists of two complementary parts: the management of social structures and social marketing through the aforementioned structures. The first part consists of understanding the institutional functioning of social structures, organizations and associative spaces concerned with social intervention. It raises awareness among future social workers, with regard to the concepts and specific management procedures of voluntary social organizations. The second part of the course introduces students to social marketing and presents: a) the concepts and models of social marketing; b) the distinction between social marketing and commercial marketing; c) marketing of social causes, ideas and personalities attached to them; d) the target groups; and e) the development of a social marketing program, etc.

SOC360 Social Sciences Methods 3 cr.

This course familiarizes students with the various methods of research and analysis in the social sciences, and more specifically in sociology. Different methods will be illustrated with examples of sociological research. The course consists of three parts: a general introduction to social science research process; a presentation of the approach and systemic analysis; a deepening of quantitative and qualitative methods in sociology, such as structured interview, the survey (sample survey, etc.), observation, content analysis and focus group.

SOC411 Financial Economics 3 cr.

Pre-requisites SOC 402

This course introduces students in social sciences to the world of business and management. The main themes are: forms of enterprise, business management, general and analytical accounting financial profitability, the choice of investments, financial ratios and the banking sector. The course also aims to acquaint the students with the economic, financial, legal and social world and address business valuation, financial distress, the company's management and private accounting. Upon completion of this course, students should be able to implement the choices of financing.

SOC421 The Sociology of Deviance 3 cr.

Pre-requisites SOC201

The course focuses on causal theories and comprehensive theories of deviance. It includes, firstly, a sociological analysis of deviance and social control to capture the relationship between individual freedoms and collective constraints, and also a sociological analysis of integration and social exclusion, in order to explore the question of social ties within contemporary societies.

SOC422 Political Sociology 3 cr.

The course focuses on a central theme: power. This topic is treated in two parts with sub-themes which graft onto the central issue of the course. Indeed, the notion of power is undeniably linked to politics in its relation to the state and the social actor, as explained in the first part of this course. It is also an object of reflection and questioning, as shown by the study of different thinkers and sociologists of the twentieth century, in the second part of the course. Students learn not only to handle the theoretical concepts but also to build their own reflection in a methodical way. Ongoing exchange is operated between ideas of sociological conceptualization and the political reality.

SOC423 Organizational Sociology and Labor 3 cr.

Pre-requisites SOC201

This course provides a synthesis of different theories that explain structure, functioning and organizational transformation. In the first part, the course defines the field of analysis of the sociology of organizations as well as its main theoretical currents. In the second phase, it helps students comprehend the sociology of work in its various aspects and according to new trends (technology acceleration, globalization, current management of human resources, modern social

stratification, activities of women, rising unemployment), i.e. according the professional development of trades. In a third part, students are required to perform an observation of a specific field, through the use of certain analytical models and key concepts, allowing them to sociologically analyze concrete organization and institutional environments.

SOC426 Theories and Practices of Development 3 cr.

In the first part, the course deals with the development that emphasizes the human's central place as a social being, as well as the state and political structures in the organization of collective action for development. It also addresses the development of the entire population, its human potential, and both physical and intellectual progress through education. In the second part, the course introduces the unidimensional theories, evolutionists and structuralists of development, as well as planning techniques and development of agrarian and industrial policies. In the third part, the theoretical, methodological and strategic foundations of community development will be addressed.

SOC430 Sociology of Religion 3 cr.

The course aims to provide the students with an understanding of the social components of religion through the trends of thought and relevant sociological concepts. It also includes an analysis of contemporary social phenomena related to religion and an analytical positioning of the socio-cultural influences of religion in Lebanon.

SOC431 Sociology of the Family 3 cr.

Pre-requisites SOC201

This course deals with the family in its various forms, which, while being universal, presents spatiotemporal peculiarities that the sociological analysis reveal, both structurally and functionally. The course offers a reflection on the circumstances and the contemporary transformations of the family institution (diversity of models, fragility of the marital bond, family recomposition), and draws a picture of sociological theories of the family, focusing on contemporary sociology specific to this area. Thus, the family, in new forms, appears as an element of sustainability among social turbulence, and as one of the pillars of postmodernism to study. It is therefore necessary to highlight the multiple varied relationships that link the family to the whole of society, with particular emphasis on the current situation of the family in Lebanon.

SOC432 Sociology of Conflict 3 cr.

Pre-requisites SOC201

The overall objective of the course is to enable students to acquire the skills needed to analyze the many inter- and intra-societal conflicts. The course offers the challenge of a multidimensional approach: philosophical, sociological, psychological, political and otherwise. As a result, the four parts of the course present the root of the conflict phenomenon, the reasons of conflict, the conduct of conflict and conflict resolution. At the end of this course, students will be able to differentiate between the profound and circumstantial factors of conflict, to conceptualize the main theories of conflict, to identify elements of permanence and change in conflicts and carry out a critical analysis of this phenomenon and its future prospects.

SOC435 Social Protection Policy 3 cr.

This course focuses on the various socio-economic issues of the policy of social protection. It processes the elements of information (actors, concepts, devices, tools) and susceptible analysis of students to enable them to participate effectively in the development of proposals for change in strategies and public policy environment, housing, and unemployment. Furthermore, it helps students to understand the components of community life and its challenges in the development of awareness necessary for a civil society. It thus explains the theoretical and practical elements necessary for a comprehensive understanding of the social security system, in order to locate public intervention in social protection. Upon completion of this course, the students will have acquired a

capacity to analyze the existing associative dynamics in Lebanon.

SOC438 Demographic Analysis 3 cr.
Pre-requisites SOC318
This course presents an overview of the techniques of demography, focuses on specific current issues of the demographic phenomena and analyzes their interdependence within social, economic and cultural characteristics of the observed society. Upon completion of this course, students will be able to collect the necessary demographic data to establish the main parameters (rates, ratios, tables, sex ratio, etc.), to build and analyze an age pyramid, to know the different sources of demographic data, to perform a population census, and to analyze the causes and consequences (social, economic, political) of demographic development.

SOC460 Survey Techniques 3 cr.
This course provides students with the basic knowledge essential to perform a survey in the service of a search. For this purpose, a knowledge of all stages of an investigation, of the preparation (setting objectives, questionnaire design, and choice of sampling method) is required to collect data and prepare students for the analysis and presentation of results. Students will also learn to use SPSS for compiling the data and the analysis of results.

SOC464 Project and Evaluation Techniques 3 cr.
Pre-requisites SOC201
This course is divided into two parts: the first part deals with the theoretical components, methodological and practical development of a project in a social intervention process. This is how the identification of the problem and the purpose of the intervention are alternately presented; the contextualization, and the conditions and stages of completion. Similarly, strategy concepts, planning and mobilization are presented in both conceptual and operational terms. The second part deals with the presentation of the concept and the corresponding methods of action evaluation in social intervention.

SOC465 Social Intervention and Social Groups 3 cr.
Pre-requisites SOC335
Firstly, students will develop their comprehension skills and ability to analyze groups and their typology, through the theoretical foundations of the group in general. Secondly, they will be able to distinguish the different levels of action and social intervention strategies with regard to different groups. Particular attention will be paid to the articulation of groups, societal environment relations and transformations affecting the main partners involved. Finally, students will be required to target the understanding of the characteristics of the crowd and the mass, and the components of events in the midst of a large audience.

SOC466 Internship/Laboratory/Workshop 6 cr.
The goal is to put into practice the theoretical and practical knowledge of the students in social sciences, and social intervention. This is the opportunity for immersing the students in the world of labor and this occurs through the following components: a) validating theoretical and practical knowledge and sharing experiences in an internship environment; b) designing the final report of internship that allows students to bring together their pre-professional practice with their achievements, in terms of knowing how to explain, how to write, how to design and how to negotiate.

SOC506 Institutional Sociology 3 cr.
This course focuses on the central role of institutions, in order to: a) understand social, economic, political, cultural and religious phenomena; b) define regularities in the behavior of individuals; c) reduce uncertainty; and d) render the aforementioned phenomena more predictable. It is articulated

around three components: a) analysis of institutions through their various forms and functions; b) comprehension of the operational framework of institutions, such as frames of action, socialization forums, social hierarchy factors, etc.; and c) analysis of fitness levels that institutions exert on the individual and collective behavior in an evaluative perspective of the mutations and crises faced by some large contemporary institutions.

SOC511 Short-term and Structural Adjustment of Economic policies 3 cr.

The analysis of certain economic, cyclical and structural policies, allows examination through a strategic rationale for both the permanence of public and economic intervention and the transformations of its purposes and modalities. On the one hand, state economic intervention is questioned as much for its objectives and legitimacy rather than its effectiveness. On the other hand, the economic intervention of other subnational actors, such as local and supranational authorities within the European Union and international organizations, is advanced to raise the issue of coordination of these policies.

SOC513 Ethnology 3 cr.

This course highlights the major themes of ethnology. Thus, it deals in the form of reading, with a historical analysis of various research in Arabic ethnology; particularly Middle Eastern ethnology. The course offers some topics for study about the familial, cultural, political, social and economic plan, such as beliefs, the concept of democracy, development and underdevelopment, etc. The main focus of the course covers the pluralistic identity of the Middle East where the various components have been rather supportive for thousands of years, despite the differences that distinguish and characterize the widely diverse social fabric.

SOC521 Urban and Rural Sociology 3 cr.

This course locates the rural and urban worlds within the general framework of human activities and their changes. It synthesizes teachings on rural social environments and urban ones. It touches upon the main sociological trends that are interested in rural as well as urban sociology. Therefore, this course pays special attention to learning the conceptual tools that characterize a sociological approach applied to the problem of space. In this manner, it analyzes the dynamics of different urban functions (housing, industry, services, travel, and communication) by describing their interaction on the ground (especially urban), the way in which the evolution of these different functions and structures operate and deconstructs the territory in general and the city in particular. It also focuses on the reconstruction of cities.

SOC596 Project/Internship in Social Sciences 3 cr.

The first part is pre-project design in TIS (1cr). This is a seminar which leads to a pre-project in terms of methodological approach (preparatory phase, implementation phase, evaluation phase). It enables the students to choose a subject in social sciences, identify tools and ideas leading to concrete results. The knowledge required, with reference to the application of research, also will be developed. Upon completion of the seminar, the students are required to prepare a typescript draft of twenty pages. The second part is the internship (2cr). The two credits assigned to the course propose putting into practice, in terms of action, the topic chosen by students in social sciences. In this phase, students develop their internship in accordance with their subject and methodological bases specific to the design and evaluation of the pre-project in SCO acquired in the internship seminar. A prospective director appointed by the department will be responsible for supervising the students in the guidance of theoretical and practical foundations and in the conceptualization and evaluation of the corresponding response.

SOC597 Project/internship in Work and Social Intervention 3 cr.

This course will be divided into two parts: a) Preproject design in TIS (1cr) This is a seminar which leads to a pre-project in terms of methodological approach (preparatory phase, implementation

phase, evaluation phase). It allows the student to set a subject in labor and social intervention, and identify tools and ideas which will lead to concrete results. The knowledge required, with reference to the application of the assessment methods of institutional, collective and social intervention will also be developed. Upon completion of the seminar, the student is required to prepare a typescript draft of twenty pages. b) Internship (2cr) The two credits assigned to the course propose putting into practice, in terms of action, the topic chosen by students in labor and social intervention. In this phase students develop their internship in accordance with their subject and methodological bases specific to the design and evaluation of the pre project in TIS acquired in the internship seminar. A prospective director appointed by the Department will be responsible to supervise the student in the delimitation of the theoretical and practical foundations and in the conceptualization and evaluation of the corresponding response. Introductory notes consecrated to the ethics of professional practice in labor and social Intervention. They have the following objectives: 1) To raise awareness in future social workers, of their own ethical positions, and in explaining and criticizing them; 2) To analyze the ethical conflicts that arise in labor fields of action and social intervention; 3) To become equipped to argue in support of professional positions founded and estimated ethically and thus develop testing of stress management, conflict and time. Upon completion of the course, a ratio of 20 typescript pages linked to the end of the dissertation, is presented by the student.

SOC637 Specialized Didactics in Social Sciences 3 cr.

This course explores ways in which to build, to teach and impart knowledge concerning the social sciences and explores the place it occupies within the heart of society. The didactic of these disciplines in analyzing approaches are understood according to the different empirical investigation methods, so that students are able to choose adequate tools for analyzing situations.

SOC638 Sociology of Minorities 3 cr.

This course is aimed at the acquisition of theoretical and empirical knowledge regarding issues of the sociology of ethno-cultural minorities and interethnic relations. It enables students to define the minor situation in various societies by appealing to designs, visions and studies of a number of sociologists, in particular the German sociologist Max Weber and French sociologist Pierre-Jean Simon.

SOC639 Sociology of Culture and Leisure 3 cr.

The course is designed to research culture and leisure, in terms of theories, relevant sociological approaches, and also cultural practices and interculturalism. This course is built around the following axes: a) problematization of culture and leisure concepts based on an analytical presentation of the main theoretical currents in sociology, and the relationship between the cultural, economic and political spheres ; b) analysis of the relationships between leisure - society - culture through the perspective of links between the main features of culture, recreation and sustainable development, the main features of leisure and its relationship with the family fields (political, educational, socio-cultural, etc.); c) proposition of analysis tools and cultural practices through the individual dimensions, institutional and political; d) putting in theoretical and practical terms; e) analysis of contemporary approaches of interculturalism and intercultural dialogue; and e) reflection on mass culture - its place and its impact within contemporary societies.

SOC683 Internship in Social Sciences 1 cr.

This course allows students to experiment and perform their teaching and leadership skills related to social science subjects. To do this, they will be integrated into teaching and coordination spaces where they will have to build their own educational module of teaching and their strategic proposals of framing.

SPC505 Fundamentals of Pedagogical Training 3 cr.

This course coaches trainers who act in the context of the establishment and the institutional

functioning of the educational training activities: supervision, coordination, training of teachers. It introduces to the students, the future trainers, the principles of the trainer function, namely to learn how to perform the study of training requests of any kind, how to analyze the needs, define the objectives of training, implement training plans and how to organize materially and educationally internships. This work will largely depend on the attitude, behavior and motivation of the trainer, analyzed in the course in light of data as of the training of trainers. Undeniably, and before considering the ways implemented, which change according to every difficulty, it is notable that the trainer verifies his motives and those of teachers and elucidates his formative project to further his method towards the goals he sets himself.

SPC510 Educational and Professional Guidance 3 cr.

This course deals with the orientation as a deeply interactive operation among secondary school students and further throughout the school as well as at every stage of the orientation process through exploration and discovery of trades. This presupposes to enrich their performances of professional prospects and uncover business lines, not only through data sheets and job profiles, but also discovering what this profession is in the labor market, through observation and simulated professional integration in the course and as from approximation of training towards the working world. The orientation will be taken as a process of transition from school to working life. The orientation will be taken as a process of transition from school to working life. The course also presents the major international referral mechanisms and the role of orientation professionals, based on a reflective approach from which students will make informed choices.

SPC515 School Support and the Analysis of Students' Needs 3 cr.

Different modalities of tutoring will be presented in this course [individualized assistance, differentiated instruction, working in small groups], as well as the corresponding practices to each of these modalities. A priority will be then given, first, to specific educational tasks applied as part of the class, with students who have learning problems. This surely requires the development of programs based on the determined objectives, a spatiotemporal management of the school environment, appropriate activities and the creation of school support centers. The training even involves taking account of the personal life of the child and the needs that prevent his success.

SPC520 Pedagogical Intervention and Accompaniment 3 cr.

This course provides students with educational coaching and intervention principles among teachers, aiming at developing professional expertise of the latter and help them succeed in school practices. The intervention of a trainer in a group of teachers in training will take a controlling character that can be accomplished through professional gestures and pedagogical actions in the field of the phenomena related to the time of teaching or animation properly so called, its specific constraints (didactic situations), its specific job (working methods) and its specific instruments (teaching techniques). It is also helping teachers to provide tools to edit and arrange them according to their practice and eventually invent new ones best suited to their goals and needs.

SPC590 Project, Epistemology and Ethics 3 cr.

The course has three components:

a) Project: This training activity is intended as a seminary whose ultimate goal is to make the students devise a research project in the field of Supervision and Pedagogical Coordination. The seminar is linked to all the teachings and, in a special way, in social science research methodology. The student is accompanied during the course of the realization of the first steps in the construction of his research project. The main object assigned to this seminar is to build a research project which will be finalized in the Dissertation. After attending the seminar, the student is required to submit a final written project (20 typescript pages). (1cr)
b) Epistemology: Epistemology forms part of the course. This is a study of the concepts and methods of the various currents of modern epistemology which originated in the early

'epistemological breaks "that separate pre scientific period of the classical rational science and highlight their implications in the renovation of the statuses of Science, epistemology and history of science. (1cr)

c) Ethics: Ethics forms part of the course which introduces the student to the basic concepts of philosophical ethics (the righteous, the good, the moral conscience, the fundamentalism, the coherence, the relativism), and the main contemporary doctrines. Secondly, the course analyses the major ethical problems posed by educational practice and the educational institution such as social justice, education facing the moral pluralism, education for citizenship, respect for others, human rights, ethics of education practitioners, training and professional integration. Upon completion of the course the student will be able to analyze the ethical issues related to educational practice and design of educational systems and develop a normative argument on these issues. (1cr)

SPC605 Institutional Communication 3 cr.

The psych sociological training involves primarily the person's training, allowing each teacher to develop his formative potentialities in educational relations, such as: the relationship trainer-trained or teacher-learner, the relationship in the group (class group, in particular), relations in the institution (children, colleagues and management), and relations outside the institution. Such training must restore, even so, consciousness to teachers of their fundamental role in the future of individuals and institutions. Priority is given to the creation of a group living environment for everyone to feel comfortable and be able to get involved in both relationships and debates to investigate problems of training and their solution. It must further promote the flow of information so that all group members possess the necessary elements for their reflection, enable decisions necessary for the group action, to use all means appropriate to facilitate the course of trade.

SPC610 Innovative Approaches 2 cr.

This seminar will address the field of phenomena relating to institutional forms of initial and continuous training: Division of knowledge into disciplines and levels, role distribution of the training institutions, structural characteristics of these institutions, the tasks allocated of course to them, in addition to the operating rules that they give themselves, the means that they are implementing and the training devices they produce (channels, programs, training levels, diplomas). The components of this seminar will awaken the emergence of innovative approaches in continuous training of the school body.

SPC680 Internship in Supervision and Pedagogical Coordination 2 cr.

The internship with a supervisor trainer will be an opportunity that will allow trainees students, at this level, to see closely the training practices and their arrangement in the school context. It is still an opportunity to help students get in touch with trained teachers and see their reactions towards practices and activities of training.

TIS605 Management and Group Facilitation 3 cr.

This course aims to develop the skills of students in management and group facilitation. It offers a reading of group and communication phenomena, as well as learning methods and animation techniques in accordance with the types of group and societal and cultural situations. Similarly, knowledge of theories in working with small groups allows students to understand the dynamics of a team and interact appropriately to different situations.

TIS610 Sociology of Administration and Public Action 3 cr.

This course trains students in theories, methods, paradigms and sociological concepts intended for analysis and practice of public policy, and those of administrative systems. The course provides an analysis of the interventions of public authorities (State, local authorities, etc.) from the company, through their various functions. It focuses on the development of the constitution of the

administrative system, its components, its actors and its role. It enables students to take ownership of a methodological approach and a toolbox for the analysis of public action in a particular field. Several lines of investigation and analysis of administrative practices are also available to students.

TIS615 Social Marketing 3 cr.

The management of organizations and associations, as well as the promotion of causes, ideas, and social and sociocultural policies are the main fields of action of the social workers. This course is built around the following learning areas: 1) Master the principles and tools of management of different types of organizations, as well as issues of associative action from a sociological perspective; 2) Master the concepts, theories and models of social marketing; 3) Know the types of societal and sociocultural issues that can be subjects of social marketing projects; 4) Appropriate tools, new techniques and planning processes of social and sociocultural marketing strategies; 5) Study practical cases showing the conditions and challenges of the circulation of ideas and new practices in the social body.

TIS620 Internship in Work and Social Intervention 1 cr.

This course allows students to experiment and perform their institutional and community response capabilities. To do this, they will be incorporated into municipal spaces or local development NGO specialists, where they will be called to build an intervention project and corresponding policy proposals.

TIS625 Sociology of Culture and Leisure 3 cr.

The course is designed to explore culture and leisure, in terms of theories, relevant sociological approaches, and in terms of cultural practices and interculturalism. This course is built around the following axes: a) Problematization of culture and leisure concepts based on an analytical presentation of the main theoretical currents in sociology and the relationship between the cultural, economic and political spheres ; b) Analysis of relationships leisure society culture through the main features of leisure and its relationship with family fields: political, educational, sociocultural, etc.; c) Proposition of analysis tools and cultural practices through individual dimensions, institutional and political; d) Putting in perspective the links between culture, recreation and sustainable development in theoretical and practical terms; d) Analysis of contemporary approaches of interculturalism and intercultural dialogue; e) Reflection on mass culture, its place and its impact in contemporary societies.

TIS630 Governance and Ethics 3 cr.

The objective of this course is to form social actors capable of identifying and building the main uses of governance of associative and organizational environments in concordance with theories and communicative approaches, as well as their proper ethical basis. The course covers the following: a) To clarify the concept of associative governance through its constituent dimensions and areas; b) Define the communication process, relations with the environment and ethical approaches in terms of social responsibility; c) Identify appropriate communicative approaches to sustainable development.

TIS635 Social Responsibility and Sustainable Development 3 cr.

This course trains students to design and understand the implementation of social responsibility programs in various types of organizations and societal areas, all in a perspective of sustainable development. It has the following learning objectives: a) Master the theoretical and conceptual foundations of the concepts of social responsibility and sustainable development; b) Know the methods and techniques to develop a perspective and proposals for action related to such notions, and to assess their relevance; c) Observe and compare social responsibility projects developed in the spirit and scope of strategic sustainable development.

TIS640 Advanced Practices in Community Social Intervention 3 cr.

This course is designed for the mastery and knowledge, both theoretical and practical, of methodology of intervention in community settings, especially in terms of local development. In addition to the application exerted through the study of conducted monographs, concepts and varied topics - such as awareness, public education, and heritage action will also be taught as a tool for local development. Movements, trade unionism, etc. will be further developed and reinvested in projects being done by the students.

Faculty of Religious and Oriental Sciences

Overview

Founded in 2011, the Faculty of Religious and Oriental Sciences aims to ensure a good quality study environment in the field of religious and oriental sciences. Moreover, it offers the students different programs which enable them to understand faith in a mindful way and to acquire a complete education related to major religious and oriental questions.

The Faculty of Religious and Oriental Sciences offers a varied educational program for all those willing to pursue a religious education in a unique context of comparative studies to acquire knowledge and expertise in religions, such as Buddhism, Judaism, Christianity, etc. It also intends to introduce the students to research through rigorous methods and to develop a critical spirit towards religious phenomena based on the three axes of excellence, science and religion.

The basic purpose of the Faculty is to accurately understand, in a scientific manner, religious facts in all their diverse aspects and dimensions. The variety of its educational programs guarantees reaching the objectives and its capacity to undertake projects related to different religious questions.

The Faculty of Religious and Oriental Sciences consists of the following departments/programs:

Institute of Liturgy

- Bachelor of Arts in Liturgy

Department of Religious and Pastoral Education

- Bachelor of Arts in Religious and Pastoral Education
- Master of Arts in Religious and Pastoral Education

Administration and Full-time Faculty

Rev. Fr. Youssef Tannous, Associate Professor, Dean
Rev. Fr. Ziad Sacre, Associate Professor, Head of the Department of Liturgy
Rev. Fr. Abdo Badwi, Associate Professor, Head of the Department of Syriac and Antiochian Sciences
Rev. Fr. Augustin Mouhanna, Professor
Rev. Fr. Bakhos Tannous, Assistant Professor

Programs of Study - Undergraduate Programs

Bachelor of Arts in Religious and Pastoral Education (Hybrid[i])

Mission

Specialization in Religious and Pastoral Education introduces students to the realities of living faith, transmission of the Christian tradition and the maturing of religion and its pastoral at all stages of life.
It is of interest to both secular and religious persons eager to gain a thorough training in pastoral and religious knowledge.

Program Educational Objectives

1. Graduates will be active in pastoral services in dioceses, parishes and religious movements (youth chaplaincy, hospitals, prisons, etc.).
2. Teaching catechesis in schools and universities.
3. Educators and trainers in educational institutions and centers for the moral and spiritual formation of society.
4. Researchers in the areas of training.
5. Enactment of liturgical celebrations in many Christian communities (Mass in East and sacramental theology and liturgy)

Program Outcomes

a. Students will acquire a first university degree in the field of pastoral intervention.
b. Demonstrate a clear understanding of the features of contemporary culture that influence the various practices of faith education.
c. Know how to use the Bible with relevance in the perspective of faith education (introduction to the Bible).
d. Analyze and handle a religious text from the Church's teaching (evangelization and catechesis).
e. Exercise practical and pastoral work in the ecclesiastical domain (pastoral and practical theology).
f. Strengthen their trainer skills.
g. Refine the observational capabilities of a pastoral practice and identify key issues.
h. Deepen the spiritual dimension of life.
i. Exercise a role of responsibility or intervention in relation to the transmission of the Christian tradition and maturation of faith (faith education, pedagogy and catechetical action).
j. Provide a spiritual accompaniment and vocations.

[i] Hybrid: Courses offered in French and/or English

k. Energize group dynamics and leadership work (work with a group and make a group work).

Degree Requirements

General Education	**30**
General Education - Arts and Humanities	6
General Education - Behavioral and Social Sciences	6
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Quantitative Reasoning	3
General Education - Science and Health	3
General Education - Sports	1
General Education - Religious Sciences	3
Common Core	**18**
MTR222 - University Working Methodology	3
LIT305 - Mass in the East and the Theology of Anaphora	3
THEO241 - Sacraments and Liturgy	3
SRO301 - Education in Faith	3
SRO302 - Management of Cultural and Religious Diversity	3
PSY318 - Personality and Development	3
Specialization	**48**
THEO251 - Fundamental Moral Theology	3
THEO321 - Theology of Religions	3
THEO471 - History of Modern and Contemporary Church	3
THEO361 - Pastoral Theology Practice	3
PHI326 - Philosophy of Nature	3
ERP401 - Catechesis Teaching and ICTs	3
THEO431 - Christian Anthropology	3
ERP402 - Management and Leadership in Church	3
ERP403 - Evangelization and Catechesis	3
ERP404 - Pedagogy and Catechetical Act	3
ERP405 - Ecclesiology and Religious Communities	3
ERP406 - New Approaches in Theology : Christianity and Modernism	3
PSY467 - Group Management, Functioning and Dynamism	3
ERP420 - Internship/Workshop	3
PSY313 - Psychology of Religion	3
SOC334 - Sociology of Religion	3
Total	**96**

Bachelor of Arts in Liturgy (Hybrid[i])

Mission

The mission of the Institute is to impart knowledge to students about the Universal Church and especially the Eastern Church.
Students profit from the scientific training that the Institute offers through its publications that tackles two parts: the offices and the ceremonies of the Universal Church and scientific studies.

Program Educational Objectives

The liturgy is not a collection of items that must be memorized and executed, but it is a science and a celebration. Hence, its degrees consist of giving a good level of a scientific education by highlighting the pastoral dimension of the liturgy.

Program Outcomes

Graduates of the Bachelor Degree will be entitled to the following positions:

a. Involvement in religious life.
b. Pastoral service in parishes and religious movements of the church (congregations, religious orders, youth chaplains, hospitals, prisons, etc.).
c. Teaching catechesis in schools.

