FACULTY OF ARTS AND SCIENCES

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1 FACULTY LIST

1.1 OFFICERS OF THE FACULTY

Warrak Elias	President
Bahr Georges	Acting Provost
Nakat (EL), Hanna	Dean

1.2 FACULTY STAFF

Aoun, Amal	Laboratory Supervisor and Instructor
Amaneddin Amir	Laboratory Instructor
Nagham Abou Chakra	Laboratory Supervisor
Bassil, Suzanne	Laboratory Instructor
Boulos, Elena	Laboratory-Supervisor
Elias, Sally	Administrative Officer, Dean's Office
Ghanem, Aline	Administrative Assistant
Jabbour, Aline	Administrative Officer
Khatib, Salah	Laboratory Assistant
Khoury, Bilal	Research Assistant
Khoury, Dalia Elsa	Laboratory Assistant
Khoury, Jalil	Studio Supervisor
Louka, Georgette	Laboratory Technician
Mitaweh, Aya	Laboratory Assistant
Nasr, Adele	Administrative Assistant
Nasr, Tamy	Administrative Assistant
Nafaa, Nour	Laboratory Assistant
Rubeiz, Imad	Lecturer
Saba, Julie	Executive Assistant
Shikhani, Miguel	Laboratory Supervisor
Tannous, Nathalie	Administrative Assistant; Dean's Office
Turk, Rehab	Laboratory Assistant
Zakhem, Michel	Laboratory Supervisor and Instructor

1.3 FACULTY MEMBERS

Abdelaziz, Abelrahman	Ph.D., Mathematics University of Sydney, Australia
Adra, Omar	Doctor of Education, Educational Leadership Saint Louis University, USA
Andary, Rabih	PhD Student in Cinema Lebanese University, Lebanon
Aouad, Samer	Ph.D., Physical Chemistry, Université du Littoral Côte d'Opale, France
Assaf, Noura	Ph.D in Politics and International Studies University of Warwick, UK
Atie, Elie	Ph.D., Physics Université de Franche-Comté, France
Attieh, Jihad	Ph.D., Plant Physiology & Biochemistry, Université de Montréal, Canada.
Bitar, Amine	Ph.D., Computer Science Bedford University, London
Barakeh, Bilal	PhD Mathematics National Pyrotechnic Institute of Lorraine-INPL-France
Chahine, Mirna	Doctorat en Biologie Cellulaire Université de Sherbrooke, Québec, Canada
Chami, Riad	M.S., Computer Science, University of Technology, Australia.
Chrabieh, Elie	PhD in Forensic Psychology (Interdisciplinary & Criminological Focus) Bournemouth University, UK
Crisan, Alexandre-Dan	TD in Physical Education, University of Bucharest, Romania
Dagher, Charbel	Doctorat, Lettres Arabes, Lebanese University, Lebanon.
Daher, Jalil	Ph.D. in Molecular Biology Université Libre de Bruxelles (ULB)
Dannawi, Dima	Doctorat en Sciences Humaines, spécialité : Informations et