Degree Requirements

General Education	**30**
General Education - Arts and Humanities	3
General Education - Behavioral and Social Sciences	6
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Quantitative Reasoning	3
General Education - Science and Health	3
General Education - Sports	1
SRO211 - Introduction to the Bible	3
MUS200 - Musical Initiation	3
Common Core	**23**
THEO212 - Synoptics and Acts of the Apostles	3
THEO221 - Ecumenism	2
THEO241 - Basics of Sacramental Theology and Liturgy	3
THEO312 - Authorship of the Johannine Works	3
THEO341 - Sacraments of Christian Initiation	3
THEO411 - Pauline Corpus	3
THEO441 - Ministries and Healing Sacraments	3

[i] Hybrid: Courses offered in French and/or English

THEO421 - Islam	3
SYR211 - Syriaque Language (Level 1)	3
MTR222 - University Working Methodology	3
Specialization	**44**
LIT202 - The Liturgy, Expression of Faith	2
LIT203 - The Liturgical Assembly, Incarnation of the Church	2
LIT205 - The Divine Office of the First Five Centuries	2
LIT206 - Liturgical Literature	2
LIT207 - Conciliar Constitutions = SL	2
LIT301 - Liturgical Year and Calendar	3
LIT302 - Cycle of Holy Week	3
LIT303 - Sacrament of Marriage	2
LIT305 - Mass in the East and Theology of Anaphora	3
LIT306 - Maronite and Syrian Jacobite Office	2
LIT307 - Introduction to the Latin Liturgy	2
LIT308 - Introduction to the Armenian Liturgy	2
LIT309 - Audiovisual in the Service of Liturgy	2
LIT401 - Epiphany Cycle and Christmas	2
LIT403 - Office of the Dead	2
LIT404 - Byzantine Office	2
LIT405 - Impact of the Monastic Life on Liturgy	3
LIT406 - Liturgical Symbolism	2
LIT407 - Liturgical Pastoral	2
LIT408 - Liturgical Spirituality	2
Total	**97**

Programs of Study - Graduate Programs

Master of Arts in Religious and Pastoral Education (Hybrid[i])

Mission

Specialization in Religious and Pastoral Education introduces students to the realities of living faith, transmission of the Christian tradition and the maturing of religion and its pastoral at all stages of life.
It is of interest to both secular and religious persons eager to gain a thorough training in pastoral and religious knowledge.

Program Educational Objectives

1. Graduates will be active in teaching according to new computer techniques used today (teaching Catechesis and ICT; Church and mass media).
2. Conduct scientific research in the practical and pastoral field.
3. Train ecclesiastical and pastoral trainers.

[i] Hybrid: Courses offered in French and/or English

Program Outcomes

a. Students will clarify basic views to acquire essential internal stability to the exercise of leadership in dialogue.
b. Improve the way to communicate orally and in writing.
c. Deepen their own spiritual or pastoral experience.
d. Learn to carry out rigorously the steps of research in pastoral theology.
e. Become a professionals in religious activities.
f. Interpret a religious phenomenon in a multidisciplinary aspect (sociology - psychology).
g. Pursue a thorough research work in the ecclesiastical domain.
h. State clearly and precisely the teaching of the Church.
i. Lead the listening centers in schools and rehabilitation centers.

Degree Requirements

Common Core	**12**
SRO510 - Pastoral Reading of the Gospels	3
SRO515 - Psalms and Biblical Wisdom: Spirituality of Daily Life	3
SRO520 - Symbolic Means of Religions (Prayers, Rites, Meditation)	2
SRO525 - Development, Religion, Culture and Society	2
MTR501 - Research Methodology	2
Specialization	**21**
ERP600 - Pastoral and Communication Means	3
ERP601 - Lectio Divina	3
ERP602 - Mystagogy: Renewal of Connections Between Liturgy and Catechesis	3
ERP603 - Conduct of Catechetical Projects	3
ERP604 - New Grounds in Theology: Updating the Word of the Lord for Today	3
ERP690A – Master Thesis in Religious and Pastoral Education	6
Electives	**3**
SRO530 - What is Believing?	3
SRO535 - Schools of Great Christian Spirituality	3
SRO540 - Moral Doctrines of Religion	3
PHL135 - Ethical Issues: Moral Doctrines of Religions	3
Total	**36**

Course Descriptions

ERP401 Catechesis Teaching and ICTs 3 cr.

God has always made himself known by his action and speech. Ever since, his messengers, continue to carry his message through the means of information and communication at different times and with civilizations.

In this regard, the pastoral actor and researcher in this field are introduced to the use of ICT's language in the exercise of the announcement of the Good News.

ERP402 Management and Leadership in Church 3 cr.

The management of communities and teams is a knowledge and know-how essential to any leader in this area. Added to those are other requirements when it comes to management in the Church: requirements related to the nature and mission of the latter; also in relation with "Patron" of this management, which is the Holy Spirit.

In this course, the pastoral actor and researcher are introduced to the discernment of the management gift, a gift called "leadership", "animation" or "management" and are introduced to the success of this task in the exercise of their Christian mission.

ERP403 Evangelization and Catechesis 3 cr.

If evangelization was the primary proclamation of the Gospel, the task of catechesis would be to deepen the meaning and nuances of the message originally sent by evangelization.

It is the exercise to which this course refers to: the actor and the pastoral researcher learn how to relay evangelization, taking into account the ecclesial, socio-cultural and other.

ERP404 Pedagogy and Catechetical Act 3 cr.

The success of catechetical activity is linked to several factors and elements among which are pedagogy.

This course initiates the pastoral actor and researcher in how to adopt and adapt, in catechetical activity, the most recent and effective theories and techniques known in pedagogy.

ERP405 Ecclesiology and Religious Communities 3 cr.

Given the diversity of Churches, the Middle East and particularly Lebanon, are places where the ecclesiology is learned and witnessed in the everyday relations between Christians of different affiliations.

This course provides the pastor, the catechist and pastoral researcher the opportunity to observe and analyze the complexity of the relationship between ecclesiological "statements" and "experiences" of the Christian faith in everyday life, when believers come from several church traditions.

ERP406 New Approaches in Theology : Christianity and Modernism 3 cr.

This course helps various pastoral actors and researchers make an analytical and critical theological reading of the relationship between the Christian faith and the modern world. This thinking is mainly based on texts of the Second Vatican Council.

ERP420 Internship/Workshop 3 cr.

Internship follow-ups are provided for school catechesis and other types of pastoral actions.

Courses in the form of workshops are offered according to the needs of students and researchers in the catechetical and pastoral field.

ERP600 Pastoral and Communication Means 3 cr.

In a world that is becoming more and more secularized, where Christianity is marginalized and whose language is not common, the Church needs means of communication to provide this secularized world with its pastoral care.

This course will be approached according to the two following axes:

- Communication and testimony based on the idea “Woe to me if I do not preach the gospel”. This axis develops into practice the theme of the media as evangelistic and pastoral means. The transmitter sends a message to the receiver.
- Communication and communion: the media will allow the closer bringing together of humans as brothers under the fatherhood of God. The communication of God is never without incarnation: Christ "the first and perfect communicator"; that’s why, the transmitter will not only become a message bearer but he himself becomes a message to the receiver.

ERP601 Lectio Divina 3 cr.

In the monastic tradition, the *lectio divina* is a way to approach the reading of the Bible to relish it and draw on from the bread of life. The course will present the traditional teaching on the *lectio divina*, its place in the spiritual life (reading, mediation, prayer, contemplation) and its current application.

The theoretical teaching (How to do? What to do? With what measures should we approach the text? What are the difficulties?) will be structured around student questions and a reading of John 9-11 which will serve as an introduction to the Word of God and a spiritual life journey.

ERP602 Mystagogy: Renewal of Connections Between Liturgy and Catechesis 3 cr.

The word "mystagogy" is now on many lips. This certainly reflects the feeling that everything does not end with a sacramental celebration and that catechesis still has its place after the celebration. However, this intuition needs to be clarified and better defined.

We feel that there is a successful fitting together between a catechetical process that precedes the liturgical celebration, the liturgy itself and a possible catechetical practice after the celebration. We examine what conditions must be put in place so that the liturgical experience becomes “what we have heard, what we have seen, what we have touched concerning the Word of life (1 John 1: 1).”

ERP603 Conduct of Catechetical Projects 3 cr.

The objective of this course is to introduce students to different aspects of catechesis intervention and develop a capacity to enable them to recognize the main aspects of a catechetical experience (links to the Word, to the experience, to the Church, to the world, to the spiritual life and teaching models), learn to make a critical review and to implement them in given situations.

In addition, this course will also enable them to browse the different communication models on which the act of "transmitting" can be based in a church within a pluralistic world and in an "exploded" society and determine how to implement various catechetical projects while noting, in the form of personal synthesis, the basic elements of the current catechesis.

ERP604 New Grounds in Theology: Updating the Word of the Lord for Today 3 cr.

Many pastoral interventions involve the actualization of the Word of God. How is it done? How to preach the Word? Given the double danger of an Orthodox word that is cut off from the reality of people or a popular word, but which dissolves the radicalism of the message, how can we be faithful to the Gospel?

ERP690A Master Thesis in Religious and Pastoral Education 6 cr.

LIT202 The Liturgy, Expression of Faith 2 cr.

This is a course that analyzes and comments on the famous saying: Lex Orandi, Lex credendi, “the law of prayer is the law of faith”, and offers a preliminary explanation of the meaning of “liturgy” that will be followed by three illustrations of the saying.

LIT203 The Liturgical Assembly, Incarnation of the Church 2 cr.
This course focuses on the liturgical assembly, and how liturgy celebrates the faith of an assembly as it was the case for the first Christian communities. To the extent that the assembly is "liturgical" and alive, its liturgy will be meaningful and will be the "incarnation of the Church". The celebration of the paschal mystery opens to communion and sharing, and makes the sanctifying Spirit active in the lives of Christians. There is, therefore, a logical sequence between the paschal mystery, Christian worship, liturgical assembly and Christian life leading to the incarnation of the Church.

LIT205 The Divine Office of the First Five Centuries 2 cr.
This course will consider the liturgical aspects of Divine Office of the first five centuries and students will try to develop the wide-ranging evolution of the office. The course highlights the contribution from the Jewish heritage and the Christian meaning of the Hours.

LIT206 Liturgical Literature 2 cr.
This course will teach students how to closely identify the liturgical sources, to follow them through their historical development, their rituals and literary developments and to highlight their worship-based importance within the Christian community.

LIT207 Conciliar Constitutions = SL 2 cr.
This course examines the Vatican Constitution II on the Liturgy, which does not present itself as a dogmatic text but rather as a document of a pastoral nature. Its primary purpose is not to draw a theology of the liturgy, but to direct the restoration and the progress of liturgy with authority.

LIT301 Liturgical Year and Calendar 3 cr.
This study examines the different concepts of time and of multiple dimensions. It seeks to write the history of the origins of the calendar, in general, and particularly of the Hebrew one, which was the basis of the Christian calendar. This study presents the liturgical year in each Eastern rite, its structure, characteristics and spirituality.

LIT302 Cycle of Holy Week 3 cr.
The objective of this course is to pursue the scientific research of students through the biblical and patristic sources and through the offices and the celebrations of Holy Week, to create awareness of the importance of this Holy Week, the summit of the liturgical year (SL 102, 111).

LIT303 Sacrament of Marriage 2 cr.
God has established marriage by "creating man and woman" that owes nothing to the state or to the Church. It is a natural institution called "customary marriage": a union based on marriage and family more than on formalities. Even for the chosen people, marriage is an earthly reality. The Church, in turn, believes that "marriage has God as its author. It was from the beginning as a figure of the Incarnation of the Word of God". The Vatican does not diverge from this biblical vision. This course examines the development of the celebration of marriage throughout history.

LIT305 Mass in the East and Theology of Anaphora 3 cr.
The course is presented through a liturgical, historical and theological perspective. The first part considers the historical and liturgical development of the parts of the Mass, through the various Eastern liturgies, and distinguishes between the Antiochian and the Alexandrian structure. The main parts of the Mass will be detailed. A major importance will be given to the anaphora.

LIT306 Maronite and Syrian Jacobite Office 2 cr.
This course highlights an important part of the Maronite and Syriac Jacobite liturgy, neglected or forgotten to some extent. It describes, in light of recent and critical research, the structure and theology of the different Hours of the office, and guides students towards an objective

understanding of the liturgical reform of the Maronite office.

LIT307 Introduction to the Latin Liturgy 2 cr.

The objective of this course is to give students a comprehensive training on Eastern liturgy which will complement his/her detailed training received on the Eastern liturgy course. The goal is to introduce students to research, to expose them to Western liturgy, and from there, to understand and fully participate in each liturgical celebration in any rite, whether Eastern or Western.

LIT308 Introduction to the Armenian Liturgy 2 cr.

The different Christian communities of Lebanon have different liturgies. This diversity is in itself an invaluable asset for this small country with a substantial Christian population. The source of this diversity of liturgies in the Church is attributed to the inspiration of the Holy Spirit that, on the day of Pentecost, gave the apostles the ability to tell diverse liturgies in several of languages to the Church. All these existing liturgies in Lebanon (Antiochian, Byzantine, Catholic, Orthodox, etc.) have their origins outside Lebanon. The case is the same for the Armenian liturgy created in the distant Armenia.

LIT309 Audiovisual in the Service of Liturgy 2 cr.

Assaulted by media, attacked by images, deafened by sounds, we are still free to choose, are we still free to act and communicate? How to communicate? How to be understood? Does communication have any principles? What are its principles? According to which models of communication did Jesus communicate?

Does the multimedia civilization allow us to celebrate Jesus Christ and to offer our faith? How to celebrate Jesus Christ in the multimedia era?

LIT401 Epiphany Cycle and Christmas 2 cr.

The objective of this course is to discover the two liturgical cycles of Christmas and Epiphany. It should answer the fundamental question: What is the connection between the Epiphany, manifestation of the Lord, and Christmas?

The goal is to guide students in theological liturgical scientific research around these two liturgical rites, Christmas and Epiphany.

LIT403 Office of the Dead 2 cr.

The mystery of death remains an impenetrable subject in many traditions and cultures. But with Christianity, it has become more obvious; it is a sign of hope provided that the texts of the funeral service reflect the truth of the Resurrection of Christ.

LIT404 Byzantine Office 2 cr.

This course will consider the Byzantine office from several angles: legal, theological and liturgical. Emphasis will be given to the liturgical aspect that consists of advancing the wide-ranging evolution of the Byzantine office and its development.

LIT405 Impact of the Monastic Life on Liturgy 3 cr.

If the liturgy is the work of God celebrated in the ecclesial communities, it is still engaged in a well-defined historical and geographical environment. Students will examine the content of liturgical prayer celebrated by the monks of the early centuries as an expression of the multiple wisdom of God. This liturgical-monastic aspect affirms the conjunction of the divine mystery and its symbol to reach the peaks of union with God.

LIT406 Liturgical Symbolism 2 cr.

The essence of religion is to be found in the intersection of the symbolic and the sacred, and the essence of the symbol is to look within the liturgy; because man and symbol meet and interact in a prayer and in a liturgical action.

LIT407 Liturgical Pastoral 2 cr.

Liturgy is both science and celebration. The practical side is an integral part of this science. In other words, the liturgy can be a science of the liturgy only through this transition from theory to live experience and from science to the celebration.

LIT408 Liturgical Spirituality 2 cr.

The course is a true introduction and a practical guide to understanding spirituality in general and its relationship with the liturgy. We intend, through this course, to bond spirituality with science; because beyond all, the life lived concretely and individually is the one we tend to lead to science to reach a desired spirituality.

MTR222 University Working Methodology 3 cr.

This course will provide first year students with essential methods for the preparation of their work during the years of study at the University. These methods are common to all material and address different levels, ranging from exercises promoting correct educational attitudes in the introduction to the methods of work, the investigation of a text, and finally, to the mastery of speech essential to establishing exchange with others, orally and in writing, and to assert with confidence and autonomy. In addition, the objectives of this course will address data essential for the design, drafting and the realization of research work.

MTR501 Research Methodology 2 cr.

The overall objective of the course of research methodology is to help students develop a certain problem statement and a research plan, and it also leads them to become familiar with the necessary procedures and steps to write a better dissertation.

MUS200 Musical Initiation 3 cr.

This course will introduce students to the basics of music; it will cover material such as pitches, rhythms clefs, scales and dynamics. The utility of this course as part of the general requirement is to become familiar with the musical language through experiences based on fun activities making it enjoyable as well as useful.

PHI326 Philosophy of Nature 3 cr.

Among the Greeks, nature is physical, all of which appears; hence the problem of natural, supernatural and the supernatural. In Christian theology, nature is one; hence the problem of the two natures of Christ. In Latin, natura is "character", which poses the problem of nothing less than human nature. In the medical sciences, nature bounds genetics. In law, it opposes the Civic. In literature, he opposes romanticism and classicism. Today, ecology seems to oppose nature and man; it is even about ''green policy '' as of 'ecological theology,' 'brief' 'ecological philosophy.'
Nature is everywhere, but is the concept of nature he said the same thing everywhere in all areas? What is then "nature"? Will he act or nature? An act or nature? And why is his definition a hermeneutical problem? That's what our course will try to address.
The course objective is to study the concept of ''nature'' existing on a platform of ideas from different fields, such as physics, metaphysics, theology, psychology, genetics, law, literature, and ecology, without however being well-defined.

PHL135 Ethical Issues: Moral Doctrines of Religions 3 cr.

This course studies the difference between man and animal then proposes a challenge to the human nature. It examines the question of man and human nature that seeks to determine if the man is the product of nature or culture. It also analyzes the problem of the plurality of cultures and the unity of humankind.

PSY313 Psychology of Religion 3 cr.

This course enables students to acquire the basic concepts in psychology of religion and the thematic approach specific to the religious field.

It includes a theoretical aspect to identify the different approaches that have been used to study the religious phenomena. It also develops some aspects of the conscious and unconscious psychic functioning on individual and collective levels and highlights psychological aspects of normal and pathological religious behavior.
The second aspect is methodological, it involves the application of models and psychological instruments to interpret conducts or religious phenomena through studying and analyzing practical cases encountered in this area.

PSY318 Personality and Development 3 cr.

Prerequisites PSY201
The aim of this course is to explain the processes of personality construction through a progressive self-discovery. It is a multi-axial approach to the different dimensions of personality; its evolution and the interaction with the environment, will be addressed. This will provide a general overview of the concept of personality and its dynamic aspect from birth until old age. It also looks at affective and social aspects in the relationship of the self to the world and, finally, “normal” vs. “pathological” personality development.

PSY467 Group Management, Functioning and Dynamism 3 cr.
The course focuses on theoretical models of the functioning and management of groups, as well as on notions of inter-group communication and its application on different levels: group, family, individual and organizational.
Students will be required to participate in a group dynamics session and write a summary report of their personal experience within the group.

SOC334 Sociology of Religion 3 cr.
Humans face difficult situations in their lives because of their knowledge, or superstition or by religious behavior, or by a combination of these three elements. This course focuses on recognizing and distinguishing these elements.

SRO211 Introduction to the Bible 3 cr.
The goal of this course is to introduce students to biblical theology, based mainly on the subject of divine-human alliance. Through responses to the history of geographic and historic progression, particularly pertinent to us since Lebanon is a part of the Holy Land, the issue of inspiration, revelation and canonicity of sacred texts, the presentation of literary genres and direct contact with biblical texts, will give students a general idea about the divine-human process promised in the Book of Genesis and accomplished by Jesus Christ. The Bible, a book said to be hard to understand and sometimes impossible to even be considered as credible (especially in the Old Testament, which remains inaccessible), is made approachable in this course because it introduces us, not only to the face of God the Teacher who never tires of understanding the “ungrateful” people, but also the Loving face of God who insists on establishing an alliance with the whole of humanity even though they crucified his Son. Students who finish the course will acquire the understanding that each biblical story is a reflection to their own story with the “Good God”.

SRO301 Education in Faith 3 cr.
Faith is the unifying and building agent of the Christian person and the Church. Thus, the believer finds growth or even the realization of his being in God his Creator and Savior. In addition, the Church, the Mystical Body of Jesus, by its experience of communion among its different members, is the "mother" feeding her children so they reach out to Christ. This course presents the main ideas of the Christian faith that contribute to the development of the students believing identity and their participation in the ecclesial community.

SRO302 Management of Cultural and Religious Diversity 3 cr.

The world has become a "small village" open to any type of belief or culture. Therefore, no one

can pretend to live in an "island". The encounter with the "other", now becoming daily, requires some preparation in order to spare ourselves unnecessary conflict. This course presents the main ideas of the existing religions and cultures in our environment; with a practical introduction to interfaith and cultural dialogue.

SRO510 Pastoral Reading of the Gospels 3 cr.
This course aims at introducing the most important characteristics of the four Gospels (Matthew, Mark, Luke and John) and to perceive them as a catechesis designed to meet the needs of the Christian community to which they are addressed. This course also covers the major themes of the Gospels and allows students to be challenged by the Evangelists on an announcement that reflects the needs of today's communities.

SRO515 Psalms and Biblical Wisdom: Spirituality of Daily Life 3 cr.
How to understand and assimilate the Psalms and biblical wisdom and their spiritualties? On the one hand, how are the Psalms words of God for believers today? How do they help us better understand the mystery of Christ? How are they prayers of humanity? And what life lessons do we learn in the search for God and happiness?

SRO520 Symbolic Means of Religions (Prayers, Rites, Meditation) 2 cr.
Our faith in the living God is not only fed by experiences and ideas, feelings and actions, but also great symbols and powerful images. To speak of the encounter with the living God, the Bible uses prayer, rites and places that marked the Jewish people and the early Christians and have acquired a symbolic significance. The course will allow the exploration of these symbolic meanings, an identification of the spirituality attached to them and a reading of our experience in the light of these symbolic meanings.

SRO525 Development, Religion, Culture and Society 2 cr.
The course addresses the issue of development in an intercultural perspective and in relation to the different religious and socio-cultural areas within a single culture. It also aims to show the interrelations between concepts, research methods and complexity of socio-cultural changes; and identify problems related to the transposition of assessment instruments from one religion to another and from one culture to another, as well as outline the educational implications and the clinical perspectives.

SRO530 What is Believing? 3 cr.
What does "believe" mean in our time? Does God still reveal himself today? If so, how? In a world marked by science and technology, believing is becoming more difficult to explain. If one admits the spiritual search, it is very laborious to account for personal faith in the God of Jesus Christ. This course will enable students to become familiar with these two great themes of fundamental theology that are revelation and faith. Students will reflect on the human act of believing and the distinctions between spirituality/religion/faith. In addition to historical and theological considerations, this course tackles the transfer from Vatican I to Vatican II. Then it deepens the revelation as the mystery of God's communication that occurs in the heart of history and human existence.

SRO535 Schools of Great Christian Spirituality 3 cr.
Christian spiritualties offer a great diversity of life paths for believers. These spiritualties aim to help them, through prayer and action, to become more human, to follow the Christ. Every Christian school of spirituality is inspired by a great saint and pours in it its originality.
Although its schools are coming from very different eras and contexts in the history of the Church, their inspiration (from monastic, active life, apostolic life, mystic life and contemporary life) always remains current. Through different faces of the saints, the course invites students to find which spirituality schools they belong to.

SRO540 Moral Doctrines of Religion 3 cr.

As part of this course students will be confronted with the foundations of the ethics of major religions, especially in the following areas: building an ethical discourse from the three dimensions that comprise it (universal, particular and singular), the human person, freedom, conscience, forgiveness, evil and suffering, and salvation. Students are invited to link these different foundations to a specific ethics issue (bioethics, social ethics) that they choose themselves and that they will present during the exam.

SYR211 Syriaque Language (Level 1) 3 cr.

This course aims to give students the first level of comprehension and oral and written reproduction of the Syriac language, through typographical, grammatical, lexical-semantic and morphological entries. Students will also be able to understand some texts of Syriac literature, to locate the Syriac language and literature in the context of Semitic languages and to perform a comparative reading between Syriac and Arabic.

THEO212 Synoptics and Acts of the Apostles 3 cr.

Prerequisites THEO 201 - THEO 210

The synoptic writings are introduced in this course, namely: the Gospels of Mark, Matthew and Luke, in addition to the Acts of the Apostles which is the second volume of the Lucan work.

The course starts with an introduction on the "synoptic question" and the adoption of the modified theory of the two documents, followed by the study of each of these writings and their most important themes.

The approach is synchronic. The method adopted is criticism of the composition which is a specification of the writing criticism which reviews the editorial activity of the author in order to discover the theological thought.

THEO221 Ecumenism 2 cr.

This course meets the recommendation of the Second Vatican Council to give future pastors of the Church, and also all believers, an ecumenical education which aims to strive for the construction of one Church of Christ in the world. This education is especially important in the life of our Oriental Churches that live beside one another.

After presenting the unity challenge and the divisions danger, especially the roots of certain doctrinal issues, their branching and development throughout history, the course explores the situations of today's Churches and Christian communities, explains the foundations of ecumenical behavior, and determines ways that contribute to the reestablishment of Christian unity. The course outlines clearly the history of the ecumenical movement which emerged in the early twentieth century and which had deeply influenced the life of various Churches, by stimulating the desire for visible unity and communion among all Christians.

THEO241 Basics of Sacramental Theology and Liturgy 3 cr.

The sacraments cannot be understood or experienced unless they are based on a fundamental theological approach that highlights the sacramentality of the Church in relation to the salvation of Christ and the active role of the Holy Spirit. The objective of this course is to shed light on this approach and introduce students to the extensive and particular study of each sacrament.

The sacraments are celebrated in the community and communicate the energies of the Risen Christ by the action of the Holy Spirit. This celebration is always liturgical. For this reason, it is important to have an introduction to the theology of the liturgy of the Church and the Churches (especially Oriental) which determines the theological or ecclesial foundations, and underlines liturgical practices in relation to the celebration of the whole Christian ministry.

THEO251 Fundamental Moral Theology 3 cr.

This course deals with the Christian action in a rational process, while relying on the Holy

Scripture, and placing Tradition, Magisterium and human sciences within a contemporary situation scenario.
The course will particularly address: Biblical perspectives of moral theology, its creative evolution and fundamental principles, such as freedom, responsibility, will, the good and the bad in the act, conscience, law, sin, conversion, salvation and revelation, theological and human virtues, bliss as the end of all Christian actions.
Following a careful reading of the Veritatis Splendor encyclical and the document of the International Theological Commission on the natural law, we will present some new perspectives for moral thoughts, illustrated and enlightened by two concrete examples.

THEO312 Authorship of the Johannine Works 3 cr.
This is an introduction to the Johannine corpus, with particular emphasis on the fourth Gospel. The course will focus on the texts themselves, and on the different environments of their composition. In order to approach these testimonies of faith, passages under study are resituated in the historical context of their development and analyzed using narrative and rhetorical strategies used by the authors of communal and personal literary books.

THEO321 Theology of Religions 3 cr.
The course presents the Christian theology of religions within a perspective of fundamental theology in dialogue with other theological disciplines (anthropological, Christological, Trinitarian, ecclesiological and practical). Teaching focuses on the development of theology from the Second Vatican Council and aims to introduce students to the extensive reading of the relevant main texts of the Magisterium.

THEO341 Sacraments of Christian Initiation 3 cr.
The course aims to highlight the theological foundations of the Sacraments of Initiation: baptism which gives access to the Body of Christ and the divine adoption, completed by the confirmation that is the work of the Holy Spirit living in the heart of the believers as in a temple, and crowned by the Eucharist which is the real and historical incorporation into the ecclesial body of Christ. The course is largely based on the baptism catechesis of Cyril of Jerusalem, Theodore of Mopsuestia and John Chrysostom, and shows the evolution of sacramental doctrine of the Church with special emphasis on the teaching of the Council of Trent.

THEO361 Pastoral Theology Practice 3 cr.
This course is an introduction to pastoral and practical theology. If theology was the Christian faith in search of its intelligence, the theological disciplines that offer theology students the keys to the broad “Science of God” and to its salvation in the world would be numerous and various. Practical (and pastoral) theology is one of these disciplines, but with the distinction of being more oriented towards the Christian praxis which brings together the different aspects of the Christian faith and its various transmissions in communities, parishes, groups, catechesis or others. The Christian experience is understood at this point as a “response” to the Word of God received by Revelation and “recovered” in the Tradition. This experience is “imposed” in practical (and pastoral) theology in a theological place where intelligence of the Christian faith occurs.
This discipline, as entitled in this course (pastoral and practical), covers two levels of thinking and research; the first “empirical” and the second “applied”. The empirical level is that of practical theology which proceeds to an analytical reading of how faith is experienced among the People of God (theology of practice). The “applied” level is that of the pastoral theology which seeks to find the best way to convey and accompany faith among the People of God. In their quests of meaning, both types of theology, pastoral and practical, refer to theological knowledge conferred by all other theological disciplines, as well as to many other disciplines related to human sciences and others.