	Communications, Université Saint Joseph
Debs, Espérance	Ph.D., Food Processing, Université de La Rochelle, France
Debs, Hamid	Ph.D., Biomedical Engineering, Université de Technologie de Compiègne, France.
Deek, Charles	Doctorat, Esthétique de l'Art, Université Paris VIII, France
Dib, Youssef	Ph.D. in Mathematics, University of Louisiana
Echtay, Karim	Ph.D., Biochemistry, Ludwig Maximillians University, Germany.
Fanous, lamis	Ph.D., English Language and Literature Lebanese University, Lebanon
Farah, Farah	Ph.D., Fundamental Mathematics Université Savoie Mont Blanc – France
Ferri, Fawzi	Diplôme, Entraîneur fédéral 3ème degré, CREPS-France.
Haddad, Samir	Doctor of Philosophy in Networking Systems, Ecole Doctoral Every Val d'Essone, Laboratoire Télécom Sud Paris, Ecole de l'Institut Mines-Paris
Hage (El), Rawad	Ph.D., Physical Education, Université D'Orléans, France.
Halabi (El), Elias	Ph.D., Philosophy, Birmingham University, United Kingdom.
Haidar, Marwan	BA in Physical Education University of Balamand
Homsi, Doris	PhD in Chemistry Applied to the Environment Université du Littoral Côte d'Opale, Académie de Lille, Dunkerque, France
Issa, Carmen	M.Sc., Computer Science, University of Balamand, Lebanon
Issa, Dima	Ph.D, Media and Communication University of Westminster, UK.
Jacob, Christophe	Ph.D., Physical Education, Rennes II University, France
Jourdi, Houssam	Ph.D., Molecular Neurobiology & Neuropharmacology, Brain Research Institute, Niigata University, Japan.
Kanaan, Marlène	Doctorat des Lettres, Philosophie, Université Saint Joseph, Lebanon.
Kanbar, Lodine	MA in Psychology Université Saint-Esprit de Kaslik
Karam, Marc	Ph.D., Biology, Surrey University, UK.
Kassab, Rima	Ph.D., Organic Chemistry, Université Claude-Bernard, France.
Khalil, Nour	Diplorne de doctorat Universite Polytechnique Hauts de France
Khoury (El), Noura	PhD in Neurobiology Laval University, Quebec
Khoury (El), Georges	Ph.D. Science and Techniques of Sports and Physical Activities Université Rennes 2, France
Khoury (El), Josiane	Ph.D., Sociology of Media, Holy Spirit of Kaslik University, Lebanon.
Kolakez, Pascale	MA in Psychologie Cliniqie et Psyhopathologie- Adolescents et Jeunes Adultes Université Rene- Descartes – Paris 5- France (2007)
Koussa, Ziad	Doctor of Philosophy Friedrich Alexander University Erlangen – Nuremberg, Germany
Lawand, Myriam	PhD in Immunology Curie Institute (Paris - France)
Maatouk, Roula	TESOL Certificate ; University of California, Los Angeles MA in International Journalism; Baylor University
Maatouk, Patricia	PhD in Applied Mathematics and Telecommunication Lebanese University & Ecole supérieure d'éléctricité (Supélec)- Rennes - France
Makhoul, Salim	Ph.D. in Sciences de l'alimentation (Food Science) Université de Dijon
Maliha, Elie	Doctorat en Sciences et Techniques des Activités Physiques et Sportives Université d'Orléans
Meouche, Walid	Ph.D. in Polymer Chemistry

	University of Toulon- sud Var, Toulon, France
Mitri, George	Ph.D., Forest Management, University of Trieste, Italy
Moussa, Elie	Ph.D., Physiologie et biomécanique de l'exercice musculaire, Rennes II, France.
Nader, Manal	Ph.D., Biology and Aquaculture, Hokkaido University, Japan
Nahas, Nayla	Ph.D., Psychologie, Université de Toulouse Le Mirail, France.
Nakat (El), Hanna	Ph.D., Physical Chemistry, University of New South Wales, Australia.
Nakhlé, Elie	Ph.D in English Linguistics Lebanese University
Nasr, Maria	Ph.D. Translation Studies (Traductologie) ESIT, Université Paris III, Sorbonne Nouvelle, France
Nasr, Zeina	Ph.D., Biochemistry, McGill University, Canada.
Nicolas, Maureen	Ed.D., Educational Management & Leadership, University of Leicester, UK.
Nicolas, Sameera	Ph.D., Education Keele University, Uk
Obeid, Pierre	Ph.D., Chemistry, University of Patras, Greece.
Riachi, Mireille	Ph.D., Education, Sorbonne Nouvelle University Paris III, France.
Rihan, Mohamad	Ph.D., Islamic History & Middle Eastern Studies, University of Cambridge, United Kingdom
Roumi- Salem, Laure	Ed.D. Education, University of Leicester, UK
Sabat, Mira	Ph.D., Mathematical Modelling, INSA of Strasbourg – University of Strasbourg – France
Serhan, Carla	Doctorat, I Sciences du Language, Université de Provence, Aix-Marseille I, France.
Shikhani, May	Ph.D., Applied Linguistics, University of London, UK.
Slim, Souad	Ph.D., History, University of Birmingham, England.
Tannous, Tony	Ph.D., Science, University of Sydney, Australia
Tassone, Giuseppe	Ph.D., Political Philosophy, University of York, England.
Yammine, Paolo	Ph.D., Chemistry, Université Paris XIII, France
Zain (Al), Ali	Ph.D., Physical Chemistry of Materials, Université de Montpelier II
Zakhem, Eddy	Doctorat en Sciences et Techniques des Activités Physiques et Sportives (STAPS). Université de Littoral Côte d'Opale-France
Zakhem, Imad	Ph.D., Computer Science URCA-France
Zgheib, Guenia	Ph.D. in Education George Mason University, Fairfax, VA, USA

2 PROGRAMS OF STUDY

The Faculty of Arts and Sciences offers the following degrees: For complete and detailed information regarding admission to the University, see the "Admissions" section at the beginning of this Catalogue.

Major	Years	Degrees	French Denomination	Lebanese Equivalence
Arabic Language and Literature	3 3+1	Bachelor of Art +Teaching Diploma	Licence +Diplôme d'Enseignement	Licence Licence d'Enseignement
Biology	3 3+1	Bachelor of Science +Teaching Diploma		
Chemistry	3 3+1	Bachelor of Science +Teaching Diploma		
Computer Science	3 3+1	Bachelor of Science +Teaching Diploma		
Education	3 3+1	Bachelor of Art +Teaching Diploma	Licence +Diplôme d'Enseignement	Licence Licence d'Enseignement
English Language and Literature	3 3+1	Bachelor of Art +Teaching Diploma	Licence +Diplôme d'Enseignement	Licence Licence d'Enseignement
Environmental Sciences	3 3+1	Bachelor of Science +Teaching Diploma		
French Language and Literature	3 3+1	Bachelor of Art +Teaching Diploma	Licence +Diplôme d'Enseignement	Licence Licence d'Enseignement
History	3	Bachelor of Art	Licence	Licence
Languages & Translation	3 3+1	Bachelor of Art +Teaching Diploma	Licence +Diplôme d'Enseignement	Licence
Mass Communication	3	Bachelor of Art	Licence	Licence
Mathematics	3 3+1	Bachelor of Science +Teaching Diploma		
Philosophy	3	Bachelor of Art	Licence	Licence
Physical Education	2	University Diploma in Sports Training	Diplôme Universitaire	D.U
	3 3+1	Bachelor of Art +Teaching Diploma	Licence +Diplôme d'Enseignement	Licence Licence d'Enseignement
Psychology	3	Bachelor of Art	Licence	Licence
Political Sciences & International Affairs	3	Bachelor of Art	Licence	Licence

3 UNDERGRADUATE PROGRAM

3.1 ADMISSION REQUIREMENTS

A. REFER TO GENERAL SECTION (Refer to UOB main catalogue)

B. ADMISSION OF TRANSFER STUDENTS

Candidates transferring from recognized institutions of higher education are eligible for consideration for admission subject to the following conditions:

* That they hold the Lebanese Baccalaureate or its official equivalent.
* That prior to their admission to the institution, from which they are transferring, they had met the requirements for admission to the University of Balamand.
* That they have successfully completed at least 20 transferrable credits or has successfully completed 1 year in the institution from which they are transferring.
* That they pass the required language(s) entrance examination and/or any other tests required by the Faculty.
* Such candidates may be given credit for courses completed in the institutions from which they are transferring if they have passed these courses with a minimum grade equivalent to 70. These courses must be approved for a degree from the University of Balamand. Further, the recommendation of the concerned department and the approval of the Dean are required. Candidates who believe that their previous academic training entitles them to advanced status may present their cases in writing to the Office of Admissions and Registration together with official transcripts of their records.

The Admissions Committee approves all cases of transfer.

3.2 GRADUATION REQUIREMENTS

To be eligible for graduation, students who enroll at the sophomore level must complete a minimum of 90 credits in courses numbered from 200 to 299, as described in the preamble and the established curriculum of each program.
Additional information on required academic performance and graduation with Honors is available under "Information for Undergraduate Students" in the General Information section of this Catalogue.