THEO411 Pauline Corpus 3 cr.

The course mainly focuses on the thirteen epistles which are part of the Pauline school. It covers the epistles ranging from the Romans to Philemon, as ranked by our Bibles.
Before studying the epistles themselves, we start with two preliminary parts. The first part studies the life of the Saint according to the Acts and to the epistles; the second part presents the epistolary genre, the categories of epistles and some hints for a better understanding of the studied epistles.

THEO421 Islam 3 cr.

This course is an introduction to Islam, as both a religion and a tradition consisting of various schools of thought. After examining the origin of Islam and the history and themes of the Quran, it approaches the major doctrinal and philosophical patterns of the different branches of Islam and their practices. Students are encouraged to engage in a dialogue with Muslims who constitute the major religion in the region.

THEO431 Christian Anthropology 3 cr.

This course consists of three distinct parts, namely: the pact of creation, the pact of original sin and the pact of grace. It aims to explain the content of the Christian doctrine of creation of the human being in God's image, with different biblical positions in opposition to scientific theories of origins. Then, the course examines the doctrine of original sin and attempts to formulate the problem of evil by explaining the impact of sin on the situation of the human being. After a brief overview on the scriptural doctrine of the original sin, we cover the Augustinian doctrine of the original sin, by reviewing ecclesial decisions and scholastic theology. At the end of the course, we tackle the theme of grace in order to better grasp the significance of salvation that culminates in the incarnation of Christ and the meaning of the human being's life as a creature totally open to Him, and this in communion with all creatures.

THEO441 Ministries and Healing Sacraments 3 cr.

This course aims to help students discover the theological foundations of ministries and the sacraments of healing, repentance and anointing the sick.
The question of ministries is a particularly important chapter of ecclesiology, simply because the departments are above all in the service of the Church. This issue entails multiple dimensions: historical, sociological, theological, canonic, pastoral, and ecumenical, and it is conditioned by the realities of church life and, consequently, subject to constant evolution.

THEO471 History of Modern and Contemporary Church 3 cr.

This course covers five centuries, from the Renaissance Church (16th century) to Vatican II (1962-1965), and includes two parts: the first part focuses on the Renaissance in addition to the Protestant and Catholic reforms; the second part tackles the 19th and 20th century, the era of revolutions and adaptations. Luther's revolt in the 16th century and the 1789 Revolution are main events for society and the Church. What had paved the way for them? Who are the main actors and what are their motivations? What were the challenges facing the Church in all fields, both doctrinal and pastoral, life of the clergy and involvement of the lay persons? A council marks each studied period: the Council of Trent and the Second Vatican Council. We examine how each of them blends tradition and adaptation, their development, their key documents, their receipt, their actors and especially the Popes John XXIII to John Paul II. This course helps students learn to "read the signs of the times" through world events, in the middle of which the People of God live and to whom He was sent.

Faculty of Sciences

Overview

Founded in 2000, the Faculty of Sciences consists of four departments: Mathematics, Computer Science, Science and Technology and Chemistry and Life and Earth Sciences.

In addition to the necessary explicit knowledge of applied and fundamental sciences (mathematics, statistics, physics, computer sciences, chemistry, biochemistry and life and earth sciences), the students will be shaped to develop their adaptation capabilities and to prepare them for a rapid entry into the professional setting.

Concerning research, the Faculty of Sciences conducts fundamental and applied studies contributing to the advancement of science and the improvement of our environment. Based on an innovative character, it is committed to transdisciplinary research themes which are jointly moving towards sustainable development at national level and an international partnership approach that promotes the transfer of knowledge and technology.

At the center of wide international relations covering the five continents, the Faculty plays a major role in educating researchers, teachers, entrepreneurs and administrators.

Thereby, the main mission at the Faculty of Sciences is to prepare students to face different situations that our society may present on the national and international levels in both private and public sectors.

The Faculty of Sciences consists of the following departments/programs:

Chemistry and Biochemistry Department

- Bachelor of Science in Biochemistry
- Master of Science in Biochemistry
- Bachelor of Science in Chemistry
- Master of Science in Chemistry

Life and Earth Sciences Department

- Bachelor of Science in Life and Earth Sciences
- Master of Science in Life and Earth Sciences
- Master of Science in Neuroscience and Biotechnology

Computer Science Department

- Bachelor of Science in Computer Science
- Bachelor of Science in Information Technology
- Master of Science in Computer Science

Mathematics Department

- Bachelor of Science in Actuarial and Financial Mathematics
- Master of Science in Mathematics
- Master of Science in Actuarial and Financial Mathematics

Administration and Full-time Faculty

Dr. Walid Hleihel, Associate Professor, Dean
Dr. Nathalie Estephan, Associate Professor, Associate Dean
Dr. Faten El Hage Yahchouchi, Associate Professor, Responsible of Accreditation (ABET Commission)
Dr. Joseph Saab, Associate Professor, Associate Dean for Research and Doctoral Studies
Dr. Charbel Fares, Associate Professor, Head of Computer Sciences Department
Dr. Eng. Elie Al Ahmar, Assistant Professor, Head of Mathematics Department
Dr. Maya Hobeika Kahwagi, Assistant Professor, Head of Life and Earth Sciences Department
Dr. Roni Abou Khalil, Assistant Professor, Head of Biochemistry Programs
Dr. Rola Zaydan Mehard, Associate Professor, Head of Chemistry Programs
Dr. Bachir Habib, Assistant Professor, Faculty Coordinator (Computer Sciences department)
Dr. Rana Elias, Assistant Professor, Faculty Coordinator (Mathematics department)
Dr. Mohammad Kacim, Associate Professor, Coordinator for Graduate Courses of Mathematics
Dr. Walid Harb, Associate Professor, Coordinator for Graduate Courses of Chemistry
Prof. Naim Ouaïni, Professor
Ms. Nathalie Bouldoukian, Lecturer

Programs of Study - Undergraduate Programs

Bachelor of Science in Biochemistry (Hybrid[i] & Eng.)

Offered in Main Campus Kaslik and in RUC Zahle

Mission

The mission of the undergraduate biochemistry program is to develop students' knowledge in the modern foundations underlying biochemistry, cell biology, genetics, microbiology, and chemistry. The program will foster a culture that values our students, strives to help them become self-learners and promotes an understanding that social consciousness and ethical behavior are essential features of a principled biochemistry community. The program will train students for graduate programs in science or as professionals in a variety of school, government or private laboratory positions.

Program Educational Objectives

1. Graduates will work as members of multidisciplinary teams (pharmaceutical, biology and chemistry) and develop and practice written and oral communication skills, both within the team and for a broader audience.
2. Graduates will have the ability to solve theoretical and open-ended biochemical problems with opportunities to design and conduct biochemical experiments to meet specific needs and constraints.

[i] Hybrid: Courses offered in French and/or English

3. Graduates will recognize the importance of continued self-improvement, to engage in lifelong learning, and to advance the well-being of our community through an understanding of the social, ethical and cultural context of their work.

Program Outcomes

a. Students will bring together the modern foundational knowledge underlying biochemistry, cell biology, genetics, microbiology, and chemistry.
b. Extrapolate the understanding of the relationships between chemistry and biological sciences.
c. Explain, model and conceptualize chemical and life processes at the molecular level.
d. Manipulate, synthesize, and analyze molecules and their properties using contemporary laboratory equipment, methods and computer software.
e. Practice safe handling of equipment, molecules, and organisms.
f. Apply concepts of approximation, estimation, precision, and accuracy in biochemistry data acquisition.
g. Communicate the results of their work to chemists, biologists or to a lay audience.
h. Recognize the need for and have the ability to engage in lifelong learning.
i. Find employment in a health laboratory, in industry or in government, or be accepted into graduate studies or find employment in school systems.
j. Develop an awareness of ethical, professional and social issues and responsibilities.

Degree requirements – French Section

General Education	**30**
General Education - Arts and Humanities	6
General Education - Behavioral and Social Sciences	3
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Sports	1
General Education - Religious Sciences	3
MAT216 - General Mathematics	3
PHY210 - General Physics	3
STA220 - Probability and Applied Statistics	3
Common Core	**43**
BIO211 - Cell Biology	3
BIO222 - Animal Histology	3
BIO270 - Laboratory of Biology	1
BIO320 - Physiology	2
BIO322 - Genetics	3
BIO411 - General Microbiology	3
BIO413 - Molecular Biology	3
BIO471 - Laboratory of Microbiology	1
BIO472 - Laboratory of Molecular Biology	1
CHM212 - General Chemistry	3

CHM222 - Chemistry of Solutions	3
CHM270 - Laboratory of General Chemistry	1
CHM317 - Organic Chemistry	3
CHM370 - Laboratory of Analytical Chemistry	1
CHM371 - Laboratory of Organic Chemistry	1
CHM411 - Organic Chemistry II	3
CHM425 - Analysis Techniques	3
CHM438 - Internship and Conferences	1
CHM471 - Lab of Chromatography and Spectroscopy	1
INF304 - CS for Chemistry, Biochemistry and Biology	3
Faculty Electives	**9**
Specialization	**14**
BCH320 - Structural Biochemistry	3
BCH411 - Enzymology	3
BCH421 - Metabolic Biochemistry	3
BCH422 - Biochemistry of Integrated Systems	3
BCH470 - Laboratory of Biochemistry	1
BCH471 - Laboratory of Enzymology	1
Total	**96**

Degree requirements – English Section

General Education	**30**
General Education - Arts and Humanities	6
General Education - Behavioral and Social Sciences	3
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Sports	1
General Education - Religious Sciences	3
MAT216 - General Mathematics	3
PSC210 - General Physics	3
STS220 - Applied Probability and Statistics	3
Common Core	**43**
BIO320 - Physiology	2
BIO411 - General Microbiology	3
BIO471 - Laboratory of Microbiology	1
BLG211 - Cell Biology	3
BLG222 - Animal Histology	3
BLG270 - Laboratory of Biology	1
BLG322 - Genetics	3
BLG413 - Molecular Biology	3
BLG472 - Laboratory of Molecular Biology	1
CHE212 - General Chemistry	3
CHE270 - Laboratory Of General Chemistry	1
CHE371 - Laboratory of Organic Chemistry	1
CHE411 - Organic Chemistry II	3

CHE438 - Internship and Conferences	1
CHE471 - Lab of Chromatography and Spectroscopy	1
CHM222 - Chemistry of Solutions	3
CHM317 - Organic Chemistry	3
CHM370 - Laboratory Of Analytical Chemistry	1
CHM425 - Analysis Techniques	3
INF304 - CS for Chemistry, Biochemistry and Biology	3
Faculty Electives	**9**
Specialization	**14**
BCH470 - Laboratory of Biochemistry	1
BCM320 - Structural Biochemistry	3
BCM411 - Enzymology	3
BCM421 - Metabolic Biochemistry	3
BCM422 - Biochemistry of Integrated Systems	3
BCM471 - Laboratory of Enzymology	1
Total	**96**

Bachelor of Science in Chemistry (Hybrid[i])

Mission

The mission of the undergraduate chemistry program is to deliver a broad-based and challenging chemistry experience that will train students for graduate programs in science or to become professionals in a variety of school, government or private industry positions. The program will foster a culture that values our students, strives to help them become self-learners and promotes an understanding that social consciousness and ethical behavior are essential features of a principled chemistry community.

Program Educational Objectives

1. Graduates will demonstrate the fundamental knowledge, critical thinking, and problem-solving skills to solve challenging and relevant problems in the four basic areas of chemistry (analytical, inorganic, organic, physical) and related fields.
2. Graduates will have the ability to design and conduct experiments, to analyze and interpret experimental results, and to communicate effectively in written, oral, and graphical forms.
3. Graduates will work ethically and consider the social implications of their work, especially as it affects the health, safety, and environment of citizens worldwide. They will recognize the need for and have the ability to engage in lifelong learning.

Program Outcomes

a. Students will recognize the fundamentals and application of current chemical and scientific theories.
b. Understand the ethical, philosophical, and social dimensions of problems and issues facing chemists.

[i] Hybrid: Courses offered in French and/or English

c. Apply mathematical foundations, physical principles and modeling basics to solve chemical problems and help to explore new areas of science.
d. Use classical techniques and modern instrumentation and record properly the results of their experiment.
e. Conduct experiments, analyze data, and interpret results, while observing responsible scientific conduct.
f. Employ critical thinking and efficient problem-solving skills in the four basic areas of chemistry (analytical, inorganic, organic, and physical).
g. Communicate the results of their work to biochemists, biologists or to a lay audience.
h. Recognize the need for and an ability to engage in lifelong learning.
i. Find employment in industry or government, be accepted on graduate studies or find employment in school systems.

Degree requirements

General Education	**30**
General Education - Arts and Humanities	6
General Education - Behavioral and Social Sciences	3
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Sports	1
General Education - Religious Sciences	3
MAT216 - General Mathematics	3
PHY210 - General Physics	3
STA220 - Probability and Applied Statistics	3
Common Core	**13**
BCH320 - Structural biochemistry	3
BCH470 - Laboratory of Biochemistry	1
INF216 - Introduction to Programming	3
INF304 - CS for Chemistry, Biochemistry and Biology	3
PHY215 - Optics and Modern Physics	3
Faculty Electives	**9**
Specialization	**44**
CHM212 - General Chemistry	3
CHM222 - Chemistry of Solutions	3
CHM270 - Laboratory of General Chemistry	1
CHM317 - Organic Chemistry	3
CHM321 - Inorganic Chemistry	3
CHM325 - Physical Chemistry I	3
CHM330 - Theoretical Chemistry	3
CHM340 - Spectroscopic Methods	3
CHM370 - Laboratory of Analytical Chemistry	1
CHM371 - Laboratory of Organic Chemistry	1
CHM411 - Organic Chemistry II	3
CHM412 - Physical Chemistry II	3

CHM420 - Macromolecules, Polymers and Materials	3
CHM422 - Process Chemistry	3
CHM425 - Analysis Techniques	3
CHM426 - Food Chemistry	3
CHM438 - Internship and conferences	1
CHM471 - Lab of Chromatography and Spectroscopy	1
Total	**96**

Bachelor of Science in Life and Earth Sciences (Hybrid[i])

Mission

The mission of the Department of Earth and Life Sciences is to provide students the opportunity to explore biology and geology and the methods for educating in these areas. We are committed to excellence in our teaching and research programs.

Program Educational Objectives

1. Graduates will be able to solve problems, communicate effectively, integrate basic knowledge with new findings, and think critically.
2. Develop skills needed to perform experimentation and data gathering.
3. Have occupation as a researcher in laboratory and/or field settings using appropriate basic equipment.
4. Be able to apply the scientific method and critical thinking in an ethical fashion to biology problems.

Program Outcomes

a. An ability to apply basic knowledge of mathematics, statistics and applied sciences.
b. An ability to define and explain major concepts in the biological sciences.
c. An ability to correctly use biological instrumentation and proper laboratory techniques.
d. An ability to communicate biological knowledge in oral and written form.
e. An ability to explain and apply the scientific method including designing and conducting experiments and testing hypotheses.
f. An ability to recognize the relationship between structure and function at all levels: molecular, cellular, and organismal.
g. An ability to demonstrate the ability to read, understand, and critically review scientific information.
h. An ability to demonstrate ethical conduct in scientific activities.
i. An understanding of professional, ethical, legal, security and social issues and responsibilities.

[i] Hybrid: Courses offered in French and/or English

Degree requirements

General Education	**30**
General Education - Arts and Humanities (3 cr.)	3
General Education - Behavioral and Social Sciences	3
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Quantitative Reasoning	3
General Education - Sports	1
General Education - Religious Sciences	3
MAT216 - General Mathematics	3
PHY210 - General Physics	3
STA220 - Probability and Applied Statistics	3
Common Core	**16**
BIO211 - Cell Biology	3
BIO221 - General Anatomy	2
BIO222 - Animal Histology	3
BIO270 – Laboratory of Biology	1
CHM212 - General Chemistry	3
CHM270 - Laboratory of General Chemistry	1
INF304 - CS for Chemistry, Biochemistry and Biology	3
Specialization	**40**
BCH320 - Structural Biochemistry	3
BIO228 - General Botany	3
BIO320 - Physiology	2
BIO322 - Genetics	3
BIO327 - Developmental Biology	3
BIO335 - Biophysics	3
BIO336 - General Immunology	3
BIO411 - General Microbiology	3
BIO413 - Molecular Biology	3
BIO415 - Systems Physiology	3
BIO471 - Laboratory of Microbiology	1
BIO472 - Laboratory of Molecular Biology	1
BIO473 - Lab of Biology and Physiology of Plants	1
CHM317 - Organic Chemistry	3
CHM371 - Laboratory of Organic Chemistry	1
CHM438 - Internship and Conferences	1
GEO327 - General Geology	3
Capstone	**1**
CHM436 - Research Project	1
Electives	**9 out of 24**
BCH411 - Enzymology	3
BCH421 - Metabolic Biochemistry	3
BCH422 - Biochemistry of Integrated Systems	3
CHM222 - Chemistry of Solutions	3

CHM411 - Organic Chemistry II	3
CHM425 - Analysis Techniques	3
CHM426 - Food Chemistry	3
GEO412 - Ecology and Environment	3
Total	**96**

Bachelor of Science in Computer Science (Eng.)

Offered in Main Campus Kaslik and in RUC Zahle

Accreditation

This program is accredited by the Computing Accreditation Commission of ABET, http://www.abet.org, the global accreditor of college and university programs in applied science, computing, engineering, and engineering technology.

Mission

The mission of the department of computer science is to graduate undergraduate and graduate students that excel in the fields of computing, networking, and database design, creation and management. This is fulfilled through comprehensive educational programs and research and development.

Program Educational Objectives

1. Graduates will work successfully as members of professional software teams to address real work problems, as well as demonstrate strong communication skills. Computer scientists must be prepared to work in a broad range of positions involving tasks from theoretical work to software development.
2. Graduates will provide full solutions for software problems from system design to solution development. They will be committed to lifelong learning.
3. Graduates will have the ability to function and communicate effectively as ethically and socially responsible computer science professionals.

Program Outcomes

a. An ability to apply knowledge of computing and mathematics appropriate to the program's student outcomes and the discipline.
b. An ability to analyse a problem, and identify and define the computing requirements appropriate to its solution.
c. An ability to design, implements, and evaluates a computer-based system, process, component, or program to meet desired needs.
d. An ability to function effectively on teams to accomplish a common goal.
e. An understanding of professional, ethical, legal, security and social issues and responsibilities.

f. An ability to communicate effectively with a range of audiences.
g. An ability to analyse the local and global impact of computing on individuals, organizations, and society.
h. Recognition of the need for and an ability to engage in continuing professional development.
i. An ability to use current techniques, skills, and tools necessary for computing practice.
j. An ability to apply mathematical foundations, algorithmic principles, and Computer Science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the trade-offs involved in design choices.
k. An ability to apply design and development principles in the construction of software systems of varying complexity.

Degree requirements

General Education	**30**
General Education - Arts and Humanities	3
General Education - Behavioral and Social Sciences	3
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Science and Health	3
General Education - Sports	1
General Education - Religious Sciences	3
MAT202 - Algebra I	3
MAT213 - Calculus III	3
CHM212 - General Chemistry or PHY210 - General Physics	3
Common Core	**27**
CSC212 - Computer Organization and Assembly Language	3
CSC214 - Programming I	3
CSC270 - Programming Laboratory I	1
CSC271 - GUI programming	1
CSC314 - Object Oriented Programming	3
CSC320 - Database systems	3
CSC360 - Internet Technology	3
CSC368 - Project Management	2
CSC420 - Computer Networks	3
CSC438 - Internship Report	1
CHM270 - Laboratory of General Chemistry or PHY270 – Laboratory of General Physics	1
STA320 - Applied Probability and Statistics	3
Specialization	**28**
CSC211 - Discrete Methods	3
CSC215 - Programming II	3
CSC272 - Programming Laboratory II	1
CSC315 - Data Structures and Algorithms	3
CSC352 - Theory of Programming Languages	3

CSC416 - Graph theory& operations research	3
CSC421 - Operating Systems	3
MAT220 - Differential Equations	3
MAT310 - Linear Algebra	3
MAT418 - Numerical Methods	3
Electives	**9 out of 18**
CSC312 - Advanced VB Programming	3
CSC343 - Mobile Programming	3
CSC417 - Human Computer Interaction	3
CSC426 - Database Applications Development	3
CSC428 - Database Administration	3
CSC430 - Systems and Networks Administrator	3
Capstone	**2**
CSC436 - Advanced Programming Project	2
Total	**96**

Bachelor of Science in Information Technology (Eng.)

Accreditation

This program is accredited by the Computing Accreditation Commission of ABET, http://www.abet.org, the global accreditor of college and university programs in applied science, computing, engineering, and engineering technology.

Mission

The mission of the department of computer science is to graduate undergraduate and graduate students that excel in the fields of computing, networking, and database design, creation and management. This is fulfilled through comprehensive educational programs and research and development.

Program Educational Objectives

1. Graduates will obtain positions as information technology professionals in various industries and government agencies involved in the creation, maintenance and use of computers, computer networks and computer information systems.
2. Information technology professionals must be able to work effectively in the planning, implementation, configuration, and maintenance of an organization's computing infrastructure.
3. Graduates will be aware of cultural, social, legal, and ethical issues inherent in the discipline of computing.

Program Outcomes

a. An ability to apply knowledge of computing and mathematics appropriate to the program's student outcomes and the discipline.
b. An ability to analyse a problem, and identify and define the computing requirements appropriate to its solution.
c. An ability to design, implements, and evaluates a computer-based system, process, component, or program to meet desired needs.
d. An ability to function effectively on teams to accomplish a common goal.
e. An understanding of professional, ethical, legal, security and social issues and responsibilities.
f. An ability to communicate effectively with a range of audiences.
g. An ability to analyse the local and global impact of computing on individuals, organizations, and society.
h. Recognition of the need for and an ability to engage in continuing professional development.
i. An ability to use current techniques, skills, and tools necessary for computing practice.
j. An ability to use and apply current technical concepts and practices in the core information technologies.
k. An ability to identify and analyse user needs and take them into account in the selection, creation, evaluation and administration of computer-based systems.
l. An ability to effectively integrate IT-based solutions into the user environment.
m. An understanding of best practices and standards and their application.
n. An ability to assist in the creation of an effective project plan.

Degree requirements

General Education	**30**
General Education - Arts and Humanities	3
General Education - Behavioral and Social Sciences	3
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Science and Health	3
General Education - Sports	1
General Education - Religious Sciences	3
MAT202 - Algebra I	3
MAT213 - Calculus III	3
CHM212 - General Chemistry or PHY210 - General Physics	3
Common Core	**27**
CHM270 - Laboratory of General Chemistry or PHY270 – Laboratory of General Physics	1
CSC212 - Computer Organization and Assembly Language	3
CSC214 - Programming I	3
CSC270 - Programming Laboratory I	1
CSC271 - GUI Programming	1

CSC314 - Object Oriented Programming	3
CSC320 - Database Systems	3
CSC360 - Internet Technology	3
CSC368 - Project Management	2
CSC420 - Computer Networks	3
CSC438 - Internship Report	1
STA320 - Applied Probability and Statistics	3
Specialization	**31**
CSC300 - Hardware Technology	3
CSC312 - Advanced VB Programming	3
CSC319 - Technology and Networks Infrastructure	3
CSC372 - Advanced Programming Lab	1
CSC417 - Human Computer Interaction	3
CSC426 - Database Applications Development	3
CSC428 - Database Administration	3
CSC430 - Systems and Networks Administrator	3
CSC460 - Information System Security	3
MGT220 - Principles of Management	3
MKT220 - Principles of Marketing	3
Electives	**6 out of 12**
CSC343 - Mobile Programming	3
CSC352 - Theory of Programming Languages	3
CSC416 - Graph Theory and Operations Research	3
CSC421 - Operating Systems	3
Capstone	**2**
CSC436 - Advanced Programming Project	2
Total	**96**

Bachelor of Science in Actuarial and Financial Mathematics (Hybrid[i])

Mission

The main mission of this program is to prepare the students for the basics of the actuary's profession which enables them to gain exciting job opportunities in insurance companies, health insurances, provident funds institutions, banks, financial institutions as well as in audit offices and actuarial counseling. Students will also be initiated to perform research projects in the field of actuarial and financial mathematics. Nowadays, the job of actuary is known as one of the more desirable jobs worldwide, and it offers a wide variety of career choices.

Program Educational Objectives

1. Graduates will be able to solve problems using fundamental concepts of calculus, linear algebra, probability, interest theory, and statistics.

[i] Hybrid: Courses offered in French and/or English

2. Understand the fundamental practices and theories of actuarial sciences and their application, mainly in the fields of economy and insurance.
3. Acquire the computer skills required to analyze data using the most current software tools employed by insurance industry leaders.
4. Gain the essentials of programming languages at a level that enables them to solve and model basic actuarial problems.

Program Outcomes

a. Students will understand the basics of economy and their association with the actuarial sciences.
b. Be introduced to the basics of computer programming.
c. Acquire and improve the knowledge of mathematical fundamentals.
d. Be introduced to statistics and probability tools and their applications.
e. Gain necessary knowledge to understand the basics of the actuarial theory.
f. Identify the types of risks faced by financial institutions today and select suitable tactics to manage them

Degree requirements

General Education	**30**
General Education - Arts and Humanities	3
General Education - Behavioral and Social Sciences	3
General Education - Civic Engagement	2
General Education - English Communication	3
General Education - History of Lebanon	3
General Education - Quantitative Reasoning	3
General Education - Science and Health	9
General Education - Sports	1
General Education - Religious Sciences	3
Common Core	**37**
CSC211 - Discrete Methods	3
ECO221 - Microeconomics	3
ECO222 - Macroeconomics	3
FIN421 – Financial Markets	3
INF216 - Introduction to Programming	3
INF217 - Applicative Programming	3
MAC315 - Insurance Contracts	1
MAC400 - Actuarial Mathematics	3
MAC421 - Demography and Actuarial Science	3
MAT213 - Calculus III	3
MAT220 - Differential Equations	3
MAT310 - Linear Algebra	3
MAT313 - Vector Analysis	3
Specialization	**28**
CSC416 - Graph Theory and Operations Research	3

ECO410 - Banking and Finance	3
MAC216 - Ethics of Insurance	3
MAC430 - Accounting of Insurance and Mathematical Reserves	3
MAT312 - Economical and Financial Calculus	3
MAT418 - Numerical Methods	3
STA320 - Applied Probability and Statistics	3
STA321 - Descriptive Statistics	3
STA331 - Statistical Analysis	3
STA335 - Statistical Survey and Analysis	1
Capstone	**1**
MAC438 – Internship Report	1
Total	**96**

Programs of Study - Graduate Programs

Master of Science in Biochemistry (Hybrid[i] & Eng.)

Mission

The mission of the graduate biochemistry program is to train new scientists to probe the mechanistic basis of fundamental biochemistry processes within the context of an ever-changing knowledge base. In pursuit of this mission, the biochemistry graduate program strives to prepare students for careers ranging from teaching at postsecondary institutions to conducting research in universities (PhD program), health settings, and government or private laboratories.

Program Educational Objectives

1. Graduates will exhibit a critical thinking ability that has enabled them to correlate between pharmaceutical principles, drug design, formulation, manufacture, and compounding. They will have the ability to match the knowledge of pharmacological and toxicological effects to health field concepts.
2. Graduates will be familiar with research design methodology and are able to use problem-solving techniques associated with interdisciplinary research. They will have the ability to engage in a Doctoral Program (PhD program) with scholars in a variety of interdisciplinary topics related to the field.
3. Graduates will have the ability to present biochemical information coherently through oral and written discourse and to generate technical documents describing their results for editing and publication in peer reviewed scientific journals.
4. Graduates will recognize the importance of continued self-improvement, to engage in lifelong learning.

[i] Hybrid: Courses offered in French and/or English

Program Outcomes

a. Students will correlate between pharmaceutical principles, drug design, formulation, manufacture, and compounding.
b. Identify the various methods and techniques that are being used in the process of drug discovery.
c. Select the most appropriate drugs relevant to the patient with respect to its pharmacological actions, therapeutic uses, and possible adverse effects.
d. Match the fundamental knowledge on the health risks associated with exposure to xenobiotic substances, characteristic of the health field concept.
e. Apply the research methodology and statistical analysis to implement a controlled clinical trial.
f. Communicate scientific results in writing, oral presentation and publication in peer reviewed scientific journals.
g. Function effectively in a team to accomplish common goals.
h. Recognize how their expertise will be applicable in the execution of interdisciplinary research and how the research training enables them to join the doctoral program or find employment.
i. Recognize the need for and an ability to engage in lifelong learning.

Degree requirements – French Section

Common Core	**12**
BCH513 - Ecotoxicology	3
CHM511 - Techniques for Quality Control	3
ENG510 - Advanced Academic English	2
FSC600 - Research Methodology	1
STA515 - Statistical Analysis Methods	3
Specialization	**24**
BCH541 - Cell Signaling	3
BCH601 - Special Topics in Biochemistry - I	1
BCH602 - Special Topics in Biochemistry - II	1
BCH603 - Tutorial in Biochemistry	1
BCH620 - General Pharmacology and Cosmetology	3
BCH622 - Pharmacotherapy	3
BCH623 - Specialized Pharmacology	3
BCH627 - Clinical Trial-drug Legislation and Guide	3
BCH697A - Master Thesis	6
Total	**36**

Degree requirements – English Section

Common Core	**12**
BCM513 - Ecotoxicology	3
CHE511 - Techniques for Quality Control	3
ENG510 - Advanced Academic English	2
FSC600 - Research Methodology	1

STA515 - Statistical Analysis Methods	3
Specialization	**24**
BCM541 - Cell Signaling	3
BCM601 - Special Topics in Biochemistry - I	1
BCM602 - Special Topics in Biochemistry - II	1
BCM603 - Tutorial in Biochemistry	1
BCM620 - General Pharmacology and Cosmetology	3
BCM622 - Pharmacotherapy	3
BCM623 - Specialized Pharmacology	3
BCM627 - Clinical Trial-drug Legislation and Guide	3
BCM697A - Master Thesis	6
Total	**36**

Master of Science in Chemistry (Hybrid[i])

Mission

The graduate chemistry program values teaching and research as equal and essential components of the education of our students and seeks to integrate research with teaching at every possible opportunity in the curriculum. In pursuit of this mission, the graduate chemistry program aims to prepare students for careers ranging from teaching at postsecondary institutions to conducting research in universities (PhD program), industrial settings, and government laboratories.

Program Educational Objectives

1. Graduates will have the ability to design systems, components, or processes to meet specified objectives for industrial or laboratory chemical issues within realistic constraints such as economic, environmental, health and safety, manufacturability, and sustainability.
2. Graduates will be familiar with research design methodology and be able to use problem-solving techniques associated with interdisciplinary research. They will have the ability to engage in a Doctoral Program (PhD program) with scholars in a variety of interdisciplinary chemical fields.
3. Graduates will have the ability to present chemical information coherently through oral and written discourse and to generate technical documents describing their results for editing and publication in peer reviewed scientific journals.
4. Graduates will recognize the importance of continued self-improvement, to engage in lifelong learning.

Program Outcomes

a. Students will design a system or process within realistic constraints such as economic, environmental, health and safety, manufacturability, and sustainability.

[i] Hybrid: Courses offered in French and/or English

b. Employ critical thinking and efficient problem-solving skills in the industrial production process, in separation units and recycling processes.
c. Function in multidisciplinary teams and recognize how their expertise will be applicable in the execution of interdisciplinary industrial problems.
d. Apply the research methodology and statistical analysis to the interpretation and evaluation of critical scientific data.
e. Communicate scientific results in writing and in oral presentation.
f. Generate technical documents describing their results for editing and publication in peer reviewed scientific journals.
g. Identify the future career path and understand how the research training allows them to join the doctoral program or enter employment.
h. Recognize the need for and an ability to engage in lifelong learning

Degree requirements

Common Core	**12**
BCH513 - Ecotoxicology	3
CHM511 - Techniques for Quality Control	3
ENG510 - Advanced Academic English	2
SCF600 - Research Methodology	1
STA515 - Statistical Analysis Methods	3
Specialization	**24**
CHM521 - Characterization Methods	3
CHM601 - Special Topics in Chemistry - I	1
CHM602 - Special Topics in Chemistry - II	1
CHM603 - Tutorial in Chemistry	1
CHM630 - Industrial Unit Operation	3
CHM631 - Chemistry and Technology of Polymers	3
CHM632 - Control and Optimization in the Chemical Industry	3
CHM633 - Sustainable Chemistry	3
CHM697A - Master Thesis	6
Total	**36**

Master of Science in Life and Earth Sciences (Hybrid[i])

Mission

The mission of the Department of Earth and Life Sciences is to provide students the opportunity to explore biology and geology and the methods for educating in these areas. We are committed to excellence in our teaching and research programs.

[i] Hybrid: Courses offered in French and/or English

Program Educational Objectives

1. Graduates will have extended knowledge, skills, and experience in the field of physiology/genetics and developed abilities of leadership, collaboration, and communication.
2. Graduates will be able to conduct original research in a biological sub-discipline, including the design of experiments with appropriate controls.
3. Graduates will be able to apply professional ethics in the conduct of science.
4. Graduates will be able to use their knowledge and abilities to answer questions and solve problems in the complex and interactive context of local, regional, and global issues and concerns

Program Outcomes

a. An ability to search the current scientific literature and understanding to apply the scientific method properly.
b. An ability to demonstrate an understanding of experimental design, methods, and data analyses pertinent to their research area, including hypothesis construction and relevant experimental controls.
c. An ability to develop and execute a scientific research that represents a substantial contribution to their discipline (genetics or physiology).
d. An ability to develop sufficient writing and oral skills to communicate the results of their research.
e. An ability to act in accordance with the ethical, legal, quality, and values of the profession.
f. Be prepared to seek employment or continued graduate work in physiology or genetics or a related discipline.
g. An ability to analyze and explain the relationship between the human being and the environment.
h. An ability to analyze and explain basic genetics and applications.

Degree requirements

Common Core	**15**
BCH513 - Ecotoxicology	3
BIO511 - Applied Immunology	3
CHM511 - Techniques for Quality Control	3
ENG510 - Advanced Academic English	2
SCF600 - Research Methodology	1
STA515 - Statistical Analysis Methods	3
Specialization	**3**
SVT601 - Special Topics in LES - I	1
SVT602 - Special Topics in LES - II	1
SVT603 - Tutorial in LES	1
Option: Genetics	**12**
BIO510 - Applied Biotechnology	3

BIO640 - Genetic Engineering	3
BIO644 - Basic Genomics	3
BIO645 - Structural and Functional Proteomics	3
Option: Cellular and Molecular Physiology	**12**
BIO622 - Physiology of the Contractile Structures	3
BIO623 - Reproductive Physiology and Development	3
BIO624 - Endocrine Physiology	3
BIO652 - Environmental Physiology	3
Capstone	**6**
SVT697A - Master Thesis	6
Total	**36**

Master of Science in Neuroscience and Biotechnology (Hybrid[i])

Mission

Students are provided with an international curriculum with identical core courses and specialization tracks based on each person's expertise in fundamental or biomedical sciences. We offer a unique wide range of complementary competences and methods that cover all fields of modern neuroscience, from molecular aspects to in vivo analysis. Students also benefit from our dense network of expert research labs and easy access to high-level specialized core facilities, R&D projects in academic and industrial fields, and Bilingual teaching and close collaboration between universities to offer mobility opportunities.

Program Educational Objectives

1. Graduates will have extended knowledge, skills, and experience in neuroscience and biotechnology and developed abilities of leadership, collaboration, and communication.
2. Graduates will be able to conduct original research in a neuroscience, including the design of experiments with appropriate controls.
3. Graduates will be able to apply professional ethics in the conduct of science.
4. Graduates will be able to use their knowledge and abilities to answer questions and solve problems in the complex and interactive context of local, regional, and global issues and concerns.

Program Outcomes

a. Students will acquire high-level innovative and interdisciplinary training in Neuroscience.
b. Manipulate theoretical concepts together with a broad range of experimental methods used in biotechnology and biomedicine.
c. Master competences required to implement and use modern techniques, and to serve complex experimental set-up.
d. Conceive and conducting individual projects in Neuroscience and Biotechnology.

[i] Hybrid: Courses offered in French and/or English

e. Elaborate and communicating scientific data and concepts.
f. Develop connections and networking in neuroscience across the Mediterranean region.

Degree requirements

Common Core	**23**
NSBT520 - Language and Communication	1
NSBT525 - Biotechnology and Bioinformatics	3
NSBT530 - Functional and Cognitive Anatomy	2
NSBT535 - Cellular Neurobiology and Physiology	3
NSBT540 - Methodologies	2
NSBT545 - Experimental Approaches of Neuropathology	2
NSBT550 - Behavior, Emotion and Cognition	2
NSBT565 - Economy	1
NSBT570 - Regulations, Laws and Bioethics	2
NSBT575 - Drug Development	1
NSBT555 - Neuropharmacology	2
NSBT560 - Genomics and Proteomics	2
Specialization – Option: Medical Neuroscience and Neuroimaging	**7**
NSBT580 - Morpho-functional Imaging	3
NSBT585 - Physiopathology of the Nervous System	2
NSBT590 - Diagnostic and Therapeutic Tools Development	2
Specialization – Option: Integrative and System Biology	**7**
NSBT620 - From Sensation to Perception	2
NSBT625 - From Perception to Action	2
NSBT630 - Integrative Physiology	2
NSBT635 - Computational Neurosciences	1
Capstone	**6**
NSBT690A - Long Training Period	6
Total	**36**

Master of Science in Computer Science (Eng.)

Mission

The mission of the department of computer science is to graduate undergraduate and graduate students that excel in the field of computing, networking, and database design, creation and management. This is fulfilled through comprehensive educational programs and research and development.

Program Educational Objectives

1. Graduates will be ready for advanced careers in computer science and networking, and related fields, as well as further graduate study.
2. Graduates will provide full solutions for software problems from system design to solution development. They will be committed to lifelong learning.

3. Graduates will have the ability to function and communicate effectively as ethically and socially responsible computer science professionals.

Program Outcomes

a. An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution.
b. An ability to design, implement, and evaluate a computer-based system, component, or program to meet desired needs.
c. An ability to function effectively on teams to accomplish a common goal.
d. An understanding of professional, ethical, legal, security and social issues and responsibilities.
e. An ability to communicate effectively with a range of audiences.
f. Recognition of the need for and an ability to engage in continuing professional development.
g. An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modelling and design of computer-based systems in a way that demonstrates comprehension of the trade-offs involved in design choices

Degree requirements

Common Core	**12**
CSC500 - Software Engineering	3
CSC530 - Advanced Database Systems	3
CSC601 - Special Topics in C. Sc. - I	1
CSC602 - Special Topics in C. Sc. - II	1
CSC603 - Tutorial in Computer Science	1
ENG510 - Advanced Academic English	2
FSC600 - Research Methodology	1
Specialization	**12**
CSC521 - Artificial Intelligence	3
CSC560 - Information System Security	3
CSC630 - Distributed Database Systems	3
CSC632 - Data Warehousing	3
Specialization - Electives	**6 out of 18**
CSC522 - Advanced Computer Networks	3
CSC540 - Network Management and Security	3
CSC570 - Multimedia and Computing Systems	3
CSC634 - Data Mining	3
CSC635 - Database System Administration	3
CSC655 - Server Configuration and Administration	3
Capstone	**6**
CSC697A - Master Thesis	6
Total	**36**

Master of Science in Mathematics (Hybrid[i])

Mission

The goal of the Master's program in mathematics is to educate each student in the foundations of advanced mathematics. In general, a student in the Master's program will fall into one of three categories: wishing to work in the private sector, wishing to teach mathematics in a school, or wishing to continue into a Ph.D. program in mathematics.

Program Educational Objectives

1. Graduates will present a deep knowledge in the different fields of theoretical and applied mathematics.
2. Graduates will develop a mathematical logic that could be applied for problem modeling and solving in different areas of interest.
3. Graduates will acquire a vast scientific methodological approach to tackle mathematical research problems responding to the needs of different scientific fields.

Program Outcomes

a. Students will simulate problems in the advanced areas of numerical analysis.
b. Model problems in the areas of functional analysis.
c. Solve problems in the advanced areas of algebra.
d. Understand the concepts of stochastic processes.
e. Apply computer knowledge to solve numerical problems.
f. Acquire the necessary knowledge in scientific research.

Degree requirements

Common Core	**12**
ENG510 - Advanced Academic English	2
MAT522 - PDE and Modeling	3
MAT523 - Group Theory	3
SCF600 - Research Methodology	1
STA540 - Random Modeling and Introduction to Stochastic Calculations	3
Specialization	**18**
MAT500 - Numerical Analysis and Optimization	3
MAT601 - Special Topics in Mathematics I	1
MAT602 - Special Topics in Mathematics II	1
MAT603 - Tutorial in Mathematics	1
MAT610 - Discrete Mathematics	3
MAT620 - Spectral Theory	3
MAT623 - Distribution Theory and PDE	3
MAT627 - Lie Algebra	3
Capstone	**6**
MAT697A - Master Thesis	6
Total	**36**

[i] Hybrid: Courses offered in French and/or English

Master of Science in Actuarial and Financial Mathematics (Hybrid[i])

Mission

The main mission of this program is to prepare the students to become actuaries and gain exciting job opportunities in insurance companies, health insurances, provident funds institutions, banks, financial institutions as well as in audit offices and actuarial counseling. Students will also acquire a strong ability to perform advanced research in the field of actuarial and financial mathematics. Nowadays, the job of actuary is known as one of the more desirable jobs worldwide, as it offers a wide variety of career choices.

Program Educational Objectives

1. Graduates will have a detailed knowledge of the mathematics and statistics that form the core of actuarial calculations.
2. Proficiency in distinguishing and describing, in depth, many actuarial practice areas, and an understanding of the principles that govern the development of insurance products for those areas, including emerging trends.
3. The computer skills required to analyze data using the most current software tools employed by insurance industry leaders.
4. A developed research spirit and interest in the research novelties in the domain of actuarial and financial sciences.

Program Outcomes

a. Students will recall advanced probability theories.
b. Understand the financial mathematics and derivatives.
c. Perform life contingencies models.
d. Understand and model different types of insurance losses.
e. Understand and classify the life and health insurance practices.
f. Classify and apply data modeling methods.
g. Recognize, classify and compute different pension plans.
h. Deepen and apply computer knowledge and skills to the actuarial practices.
i. Acquire the necessary knowledge in scientific research.

Degree requirements

Common Core	**12**
ENG510 - Advanced Academic English	2
MAC510 - Individual Health Insurance	3
MAC520 - Theory of Risk	3
SCF600 - Research Methodology	1
STA540 - Random Modeling and Introduction to Stochastic Calculations	3
Specialization	**18**
MAC530 - Non-life Insurance	3
MAC532 - Survival Models	3

[i] Hybrid: Courses offered in French and/or English

MAC601 - Special Topics in Actuarial and Financial Mathematics	1
MAC602 - Special Topics in Actuarial and Financial Mathematics II	1
MAC603 - Tutorial in Actuarial and Financial Mathematics	1
MAC620 - Time Series and Financial Models	3
MAC634 - Mathematics of Pension Plans	3
MAC641 - Financial Modelling	3
Capstone	**6**
MAC697A - Master Thesis	6
Total	**36**

Course Descriptions

BCH320 - BCM320 Structural Biochemistry 3 cr.

Pre-requisites CHM317 Or CHM311 Or CHE311

This course is based on an understanding of the different biochemical processes taking place in the human body. It enables students to acquire a basic foundation in biochemistry so they are able to competently address all areas related to medical biochemistry. Structural biochemistry defines the structure of the various molecules of living matter such as carbohydrates, lipids, amino acids, proteins, enzymes, nucleotides and vitamins.

BCH411 - BCM411 Enzymology 3 cr.

Pre-requisites BCH410 Or BCH300 Or BCH415 Or BCH320 Or BCM320

Enzymology is one of the key disciplines that a student in biology, biochemistry or even chemistry must master. This course presents the basic concepts of enzymology. Students will discover the applications of enzymes in several fields such as scientific research, industry, food, medicine and the environment. Many examples have been included to clarify or supplement the topics covered. Some exercises and solutions will enable students to improve or to assess their level of knowledge.

BCH421 - BCM421 Metabolic Biochemistry 3 cr.

Pre-requisites BCH415 Or BCH410 Or BCH300 Or BCH320 Or BCM320

Understanding all vital processes requires knowledge of the biochemical reactions and their integration in metabolic pathways. This course covers two basic areas of molecular biochemistry which are the production and storage of energy, and the biosynthesis of macromolecules. The course starts with the metabolism of carbohydrates, the main producer of energy in the cell. Several topics are devoted to the study of glycogen metabolism, glycolysis, the Krebs cycle and the pentose phosphate pathway, then lipid metabolism (β oxidation, fatty acid synthesis, cholesterol synthesis), and on protein metabolism (transamination, urea cycle), and then nucleotide metabolism.

BCH422 - BCM422 Biochemistry of Integrated Systems 3 cr.

Pre-requisites BCH300 Or BCH410 Or BCH415 Or BCH320 Or BCM320

The course is divided into three parts. In the first part, we discuss the structure and dynamics of membranes. The students will receive specialized information concerning lipid and protein composition of the cell membrane, membrane fluidity and cellular traffic. Then, the domain of the translocation of proteins across the membrane will be detailed explaining to students the destination of a non-cytoplasmic protein (ER, Golgi apparatus, mitochondria, nucleus, and peroxisomes). In the last part, the students will be introduced to the concept of cell signaling and signal transduction. The different types of membrane receptors and channels of cellular signaling will be described. The various effectors, the coupling mechanisms between receiver and effector, as well as the second messengers produced by these effectors will be detailed.

BCH470 Laboratory of Biochemistry 1 cr.

Pre-requisites BCH410 Or BCH415 Or BCH320 Or BCM320

Students learn how to prepare a buffer solution and how to determine its capacity and its pKa. They also learn to distinguish major biochemical molecules (carbohydrates, lipids, proteins) by using specific qualitative tests for this purpose. Glucose in plasma, lipids, triglycerides, proteins in serum, and level of creatinine in urine are evaluated by using spectro-photo-colorimetric techniques.

BCH471 - BCM471 Laboratory of Enzymology 1 cr.

Pre-requisites BCH411 Or BCM411

In part to provide a more authentic experience of actual lab work, experiments are done in groups

of two. Each experimental session is started with an explanation, given by the instructor, of the aim, the interest and the steps of the experiment. Prior to each lab period, students need to spend some time reading the Laboratory Manual. This reading provides background information of the procedures to be performed and a facility to answer the prelab questions covered in each session. Students are required to maintain a laboratory notebook used for the recording of laboratory data and calculations, and critically important for writing lab reports. Students are encouraged to participate as much as possible in discussions during the lab work.

BCH513 - BCM513 Ecotoxicology 3 cr.

Ecotoxicology is a relatively new science, whose main objective is to analyze the mechanism responsible for the dysfunction of ecological systems. This course covers the fundamentals of ecotoxicology (toxicokinetic and toxicodynamic regulation) to introduce the students to a risk assessment approach. The different ecotoxicological fundamental principles are illustrated by numerous examples of common contaminants such as heavy metals, PAHs, organochlorine pesticides, etc. and emerging pollutants such as endocrine disruptors and nanoparticles. This course educates and informs students about the health risks associated with exposure to substances in industrial environments, in food and in the general environment. The knowledge gained will make them alert to and ready to declare any disruption to their health industry leaders and hygienists.

BCH541 - BCM541 Cell Signaling 3 cr.

The main goal of this course is to highlight our emerging understanding of the mechanisms of transduction of information from outside cells to an appropriate response. This is a 3 credit course that focuses on inter- and intracellular communication, from the generation of signaling molecules through to the cellular responses. It teaches concepts central to understanding cellular signaling mechanisms and it covers the major signaling pathways and several emerging pathways.
This course also uses the primary literature to develop a systems-level understanding of the information flow through the various cell signaling pathways and networks. Current areas of research activities in the experimental and theoretical understanding of cell signaling research are emphasized.

BCH601 - BCM601 Special Topics in Biochemistry - I 1 cr.

Pre-requisites SCF600 Or FSC600 Or CHM600 Or BCH600

Topics selected from recent literature on biochemistry are studied in depth. A combination of workshops, announced seminars and announced conferences will be given covering assigned material. For the literature club, students will be responsible for submitting several one-page summaries of articles from the current scientific literature. Summaries will be graded on relevance, critical analysis and presentation. Submissions will be made available via eLearning and may become part of the material covered by quiz/exam questions.

BCH602 - BCM602 Special Topics in Biochemistry - II 1 cr.

Pre-requisites BCH601 Or BCM601

Topics selected from recent literature on biochemistry are studied in depth. A combination of workshops, announced seminars and announced conferences will be given covering assigned material. For the literature club, students will be responsible for submitting several one-page summaries of articles from the current scientific literature. Summaries will be graded on relevance, critical analysis and presentation. Submissions will be made available via eLearning and may become part of the material covered by quiz/exam questions.

BCH603 - BCM603 Tutorial in Biochemistry 1 cr.

Pre-requisites BCH601 Or BCM601

The topic of the Master's thesis will be studied in depth. A combination of workshops, announced seminars and announced conferences will be given covering assigned material. Summaries will be

graded on relevance, critical analysis and presentation. Submissions will be made available via eLearning and may become part of the material covered by quiz/exam questions.

BCH620 - BCM620 General Pharmacology and Cosmetology 3 cr.

Pharmacology is defined as the detailed study of drugs; accordingly teaching pharmacology aims predominantly at communicating to students all the information related to the source, development, physical and chemical properties, biochemical and physiological effects, pharmacodynamics (mechanism of action), pharmacokinetics (absorption, distribution, biotransformation and excretion), therapeutic and other uses of drugs. The main objectives of the course are: to inform students about the various research methods and techniques that are being used in the process of drug discovery and development, while helping them acquire the necessary knowledge concerning the pharmacokinetic and pharmacodynamic profiles of drugs; to help students acquire a correct pharmacological reasoning that will allow them to assess accurately the impact of drugs on a living organism, through the evaluation of possible side effects, accurate prescription of drugs and the necessary precautions needed with certain individuals or populations that are at high risk of developing adverse drug reactions.

BCH622 - BCM622 Pharmacotherapy 3 cr.

Pharmaceutics is the discipline of pharmacy that deals with the process of turning a new chemical entity (NCE) into a medication to be used safely and effectively by patients. There are many chemicals with pharmacological properties, but need special measures to help them achieve therapeutically relevant amounts at their sites of action. Pharmaceutics also help relate the formulation of drugs to their delivery and disposition in the body. This course aims at introducing students to the various pharmaceutical technologies applied in the preparation of pharmaceutical dosage forms and drug delivery systems. Moreover, the lectures presented demonstrate the correlation between pharmaceutical principles, drug design, formulation, manufacture, and compounding in addition to the techniques applied in each of the stated phases of drug development.

BCH623 - BCM623 Specialized Pharmacology 3 cr.

This course studies drugs affecting major organ systems. In each topic, the physiopathology of the disease, the mechanism of action, the pharmacokinetic properties, the pharmacologic and side effects of the pharmacological treatment are detailed to better understand the clinical use, the benefits and the toxicity of drugs.

BCH627 - BCM627 Clinical Trial Drug Legislation and Guide 3 cr.

The course is designed to introduce pharmacology and toxicology Master's students to fundamentals of clinical trials and legislation. The first part of this course includes general principles and issues in clinical research design. These are explored through the formulation of the research objective and the research hypothesis and the specification of the study population, the experimental unit, and the response variable(s). The second part of this course will focus on the Lebanese laws and decrees ruling the conditions of registering, importing, marketing and classifying imported or locally manufactured drugs.

BCH697A - BCM697A Master Thesis 6 cr.

Pre-requisites FSC600 Or SCF600 Or CHM600 Or BCH600

Students must complete a 6 credits research project applied to their major. They are expected to realize a research work in the laboratory, submit a written report and give an oral presentation.

BIO211 - BLG211 Cell Biology 3 cr.

In this course students will study the structures and functions of prokaryotic and eukaryotic cells.

We will focus on eukaryotic cells by examining different areas of cell biology including: the plasma membrane and organelles structures and functions, cellular communication, the cell cycle and its regulation, as well as synthesis and function of macromolecules such as DNA, RNA, and proteins.

BIO221 General Anatomy 2 cr.

This course is an introduction to human anatomy. It covers the study and description of the various component systems of the human body.

BIO222 - BLG222 Animal Histology 3 cr.

Pre-requisites BIO211 Or BLG211

Animal histology describes animal tissues relating structure to function. The lectures present details of the basic tissues (epithelium, connective tissue, muscle, and nerve) and emphasizes human histology.

BIO228 General Botany 3 cr.

The course has two parts: plant histology and biology. Histology is the study of meristems, parenchyma and plant tissues, their origins, their characteristics, and role. Plant biology looks at the lower and higher plants, their characteristics and their classifications.

BIO270 - BLG270 Laboratory of Biology 1 cr.

This course has two parts: practical work with cell biology, and practical work with animal biology. The objective of this course is to familiarize students with the basic concepts of cellular architecture and its organelles in the broader context of biological principles and to understand how cells interact with each other and the environment. It also includes the observation and description of families of different tissues constituting our body.

BIO320 Physiology 2 cr.

Pre-requisites BIO211

This course aims to introduce homeostasis, defined as the dynamic physiological equilibrium of the organism. It examines the cellular functions of the nervous and endocrine systems. This course will enable the students to establish links between the structure and the function and will present the basic mechanisms regulating the physiological functions of the human organism.

BIO322 - BLG322 Genetics 3 cr.

Pre-requisites BIO211 Or BIO210 Or BLG211

The purpose of this course is to provide basic knowledge of genetics: cytogenetic (the study of chromosomes), formal genetics (the study of hereditary transmission mechanisms), molecular genetics (the study of nucleic acids, their replication, transcription and translation), and bacterial genetics.

BIO327 Developmental Biology 3 cr.

Prerequisites BIO222 Or BLG222

This course reviews the different concepts of development. Also studied are meiotic division, gametogenesis and hormonal regulation, spermatogenesis, oogenesis, folliculogenesis, fertilization, the different types of eggs, segmentation, gastrulation, neurulation and organogenesis. In addition, a comparative study of the evolution of the organs is performed.

BIO335 Biophysics 3 cr.

Prerequisites BIO320 Or BIO319

The course aims at analyzing fundamental biological questions through physics. During this course, these disciplines will be integrated in the analysis of fundamental biological questions focused on

the interactions of the living cell with its physical environment and on the physical laws governing the physiology of the cell and even the physical basis of the main medical instrumentations. The aim of this course is to understand important physical concepts, while integrating them in the living world. Teaching will link the biology and physics, showing the relevance of physics in the analysis and understanding of biological phenomena.

BIO336 **General Immunology** **3 cr.**

Prerequisites BIO211

This course provides the basics of immunology from a daily practice point of view. It begins with a presentation of the main findings in the field, and biographical excerpts from prominent authors that have contributed to the development of this science. The main immune effectors are described as well as the two major immune processes: non-specific or innate and specific or adaptive immunity. The establishment of immune responses is clearly stated. The course also describes organ transplantation and rejection reactions and outlines major diseases involving the immune system. Finally, some immunological techniques are presented.

BIO411 **General Microbiology** **3 cr.**

Pre-requisites BIO322 And (BCH410 Or BCH415 Or BCH300 Or BCH320)

This course is designed to give students a comprehensive understanding of bacterial physiology, metabolism, growth conditions, identification, pathogenesis and microbial control methods. It equips students with the tools they will need to understand and address the complex microbial issues related to environmental science, food science, industrial processes and public health. The first part is devoted to the description of bacterial structure (cytoplasm, cytoplasmic membrane, cell wall, glycocalyx, flagella, pili, etc.). The second part studies bacterial metabolism and growth (different trophic types, growth conditions, culture media, etc.). In the third part the main antibiotic families and bacterial genetics are discussed (mechanism of action, spectrum of activity, resistance mechanisms, operons, horizontal genetic transfers, etc.). The fourth part discusses the mechanisms of pathogenicity in bacteria (virulence, toxigenesis, interactions between host and bacteria). The fifth and last part concerns viruses. The basics of virology are explained as well as the different virus families and types, the mechanism of pathogenicity of the virus and the way it affects host cells.