3.3 ACADEMIC RULES AND REGULATIONS

SCHOLASTIC STANDING:

In addition to the rules and regulations mentioned in the General Section stipulated under "Scholastic standing" in this Catalogue, the Faculty of Arts and Sciences stipulates that:
FAS students may register for a maximum of 18 credits per semester, including the credits of any remedial courses.

CHANGE OF MAJOR

To change a current major within the Faculty of Arts & Sciences or to transfer from any other Faculty of the University of Balamand to the Faculty of Arts & Sciences, a student must qualify for a clear standing status in the new department. Probationary acceptance may be granted to transferring students, who do not satisfy the above condition, upon the recommendation of the new department and approval of the Dean.

CREDIT LOAD

The full-time load ranges between 12 and 18 credits, with a recommended average of 15-16 credits per regular semester. A higher credit load is only considered under special circumstances (e.g. graduation) and requires the approval of the Dean. A maximum of 10 credits is acceptable for the Summer semester.

REGISTRATION IN GRADUATE COURSES

Undergraduate students enrolled in their final semester may register for up to two graduate courses if judged appropriate by the Department and approved by the Dean. Grades of such courses do not count towards their undergraduate average. Enrollment in graduate courses does not imply in any way an automatic admission to the corresponding Master program.

3.4 GENERAL PLAN OF STUDY-POS

Total Credits within a BS program **91 cr**

1	***University Requirements***			
	1.1	***English***		***6 cr***
		Any two 200-level English Courses		
	1.2	***CSPR***		***6 cr***
		Any two CSPR coded Courses		
	1.3	***CSPR equivalent***	***(****one or two courses****)***	***3 - 6 cr***
		A list of CSPR Equivalent courses is prepared and announced by the Department.		
	1.4	***LISP 200***	***(****free course****)***	***1 cr***
2	***Department Requirements***			
	2.1	*Courses from the Major*	*(minimum 40%, i. e., 36 credits)*	

	2.1.1	*Major Courses*	*--- cr*
	2.1.2	*Electives within the Department*	*--- cr*
	2.2	*General Education (service) Courses*	*--- cr*
3	***Free Electives***		***--- cr***

3.5 COURSE CODES

Each course is assigned a number of credit hours normally equivalent to the number of hours of classroom teaching per week. The letters preceding the course number indicate the area or subject of study to which the course belongs.

a. Numbers preceding course titles

1. Courses numbered from 000 to 099 are elementary language courses. Credit from such courses is not counted towards graduation, and their grades are not counted in the general averages on transcripts of records.
2. Courses numbered 100 are freshman courses.
3. Courses numbered 200 to 299 are undergraduate courses.

b. Numbers following course titles

1. The first number indicates the number of class hours per week.
2. The second number indicates the number of laboratory/practice hours per week.
3. The third number indicates the number of credit hours.
4. The last letter indicates the language of instruction of the course: E (English), F (French), A (Arabic),G (German), I (Italian), S (Spanish), C (Chinese), R (Russian), GR (Greek).

3.6 LABORATORY CHARGES

SUPPLIES

Each student taking laboratory subjects must furnish the necessary notebooks, blank forms, lab coat, and similar supplies at his/her expense. For regular students taking prescribed laboratory work, no charge will be made for normal amounts of expendable material used in connection with the laboratory subject. Expendable materials are those that are necessarily consumed or rendered unfit for further use by the normal conduct of a laboratory test. If an excessive amount of expendable material is required because of carelessness on the part of the student, the cost of the additional material will be charged to the student or group responsible.

DAMAGES

Students will be charged for damage to instruments caused by neglect. The amount of the charge will be the actual cost of repair, and if the damage results in total loss of the apparatus, adjustment will be made in light of the condition of the instruments. Where there is danger of costly damage, an instructor should be requested to check the equipment's set up. When a group does laboratory work, charges for breakage will be divided among the members of the group concerned. The amount of the charge will be stated immediately or as soon as it can be determined.