BIO413 - BLG413 **Molecular Biology** **3 cr.**

Pre-requisites BIO411

The course begins with a review of nucleic acids and looks at the methods for their extraction, separation and analysis. Secondly, the course extensively studies the regulation of gene expression and provides an update on the changes to the nucleic acids transcriptionally, post- transcriptional and translational. Finally, detailed molecular analysis techniques, cloning, PCR, sequencing and development of DNA banks are described.

BIO415 **Systems Physiology** **3 cr.**

Prerequisites BIO319 Or BIO320 Or BIO321

This course is designed to provide students with un understanding of the function and the regulation of the human body and physiological integration of the organ systems. This course content will include the cardiovascular, respiratory, digestive and urinary systems.

BIO471 **Laboratory of Microbiology** **1 cr.**

Pre-requisites BIO411 Or BIO270

The main purpose of this lab is to teach students all the basics to be able to undertake different types of microbiological analysis (water analysis, food and liquid analysis). It will focus on the basics of good manipulation in a microbiology lab and all the precautions to take to avoid contamination. The students will also learn to identify the types and species of bacteria.

BIO472 - BLG472 Laboratory of Molecular Biology 1 cr.

Pre-requisites BIO413

This course provides students with the opportunity to practice most of the concepts covered in the course of Molecular Biology (BLG413): genomic and DNA plasmid extractions, PCR amplification, enzyme digestion, SDS-PAGE, Western blot and bacterial transformation.

BIO473 Lab of Biology and Physiology of Plants 1 cr.

These laboratory sessions contribute to the understanding of how plants function. It provides students with hands-on experience in basic physiological principles related to nutrient deficiencies, membrane permeability and composition, water/nutrient absorption and translocation, transpiration, photosynthesis and physiological functions of growth regulators.

BIO510 Applied Biotechnology 3 cr.

This course covers the basic principles of biotechnology. The first part is a reminder of the analysis of the genome of prokaryotic and eukaryotic cells, methods of recombinant DNA, and in vitro cultures. In the second part, it studies in detail animal and plant transgenesis and their various applications. Industrial methods of preparation of biomolecules (amino acids, organics, antibiotics, etc.) and the use of microorganisms in the environment sector (green biotechnology) will also be examined. Exercises and item analysis supplement this course to give a better understanding and an insight to current research and scientific progress based on biotechnology.

BIO511 Applied Immunology 3 cr.

The course reviews the normal function of the immune system, recognizing and eradicating pathogens and other foreign molecules, and reports on abnormalities leading to aberrant immune responses and specific immunity. The theoretical aspect is supported by case studies and recent findings discussed through the analysis of scientific articles published recently.

BIO622 Physiology of the Contractile Structures 3 cr.

This course will enable the students in the Master's degree to deepen their theoretical bases and experimental approach in muscular physiology and physiopathology. In this course, the anatomy, the histology, the functioning and regulation of skeletal, cardiac and smooth muscles will be covered. This course will introduce the students to the scientific reasoning and to the research by describing and analyzing scientific articles.

BIO623 Reproductive Physiology and Development 3 cr.

The primary goal of this course is to provide an understanding of how the reproductive system of the human body works to create and sustain life. The course starts with an introduction to basic endocrinology, anatomy and physiology of the human reproductive system and examines the processes and regulations of fertilization, pregnancy, birth and human development. Birth control, infertility and sexually transmitted diseases are also discussed.

BIO624 Endocrine Physiology 3 cr.

This course will enable master's students in physiology to understand the physiologic mechanisms of the endocrine regulation of the organ functions. It covers the regulation, liberation and action (effect) of the different hormones. At the end of each topic, the pathologies due to a lack or excess of the hormones studied will be discussed. At the end of the course the students should be able to recognise most of the hormones produced in the human organism and should be able to understand and analyze the different endocrine pathologies and suggest, when possible, treatment methods.

BIO640 Genetic Engineering 3 cr.

This course examines the methods of genetic engineering and screening of genomic and cDNA

banks. Also covered are the methods of global analysis of the genome and its expression, site-directed mutagenesis, gene expression in heterologous hosts and gene therapy. Legal and ethical issues related to genetic engineering will be mentioned without being developed. Exercises will be performed and aim to simulate genetic engineering problems encountered in research and development. Practical applications will illustrate major achievements of genetic engineering chosen in different fields of application. Therefore, students will perform critical analysis of recent scientific articles.

BIO644 Basic Genomics 3 cr.

The aim of this course is to familiarize students with global approaches in genomics, their advantages and limitations. Several methods will be introduced (genome sequencing, comparative genomics, functional genomics, etc.), and practical examples will be given for each situation.

BIO645 Structural and Functional Proteomics 3 cr.

Whole genome sequencing of many organisms, including humans, has created new fields of research. After the study of genomes came the study of proteomes (entire sets of proteins expressed by a genome), mainly known as structural and functional proteomics. This course aims to introduce concepts and methods in proteomics (structure analysis, organization, purification and detection techniques, as well as study of protein interactions), and to draw the scientific approach leading from a genetic structure to the structural and functional properties of a protein.

BIO652 Environmental Physiology 3 cr.

At the completion of this course, students will have knowledge of environmental hazards with known and possible risks and they will have a better understanding of how these hazards are formed, their fate and distribution in the environment, and how to assess their potential effects in humans. This course will not be a comprehensive survey of all areas of study within environmental physiology, but instead will cover a few major topics in detail like endocrine, developmental and reproductive physiology.

CHM212 - CHE212 General Chemistry 3 cr.

The purpose of this course is to present a general outline on chemistry. Through this course chemistry is introduced in its various aspects: the structure of the atom, the various models, and the properties of the elements in the periodic table; various chemical bonds, the Lewis structure, VSEPR rules; thermochemistry, thermodynamics and chemical equilibrium; kinetic chemistry, reactions rate orders, the Arrhenius law; solutions chemistry, acids and bases and various acid-base equilibrium; complexation, liquid solid equilibrium and solubility product; and redox titration and electrochemical cells.

CHM222 Chemistry of Solutions 3 cr.

Pre-requisites CHM212

This course brings together the necessary knowledge to understand the reactions in solutions that are the fundamentals of many methods used both in the fields of chemistry, biochemistry or biology, as well as in pharmaceutical analysis. After a reminder of key points and generalities, the course develops four main components: acid-base equilibria, complexation equilibria, redox reactions and the formation reactions of poorly soluble compounds.

CHM270 - CHE270 Laboratory of General Chemistry 1 cr.

Pre-requisites CHM212 Or CHE212 Or CHM210 Or CHE210

The general chemistry laboratory aims to develop different skills for the practical application of theoretical knowledge of general chemistry. Techniques to be learned: preparation and dilution of solutions, experimental verification of the Nernst equation, realization of different

types of acid-base and redox titration by volumetric, calorimetric, pH-metric or potentiometric monitoring, and the study of solubility and precipitation reactions and characterization of ions present in a given matrix. The goal of the lab course is to ensure that students are capable of understanding the chemical concepts and to carry out experiments safely and carefully in the laboratory, to obtain data accurately and to manipulate the data correctly.

CHM317 Organic Chemistry 3 cr.

Pre-requisites CHM212

Organic chemistry is an introduction to the structure, reactivity, and properties of organic compounds. This course is intended to introduce students to the major concepts in organic chemistry and prepare them for the upper level classes in chemistry and biochemistry they will take in the coming semesters and the organic chemistry requirements for medical schools. Topics to include: introduction and review of electronic structure and bonding in organic molecules; nomenclature of organic compounds; structure and properties of alkanes, cycloalkanes, and alkyl halides; stereoisomerism and chirality of organic compounds; and the structure, properties and reactivity of alkynes and alkenes.

CHM321 Inorganic Chemistry 3 cr.

Pre-requisites CHM212

This course looks at: the different types of bonds in the solid (covalent, ionic, hydrogen, and van der Waals forces); crystallography structure and mesh patterns; the crystalline forms (cubic, hexagonal); crystal planes; Bravais lattice; stackings (degree of compactness, theoretical density); interstitial sites; ionic solids (some examples of the different types); structural defects (point defects, linear defects, interfacial defects); and solid characterization by XRD.

CHM325 Physical Chemistry I 3 cr.

Pre-requisites CHM212

The objectives of this course are to provide knowledge and mastery of the basic tools of thermodynamics necessary for learning chemical sciences to assess observable phenomena characteristic parameters and apply some basic principles to other aspects of chemistry. Topics: first principle and enthalpy; thermochemistry; second principle and entropy; Gibbs; bioenergetic aspects; and chemical equilibria. The different kinds of chemical reactions are also covered in this course, in order to establish the fundamental bases to calculate the reaction rates of a system. Students will be introduced to concepts of chemical kinetics and surface chemistry. They will explore chemical kinetics: reaction rate, order of reaction, simple reactions, complex reactions, and activation energy. The course also covers kinetic theory, and homogeneous and heterogeneous catalysis.

CHM330 Theoretical Chemistry 3 cr.

Pre-requisites CHM212

The course material covers quantum theory for chemists and introduces the basic theoretical concepts of molecular orbital theory and spectroscopy. The successful students will develop a clear understanding of the origin of molecular orbitals in chemistry, how they are used to understand chemical bonding, and know how simple quantum model systems can be applied to understand spectroscopic data.

CHM340 Spectroscopic Methods 3 cr.

This course focuses on various spectroscopic methods. The goal is to introduce students to the theory and practice of various spectroscopic techniques used in chemistry and related sciences. The students will also learn the instrumentation and applications (UV-vis, IR, SAA, fluorescence, NMR and mass spectroscopy).

CHM370 **Laboratory of Analytical Chemistry** **1 cr.**

Pre-requisites CHM222 And CHM270

The purpose of this lab is to give students the opportunity to practice the knowledge they have learned in class. They will use the following techniques: titration of a polyacid, preparation and properties of buffer solutions, titration by indirect redox, complexometric assay, conductometric titration, study of solubility, color indicators, and determination of an equilibrium constant by the method of partition coefficients.

CHM371 - CHE371 **Laboratory of Organic Chemistry** **1 cr.**

Pre-requisites (CHM311 Or CHM317) And CHM270

The objective of this practical work is to illustrate by experiment the concepts covered in the course of organic chemistry for students in chemistry and biochemistry and for medical students.

CHM411 - CHE411 **Organic Chemistry II** **3 cr.**

Pre-requisites CHM311 Or CHM317

This course covers: types of reactions (substitution, addition, elimination, radical, rearrangement); energetic diagrams (kinetic); mechanisms and reaction intermediates (SN1, SN2, E1, E2, etc.); reactivity and reactions: alkanes, alkenes (Markovnikov rule, Kharash, polymerisation), dienes (Diels-Alder), alkynes; reactivity of halogenated derives (SN2 and Walden inversion, SN1, effect of different parameters, E2 and rule of Saîtzef, E1); benzenic hydrocarbons: electrophilic substitution SE2 (Friedel Crafts alkylation, acylation, effect of the substituent, etc.); aldehydes and ketones (Canizzaro, Wittig, etc.); and organometalics.

CHM412 **Physical Chemistry II** **3 cr.**

Pre-requisites CHM325

This course describes the aggregation states of matter: gas, liquid, solid. We introduce the thermodynamics of mixtures, physical transformations of pure substances, phase diagrams, thermodynamic criteria for equilibrium between phases, state equation, kinetic theory of gas, statistics distribution of Maxwell and Boltzmann, intermolecular collisions, effusion velocity, diffusion, viscosity, the vapor and sublimation pressure, surface tension, viscosity and solubility will be studied. Properties and interpretation of the conductivity of solids will be evaluated according to the chemical constitution of a solid. At the end of the course, students will present a research project on a selected topic in the field.

CHM420 **Macromolecules, Polymers and Materials** **3 cr.**

The purpose of this course is to introduce the field of polymers and the very large world of plastics to students. The various methods of synthesis and the types of classification of the polymers and copolymers will be detailed. The course then looks at physicochemical properties (structural and geometric, mechanical, thermal, electrical) and various additives used in the manufacture of plastics (plasticizers, fillers, lubricants, stabilizers) will be presented. The kinetic and thermodynamic data of the various steps in the reactions of polymerization and copolymerization will be studied (anionic, cationic and radical). The composition and structure of the copolymers will be evaluated according to the reactivity ratios.

CHM422 **Process Chemistry** **3 cr.**

Pre-requisites CHM311 Or CHM317

This course provides students with an overview of industrial chemistry and enables them to develop a process diagram and prepare to apply the knowledge and skills acquired in their subsequent studies. We also define the different types of chemical reactors, the balance mass and energy, the operating parameters of the processes and their acquisition mode. Finally, an economic and environmental study related to the chemistry of the process will be followed. At the end of the

course, students will present a research project on a selected topic in the field.

CHM425 Analysis Techniques 3 cr.

Pre-requisites CHM222

This course is intended to provide a set of basic knowledge on a number of methods encountered in chemical and biochemical analyzes, qualitative and quantitative, in sectors as varied as the chemical industry, food processing, environmental science, pollution and medical science.

CHM426 Food Chemistry 3 cr.

Pre-requisites CHM311 Or CHM317

This course gives students information on various matter changes during conservation and technological treatments. It defines the main biochemical compositions of foodstuffs such as milk, meat, cereals, oils, etc. It also outlines the various toxic compounds naturally present in food as well as the range of additives.

CHM436 Research Project 1 cr.

Topics selected from recent literature on biochemistry and/or chemistry are studied in depth. A combination of workshops, announced seminars and announced conferences will be given covering assigned material. For the literature club students will be responsible for submitting several one-page summaries of articles from the current scientific literature. Summaries will be graded on relevance, critical analysis and presentation..

CHM438 - CHE438 Internship and Conferences 1 cr.

Students are required to undergo training in an institution where the work domain covers their field of study. After training, the students are required to write a detailed report regarding their work and defend it in an oral presentation.

CHM471 - CHE471 Lab of Chromatography and Spectroscopy 1 cr.

Pre-requisites CHM370

This laboratory aims to introduce students to the different experimental techniques of quantification and characterization: the separation process and spectroscopic evaluation. All techniques deal with multidisciplinary skills for those with an interest in industrial chemistry, biochemistry and SVT.

CHM511 - CHE511 Techniques for Quality Control 3 cr.

This course is dedicated to quality and control. It looks at how to implement quality control practices and which criteria are involved in quality control. To understand all dimensions of quality control, the fields of drugs, food and the environment are discussed. The focus on these areas is explained by the improvement requirements for continuous quality.

CHM521 Characterization Methods 3 cr.

The purpose of this course is to give an overview of characterization techniques used for different types of materials. For each technique, we discuss the principle, instrumentation and we show some applications.

CHM601 Special Topics in Chemistry - I 1 cr.

Pre-requisites FSC600 Or SCF600 Or CHM600 Or BCH600

Topics selected from recent literature on chemistry are studied in depth. A combination of workshops, announced seminars and announced conferences will be given covering assigned material. For the literature club, students will be responsible for submitting several one-page summaries of articles from the current scientific literature. Summaries will be graded on relevance, critical analysis and presentation. Submissions will be made available via eLearning and

may become part of the material covered by quiz/exam questions.

CHM602 Special Topics in Chemistry - II 1 cr.

Pre-requisites CHM601

Topics selected from recent literature on chemistry are studied in depth. A combination of workshops, announced seminars and announced conferences will be given covering assigned material. For the literature club, students will be responsible for submitting several one-page summaries of articles from the current scientific literature. Summaries will be graded on relevance, critical analysis and presentation. Submissions will be made available via eLearning and may become part of the material covered by quiz/exam questions.

CHM603 Tutorial in Chemistry 1 cr.

Pre-requisites CHM601

The topic of the Master's thesis will be studied in depth. A combination of workshops, announced seminars and announced conferences will be given covering assigned material. Summaries will be graded on relevance, critical analysis and presentation. Submissions will be made available via eLearning and may become part of the material covered by quiz/exam questions.

CHM630 Industrial Unit Operation 3 cr.

Industrial unit operation is a subdivision of an industrial process which generally consists of a physical or chemical process. This course aims to provide the theoretical bases of some major unit operations classes: equilibrium between phases; dispersion-emulsion; decantation-sedimentation-centrifugation; LL extraction (simple and countercurrent); nucleation and crystallization; and filtration at constant volume or constant pressure. This course develops the classical methods for the resolution of such operations and describes the main technologies used for these operations. Students will present a research project for a selected unit operation.

CHM631 Chemistry and Technology of Polymers 3 cr.

After a general introduction to polymers, this course covers the various configurational and conformational structures of polymers and their morphological state (amorphous, single crystals and semi-crystalline). The course then provides an overview of the methods of synthesis and implementation of polymers that have been developed. Next, we examine the various techniques used to characterize these materials (XRD, NMR). At the end of the course, we look at the thermal and mechanical properties of polymers.

CHM632 Control and Optimization in the Chemical Industry 3 cr.

This course has a wide-ranging content which is required for recognition of the course in a large industrial spectrum. It aims to understand the issues of interdisciplinarity in the industrial field. This course emphasizes the technical side (optimal production, stability), the economic aspects (price of returns, balance mass and energy) and social issues (safety and environment). At the end of the course, students will present a research project on a selected topic in the field.

CHM633 Sustainable Chemistry 3 cr.

Sustainable chemistry is a new way to design, implement and evaluate chemistry, taking into account new aspects relating to respect for the environment and sustainable development.
This new approach and consequent new practices, involves all stakeholders in the chain from research laboratories to end users via the chemical industry companies. Sustainable chemistry encompasses the design, manufacture and use of efficient, effective, safe and more environmentally aware chemical products and processes.

CHM697A Master Thesis 6 cr.

Pre-requisites FSC600 Or SCF600 Or CHM600 Or BCH600

Students must complete a 6 credits research project applied to their major. They are expected to realize a research work in the laboratory, submit a written report and give an oral presentation.

CSC211 Discrete Methods 3 cr.
Prerequisites MAT202
This course introduces the discrete methods used in computer science and applied mathematics. The topics that will be covered are regular languages, regular expressions, finite automata and non-regular languages. It also discusses the basic elements in number theory and introduces graph theory. It introduces induction proof and recurrence relations.

CSC212 Computer Organization and Assembly Language 3 cr.
The course is designed to introduce computer science and information technology students to the basics of computer architecture and low level programming, i.e. assembly code and hardware manipulation. The course will focus on the Intel x86 assembly language, number representations, logic circuits, Boolean algebra and logic simplification, addressing modes, input/output devices, system buses, memory systems, memory occupation, computer arithmetic, instruction sets and the design, control, and structure of CPUs.

CSC214 Programming I 3 cr.
This course enable students to acquire a practical method to solve problems using the C++ programming language. It looks at methods for problem analysis, structural and detailed conception of solutions, base concepts of pseudo code and flow-charts, and the coding and verification of programs. Subjects include: introduction to C++ language, basic concepts of the language, types, expressions, control structures (selection, repetition), one and two dimensional arrays, strings, functions, prototypes, and text files. The course is completed by lab workshops.

CSC215 Programming II 3 cr.
Prerequisites (INF214 Or CSC214 Or INF219) And CSC270
This course introduces many techniques used to organize, search, sort and manipulate data after completing new concepts in the C++ language (structures, pointers, multidimensional arrays and binary files). It emphasizes arrays, linked lists, stacks and queues. Recursion and a simple sorting algorithm are also covered. The course is completed by lab workshops.

CSC270 Programming Laboratory I 1 cr.
Prerequisites CSC214
The course enables students to acquire a practical method to solve problems using the C++ programming language. It includes: applications of the C++ language, basic concepts of the language, types, expressions, control structures (selection, repetition), one and two dimensional arrays, strings, functions, prototypes, and text files. This course is done entirely in the lab, and emphasizes the practical approach.

CSC271 GUI Programming 1 cr.
Prerequisites (CSC214 And CSC270) Or (INF214 Or INF219)
Students will learn about the OpenGL library. Different applications will be done in the lab and as homework using OpenGL with the C++ programming language. Students will also learn how to write a clean code as well as about the history of GUI. They will learn how to do animation and transformation. By the end of the semester a small game will be produced by the students.

CSC272 Programming Laboratory II 1 cr.
Prerequisites CSC215
This lab introduces many techniques used to organize, search, sort and manipulate data after completing new concepts of the C++ language in the course (structures, pointers,

multidimensional arrays and binary files). It emphasizes arrays, linked lists, stacks and queues. Recursion and a simple sorting algorithm are also covered.

CSC300 **Hardware Technology** **3 cr.**
Prerequisites CSC212 Or INF212
The fast development of technology in the last few years has considerably reduced the lifespan of the material and computer software. This course examines how computers work on the level of the hardware. The purpose is to arrive at an answer to this question by bringing together the elements which play a significant role in the material structure of computers.

CSC312 **Advanced VB Programming** **3 cr.**
Prerequisites (CSC214 And CSC270) Or (INF214 Or INF219)
This course introduces the concept of event-driven programming and the windows environment. The classes begin with simple forms (Windows) and end with ADO.Net Objects which connect Databases to the VB.Net application, graphics programming. The course also covers Text and Binary file access and the Winsock control for networking.

CSC314 **Object Oriented Programming** **3 cr.**
Prerequisites (CSC214 And CSC270) Or INF214
The main objective of this course is to introduce the basic concepts of object oriented programming, while using the pure object oriented language of Java. UML will be presented succinctly in order to understand the approach of the modelling by objects. Some useful static diagrams are also presented, mainly object and class diagrams. A complete project illustrating the different approaches of this course will be presented as a model for future projects.

CSC315 **Data Structures and Algorithms** **3 cr.**
Prerequisites INF211 Or CSC211 And (CSC229 Or INF229 Or (CSC215 And CSC272) Or INF215)
This course covers many advanced programming techniques. We focus on ADTs, especially trees and hash tables. Implementations are based on the object oriented approach. The analysis of the execution time of a program and the memory space that it uses will be considered throughout this course in order to compare theoretically different ADTs and algorithms.

CSC319 **Technology and Networks Infrastructure** **3 cr.**
Prerequisites INF204 Or MIS210 Or INF212 Or CSC204 Or CSC212
This course aims to introduce the basics of computer networks. Students will study infrastructures, features and network topologies, transfer techniques, switching, encoding, transmission and routing, the reference model, the protocols of different layers, including deepening the study on the TCP / IP architecture used in the Internet.

CSC320 **Database Systems** **3 cr.**
Prerequisites (CSC214 And CSC270) Or (INF214 Or INF219)
This course presents the principles of databases and familiarizes the students with the design and use of relational databases. It covers DBMSs, architecture and functions, entity-relationship and relational data models, relational database design, theory of normalization and the SQL language. This course includes laboratory work under ACCESS DBMS.

CSC343 **Mobile Programming** **3 cr.**
Today's applications are increasingly mobile. Computers are no longer confined to desktops and laptops but instead live in our pockets and hands. This course teaches students the general structure of a mobile application on different mobile platforms. Students will also learn how to build mobile applications for Android and Windows Phones, and how to test and deploy them.

CSC352 **Theory of Programming Languages** **3 cr.**

Prerequisites CSC211 Or INF211 And (INF215 Or CSC215 Or INF229 Or CSC229 Or CSC312 Or INF312)

A programming language is a programmer's principal interface with the computer. More than just knowing how to program in a single language, programmers need to understand the different styles of programming promoted by different languages. In their professional life, they will be working with many different languages and styles, and will encounter many different languages over the course of their careers. Understanding the variety of programming languages and the design tradeoffs between the different programming paradigms makes it much easier to master new languages quickly. Understanding the pragmatic aspects of programming languages also requires a basic knowledge of programming language translation and runtime features such as storage allocation. In this course we explore the major issues in both design and implementation of modern programming languages and provide a basic introduction to the underlying theoretical models on which these languages are based. The emphasis is on fundamental concepts. Several languages are highlighted in sufficient detail to enable the students to write programs that illustrate the relationship between a source program and its execution behavior.

CSC360 **Internet Technology** **3 cr.**

Prerequisites INF215 Or (CSC215 And CSC272) Or INF229 Or CSC229 Or CSC312 Or INF312

This course focuses on the broad range of technologies used to build Internet and Web-based applications. We emphasize the development of client-side applications using HTML5, CSS3, JavaScript, XML and DTD.

CSC368 **Project Management** **2 cr.**

Prerequisites CSC314 Or INF314

This course describes the key principles of successfully managing a project from the planning stage to the end, showing the students how to define the different steps and measure and track their progress. During this course, the students will learn concrete and efficient methods to systematically improve the planning and realization of each step of this software development process.

CSC372 **Advanced Programming Lab** **1 cr.**

In this lab students will apply their knowledge in VB. They will apply the concept of event-driven programming and the windows environment. The classes begin with simple forms (Windows) and end with ADO.Net Objects which connect Databases to the VB.Net application, graphics programming.

CSC416 **Graph Theory and Operations Research** **3 cr.**

Prerequisites (MAH310 Or MAT310) And (CSC211 Or INF211)

The aim of this course is to formulate a wide variety of real-life problems and to solve them using methods based on graph theory and linear methods. Concerning graph theory, we will particularly study the following problems: shortest path, minimum spanning tree, maximal flow network, and finding a critical path in a project network. As for linear methods, linear programming problems will be solved graphically and by using the Simplex algorithm and duality. We will also see how to solve integer programming problems using the branch-and-bound method.

CSC417 **Human Computer Interaction** **3 cr.**

Prerequisites CSC360 Or INF360

This course will teach students about the importance of the human-computer interface in

software design and development. The objectives of the course are: to facilitate communication between human factors engineers and computer scientists on user interface development projects; to provide the future user interface designer with concepts and strategies for making design decisions; to show the future user interface designer the tools, techniques, and ideas for interface design; to introduce the students to the literature of human-computer interaction; to stress the importance of good user interface design; and finally to be able to think differently, imaginatively and creatively.

CSC420 Computer Networks 3 cr.
Prerequisites CSC214 And CSC270 Or INF214
This course covers the architecture and protocols of modern computer networks. It presents the networking protocol models OSI and TCP/IP by discussing the different layers, their functions, roles, and services.

CSC421 Operating Systems 3 cr.
Prerequisites INF314 Or CSC314
The course covers the fundamental concepts of operating systems, emphasizing single-machine systems. These concepts include processes, threads, synchronization, scheduling, memory management, file and I/O management, and user program execution. Popular operating systems (e.g., UNIX, LINUX, and Windows) are used to illustrate implementation of these concepts.

CSC426 Database Applications Development 3 cr.
The aim of this course is to enable students to become familiar with the development of complex database applications. In this course the students will learn to manipulate in a complex manner the data contained in an Oracle database using the PL/SQL procedural language. In addition to the basic skills in PL/SQL programming, the course will cover the most important concepts of the PL/SQL programming language such as: cursors, stored procedures and functions, triggers, exception handling, and transactions.

CSC428 Database Administration 3 cr.
Prerequisites CSC320 Or INF320
In this course, students will learn about the following subjects: tasks of the database administrator; identifying the various components of the Oracle architecture; managing Oracle instance; creating a database; using a data dictionary and dynamic performance views; maintaining the control file; maintaining redo log files; managing table spaces and data files; storage structure and relationships; managing undo data; managing tables; managing indexes; maintaining data integrity; managing password security and resources; managing users; managing privileges; managing roles; backup; and about recovery, environment and applications.

CSC430 Systems and Networks Administrator 3 cr.
Prerequisites INF319 Or CSC319 Or CSC212 Or INF212
The goal of this course is to prepare the students for the task of administrator by introducing them to the management of a UNIX environment. After an introduction to the problems bound to the multi-user and multi-task nature of the UNIX system, we introduce the most useful UNIX commands and the administrator's main tasks: user management, the device drivers, services management, network management, control of scripts on a shell, compression, and backup. The students are then trained on the complete installation of a Linux system.

CSC436 Advanced Programming Project 2 cr.
Prerequisites CSC360 Or INF360 Or CSC343
In the beginning of the semester, students need to set up with their instructors a title and a

detailed description of their projects. The instructors of all the sections of the courses will meet within the first three weeks of the semester. During this meeting they will accept, reject, or modify the proposed project. If the project was rejected they need to propose to the student another one. After this meeting, the proposal of every project will be signed by the student as well as the instructor. Instructors need to meet with students at least once every two weeks. During this progress meeting, students need to show the instructors what they did during the two week period and what they are planning to do in the coming two weeks. By the end of the semester, students will have a 10 to 15 minutes presentation. During this presentation instructors from other sections may be present.

CSC438 Internship Report 1 cr.

Prerequisites CSC360 Or INF360 Or CSC343

In the beginning of the semester, students need to find an internship. They have to get the approval of the department and the instructor of the course. They must also describe briefly the type of work they are going to do during their internship. The internship will be a minimum of a 150-hour work experience. Instructors need to meet with students at least once every four weeks. During this progress meeting, students need to show the instructors what they did during the four week period and what they are planning to do in the coming four weeks. By the end of the semester, students will have a 10 to 15 minutes presentation. During this presentation instructors from other sections may be present.

CSC460 Information System Security 3 cr.

This course provides an overview of the problems and solution elements related to security of information systems and networks. It covers network management topics such as definition of network management, network management protocol SNMP, MIB, SMI and RMON as well as network security topics such as security attacks and services, cryptography, network security applications and system security. We treat both aspects of security governance, risk management, evaluation, operational management of security and also technologies that achieve security services.

CSC500 Software Engineering 3 cr.

This course is the presentation of the software engineering principles, methodologies and metrics. The topics of software engineering management, process and quality are presented in an integrative approach, stressing software improvements through measurements of software products and processes. Additional topics covered include system and software writing requirements, formal specification analysis, formal description reasoning, models of standard paradigms, and translations of such models into formal notations. The Unified Modeling Language (UML) is explained and used throughout the course. New topics are also covered such as Object Oriented and software reuse. In brief, the goal of this course is twofold: (1) it presents the evolution of software engineering techniques; (2) it provides an overview for further research in the domain.

CSC521 Artificial Intelligence 3 cr.

This course covers the theory and applications of knowledge-based systems. Topics include algorithmic models of problem solving, knowledge representation, reasoning, planning, decision-making, machine learning, perception, action, communication, and interaction. There is also a review of applications such as intelligent tutoring and multi-agent systems.

CSC522 Advanced Computer Networks 3 cr.

Advanced topics in computer communication networks reflecting current advances in research and applications in this area. Topics include: TCP/IP technology, routing protocols and algorithms, multicast, MPLS, Virtual Private Networks (VPN), Quality of Service (QoS), Voice over IP (VoIP), P2P

networks, and wireless LAN.

CSC530 Advanced Database Systems 3 cr.

Advanced topics in the area of database management: query processing, translation into relational algebra, operations algorithms, query optimization, heuristics and cost estimation, transaction processing, concepts and theory, transactions properties, schedules serializability, transaction support, concurrency control issues and techniques, crash recovery techniques, handling the buffer pool, the WAL protocol and the ARIES algorithm, WEB databases, intranets and extranets problems, middleware, and data security . This course includes a project and a synthesis paper.

CSC540 Network Management and Security 3 cr.

This course addresses the issues of network management and security. It covers network management topics such as definition of network management, network management protocol SNMP, MIB, SMI and RMON as well as network security topics such as security attacks and services, cryptography, network security applications and system security.

CSC560 Information System Security 3 cr.

This course provides an overview of the issues and potential solutions related to the security of information systems. We look at aspects of the governance of security, risk management, evaluation of operational safety management and also technologies that achieve security services.

CSC570 Multimedia and Computing Systems 3 cr.

The convergence of computing, communications and display technologies has led to interest in the processing of multiple data types. The integration of text, sound, images, and video in modern presentations requires compression, synchronization, database, and communication methods. This course covers the state-of-the-art technology for multimedia computing. The course topics will cover current media types, images, video, audio, graphics and 3D models in terms of algorithms and data structures for their capture, representation, creation, storage, archival, transmission, assembling, presentation and retrieval.

CSC601 Special Topics in C. Sc. - I 1 cr.

Prerequisites FSC600 Or SCF600

Topics selected from recent literature on computer science are studied in depth. Students will participate in a series of conferences presented by experts.

CSC602 Special Topics in C. Sc. - II 1 cr.

Prerequisites CSC601

Topics selected from recent literature on computer science are studied in depth. Students will participate in a series of conferences presented by experts.

CSC603 Tutorial in Computer Science 1 cr.

Prerequisites CSC601

Topics selected from recent literature on computer science are studied in depth. Students will be responsible to present selected topics of the current scientific literature. They will be graded on relevance, critical analysis and presentation.

CSC630 Distributed Database Systems 3 cr.

This course provides an in-depth discussion of the concepts and design principles used in distributed database systems. It covers the architectural foundations of distributed database management systems topics as well as the application and the system level topics. Application level topics include distributed database design models in addition to the fragmentation, replication, and allocation techniques. System level topics include query processing, query

optimization algorithms, transaction management, reliability protocols, concurrency control, type of failures and recovery in distributed database systems.

CSC632 Data Warehousing 3 cr.
This course presents in detail the concepts of data warehousing. It introduces the different architectural issues for a data warehouse and data marts. It explains the different design levels used for creating a data warehouse, such as the multidimensional design, the physical data warehouse design and the extraction, transformation and loading phases. Additionally, the course covers the OLAP tools as well as the extension of the SQL language, and the MDX language to support data warehouse creation and manipulation.

CSC634 Data Mining 3 cr.
Students will study data mining techniques, data mining tools, data visualization, and parallel data mining models. The techniques will include the application of well-known statistical, machine learning and database algorithms including decision trees, similarity measures, regression, Bayes' theorem, nearest neighbor, neural networks and genetic algorithms.

CSC635 Database System Administration 3 cr.
This course looks at advanced database administration. Subjects covered include: tasks of the database administrator; identification of various components of the Oracle architecture; managing parameter files; managing tablespaces; storage structure and relationships; creation of database; managing tables, indexes, profiles, roles, and users; managing privileges; managing password security and resources; backup; recovery; fine- tuning of the database; auditing and security of the database. Students are able to develop an understanding of the internal structures and organization of a given database using Oracle10G Database Administrator, as well as applying all the features of the planning, tuning, monitoring, security, backup and recovery.

CSC655 Server Configuration and Administration 3 cr.
This course will provide students with an in-depth knowledge of server administration and configuration. The material will cover system configuration (files system, file sharing), network services (DNS, Mail, Web, DHCP, FTP, SSH, RAS), installation, configuration and administration of these services, how to manage users and hosting accounts, automating user account management, security issues, and troubleshooting. Hands-on experience through labs and projects will reinforce the reading. This course will teach students how to perform advanced administration tasks on Linux/Windows Enterprise Server: installation and manual configuration, performance tuning, backup and recovery services, studying of Microsoft Windows Active Directory (administrative tasks required to centrally manage large numbers of users and computers, multiple domains).

CSC697A Master Thesis 6 cr.
Prerequisites SCF600 Or FSC600 Or INF600
Students must complete a research thesis in computer science. They are expected to realize a research work in the laboratory, submit a written report and give an oral presentation. Their work needs to be supported by simulation or implementation.

ECO221 Microeconomics 3 cr.
Prerequisites BUS210 Or MAT206 Or MAT213 Or MAT310 Or MAT217
This course gives insight into microeconomics, which is a key component to designing and understanding public policy and an essential tool for managerial decision-making, while giving insight to the operation of the modern economy.

ECO222 Macroeconomics 3 cr.
Prerequisites MAT206 Or BUS210 Or MAT213 Or MAT310

This course gives insight into macroeconomics, portraying the economy as a whole. It is by developing an understanding of fundamental economic terminology, concepts and principles that we are able to interpret economic changes and their impact on a country's situation.

ECO410 Banking and Finance 3 cr.
Prerequisites ECO222
This course aims at expanding knowledge in economics with an emphasis on accounting, financial intermediaries, banking and their public policies.

ENG510 Advanced Academic English 2 cr.
This course is designed for graduate students working on their thesis. It gives them the opportunity to enhance their writing abilities and develop their critical thinking. It attempts to help students achieve greater competency in reading, writing, reflection, and discussion emphasizing the responsibilities of written inquiry and structured reasoning. Students are expected to investigate questions that are at issue for themselves and their audience and for which they do not already have answers. In other words, this course should help students write about what they have learned through their research rather than simply write an argument supporting one side of an issue or another.

FIN421 Financial Markets 3 cr.
Prerequisites BUS211 or MAT312 or MAH312
This course enables students to understand the concepts, terminology, instruments, and investment strategies when dealing with money. This includes the introduction of the broad and closely related areas of financial markets and investments, including the various tools used to determine the value of different investment vehicles. The risk inherited with investing as well as the risk return tradeoff will be considered. Accordingly, the principles of modern portfolio management, including diversification, will be addressed. Particularly, common stocks will be analyzed and valued using multiple valuation techniques. Within the context of fixed income valuation, the concept of bond duration and the yield curve will be examined. Financial derivatives, including options and futures, will also be considered as a hedging tool in the overall investment strategy. Practical application will be emphasized throughout the course using Thomson Reuters Eikon.

FSC600 - SCF600 Research Methodology 1 cr.
The objective of the course is to introduce students to scientific research. Topics to be covered are: interest and research objectives; methodologies used in scientific research; how to define a problem; data collection; documentary research; analysis of the collected knowledge; structure of a Master thesis; writing a report; writing the bibliography; making a scientific poster; and how to approach giving an oral presentation.

GEO327 General Geology 3 cr.
This course is a general introduction to the earth sciences. The objective of this course is to familiarize the students with a description of the different geology domains. Basic concepts of geological phenomena occurring on planet earth from earthquakes to volcanos, simple winds to tornados are developed. As a tool to understanding the history and movements of planet earth and its future, this course covers time itself from the big bang and the formation of the universe as we know it, till the appearance of the first building blocks of life.

GEO412 Ecology and Environment 3 cr.
This course aims to introduce students to environmental problems. The notion of ecology is

introduced as well as its relationship with the environment. The various chemical processes in the atmosphere, waters, soils and the biosphere are discussed. The disruption caused by various human activities, chemical pollution and toxic substances, and the impact on biodiversity are argued.

INF216 Introduction to Programming 3 cr.
This course provides students with a practical method for resolving problems using the programming language Visual Basic. It covers: methods for problems analysis; an introduction to the Visual Basic language, basic concepts of the language, types, expressions, control structures (selection, repetition), one dimensional arrays, two dimensional arrays, strings, procedures and functions; and writing and executing programs.

INF217 Applicative Programming 3 cr.
Prerequisites INF216 Or INF214 Or INF219
This course introduces many techniques used to organize, search, sort and manipulate data, after completing new ideas in the Visual Basic language (multidimensional arrays, procedures, functions and files). It emphasizes sorting methods, recursion, linked lists, stacks and queues.

INF304 CS for Chemistry, Biochemistry and Biology 3 cr.
This course aims to familiarize students of chemistry, biochemistry and biology with the use of advanced software to provide models to illustrate their field of study. Topics include: advanced use of Excel and chemistry applications; tools for drawing molecules; processing molecules in 2D and 3D; introduction to cheminformatics, introduction to bioinformatics and molecular modeling; the structure of proteins (Protein Data Bank and pdb file); demonstration and use of PyMol; and sequence alignment using BioEdit.

MAC216 Ethics of Insurance 3 cr.
This insurance law course begins with an historical overview and insight into the technical and actuarial foundations, as well as some important boundaries, particularly with regard to social insurance. The state of the business of insurance supervision is looked at, and the new law on this is commented upon. In private law, the course deals with the insurance contract and its essential terms. It ends with an overview of the reinsurance and insurance international business. The course is based on theoretical cases, as well as news articles, practice and jurisprudence and the links with the law of civil liability.

MAC315 Insurance Contracts 1 cr.
This course is designed to familiarize students with the different types of life and non-life insurance contracts as well as with accounting and their application in various types of insurance companies. In addition, by the end of this course, the students will have acquired the practice of life insurance. All these concepts will be addressed through workshops so students will be able to understand theoretical and practical information.

MAC400 Actuarial Mathematics 3 cr.
Prerequisites MAT312 And STA320
The purpose of this course is to introduce students to the reality of the actuarial calculation through essential mathematical tools, such as interest theory and the theory of probabilities. At the end of this course, the students will be familiar with mortality tables, actuarial notation, force of mortality, the calculation of the expected value, the calculation of the pure premium of certain types of insurance contracts as well as with the calculation of reserves.

MAC421 Demography and Actuarial Science 3 cr.
Prerequisites MAT312

The course introduces the quantitative longitudinal and transverse methods of analysis, and how to apply them in the actuarial risk models and demographic tables construction. Topics covered: Lexis diagram (study of nuptiality, fertility, morbidity and mortality); construction of demographic tables; theories of mortality; practical methods for the estimation of mortality from census data, construction of mortality tables, case studies; and survival models and implications on actuarial practices.

MAC430 Accounting of Insurance and Mathematical Reserves 3 cr.

Prerequisites MAC400

This course is designed to enable students to understand the principles of insurance accounting and determine appropriate reserves according to the actuarial criteria. It enables serving the objectives of accounting standards adapted to the particular activity of insurance companies and integrates within it quality of sectoral plan, in the context of the general provisions and the system of national accounts.

MAC438 Internship Report 1 cr.

Prerequisites MAC400

The students are required to undertake an internship in an Insurance company or a bank. He/she will work with his/her advisors to identify the internship of mutual interest and prepares a significant written document or other work of scholarship that outlines the learning and professional development experiences of the internship. Formal presentation of the results of the internship is required.

MAC510 Individual Health Insurance 3 cr.

The aim of this course is to provide students with the knowledge of what life and health insurance products are available, how are they designed, what advantages and disadvantages they have, how they can be improved and how comparison can be made. Products covered include traditional insurance as well as investment-linked, long-term care, group insurance and retirement plans.

MAC520 Theory of Risk 3 cr.

This course aims to provide students with actuarial methods and techniques of insurance to manage the risks of large portfolios of property and casualty insurance. It addresses: the basic principles of risk management, methods of calculating premiums, risk measures and the determination of the margin of solvency as well as economic capital, the correlation between insured risks and consequences, long-term balance of the operations of a company and the management of multiple risks.

MAC530 Non-life Insurance 3 cr.

This course is divided into three parts: loss models, risk and ruin, and credibility theory. In part one, we discuss actuarial models for claim losses. The two components of claim losses, namely claim frequency and claim severity, are modeled separately and are then combined to derive the aggregate-loss distribution. The techniques of convolution and recursive methods are used to compute the aggregate-loss distributions. Part two is about two important and related topics in modeling insurance business: measuring risk and computing the likelihood of ruin. In this part we introduce various measures of risk, we discuss specific measures such as Value-at-Risk, conditional tail expectation, and the distortion-function approach. We also analyze the probability of ruin of an insurance business in both discrete-time and continuous-time frameworks. Probabilities of ultimate ruin and ruin before a finite time are discussed. We finally show the interaction of the initial surplus, premium loading, and loss distribution on the probability of ruin. In the last part of this course, we study credibility theory as a tool providing the basic analytical framework for pricing insurance products. We introduce the classical approach, the Bühlmann approach, the Bayesian method, as well as the empirical implementation of these techniques. Bühlmann's approach provides a simple

solution to the Bayesian method and achieves optimality within the subset of linear predictors.

MAC532 Survival Models 3 cr.

This course focuses on the statistical analysis of time-to-event or survival data. We introduce the hazard and survival functions, censoring mechanisms, parametric and non-parametric estimation, and comparison of survival curves. We cover continuous and discrete-time regression models with emphasis on Cox's proportional hazards model and partial likelihood estimation. We discuss competing risk models, unobserved heterogeneity, and multivariate survival models including event history analysis. The course emphasizes basic concepts and techniques as well as applications in epidemiology using the statistical packages SPSS and R.

MAC601 Special Topics in Actuarial and Financial Mathematics 1 cr.

Prerequisites FSC600 or SCF600

Topics selected from recent literature on actuarial and financial mathematics are studied in depth. Students will participate in a series of conferences presented by experts.

MAC602 Special Topics in Actuarial and Financial Mathematics II 1 cr.

Prerequisites MAC601

Advanced topics selected from recent literature on actuarial and financial mathematics are studied in depth. Students will participate in a series of conferences presented by experts.

MAC603 Tutorial in Actuarial and Financial Mathematics 1 cr.

Prerequisites MAC601

Topics selected from recent literature on actuarial and financial mathematics are studied in depth. Students will be responsible for presenting selected topics from the current scientific literature. They will be graded on relevance, critical analysis and presentation.

MAC620 Time Series and Financial Models 3 cr.

This course aims to instruct students in how to examine a time series, to extract its trend and its seasonal components and to master the principal modeling and forecasting methods. It develops the fconcepts of modeling by the method of regression and by decomposition of a series. Other topics covered are: review of outliers, forecasts; case of correlated disturbances; deseasonalization by the moving average method; maintained or cancelled by a moving average series; average retaining local, medium polynomials under various constraints, minimizing the variance of the disturbance; capacity for smoothing a moving average; treatments of the ends; forecast using smoothing methods; exponential smoothing, methods of Brown, of Holt & Winters; second-order stationary processes; stationarity, autocovariance and autocorrelation; partial autocorrelation, Durbin algorithm; infinite moving average process, spectral density; autoregressive process AR (p), medium-sized mobile MA (q), mobile medium-Autoregressive process ARMA (p, q); canonical representation; ARIMA and SARIMA process; and an introduction to non-linear models (ARFIMA, ARCH).

MAC634 Mathematics of Pension Plans 3 cr.

The objective of this course is to give those who are beginning a career as a retirement plan professional a general background in qualified plans as a first step toward meeting the challenges of the profession. The course is divided into two parts.

Part 1 introduces qualified retirement plans, and identifies the special characteristics of defined benefit plans and defined contribution plans. The course addresses installing such plans, distinguishing between the types of plan documents, considering the effect a type of business has on the structure, administration of a plan and an awareness of the parties involved in the operation of the plan.

Part 2 covers plan administration, including census collection, benefit allocations and coverage

and nondiscrimination testing. This course emphasizes daily valuation recordkeeping but includes discussions of balance-forward plans and conversions. Appropriate investments for daily valuation plans and fiduciary considerations including investment fees and revenue sharing are discussed. The processes involved in daily valuation recordkeeping are covered in detail, including daily functions, mutual fund trading and ethics concerning trading errors. Finally, the course discusses plan mergers and plan terminations including the termination of defined benefit plans.

MAC641 Financial Modelling 3 cr.

In this course we study discrete stochastic processes and their applications in finance (pricing of certain types of options, coverage of a portfolio, etc.). It begins with the foliation of various types of process, then we consider the concept of the conditional expectation, filtration, adapted and predictable process, Doob's decomposition of a process, then we develop the theory of discrete-time martingales, and stopping times are studied. The remainder of this course is designed for applications in finance, considering the financial options, the prices of options, strategies for managing a portfolio, self-financing strategies, arbitrage strategies, hedging strategies of options, the neutralization of risk, viable and complete markets, then certain types of financial models; the binomial for several periods model and the Cox-Ross-Rubinstein model are studied. The last model to be shown is the discretization of the Black-Scholes model, which is a time continuous model.

MAC697A Master Thesis 6 cr.

Prerequisites MAC600 Or SCF600 Or FSC600

Master Thesis Report

MAT202 Algebra I 3 cr.

Prerequisites MAT110

The course aims at providing the necessary tools and the mathematical maturity for engineers, for the design and analysis of abstract mathematical models. Subjects covered: logic and proofs, propositional calculus; sets and mappings; relations and ordered sets; an introduction to algebraic structures, groups, rings and fields; counting, finite and transfinite cardinals; matrix algebra, complex numbers and polynomials.

MAT213 Calculus III 3 cr.

The objective of this first analysis course is to give students of scientific fields the required foundations for understanding higher courses in mathematics, computer science, physics, economics, finance, etc. The subjects covered are the following: review of the functions of a real variable, simple integral and integration methods; suites and numerical series; functions of several variables, continuity, partial derivative, differential, the chain rule, Taylor expansion of 2 variables; introduction to double integrals, integration methods, change of variables, Jacobean, polar coordinates; and linear differential equations of the first order.

MAT216 General Mathematics 3 cr.

This course provides the basics needed by students to progress in their specialty courses. Topics covered include: function of a real variable, elementary functions, Taylor's expansion, simple integral and methods of integration, differential equations, multivariable functions, continuity, partial derivative, the chain rule, differential, introduction to double integrals, methods of integration, Matrix calculus, determinants, and linear systems.

MAT220 Differential Equations 3 cr.

Prerequisites MAT213 Or MAH220

In this course students will study differential nonlinear equations of the first order and linear equations of the second order, with some electrical and mechanical applications. Students will also study the transformation of Laplace and apply it to solving differential equations and linear

differential systems. This course covers the concepts of power series and Fourier's series and their applications.

MAT310 Linear Algebra 3 cr.

Prerequisites MAT213 Or MAH213

In this course students will study the concepts and the basic results of matrix calculus and linear algebra, a very useful discipline in many other fields. The subjects covered are: matrix algebra, linear systems, determinant, spaces and vector subspaces, scalar products and orthogonality, eigenvalues and eigenvectors; Euclidean spaces, scalar product; and linear transformations.

MAT312 Economical and Financial Calculus 3 cr.

This course enables the students to become familiar with the main tools and mathematical models used in economics, finance and actuarial science. The first part focuses on the theory of interest: discount and capitalization, different measures of relevance, equivalency rate, instantaneous rate, annuity, actuarial notation and use of tables, numerical methods. The second part deals with optimizing with and without constraints of functions of several variables, linear regression and application of matrix algebra. The last part focuses on differential and integral calculus and recurrence equations.

MAT313 Vector Analysis 3 cr.

Students will study: parametric curves and curves in polar coordinates; concept of surfaces, gradient; plane tangent, normal right to a surface; optimization; Lagrange multipliers; triple integrals; change of variables; theories of fields and Vector calculus (curl and divergence); line integrals; Green-Riemann formulas; integrals of surfaces; formulas of Stokes and divergence theorem.

MAT418 Numerical Methods 3 cr.

Prerequisites (MAT310 Or MAH310) And (MAT312 Or MAT220 Or MAH220) And (INF214 Or INF216 Or INF219)

This course will introduce the students to numerical computation allowing them to acquire the necessary tools to gain a better understanding of the modeling problems that they will meet later. The subjects covered are the following: introduction to numerical algorithms; non-linear equations, the bisection method, the fixed point method, Newton method, secant method, and systems of nonlinear equations; interpolation techniques of Lagrange, Newton, least squares, and splines; derivation and numerical integration, numerical solution of differential equations; and various applications with MATLAB (matrix algebra, linear systems, direct methods, iterative methods, eigenvalues).

MAT500 Numerical Analysis and Optimization 3 cr.

The objective of this course is to introduce students to the world of mathematical modeling and numerical simulation. The modeling and simulation have taken considerable importance in recent decades in all areas of science and industrial applications. Numerical analysis is the discipline that designs and analyzes methods or algorithms. Numerical simulation enables mathematicians to tackle problems far more complex and concrete than before, from immediate motivations that are industrial or scientific, which can provide answers to both qualitative but also quantitative questions; this is mathematical modeling. On the other hand, the scientist who was able to numerically simulate the problem does not stop there: he then wants to be able to change some parameters to improve or optimize the operation, performance, or the response of a system by maximizing (or minimizing) the associated functions. It is precisely the goal of optimization that provides theoretical or numerical tools to do this. Numerical analysis and optimization are therefore two essential and complementary mathematical modeling tools.

MAT522 PDE and Modeling 3 cr.

This course aims to teach students the mathematical maturity and the rigor of the methods of classification and resolution of partial differential equations, essential to mathematicians, engineers and computer scientists. It enables students to acquire the basic theoretical tools for manipulation of equations in partial derivatives frequently encountered in mathematical models applied to problems from mechanics, acoustics, hydrology, etc. Topics covered: total differential, integrating factors, linear equations of first order, partial differential equations in partial derivatives of order n to two variables, non-linear first-order partial differential equations, equation of heat and wave equation.

MAT523 Group Theory 3 cr.

This course is an introduction to the theory of groups which gives access to the many uses of theory of groups in mathematics. The central concepts are the structure and the actions of groups. Classifications of groups of small orders and of simple groups serve as motivation throughout the course. The themes addressed are: group actions, Sylow theorems, Semidirect Product, type finite Abelian groups, linear groups, projective groups and representations of finite groups. We derive two families of finite simple groups.

MAT601 Special Topics in Mathematics I 1 cr.

Prerequisites FSC600 or SCF600

Topics selected from recent literature on mathematics are studied in depth. Students will participate in a series of conferences presented by experts.

MAT602 Special Topics in Mathematics II 1 cr.

Prerequisites MAT601

Advanced Topics selected from recent literature on mathematics are studied in depth. Students will participate in a series of conferences presented by experts.

MAT603 Tutorial in Mathematics 1 cr.

Prerequisites MAT601

Topics selected from recent literature on mathematics are studied in depth. Students will be responsible for presenting selected topics from the current scientific literature. They will be graded on relevance, critical analysis and presentation.

MAT610 Discrete Mathematics 3 cr.

The first part of this course is designed to introduce students to the use mathematical language and reading and writing mathematical proofs as well as to the concepts and basic discrete math results which will be then used in the curriculum of mathematics and computer science. In the second part, we introduce some more advanced concepts in discrete mathematics with emphasis on mathematics used in algorithms (order, lattice, Boolean algebra, graph theory). It covers the following topics: mathematical methodology (logic, truth table); sets and relations; Boolean algebra; elements of arithmetic (Bézout's theorem, Fermat's little theorem, Euclid's algorithm); recursion and induction (linear and non-linear recurrence); graph theory (basic definitions, graph oriented and non-oriented, paths, matrices of incidence, Euler's theorem, planarity, coloring, labeled graphs, trees); mesh (introduction to partial order structures, terminal upper and lower); Boolean algebra (Boole lattice and rings of Boole, Boolean functions, normal forms); and rational and finite-state machine.

MAT620 Spectral Theory 3 cr.

The spectral theory, an essential branch of functional analysis, applies to both pure and applied mathematics (differential equations or PDEs, theory of Von Neumann algebras) as in physics and

chemistry. The purpose of spectral theory is, for some Endomorphisms of a hilbertien space, to obtain reduced shapes similar to the canonical forms of Jordan for the Endomorphisms of a finite-dimensional vector space and diagonal forms for the Endomorphisms of a hermitian space vector finite-dimensional hermitian. The theory of Hilbert-Schmidt applications was encountered for the first time in the integral equations, to build a first generalization of the results obtained in the finite-dimensional. In fact, the natural setting of this generalization is that of compact applications, studied by F. Riesz. Nevertheless, the case of the more general Endomorphisms escapes this framework; it is a subject for the spectral theory of Hilbert, which uses the techniques of integration. This course is intended primarily for students in the Master of mathematics, and it presents the mathematical tools of spectral theory: Basic Elements of functional analysis (normed spaces and spaces of Banach, spaces of Hilbert, continuous linear maps, duality, weak topologies), passage of the finite to the infinite dimension for continuous linear operators, dimension theory of compact operators, various forms of the spectral theorem, and self-adjoint operator theory.

MAT623 Distribution Theory and PDE 3 cr.

In mathematical analysis, a distribution (also called generalized function) is an object which generalizes the notion of function and measurement. The theory of distributions extends the notion of derivative to all locally integrable functions and beyond, and is used to formulate solutions to certain partial differential equations. They are important in physics and engineering where many discontinuous problems naturally lead to differential equations whose solutions are distributions rather than ordinary functions. The theory of distributions was formalized by the French mathematician Laurent Schwartz leading him to win the Fields Medal in 1950. Its introduction uses linear algebra and topology concepts centered around the idea of duality. We look for the origin of this theory in the symbolic calculation of Heaviside (1894) and in the introduction by physicists to the "Dirac function" (1926). The objective was to generalize the notion of function, in order to give a correct mathematical meaning to objects handled by physicists. It was necessary to keep the ability to do operations such as derivations, convolutions, and transformations of Fourier or Laplace. The distribution of Dirac is an interesting example of distribution because it is not a function, but can be represented informally by a degenerate function which would be void on its domain of definition, except 0 and the integral would be 1. In reality, quite strictly, it is the limit of a sequence of integral functions 1 distributions and converging uniformly to 0 on all compact does not contain 0. Such a mathematical object is useful in physical or signal processing, but no regular function has these properties.