3.7 SUPPORT LABORATORIES

The laboratories that students will attend in support of the theoretical subjects include:

- Biology Labs.
- Chemistry Labs.
- Database Lab.
- Mathematics & Statistics Lab.
- Mobile Lab.
- Networking Lab.
- Physics Lab.
- Open Source Software Lab.
- Operating System Lab
- Research Lab
- Other Support Units: FAS runs a writing Center called the Writing and Communication Center (WACC) to facilitate students' development of their communication skills both written and oral. One-on-one or small group tutorials are offered free of charge. Students are encouraged to take advantage of this free resource. WACC is located on the bottom floor of Fares (F-109). Stop by to make an appointment or email: wacc@ balamand.edu.lb

4 DEPARTMENTS/MAJORS/COURSES

4.1 Department of Arabic Language & Literature

دائرة اللغة العربية وآدابها

رئيسة الدائرة: د. ماريا نصر **maria.m.nasr@balamand.edu.lb**

يهدف إعداد الطالب في الدائرة إلى حمله على تكوين صورة متكاملة عن العربية، لغة وأدباً، على امتداد تاريخها، وإلى تنمية روح التحليل والحس النقدي لديه. كما تعمل الدائرة على تأهيل الطالب الإنخراط في سوق العمل، في مجال التعليم أو الكتابة، وعلى تنمية ذائقته الأدبية وقدراته الفنية والجمالية. توفر الدائرة لطالبها فرصة تحصيل الشهادات التالية:

- بكالوريوس في اللغة العربية وآدابها

كما توفر الدائرة لطالب من خارج الدائرة فرصة تحصيل:

- تخصص جزئي في اللغة العربية وآدابها (minor).

كما يمكن للطالب، بعد البكالوريوس، تحصيل إجازة تعليمية في تعليم اللغة العربية في دائرة التربية في الكلية.

1. برنامج شهادة البكالوريوس (91 رصيداً):

I	**Plan of Study**		**برنامج شهادة البكالوريوس**	
Total Credits within a BA program		**(برنامج شهادة البكالوريوس)**		**91 cr**
1	***University Requirements***	متطلبات جامعية إلزامية		***19 cr***
	1.1 English (French)		6 cr	
	1.2 CSPR		6 cr	
	1.3 CSPR equivalent		6 cr	
	1.4 LISP 200	(free course)	1 cr	
2	***Department Requirements***	مقررات الدائرة		***57 cr***
2.1	*Courses from the Major (minimum 40%, i. e., 36 credits)*			
2.1.1	*Major Courses*		*51 cr*	
	ARAB 206	*3cr*		
	ARAB 207	*3cr*		
	ARAB 208	*3cr*		
	ARAB 210	*3cr*		
	ARAB 211	*3cr*		
	ARAB 231	*3cr*		
	ARAB 232	*3cr*		
	ARAB 233	*3cr*		
	ARAB 235	*3cr*		
	ARAB 236	*3cr*		
	ARAB 237	*3cr*		
	ARAB 238	*3cr*		
	ARAB 242	*3cr*		
	ARAB 243	*3cr*		
	ARAB 245	*3cr*		
	ARAB 246	*3cr*		
	ARAB 247	*3cr*		
2.1.2	*Electives within the Department*		*00 cr*	
2.2	*General Education (service) Courses*		*06 cr*	
	ARAB 201	*3cr*		
A student can choose any 3 credits from the courses below				
	ASTR 201	*Fundamentals of Astronomy*	*3 cr*	
	CSIS283	*Applied Digital Skills for Humanities*	*3 cr*	
	EVSC 201	*Introduction to Environmental Sciences*	*3 cr*	
	GEOL 201	*Fundamentals of Geology,*	*3 cr*	
3	***Free Electives***			***15 cr***

مطلوب درجة نجاح لا تقل عن 70٪ في المواد التالية: ARAB 206, 208, 210, 231 and 237

2 . برنامج اختصاص جزئي (15 رصيداً):

ARAB 207, ARAB 211, ARAB 231, ARAB 236, ARAB 237

List of Courses جدول المواد

ARAB 101 لغة عربية مستوى 1 ARABIC EXPRESSION TECHNIQUE-1 3.0:3 cr. A

يستند هذا المقرر، في تدريسه، إلى نصوص تعود لكبار الأدباء العرب، القدامى والحديثين، وتتخذ معالجة النصوص منحيين: منحى نحوي وظيفي، بما يؤدي إلى استخراج القواعد من النصوص وتعلمها، ومنحى لساني، يستهدف وظائف الكلام. ويهدف هذا المقرر
إلى جعل الطلاب قادرين على إنشاء نصوص في موضوعات مختلفة بلغة عربية سليمة.