MAT627 Lie Algebra 3 cr.

Lie groups are groups equipped with a structure of manifold compatible with their group structure. Combining topology, algebra and geometry, they play a fundamental role in many branches of mathematics, but also in theoretical physics. This course is an introduction to the theory of Lie groups and Lie algebras, through the broad matrix Lie groups.

MAT697A Master Thesis 6 cr.

Prerequisites MAT600 C2 >=70 Or SCF600 C2 >=70 Or FSC600 C2 >=70

Master Thesis Report

MGT220 Principles of Management 3 cr.

An introductory course explaining the definition of management as a set of activities, including: planning and decision-making, organizing, leading, and controlling, directed at an organization’s resources, including the human, financial, physical, and informational, with the aim of achieving organizational goals in an efficient and effective manner.

MKT220 Principles of Marketing 3 cr.

This course is designed to help the students learn about and apply the basic concepts and practices

of modern marketing as they are used in a variety of settings. It is intended for business students who wish to become the decision-makers of tomorrow at the middle or upper levels of management since it gives students a comprehensive and innovative managerial and practical introduction to marketing.

NSBT520 Language and Communication 1 cr.

The main objective of this course is to enhance skills in basic modern languages (French and English) and adapt them to communication and scientific language. It is also to improve integration in the professional world on one hand and validate mastery of a language on the other.

NSBT525 Biotechnology and Bioinformatics 3 cr.

The objective of this course is for the students to: know the cell cultures, have an ability to apply plasmid construction technology, of transfection and protractors genes, know the main morphological cellular imaging, know the biochemical approaches, know the databases and their importance in biotechnology and neurobiology, understand the methods used in structure prediction, and understand the methods used in the analysis of sequences.

NSBT530 Functional and Cognitive Anatomy 2 cr.

The objective of this course is to give the students a vision that is both comprehensive and detailed of functional neuroanatomy, to know: the basic principles of the organization of the nervous system and the main function of each part; the main neural pathways involved in the main functions of neural processing; the sensory input and behavioral responses; the basic methods of functional neuroanatomy; understand how the information is generated in each system and subsystem; how different modalities of information are superimposed along the neural pathways; how neural processing in a nucleus or a structure can induce behavioral changes; and how an injury can induce a variety of symptoms.

NSBT535 Cellular Neurobiology and Physiology 3 cr.

The educational objectives are to clarify the mechanisms that steer the transmission and integration of messages in the nervous system. The mechanisms of synaptic transmission and its modulation, the role of interactions between neurons and glial cells and the functioning of neural networks (genesis and control of rhythmic electrical activity) will be the main topics in this course.

NSBT540 Methodologies 2 cr.

The objective of this course is to introduce and implement the various methodological approaches used in research in neurosciences. The various practical sessions, organized in workshops (4 hours) are associated with a session of tutorials (1 hour) to present the problems, or analyze experimental results. Practical sessions were chosen in order to implement the latest technologies used in research in neurobiology (pharmacology, imaging, cellular and molecular biology, behavioral analysis). In addition, this course includes concepts of biostatistics which aims to provide students with knowledge bases in biological data analysis, including the ability to determine methods adapted to current situations. A high level knowledge of statistical methods is essential for proper planning of numerous scientific investigations. Students also learn how to use specialized software using concrete examples.

NSBT545 Experimental Approaches of Neuropathology 2 cr.

This course aims to give students a clear view of pathophysiological mechanisms that lead to disease through the development of animal models. These bases will enable the students to understand the origin and molecular cellular dysfunctions of neural networks that can result in neurological or psychiatric disorders.

NSBT550 Behavior, Emotion and Cognition 2 cr.

The main objective is to provide solid and updated training in a number of specialties including cognitive neuroscience. This module will indeed help students to know the anatomical and functional bases and fundamental mechanisms of emotions and cognitive functions in relation to behavior, and to understand the nature of interactions between emotion, cognition and behavior.

NSBT555 Neuropharmacology 2 cr.

The objective of this course is to give students the basics of neuropharmacology covering the molecular, cellular and integrated neurotransmission, for the study of psychotropic pharmaceuticals and their modes of action. This will enable them to understand the specifics of each of these neurotransmitters including questioning their functional organization in the brain, their involvement in cellular and behavioral responses and pharmacological interactions between these systems. This course is an important prerequisite for the development of central nervous system pharmaceuticals.

NSBT560 Genomics and Proteomics 2 cr.

The objective of this course is to introduce students to the intellectual approach of genomics, transcriptomics and proteomics, explaining the different techniques used in these areas. These concepts will be illustrated with examples in the field of basic and clinical neurosciences.

NSBT565 Economy 1 cr.

The management and use of animals, plants or micro-organisms raises issues of philosophy, ethics, environmental sustainability and the biosphere. Thus it becomes necessary to take into account operating conditions of biological material and compliance with ethical rules. The objective is to provide an overview of the principles of development, bioethics, economic rules and studying drug development: ethical and legal bases that should govern research in neuroscience; understand the reasoning mechanisms and choices in situations that challenge the ethics in this field, principles and economic laws that run the research; understand the implications of these principles and the practical steps that should be installed to ensure quality, profitability and sustainability; describe the different stages of clinical research; the various research oversight bodies; and understand the major stages of pharmaceuticals development.

NSBT570 Regulations, Laws and Bioethics 2 cr.

The course aims to promote students' reflection on current problems and teach them how to analyze and solve ethical problems such as cloning, abortion, sperm donation, confidentiality and privacy, informed consent, body dignity and integrity, aggressive treatment, euthanasia and genetic therapies.

NSBT575 Drug Development 1 cr.

The purpose of this course is to enable the students to acquire the necessary concepts of neuroscience and biotechnology, to understand the basic principles of current drug design and to be informed about the different stages of drug development (identification of the therapeutic target, identification of possible HITS, optimization of lead compounds), preclinical testing, clinical stages and administrative steps (registration, pharmacovigilance).

NSBT580 Morpho-functionnal Imaging 3 cr.

Students in this course can acquire relevant knowledge and deepen the perspective of fundamental and clinical research in neuromorphology and functional imaging of the brain. The skills acquired by students at the end of this course are: the ability to recognize the main anatomical structures of the brain in 2D and 3D MRI in humans and primates in vivo and post mortem; ability to analyze and identify the cerebral cortex primary furrows, secondary and tertiary main grooves, and recognize the major interindividual variations; ability to identify key eloquent areas of the brain on MRI

volumetric representations and f-MRI; ability to perform a tractographic analysis and recognition of the main projection pathways and associations, such as the corners on the imaging workstation.

NSBT585 Physiopathology of the Nervous System 2 cr.

The purpose of this course is to acquire and deepen knowledge relevant in a clinical research perspective of pathophysiology of diseases of the central and peripheral nervous system.

NSBT590 Diagnostic and Therapeutic Tools Development 2 cr.

Students will acquire and deepen their knowledge relevant in the biotechnology research oriented perspective, in highly advanced therapeutic and diagnosis techniques.

NSBT620 From Sensation to Perception 2 cr.

This course will focus on two main examples: somatosensory and visual perception (transduction, coding, elaboration of the sensation, representation, and integration).

NSBT625 From Perception to Action 2 cr.

Students will study neuronal pathways, specifically the cortex, subcortical pathways, the spinal cord, and effectors.

NSBT630 Integrative Physiology 2 cr.

The aim of integrative physiology is to understand the mechanisms underlying the various physiological functions at every level of integration at which they appear: from the cell to the organism as a whole. The nervous system has a major place because it coordinates the activity of the different organs. After the first section of this course, students will realize that many events in a body are rhythmic, and that any individuals or species are defined by their temporal organization as much as their anatomy. It is why this course is a "focus on biological rhythms".

NSBT635 Computational Neurosciences 1 cr.

This course covers the basis of computational neuroscience from ionic channels to networks from both theoretical and practical perspectives.

NSBT690A Long Training Period 6 cr.

Students must complete a 6 credits research project applied to the major. They are expected to realize a research work in the laboratory, submit a written report and give an oral presentation.

PHY210 - PSC210 General Physics 3 cr.

The objective of this course is the introduction of various laws, principles and physical mechanisms, whose understanding is essential to students pursuing studies in various branches of science. This course consists of several independent parts. The first one deals with dynamics, the different types of motion, Newton's laws, and conservation of energy. The second part deals with hydrostatics and fluid dynamics. The third part deals with thermodynamics, calorimeters, the first principle and the basic transformations, the ideal gas, and thermodynamic cycles. The fourth part concerns the analysis of simple electrical circuits using Kirchhoff laws and the movement of a particle in an electromagnetic field. In the fifth part we talk about relativity, the theory of photons, and the photoelectric effect. Upon completion of this course the students will have acquired sufficient knowledge of several basic principles in physics and be familiar with these various topics.

PHY215 Optics and Modern Physics 3 cr.

The goal of the course is to introduce, first, geometric optics to study the phenomena of light and the behavior of the light beam passing from one medium to another. In the second part we will study the acoustic wave model to understand the propagation of vibrational waves and their overlays. In the last part, the course gives an introduction to basic concepts of relativity. This course

is designed to educate students in the process of scientific discovery in general and the important role of experimentation in the development of scientific models of nature.

PHY270 **Laboratory of General Physics** **1 cr.**
Prerequisites PHY210 - PSC210
The physics lab provides students with a unique opportunity to test theories and scientific laws and initiates them into the methods and techniques of measurement that are the basis of these theories. In the laboratory, the students learn the limits in the application of theories and the importance of experiments in the evolution of concepts and theories. The following experiments are carried out: metrology in mechanics, Wheatstone bridge, ideal gas law, water-vapor latent heat, Venturi tube, study of a magnetic field, Michelson interferometer, Stephan-Boltzmann law, and a study of the centrifugal force.

SCF600 **Research Methodology** **1 cr.**
The objective of the course is to introduce students to scientific research. Topics covered are: interest and research objectives; methodologies used in scientific research, and how to define a problematic; data collection; documentary research; analyze the collected knowledge; structure of a Master thesis; write a report; write the bibliography; make a scientific poster; and how to approach making an oral presentation.

STA220 - STS220 **Probability and Applied Statistics** **3 cr.**
Prerequisites MAT213 Or MAT215 Or MAT216 Or MAT218 Or NUT210 Or NTR210
This course prepares students for the practical use of probability and statistics in the biomedical field (agronomy, chemistry, biochemistry, nutrition, medicine, etc.). Topics covered are: elements of descriptive statistics, population, statistical unit, frequency distribution characteristic of central tendency and dispersion; concepts of probability and combinatorics, conditional probability and Bayes' formula, applications, discrete and continuous random variables, expectation and moments, weak law of large numbers, empirical frequencies and probabilities customary laws (Binomial, Multinomial, Poisson, Normal) and asymptotic behavior, the law of large numbers, sampling and estimation, introduction to the use of hypothesis tests, and the Chi-2 contingency table.

STA320 **Applied Probability and Statistics** **3 cr.**
Prerequisites MAT213 Or MAH213 And (MAT202 Or MAH202)
This course covers the following topics: probabilities, independence; random variables; expectation; two-dimensional random vectors, marginal, and conditional laws; probability distribution (Bernoulli, binomial, geometric, Poisson process, uniform distribution, gamma, distribution and normal distribution); multivariate random variables; the weak law of large numbers, and central theorem limits; statistics and sampling distribution; reliability; and applications.

STA321 **Descriptive Statistics** **3 cr.**
Prerequisites MAT213 Or MAH213
Descriptive statistics aims to quantitatively summarize data gathered on a concrete universe by means of an exhaustive investigation, such as the population of a country studied through a general census. Its purpose is not to explain but to describe, then create models using the numerical language. Statistical distributions of one and two characters, graphic representations, the main numerical summaries of a distribution, time series and theory of indices are studied in this course.

STA331 **Statistical Analysis** **3 cr.**
Prerequisites STA320 Or STS320
This course looks at: elements of descriptive statistics; concepts of probabilities, normal distribution, and sampling methods; point estimate and interval estimate; hypothesis testing, the risk of first and

second case; comparison between two groups, the chi-squared test; correlation and regression; analysis of variance; and introduction to a statistical software package such as SPSS.

STA335 Statistical Survey and Analysis 1 cr.

Under the direction of the teacher, students will use a statistical survey on a small sample and prepare one or more documents that are a synthesis of the results. The methods will be adapted to the size of the sample. An attention will be paid to criticism and interpretation of the results as well as to the relationship between the statistical results and other sources (qualitative observations, literature).

STA540 Random Modeling and Introduction to Stochastic Calculations 3 cr.

The main objective of this course is to initiate the students to the concept of random processes used in modeling of random phenomena. It focuses on the discrete Markov process or more commonly Markov chains. In the case of homogenous Markov chains we consider the set of States, the transition matrix, the initial distribution and the distributions at different times, the Chapman-Kolmogorov relationship, classification of States (stability, periodicity and recurrence), absorption in stable classes, stationary distribution, Newton diffusion gas problem, problem of the players ruin, one-dimensional random walk, multidimensional random walk, and study of the Poisson process and queues theory.

STA515 Statistical Analysis Methods 3 cr.

The purpose of this course is to strengthen the knowledge of students in the field of applied statistics by minimizing the mathematical approach and developing practical and methodological aspects. It presents the main techniques of most known statistical tests (descriptive and inferential statistics, explanatory methods, and data analysis). The course provides an overview and practical main methods available in software, with an aid to the interpretation of the results and through fully processed examples using the statistical software SPSS. Most of the themes will be covered by this course including the analysis of Variance (ANOVA test), comparisons of samples (t-test and Chi-square), single and multiple regression.

SVT601 Special Topics in LES - I 1 cr.
Prerequisites SCF600 Or FSC600 Or CHM600 Or BCH600

Topics selected from recent literature on life and earth sciences are studied in depth. A combination of workshops, announced seminars and announced conferences will be given covering assigned material. For the literature club students will be responsible for submitting several one-page summaries of articles from the current scientific literature. Summaries will be graded on relevance, critical analysis and presentation. Submissions will be made available via eLearning and may become part of the material covered by quiz/exam questions.

SVT602 Special Topics in LES - II 1 cr.
Prerequisites SVT601

Topics selected from recent literature on life and earth sciences are studied in depth. A combination of workshops, announced seminars and announced conferences will be given covering assigned material. For the literature club students will be responsible for submitting several one-page summaries of articles from the current scientific literature. Summaries will be graded on relevance, critical analysis and presentation. Submissions will be made available via eLearning and may become part of the material covered by quiz/exam questions.

SVT603 Tutorial in LES 1 cr.
Prerequisites SVT601

The topic of the Master's thesis is studied in depth. A combination of workshops, announced seminars and announced conferences will be given covering assigned material. Summaries will be

graded on relevance, critical analysis and presentation. Submissions will be made available via eLearning and may become part of the material covered by quiz/exam questions.

SVT697A **Master Thesis** **6 cr.**

Prerequisites SCF600 Or FSC600 Or CHM600 Or BCH600

Student must complete a 6 credits research project applied to the major. They are expected to realize a research work in the laboratory, submit a written report and make an oral presentation.

Pontifical Faculty of Theology

Overview

Under the official mandate given to the Faculty by the Lebanese Assembly of Catholic Patriarchs and Bishops in 1974 and ratified by Rome in 1982, the Pontifical Faculty of Theology works hard to ensure its students – most of which are preparing for ministry – receive a university theological education initiating students to the theological speech's critical and analytical method, and that is by promoting a constructive dialogue with other university majors especially philosophy and humanities. The Catholic Church in Lebanon recognizes through this choice that university theology is necessary to the revival of the pastoral ministry in the Church.

In addition, the Pontifical Faculty of Theology is fully aware that its vocation is to be "oriental" and "catholic" just like the Church from which it depends and which it serves. Our Faculty, with the help of the Liturgy Institute affiliated to it, has been concentrating since its foundation on shedding the light the best way possible on the oriental theology and its dogmatic, liturgical and spiritual components without neglecting the occidental theological thought. Through this double approach, the Faculty aims at providing a theological teaching in an ecumenical spirit.

The Pontifical Faculty of Theology consists of the following departments/programs:

Undergraduate Studies

- Bachelor of Arts in Theology

Graduate Studies

- Master of Arts in Theology

Doctoral Studies

- Ph.D. in Theology

Administration and Full-time Faculty

Rev. Fr. Antoine Al Ahmar, Associate Professor, Dean
Rev. Fr. Toni Eid, Assistant Professor, Academic Secretary
Rev. Fr. Hady Mahfouz, Associate Professor, Director of Graduate Studies
Rev. Fr. Ayoub Chahwan, Associate Professor, Director of Doctoral Studies
Rev. Fr. Charbel Chléla, Associate Professor, Head of the Center of Ethics and Bioethics
Rev. Fr. Antoine Mikhael, Associate Professor
Rev. Fr. Elias Hanna, Associate Professor
Rev. Fr. Elie Azzi, Associate Professor
Rev. Fr. Gaby Hachem, Associate Professor
Rev. Fr. Jean Azzam, Associate Professor
Rev. Fr. Joseph Azzi, Associate Professor
Rev. Fr. Marwan Azar, Associate Professor
Rev. Fr. Michel Abou Tacca, Associate Professor
Rev. Fr. Wahib Khawaja, Associate Professor

Programs of Study - Undergraduate Programs

Bachelor of Arts in Theology

Mission

The Canonical Bachelor degree in Theology is a five-year basic program. It aims to impart a solid philosophical education, which is a necessary propaedeutic for theological studies, and to offer an organic exposition of the whole of Catholic doctrine, covering a coordinated presentation of all the disciplines, along with an introduction to theological scientific methodology.

Program Educational Objectives

1. Graduates will acquire a deep grasp of the entire catholic doctrine grounded in divine revelation, which allows them to gain nourishment for their own spiritual life, and to announce and safeguard it in the exercise of the ministry.
2. Graduates will acquire a personal theological synthesis, a mastery of the method of scientific research and thus become able to explain sacred doctrine appropriately.
3. Graduates will be ready to fulfill pastoral ministry and other functions in the Church, especially in the administration of a parish, in catechetical and homiletic skills, in divine worship and particularly the celebration of the sacraments.

Program Outcomes

a. Ability to understand major philosophical systems, especially those which exercise a greater influence in the region, and to discern what is proven to be true therein and detect the roots of errors and refute them.
b. Ability to understand the characteristics of the contemporary mind, and enter into dialogue with men and women of today.
c. Ability to read the Holy Scriptures in their original languages.
d. Ability to explain biblical texts according to a valid method of exegesis and in the light of a comprehensive view of the whole of Sacred Scripture.
e. Ability to announce in a suitable way the teaching of the Gospel and of the doctrine of the Catholic Church to the people of today in a manner adapted to their understanding.
f. Ability to exercise a pastoral ministry in the Church.
g. Ability to understand doctrine of non-Catholic Churches and non-Christian religions and enter into dialogue with them.
h. Ability to examine theological questions by their own appropriate research and with scientific methodology.
i. Ability to go on to the second cycle and pursue higher theological studies.

Degree Requirements

General Education	**31**
English Communication (3 cr.)	3
Quantitative Reasoning (3 cr.)	3
Science and Health (3 cr.)	3
Sports (1 cr.)	1
PHI201 - Introduction to Philosophy	3
PSY201 - Introduction to Psychology	3
SOC201 - Introduction to Sociology	3
THEO260 - Sacred Art	3
THEO351 - Social Ethics	3
THEO471 - Modern and Contemporary Church History	3
THEO220 - Fundamental Theology: Revelation and Faith	3
Common Core	**45**
MTR222 - University Working Methodology	3
PHI210 - Greek Philosophy	3
PHI213 - History of Contemporary Philosophy	3
PHI301 - Medieval Philosophy	3
PHI326 - Philosophy of Nature	3
PHI327 - Philosophical Anthropology	3
PHI333 - Modern Philosophy	3
PHI420 - Logic and Philosophy of Knowledge	3
PHI445 - Metaphysics	3
PHI447 - Moral and Political Philosophy	3
PHI453 - Hermeneutics	3
PHI456 - Modern and Contemporary Arab Thought	3
THEO201 - Biblical Greek	3
THEO202 - Biblical Hebrew	3
THEO210 - Introduction to the Bible	3
Specialization	**84**
THEO211 - Pentateuch and Historical Books	3
THEO212 - Synoptics and Acts of the Apostles	3
THEO215 - Research Seminar: Holy Scriptures	2
THEO221 - Ecumenism	2
THEO231 - Ecclesiology	3
THEO232 - Christology	3
THEO241 - Basics of Sacramental Theology and Liturgy	3
THEO251 - Fundamental Moral Theology	3
THEO271 - Ancient Church History	3
THEO272 - Patrology	3
THEO281 - Canon Law: Norms, Institutions and Persons	3
THEO311 - The Prophets	3
THEO312 - Johannine Corpus	3
THEO321 - Theology of Religions	3
THEO331 - The Holy Trinity	3

THEO335 - Research Seminar: Dogmatic, Patristic and Sacramental Theology	2
THEO341 - Sacraments of Christian Initiation	3
THEO352 - Theology of Spirituality and Oriental Mystic	3
THEO361 - Pastoral and Practical Theology	3
THEO371 - Medieval Church History	3
THEO411 - Pauline Corpus	3
THEO412 - Psalms and Wisdom Scriptures	3
THEO421 - Islam	3
THEO431 - Christian Anthropology	3
THEO432 - Eschatology	2
THEO441 - Orders and Healing Sacraments	3
THEO451 - Family Ethics, Sexuality and Marriage	3
THEO452 - Bioethics	2
THEO455 - Research Seminar: Moral and Pastoral Theology	2
THEO481 - Canon Law: Marriage	3
Capstone	**1**
THEO499A - Baccalaureate Comprehensive Examination	1
Total	**161**

Programs of Study - Graduate Programs

Master of Arts in Theology

The Master in Theology normally extends over two years (or 4 semesters) after which the student is given a “Graduate Canonical Degree in Theology”.

A minimum of 36 credits are required to obtain the canonical degree.

The master degree is based on theological seminars related to three areas of study:

- Biblical Theology
- Moral Theology
- Dogmatic Theology

Students can refer to the Faculty for more information concerning the proposed seminars in the semester Fall 2016-2017

Programs of Study - Doctoral Programs

Ph.D. in Theology

The third cycle normally extends over three years after which the student is given a “Canonical PhD in Theology” which is equivalent to the “PhD in Theology” in the Lebanese System.

A minimum of 60 credits are required to obtain the canonical PhD.

Course Descriptions

MTR222 University Working Methodology 3 cr.

This course will provide first year students with essential methods for the preparation of their work during the years of study at the University. These methods are common to all material and address different levels, ranging from exercises promoting correct educational attitudes in the introduction to the methods of work, the investigation of a text, and finally, to the mastery of speech essential to establish exchange with others, orally and in writing, and to assert with confidence and autonomy. In addition, the objectives of this course will address data essential for the design, drafting and the realization of research work.

PHI201 Introduction to Philosophy 3 cr.

The course will introduce students to philosophical thinking and practice. It will cover, on the one hand, the main philosophical trends, highlighting their specificity and their creative input and, on the other hand, the most representative authors in the history of philosophical thought. In an effort not to separate these themes and the fundamental questions of mankind, the course attempts to show the relationship that develops between the aforementioned notions; with the aim of addressing their impact on certain world views that constantly interpolate us within contemporary societies.

PSY201 Introduction to Psychology 3 cr.

This introductory course is also enrolled in general education as a prerequisite for students who will pursue psychology training. This course will provide students with the basic concepts in psychology and will facilitate their access to knowledge during their academic curriculum. It includes the following objectives: understanding psychology from a historical and a theoretical perspective (Gestalt, phenomenological, experimental, scientific, psychoanalytic and cognitive, etc.); understanding the various fields of psychology (clinical, experimental, developmental, educational, social, etc.) and the different methods used (experimental, clinical, psychometric, projective, etc.); providing an appropriate approach to personality issues - basic needs, affective and emotional (feelings, emotions), intellectual (cognition, memory) and social (social influence).

SOC201 Introduction to Sociology 3 cr.

This course provides a basic knowledge of general sociology: a) it presents an overview of the context of the event-emergence of sociology on the basis of the main founders and focuses on methodological perspectives and applied sociological methods and techniques. b) it focuses on the key principles of social themes, which description and definition have fueled and fed the many debates that are changing the discipline in the vast corpus of scientific knowledge. This course provides students with general sociology elements, sensitizes their "sociological perspective" and develops their critical reflection on various social issues.

PHI210 Greek Philosophy 3 cr.

This course is divided into two parts. The first part examines pre-Socratic sources that give students the proper tools to acquire philosophical thinking in their quest for the nature of things, and in their attempt to unveil both natural and human phenomena. It thus includes the main schools of thought such as the School of Miletus (Thales, Anaximander, Anaximenes), the Pythagorean school (Pythagoras), the Ionian school (Heraclitus), the Eleatic school (Parmenides), as well as the Sophists. The second part deals with Socrates, Plato and Aristotle.

PHI213 History of Contemporary Philosophy 3 cr.

This course is intended to develop, in the first part, the philosophical question of existence of Kierkegaard and other existentialist philosophers (Sartre, Jaspers, Scheler, Gabriel Marcel). This course analyzes, in the second part, the basic principles of phenomenology as defined by Edmund Husserl and

by numerous contemporary phenomenologists. In this framework, the course explains the Husserl phenomenological heritage and its innovative Heidegger reception. Different manifestations of phenomenological practice and its particular development will be considered within the French phenomenological school represented by Maurice Merleau-Ponty, Emmanuel Levinas, Henry Michel and Jean-Luc Marion. Particular attention will be given to the "phenomenology of life" of Michel Henry.

PHI301 Medieval Philosophy 3 cr.

Pre-requisites PHI210 or PHI210

This course is designed to analyze the highlights of the thought of St. Augustine, St. Thomas Aquinas and Meister Eckhart. We seek, from the analysis of the Augustinian singular experience of truth, to understand in depth the issues relating to the problem of knowledge, the metaphysics of inner experience, the self-certainty based on the truth of God immanent in our interiority, temporality and eternity and the unitive and tripartite constitution of the same soul to the constitution of the Trinitarian life in God. We will study, starting from a critical reading of the writings of St. Thomas, the themes related to the receipt of Thomistic Aristotelian heritage, the question of creation and the evidence of the existence of God, the question of analogy and the problem of knowledge. A contemporary reading of the mystic Meister Eckhart, which largely contributed to the emergence of German philosophical speculation, will be analyzed as well. The research will, at this level, tackle Eckhart's unitive structure of knowledge and life, that animates the vital relationship between God and man.

PHI326 Philosophy of Nature 3 cr.

Among the Greeks, nature is physical, all of which appears; hence the problem of natural, supernatural and the supernatural. In Christian theology, nature is one; hence the problem of the two natures of Christ. In Latin, natura is "character", which poses the problem of nothing less than human nature. In medical sciences, nature bounds genetics. In law, it opposes the Civic. In literature, he opposes romanticism and classicism. Today, ecology seems to oppose nature and man; it is even about ''green policy'' as of 'ecological theology,' 'brief' 'ecological philosophy'.' Nature is everywhere, but is the concept of nature the same thing everywhere, in all areas? What is then "nature"? A kind or nature? And why is the definition a hermeneutical problem? That's what our course of Philosophy of Nature will try to address.

PHI327 Philosophical Anthropology 3 cr.

Pre-requisites PHI210 or SOC210

The question "What Is Man?" is at the heart of philosophical questioning. Starting from the anthropocentrism need of philosophy, the course firstly explores the meaning of the question about the essence of man through its history, the challenges imposed by the cyborg, the computational world or gender theory (Gehlen, Leach, Butler, Blumenberg, etc.). The course questions the difficulties of defining the human being through current changes by building on the thinkers of classical humanism and post-humanism. Secondly, the course presents the basic categories of philosophical anthropology and offers a thorough analysis of the being-in-relation (or the human being-in-relationships) and discussion of political, social and cultural implications, with reference to contemporary thinkers of otherness (Levinas, Buber, Marion, etc.).

PHI333 Modern Philosophy 3 cr.

Pre-requisites PHI210

The students will be introduced to two great philosophical currents, both stemming from the works of Francis Bacon, rationalism (Descartes, Leibniz and Spinoza) and empiricism (Locke, Condillac, Hume), leading to Kant's philosophy of knowledge - critical rationalism.

PHI420 Logic and Philosophy of Knowledge 3 cr.

Pre-requisites PHI333

This course initially outlines a perspective of language as an object of study that shows how much of the philosophy of the twentieth century developed as a "philosophy of language" (Analytic Philosophy). Secondly, it deals with the general theoretical framework of the argument as a discursive act, based on the theory of acts of language (speech acts), that the two philosophers Longshaw John Austin and, later, John Searle paved the way for. Thirdly, general issues related to logic are discussed, and are examined by the induction and deduction master concepts - truth and validity. A brief discussion is given on the methods and endorsements of formalization. The formal approach is exemplified, when it comes to conducting the analysis and evaluation of simple deductive arguments, called syllogism.

PHI445 Metaphysics 3 cr.

Pre-requisites PHI210

The purpose of this course is to present a reflection on metaphysics and its relation to primitive philosophy, which discusses, for example, "The science of Being as Being." It is divided into three areas. The first focuses on Aristotelian metaphysics. The second reflects upon the problems of the world, the soul and God, from the analysis of two antithetical philosophers, Leibniz and Spinoza. The third examines the different theories of the nineteenth and twentieth century, taking an in-depth look into the philosophies which were eager to put an end to metaphysics; the philosophies, which are attributed to Kant, Nietzsche, Heidegger and Habermas.

PHI447 Moral and Political Philosophy 3 cr.

Pre-requisites PHI210

The course aims to consider a reflection on the foundations and the meaning of democracy, in order to find the place of morality in politics; knowing that the two concepts "moral" and "politics" are written mostly in separation rather than in conjunction. This is how we can understand the great debates relative to moral and political philosophy, from the ancient Greeks - particularly those of Plato and Aristotle - until modern or contemporary times. Starting with an approach to these two concepts, the course is essentially questioning, on one hand, the need for the interaction of these two areas of morality and politics, and also that of their separation. Students will analyze in-depth the answer to these questions by drawing on texts of classical and modern philosophers such as Plato, Aristotle, Kant, Machiavelli, Thomas Hobbes, Max Weber, Hannah Arendt and Julien Freund, who have pondered this topical issue.

PHI453 Hermeneutics 3 cr.

Pre-requisites PHI210

Having originated within the context of biblical interpretation, hermeneutics was freed from its dogmatic and institutional limits to become a discipline that mediated and reconciled stylistics, trans-linguistics, word-for-word linguistics and dissertation analysis, as well as a reading of the world as text. It is the restoration and disclosure of meaning that interprets and identifies the significance of the written and spoken word. The course traces the journey that this discipline has made from Schleiermacher to Ricoeur, as well as Dilthey, Heidegger, Gadamer, Szondi, Jaussand and Appel.

PHI456 Modern and Contemporary Arab Thought 3 cr.

The course focuses on two distinct but complementary parts. The first socio-political and historical part is the source of modern Arab thought, born in the Ottoman Middle East, of language and Arab cultural heritage. At the origin of this modern thought, expressed in the Arabic language and in the service of the promotion of Arab society, are Lebanese Christians, mostly, and in particular, Syrian and Egyptian. New concepts circulate, such as “tolerance”, “freedom”, "equality", "brotherhood", "citizenship", etc.,

allowing the contribution of new transnationalistic, Arabic and nationalistic ideas, operating progressively in favor of the introduction of a democratic political regime that would terminate the dictatorship and the cult of "me" politically translated into a sultanate recognized as the shadow of God on earth. The second part focuses on the emergence of a political, socialist, communist, progressive, Baathist, Nasserist, democratic thought; work of the enlightened Christians and Muslims in the Arab world in search of a new national ideology, which tried to contribute to the emergence of a state concept, an identity that includes all the components of a national community and a political philosophy capable of challenging the rapid changes within the global plan. The aim of the course is to enable students to grasp the dimension of Arab thought outside the religious framework that limits the concept of state and denies democracy the right to be admitted.

THEO201 Biblical Greek 3 cr.

The objective of this course is to introduce students to the reading of the Greek text of the New Testament and to its translation, by studying the main principles related to the grammatical and syntactic systems of the Greek language and the minimum required vocabulary.

THEO202 Biblical Hebrew 3 cr.

The objective of this course is to help students in theology read and translate the Hebrew biblical texts and analyze them grammatically, in order to prepare them for biblical exegesis. The study of the Hebrew language will mainly focus on the Hebrew grammar (morphology and syntax) based on a selection of Hebrew texts from the Bible.

- The 1st level of grammar will cover morphology and nouns, while the 2nd level will cover verbs.
- The texts will include readings and translations, and grammatical analysis of selected passages from the Pentateuch, the books of the Prophets and the Psalms.

THEO210 Introduction to the Bible 3 cr.

The Introduction to the Bible course aims to answer questions whose knowledge is a prerequisite to understanding the inspired Book, though written in well-defined historical, social and cultural contexts. More specifically, it is related to the history of the biblical texts writing, of sacred history that is told therein, the world of the Bible, its geography and its various political and religious movements. The course also outlines the history of biblical exegesis.

THEO211 Pentateuch and Historical Books 3 cr.

Prerequisites THEO 202 - THEO 210

This is the first course on the Old Testament. It aims to introduce students to the biblical exegesis and allows them to be well-informed about this biblical corpus, its books, its characters and its theology.
After a brief introduction on the importance of the Pentateuch in the Old Testament, the course highlights a detailed reading of a number of texts covering different literary genres and theological currents of this corpus. This will lead to the understanding of the biblical concept of "history" and its theological meaning, as well as its key issues such as land, election, royalty, politics, and exile.

THEO212 Synoptics and Acts of the Apostles 3 cr.

Prerequisites THEO 201 - THEO 210

The synoptic writings are introduced in this course, namely: the Gospels of Mark, Matthew and Luke, in addition to the Acts of the Apostles which is the second volume of the Lucan work. The course starts with an introduction on the "synoptic question" and the adoption of the modified theory of the two documents, followed by the study of each of these writings and their most important themes.
The approach is synchronic. The method adopted is criticism of the composition which is a specification of the writing criticism which reviews the editorial activity of the author in order to discover the theological thought.

THEO215 Research Seminar: Holy Scriptures 2 cr.

Prerequisites THEO 201 - THEO 202- THEO 210

Research seminars are designed to initiate students in doing biblical theology by examining the right methodological approaches while focusing on a biblical book or biblical theme. During the weekly meetings in small groups, participants in the seminar are invited to engage in discussion by revealing their thoughts and projects on a chosen theme, before producing a research paper.

THEO220 Fundamental Theology: Revelation and Faith 3 cr.

This is the introductory course to theological studies which also addresses the foundations of Christianity, divine revelation and faith.

First, it explains what theology is, by exploring its history, specifying its nature, its methods, its purpose, and by presenting its fields of reflection, and the different theological disciplines, along with a particular focus on fundamental theology.

The second part of the course is devoted to the themes of Revelation and faith, in addition to the study of the main theological concepts, the Word of God, the living Tradition, and the Church's Magisterium.

THEO221 Ecumenism 2 cr.

This course meets the recommendation of the Second Vatican Council to give future pastors of the Church, and also all believers, an ecumenical education which aims to strive for the construction of one Church of Christ in the world. This education is especially important in the life of our Oriental Churches that live beside one another.

After presenting the unity challenge and the divisions danger, especially the roots of certain doctrinal issues, their branching and development throughout history, the course explores the situations of today's Churches and Christian communities, explains the foundations of ecumenical behavior, and determines ways that contribute to the reestablishment of Christian unity. The course outlines clearly the history of the ecumenical movement which emerged in the early twentieth century and which had deeply influenced the life of various Churches, by stimulating the desire for visible unity and communion among all Christians.

THEO231 Ecclesiology 3 cr.

Prerequisites THEO 220

This course is an introduction to Catholic ecclesiology found in the documents of the Second Vatican Council, particularly in the Dogmatic Constitution *Lumen Gentium*, its ultimate expression and the fundamental source of renewing the concept of Church in fidelity to the Bible and to Tradition. After a brief biblical introduction of the word "Church", we will first explore the Trinitarian foundation of the Church where the latter proves to be at the same time the *People of God*, *Body of Christ* and *Temple of the Holy Spirit*. In the second part, we will discuss the four Church attributes as mentioned in the Nicene-Constantinopolitan Creed, namely unity, holiness, catholicity and apostolicity. We will conclude by studying the Church's relationship with the world, from the perspective of the expansion of the reign of God in Jesus Christ. The theme of the Christian presence in Lebanon and the Middle East will also be highlighted.

THEO232 Christology 3 cr.

Christology is the core and foundation of the Christian dogma. It presents, develops and explains the fundamental profession of Christian faith: "Jesus of Nazareth is the Christ, the Son of God, our Lord and Savior." It is the principle of the whole Christian theology, and the short word of faith. The course is based on four main movements. The first is devoted to listening to the Word of God, the standard and basis of all Christological thoughts. After a brief introduction on historical research on Jesus, we will explore the original experience of the New Testament communities, seeking to present their testimony on Christ following its chronological and thematic development. The second movement

follows the development of faith in Jesus in the living Tradition of the Church, through the thought of the Fathers and the most important dogmatic decisions of the ecumenical councils. The third movement deals with contemporary Christology developed through a surprising variety of Christological movements which express, each in its own way, the present status of faith and the main place occupied by Christ in the life of Christians and every human being. Finally, in the fourth movement, Christology is reflected through soteriology which shows that personal communion with Jesus through faith achieves the aspiration of people for salvation and deification.

THEO241 Basics of Sacramental Theology and Liturgy 3 cr.

The sacraments cannot be understood or experienced unless they are based on a fundamental theological approach that highlights the sacramentality of the Church in relation to the salvation of Christ and the active role of the Holy Spirit. The objective of this course is to shed light on this approach and introduce students to the extensive and particular study of each sacrament.
The sacraments are celebrated in the community and communicate the energies of the Risen Christ by the action of the Holy Spirit. This celebration is always liturgical. For this reason, it is important to have an introduction to the theology of the liturgy of the Church and the Churches (especially Oriental) which determines the theological or ecclesial foundations, and underlines liturgical practices in relation to the celebration of the whole Christian ministry.

THEO251 Fundamental Moral Theology 3 cr.

This Fundamental Moral Theology course deals with the Christian action in a rational process, while relying on the Holy Scripture, and placing Tradition, Magisterium and human sciences within a contemporary situation scenario.
The course will particularly address: Biblical perspectives of moral theology, its creative evolution and fundamental principles, such as freedom, responsibility, will, the good and the bad in the act, conscience, law, sin, conversion, salvation and revelation, theological and human virtues, bliss as the end of all Christian actions.
Following a careful reading of the Veritatis Splendor encyclical and the document of the International Theological Commission on the natural law, we will present some new perspectives for moral thoughts, illustrated and enlightened by two concrete examples.

THEO260 Sacred Art 3 cr.

The objective of this course is to give students a general knowledge of religious visual representations in the fields of architecture, painting and sacred music from the early Christian period to the contemporary world.
This global vision of Christian art will take into account the main movements of the West and East, and the various monumental and minor art objects displayed in our churches and used during liturgical celebrations.
This will enable students to recognize the plans of churches and determine the architectural elements characterizing their style. They will also become able to differentiate between the sacred element of religious music, to clarify its role in liturgy, and determine the different genres and the various actors according to their grades and their roles.

THEO271 Ancient Church History 3 cr.

The objective of this course is to initiate students in the reading and understanding of Christianity during its rise and its religious, social and doctrinal development in ancient times. First, students will study the encounter/conflict between Christianity and Judaism, then the encounter/conflict between Christianity and the pagan Roman society on the religious and social levels. Second, students will examine the history of ideas and dogmas between the third and fifth centuries. This will lead students to the development of bilateral relations between Empire/Church and Christianity of the East and that of the West. A special attention will be given in this course to the historical development of the Antiochian Church.

THEO272 Patrology 3 cr.

This course aims to introduce students to the theology of the Church Fathers, as a living and unique testimony of the life of the Church during this period of the expression of faith, i.e. the period of the main ecumenical councils (1st - 8th century).

First, the course will outline the socio-cultural, theological and ecclesial backgrounds of the Fathers, then the biographical traits of their lives and the list of their works. Finally, the major axes of the theological thought of the Fathers will be identified based on the analysis of some representative texts. We will conclude by showing the role and the importance of Fathers in the life of the ancient and contemporary Church.

THEO281 Canon Law: Norms, Institutions and Persons 3 cr.

After an introduction to the norms of Canon Law, the course deals with the two sections on institutions and people in the Church organization (c. 1-583).

In the first part corresponding to the canons 1-322, we will clarify the concept of "the *Sui iuris* Church" and how a faithful Christian becomes a member, and we will show the variety of *Sui iuris* Churches which form part of the Oriental Churches, as well as their structures and their managing authorities.

As for the "People", we will deal with three categories of Christian believers: the clerics (323-398 c.), the lay persons (399-409 c.), the monks and other religious persons (410-583 c.), in order to show the legal status of each of these three categories in addition to their rights and duties.

THEO311 The Prophets 3 cr.

The course aims to study the prophets' school of thought, their writings, their role in the history of salvation and the major themes of their preaching. This course is based on a text analysis with all the available exegetical techniques. However, these writings are sacred and revealed texts, containing a theology and a religious message that are valid for every believer. It is therefore necessary to grasp their theological meaning and discover their relevance in our life today.

THEO312 Johannine Corpus 3 cr.

This is an introduction to the Johannine corpus, with particular emphasis on the fourth Gospel. The course will focus on the texts themselves, and on the different environments of their composition. In order to approach these testimonies of faith, passages under study are resituated in the historical context of their development and analyzed using narrative and rhetorical strategies used by the authors of communal and personal literary books.

THEO321 Theology of Religions 3 cr.

The course presents the Christian theology of religions within a perspective of fundamental theology in dialogue with other theological disciplines (anthropological, Christological, Trinitarian, ecclesiological and practical). Teaching focuses on the development of theology from the Second Vatican Council and aims to introduce students to the extensive reading of the relevant main texts of the Magisterium.

THEO331 The Holy Trinity 3 cr.

This course deals with the mystery of Trinity which is at the heart of the Christian faith, the core of the Gospel and the Christian mark of discourse about God. It starts with an introduction designed to show the place of Trinitarian theology in the whole Christian dogma, and consists of four parts, biblical, historical, systematic and patristic, in order to rejoin in their own site in the ever-actual "places" of any Trinitarian theology.

THEO335 Research Seminar: Dogmatic, Patristic and Sacramental Theology 2 cr.

Research seminars are designed to initiate students in dogmatic theology by examining the right methodological approaches while focusing on a book, author or theme. During the weekly meetings in

small groups, participants in seminars are invited to engage in discussion by revealing their thoughts and projects on a chosen theme, before producing a research paper.

THEO341 Sacraments of Christian Initiation 3 cr.

The course aims to highlight the theological foundations of the Sacraments of Initiation: baptism which gives access to the Body of Christ and the divine adoption, completed by the confirmation that is the work of the Holy Spirit living in the heart of the believers as in a temple, and crowned by the Eucharist which is the real and historical incorporation into the ecclesial body of Christ. The course is largely based on the baptism catechesis of Cyril of Jerusalem, Theodore of Mopsuestia and John Chrysostom, and shows the evolution of sacramental doctrine of the Church with special emphasis on the teaching of the Council of Trent.

THEO351 Social Ethics 3 cr.

The course deals with both the relationships between members of the same society, and those between various societies. It opens the way to a very wide field, that of social issues addressed from the perspective of the Church's social doctrine, and enables students to deepen their thoughts and actions on various themes: the dignity of the human being created in the image of God, human rights, labor as the key of social issues, economy, peace, politics, and role of the family.

In our analysis of the different themes of social doctrine, we will use their anthropological and theological foundations in the Scripture, the main principles developed by the Fathers of the Church and the teaching of the Magisterium stated in official documents from *Rerum Novarum* (1891) until *Centesimus Annus* (1991).

Finally, we will address the question of social morality from a pastoral point of view based on the current vision of the Church.

THEO352 Theology of Spirituality and Oriental Mystic 3 cr.

The dwelling of God in the human being and participation in the Trinitarian life are at the heart of the Christian faith. This course aims to deepen the scope of this statement in the light of biblical and spiritual tradition, by highlighting the essential dimensions of the Christian spiritual life: experimental (experience of God, marriage), Trinitarian (divine filiation, God's will, the paschal mystery, christocentricity, living in the Holy Spirit, gifts, charisma), ecclesial, liturgical (prayers), dynamic (path towards the union with God, stages of spiritual growth) and by presenting some great schools of Christian spiritualities and important figures who marked the history of Christian spirituality.

THEO361 Pastoral and Practical Theology 3 cr.

This course is an introduction to pastoral and practical theology. If theology was the Christian faith in search of its intelligence, the theological disciplines that offer theology students the keys to the broad "Science of God" and to its salvation in the world would be numerous and various. Practical (and pastoral) theology is one of these disciplines, but with the distinction of being more oriented towards the Christian praxis which brings together the different aspects of the Christian faith and its various transmissions in communities, parishes, groups, catechesis or others. The Christian experience is understood at this point as a "response" to the Word of God received by Revelation and "recovered" in the Tradition. This experience is "imposed" in practical (and pastoral) theology in a theological place where intelligence of the Christian faith occurs.

This discipline, as entitled in this course (pastoral and practical), covers two levels of thinking and research; the first "empirical" and the second "applied". The empirical level is that of practical theology which proceeds to an analytical reading of how faith is experienced among the People of God (theology of practice). The "applied" level is that of the pastoral theology which seeks to find the best way to convey and accompany faith among the People of God. In their quests of meaning, both types of theology, pastoral and practical, refer to theological knowledge conferred by all other theological disciplines, as well as to many other disciplines related to human sciences and others.

THEO371 Medieval Church History 3 cr.

The Middle Ages is positioned between Antiquity and Modern Times and lasts for almost a thousand years. It covers three major eras of civilization: Byzantium, the Occident and the Arab and Muslim World. Every civilization tries to forge the causes of its livelihood and life and interact with each other in different ways; sometimes by the development of trade and intellectual exchange, sometimes by the constraints of violence and war. The Church strives for this long period of being the vector of union, peace and intellectual and spiritual development. The course is assigned to teach students about the structures of permanence and change beyond the contingencies of turmoil.

THEO411 Pauline Corpus 3 cr.

The course mainly focuses on the thirteen epistles which are part of the Pauline school. It covers the epistles ranging from the Romans to Philemon, as ranked by our Bibles.
Before studying the epistles themselves, we start with two preliminary parts. The first part studies the life of the Saint Paul according to the Acts and to the epistles; the second part presents the epistolary genre, the categories of epistles and some hints for a better understanding of the studied epistles.

THEO412 Psalms and Wisdom Scriptures 3 cr.

The wisdom books are an assortment of the Old Testament books seeking to convey a moral teaching. This set includes the Psalms, Book of Job, Proverbs, Ecclesiastes, Song of Solomon, and Wisdom. Given its complexity, biblical wisdom requires a global approach to its various aspects, before covering in detail its modes of expression and its themes. This course will enable students to become more familiar with the Psalms and the other various wisdom books, in order to better grasp the development of wisdom harvested throughout the journey of the Israelites and which remains valid to this day, and to better understand the New Testament.
The course will shed light on the fundamental biblical themes found in the Psalms such promise, marriage, descent, land, blessing, royalty, messianism, worship, and fidelity.
The Wisdom literature will be studied; some books almost completely, others partially. An overview of each book will be given.

THEO421 Islam 3 cr.

This course is an introduction to Islam, as both a religion and a tradition consisting of various schools of thought. After examining the origin of Islam and the history and themes of the Quran, it approaches the major doctrinal and philosophical patterns of the different branches of Islam and their practices. Students are encouraged to engage in a dialogue with Muslims who constitute the major religion in the region.

THEO431 Christian Anthropology 3 cr.

This course consists of three distinct parts, namely the treatise of creation, the treatise of original sin and the treatise of grace. It aims to explain the content of the Christian doctrine of creation of the human being in God's image, with different biblical positions in opposition to scientific theories of origins. Then, the course examines the doctrine of original sin and attempts to formulate the problem of evil by explaining the impact of sin on the situation of the human being. After a brief overview on the scriptural doctrine of the original sin, we cover the Augustinian doctrine of the original sin, by reviewing ecclesial decisions and scholastic theology. At the end of the course, we tackle the theme of grace in order to better grasp the significance of salvation that culminates in the incarnation of Christ and the meaning of the human being's life as a creature totally open to Him, and this in communion with all creatures.

THEO432 Eschatology 2 cr.

In the Nicene symbol, the "resurrection of the flesh" and "eternal life" are the last explicitation of faith in the Holy Spirit. Life under the Holy Spirit possesses a dynamism that tends to a future fulfillment,

during which it will reach its entire fullness. The course is divided into two stages: first, we will study the general, collective and universal eschatology, that is to say, the completion of the world, and then move to the individual eschatology or the fulfillment of the individual. This order responds better to the account of the biblical history of salvation, and clarifies at the same time an intrinsic logic: hope for the individual is placed in a broader horizon, that of hope for the world

THEO441 Orders and Healing Sacraments 3 cr.

This course aims to help students discover the theological foundations of ministries and the sacraments of healing, penance and anointing of the sick.

The question of ministries is a particularly important chapter of ecclesiology, simply because the departments are above all in the service of the Church. This issue entails multiple dimensions: historical, sociological, theological, canonic, pastoral, and ecumenical, and it is conditioned by the realities of church life and, consequently, subject to constant evolution.

THEO451 Family Ethics, Sexuality and Marriage 3 cr.

Based on a Christian anthropology, marriage and sexuality involve human and spiritual attitudes, which, along with the physical and corporal activities related to it, engage the whole human person. The history of salvation progressively reveals the ultimate and deep meaning of sexuality and marriage, namely the love that is rooted in God's love. However, conjugal sexuality requires an awareness of the inevitable link between its many dimensions: physical, psychological, social, cultural and religious. Through their union, morality and Christian faith have values that grant dignity to human sexuality.

On the other hand, forms of cohabitation and marriage, influenced by gender theories, as the PACS, cohabitation, marriage for all, are on the rise in several societies, threatening therefore the "traditional" image of marriage and family. It is urgent and useful to rediscover the principles and values of the Catholic Church teachings on the sacrament of marriage and the family in order to meet the challenges that these forms cause to its pastoral care of the family.

THEO452 Bioethics 2 cr.

Human beings have gained more and more power over nature due to the development of science and technology. And thanks to advances in biology, they are seeking to control health, reproduction and genetics. Hence, the eternal question is: Is what is possible desirable? This biological-techno-scientific turmoil which underlies effective medicine meets another socio-cultural and ideological debate that has influenced the representations of life and death, health and sickness, care and preventive, and curative or palliative treatments. These changes have led to a huge social and intellectual phenomenon embodied with the emergence of the term bioethics in 1971.

The bioethics course covers three areas: reproductive technologies (artificial insemination, in vitro fertilization, prenatal diagnosis, abortion, contraception, and genetic engineering); the application of techniques at the end of life (euthanasia, palliative care, and organ harvesting); and medical experimentation on the human body and cloning.

THEO455 Research Seminar: Moral and Pastoral Theology 2 cr.

Research seminars are designed to initiate students in moral and/or pastoral theology by examining the right methodological approaches while focusing on a book, author or theme. During the weekly meetings in small groups, participants in seminars are invited to engage in discussion by revealing their thoughts and projects on a chosen theme, before producing a research paper.

THEO471 Modern and Contemporary Church History 3 cr.

From the Renaissance Church (16th century) to Vatican II (1962-1965)

This course covers five centuries, from the Renaissance Church (16th century) to Vatican II (1962-1965), and includes two parts: the first part focuses on the Renaissance in addition to the Protestant and Catholic reforms; the second part tackles the 19th and 20th century, the era of revolutions and adaptations. Luther's revolt in the 16th century and the 1789 Revolution are main events for society

and the Church. What had paved the way for them? Who are the main actors and what are their motivations? What were the challenges facing the Church in all fields, both doctrinal and pastoral, life of the clergy and involvement of the lay persons? A council marks each studied period: the Council of Trent and the Second Vatican Council. We examine how each of them blends tradition and adaptation, their development, their key documents, their receipt, their actors and especially the Popes from John XXIII to John Paul II. This course helps students learn to "read the signs of the times" through world events, in the middle of which the People of God live and to whom He was sent.

THEO481 Canon Law: Marriage 3 cr.

This course corresponds to the canons 667-775 about the sacraments, and 776-866 about marriage, of the Code of Canons of the Oriental Churches.

The course will help students to differentiate between what is licit and valid and what is illicit and invalid in the different sacraments. Special attention is given to the sacrament of marriage, with explanation of the historical development of this sacrament, and the novelty of the CCEO in relation to previous legislation; the pastoral and theological range of the canons will also be highlighted.

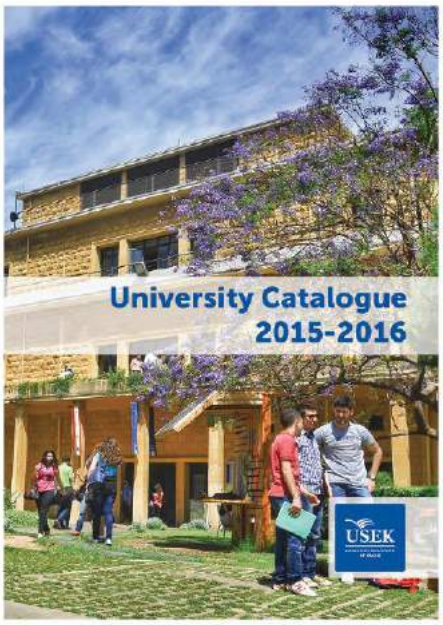
The adopted methodology helps students familiarize themselves with the code read and interpreted in class and they will learn the legal terminology. It grants them the ease of dealing with marital conflicts and introduces them to the appropriate bodies at the social, pastoral, or legal levels.

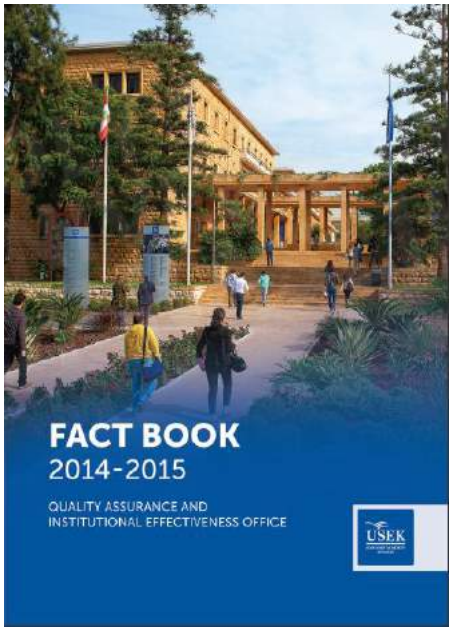
THEO499 Baccalaureate Comprehensive Examination 1 cr.

The scope of the comprehensive examination required to obtain the canonical Baccalaureate in theology is to ensure that students have acquired a methodological approach and are able to elaborate a theological synthesis in the major fields of the curriculum, i.e. biblical, dogmatic and moral theology.

QA-IE PUBLICATIONS

Below are other publications by the Quality Assurance and Institutional Effectiveness Office that are published on the University website and that could be important references for your review.





Quality Assurance and Institutional Effectiveness Office
Holy Spirit University of Kaslik
+961 9 600350-1-2 qualite@usek.edu.lb

USEK
HOLY SPIRIT UNIVERSITY OF KASLIK

P.O. Box 446, Jounieh, Lebanon
Tel.: 09 600 000
Fax: 09 600 100
usek@usek.edu.lb

usek.edu.lb