ARAB 102 لغة عربية مستوى 2 ARABIC EXPRESSION TECHNIQUE-2 3.0:3 cr. A

يتناول هذا المقرر تدريب الطالب على الإستماع لنصوص مسجلة أو مقروءة، والتعبير عنها، والتباحث فيها شفاهة، وعرضها أمام
زمالائه في الصف، وعلى مبادىء أولية في النحو والصرف لجعله قادراً على كتابة صحيحة، بما في ذلك كتابة مقالة.

ARAB 201 لغة عربية مستوى 3 ARABIC EXPRESSION TECHNIQUE-3 3.0:3 cr. A

يتناول هذا المقرر موضوعات نحوية وصرفية وظيفية تؤهل الطالب للتواصل الشفهي والكتابي بلغة عربية سليمة من خلال قيامه
بمباحثات رصينة، وكتابة نصوص مركزة.
Coe-requisite: ENGL 003

ARAB 206 الشعر الجاهلي PRE-ISLAMIC POETRY 3.0:3 cr. A

يدرس هذا المقرر الشعر القديم مركزاً على محاوره الأساسية في التراث الجاهلي. كما يتناول نماذج من هذا الشعر يكشف من خلالها فنونه وأساليبه وأبعاده. ثم يعمد إلى تفحص الشعر الأموي بالمقابل مبيناً فيه ما استمر جاهلياً في خصائصه، وما طرأ عليه من أمور جديدة.

ARAB 207 الشعر العباسي -1 ABBASID POETRY -1 3.0:3 cr. A

يتناول هذا المقرر الشعر العباسي في طوره الأول، في مختلف مذاهبه واتجاهاته، مركزاً على ما طرأ على العصر من تحولات
تاريخية وفكرية وغيرها بانت آثارها في الإنتاج الشعري، مع توقف خاص عند عدد من أعلام هذا الشعر، من أمثال: بشار بن برد،
وأبي نواس، وأبي تمام وغيرهم.

ARAB 208 الشعر العربي الحديث MODERN ARABIC POETRY 3.0:3 cr. A

يتناول هذا المقرر درس التجديد وبواعثه ومؤثراته في الشعر العربي، منذ بداياته في أواخر القرن التاسع عشر وصوال إلى شعراء الحركة المهجرية وشعراء ما بين الحربين في لبنان، وانتهاء بحركة الشعر المعاصر في لبنان والعراق ومصر وغيرها. كما يتوقف هذا المقرر عند مجموعة من أعالم الشعراء المحدثين، من أمثال: بدر شاكر السياب وأدونيس وخليل حاوي وغيرهم.

ARAB 210 من علوم اللغة إلى اللسانية FROM SCIENCES OF LANGUAGES TO LINGUISTICS 3.0:3 cr.A

يعالج هذا المقرر القضايا اللغوية، صرفاً ونحواً واشتقاقاً، عند كبار اللغويين القدماء، من أمثال: سيبويه، والكسائي، ويحيى بن عمر، وابن مضاء القرطبي، متوقفاً عند أهم مؤلفاتهم. ويتناول مذاهب التجديد والتيسير عند بعض كبار اللغويين المعاصرين من أمثال: ابراهيم مصطفى، وابراهيم أنيس، وأنيس فريحة وعبد الله العالبلي، كما يتوقف عند بعض إسهامات العرب المحدثين في الدراسة اللسانية.

ARAB 211 الرواية العربية THE ARABIC NOVEL 3.0:3 cr. A

يدرس هذا المقرر فن الرواية والقصة في الأدب العربي، ابتداء من القرن التاسع عشر، ويرافق انتقالتهما في القرن العشرين، من المهجر الأميركي إلى الروائيين المحدثين في البلاد العربية، مركزاً على مجموعة مختارة من الروائيين المعاصرين، من أمثال :نجيب محفوظ، ويوسف إدريس، وتوفيق يوسف عواد، والطيب الصالح وسواهم.

ARAB 231 تاريخ الأدب العربي HISTORY OF ARABIC LITERATURE 3.0:3 cr. A

يتناول هذا المقرر الأدب العربي منذ نشأته حتى عصر النهضة، ويتطرق إلى العوامل المؤثرة في تطوره، حقبة بعد حقبة، متناولاً البيئات التي نشأ فيها، في جوانبها المختلفة من سياسية وثقافية ودينية واجتماعية، دارساً العلاقة بين الأدب والعصر، من خلال نماذج مختارة أدباء من مختلف العصور، بين ناثرين وشعراء.

ARAB 232 أدب التصوف SUFI LITERATURE 3.0:3 cr. A

يستعرض أدب المتصوفة، بين نثر وشعر، في أنواعه ومؤثراته، متوقفاً عند نصوصهم الأساسية وحركاتهم، ولا سيما منهم:
الحالج، والنفري، وفريد الدين العطار، وابن عربي وغيرهم.

ARAB 233 الأدب المهجري ARABIC LITERATURE IN THE AMERICAS 3.0:3 cr. A

يتناول أدباء العربية في المهجر، ولا سيما أدباء المهجر الشمالي، من أمثال: أمين الريحاني وجبران خليل جبران وميخائيل نعيمه وغيرهم، في آثارهم الشعرية والنثرية، متوقفاً عند ما أحدثوه من حركة تجديدية في الأدب العربي الحديث. كما يلم بأدباء المهجرالجنوبي، متوقفاً عند أعالمهم، مثل: الشاعر القروي، وفوزي المعلوف، وشفيق المعلوف، وشكرهلا الجر وغيرهم.

ARAB 235 من القرآن إلى رسالة الغفرانFROM THE QURAN TO THE EPISTLE OF FORGIVENESS 3.0:3 cr. A

يتناول المراحل التي مر بها النثر العربي في تطوره، مبنى ومعنى، من القرآن الكريم حتى أبي العلاء المعري، مركزاً على العوامل الدينية والفكرية والإجتماعية والسياسية المؤثرة في هذا التطور، ومتوقفاً عند أبرز أدباء الكتابة النثرية، خاصة في العصر العباسي، ومعتمداً نماذج مختارة من: عبد الحميد الكاتب، وابن المقفع، والجاحظ، والهمذاني، وأبي العلاء المعري وغيرهم.

ARAB 236 ألأدب الشعبي FOLK LITERATURE 3.0:3 cr. A

يتناول بالعرض والتحليل مواد مختلفة ومتنوعة مما يُطلق عليه »ألأدب الشعبي«، مبيناً أصوله بين عربية ودخيلة، من ثقافات وآداب أخرى تم تناقلها في أوساط العامة خصوصاً. هذا المقرر مركزاً على أعمال، مثل: سيرة بني هلال، والظاهر بيبرس، وألف ليلة وليلة وسواها من أساطير العرب وقصصهم، فضال عن الحكايات الساحرة والعجيبة.

ARAB 237 آداب النهضة ARAB RENAISSANCE LITERATURE 3.0:3 cr. A

يعالج الحقبة التاريخية المفصلية بين نهايات العهد العثماني وبدايات التحديث، مع نشأة الكيانات العربية. كما يتم في هذا المقرر معاينة أحوال الإنتقال بالإنفصال والتجديد، تاريخياً وثقافياً وأدبياً؛ كما يجري درس الأشكال ألأدبية الجديدة، كالشعر والرواية والمسرحية، في تطورها بين إحياء لجوانب من المتن الأدبي القديم وبين تجديد متأثر بالأداب الأوروبية.

ARAB 238 الشعر العباسي -2 2- ABBASID POETRY 3.0:3 cr. A

يتناول درس الشعر العباسي، ابتداء من العصر العباسي الثاني (مع خالفة المتوكل)، وصوال إلى الأدب الأندلسي، متوقفاً عند الخصائص التاريخية والثقافية والإجتماعية والفنية، ولا سيما عند الشعراء: ابن الرومي والبحتري والمتنبي، كما يبرز في أدب الأندلس خصوصياته وتأثره بالأدب المشرقي، ولا سيما عند ابن حزم وغيره.

ARAB 242 النقد االدبي الحديث MODERN LITERARY CRITICISM 3.0:3 cr. A

يعالج هذا المقرر النقد العربي في اتجاهاته الحديثة، ابتداء من القرن التاسع عشر وصوال إلى مدارسه الرئيسية في القرن العشرين، من المدرسة المهجرية إلى جماعة الديوان، وانتهاء بأعالمه المعاصرين في مصر ولبنان والعراق وغيرها. كما يركز في ذلك على الدور الذي لعبته مناهج النقد الغربية في مسار النقد العربي.

ARAB 243 النقد االدبي القديم CLASSICAL LITERARY CRITICISM 3.0:3 cr. A

يستعرض نشأة النقد ابتداء من المساجد والحلقات والمناظرات، وصوال إلى كتب الجمع والتفسير والشرح والتذوق والفلسفة، مبرزا قضايا النقد الأساسية التي دارت على: اللفظ والمعنى والموازنة الأدبية والنظم والنثر والإعجاز وعمود الشعر وغيرها؛ من خالل إسهامات أعلام النقد البارزين، مثل: الجمحي، والجاحظ، والآمدي، وقدامة بن جعفر، وعبد القاهر الجرجاني وغيرهم

.

ARAB 245 من العروض إلى الإيقاع FROM PROSODY TO RHYTHM 3.0:3 cr. A

يتناول درس المقاربات الصوتية (مخارج الحروف وصفاتها و "تقليبها" وغيرها)، والعروضية (بما فيها أشكال السجع) لدى العلماء العرب القدماء، ثم درس المقاربات عينها وفق اللسانيات الحديثة، بما يمكن الطالب من درس القصيدة الحديثة خصوصاً.

ARAB 246 المسرح العربي THE ARABIC DRAMA 3.0:3 cr. A

يتوقف عند نشأة الفن المسرحي عند العرب، ابتداء بمكوناته الأولى في القرن التاسع عشر، تراثية عربية أو غربية، وصوال إلى تكامله، سواء في لبنان أم في مصر، في القرن العشرين. كما يجري التركيز على قراءة نقدية لنماذج مختارة من مسرحيات أعالم هذا الفن على امتداد القرن التاسع عشر والقرن العشرين.

ARAB 247 من البالغة إلى علوم النص FROM RHETORIC TO DISCOURSE STUDIES 3.0:3 cr. A

يتناول درس العلوم المختلفة في البالغة (المعاني، البيان، البديع)، ويعرض بالتفصيل علم العروض، بالستناد إلى شواهد من نصوص قديمة وحديثة.

4.2 Courses In Astronomy

ASTR 201 Fundaments of Astronomy 3 3.0: 3 cr. E

This course teaches the fundamentals of astronomy. The course is an Introduction to the universe, its origins and its evolution, with emphasis on conceptual rather than mathematical comprehension. The course covers topics dealing with modern theories, observations, creation and evolution of the universe, and the variety of the objects that compose it, including stars, planets, galaxies, black holes, and dark matter. The history and social implications of astronomy are also addressed.

Pre-requisite: ENGL 101

4.3 DEPARTMENT OF BIOLOGY

Chair of Department: Jihad Attieh, Ph.D., jihad.attieh@balamand.edu.lb

UNDERGRADUATE PROGRAM

The primary mandate of the Department of Biology is to provide excellence in teaching at the undergraduate and graduate levels. The Department offers a comprehensive program, which exposes students to the full range of biological sciences. Our undergraduate three-year curriculum introduces students to modern studies in general, molecular, cell, and environmental biology. It also emphasizes active, hands-on experience with modern technology. Small class sizes with an emphasis on laboratories and tutorials foster ongoing, productive interactions between students and faculty.

The Department of Biology offers a Bachelor of Science Degree (B.Sc.) in Biology for students who have successfully undertaken a minimum of 91 credits of required courses provided that they satisfy all other graduation requirements set by the University.

UNDERGRADUATE PROGRAM: Regular or Premedical Tracks

Plan of Study (POS)

Total Credits within a BS program					**91 cr**
1. University Requirements					***19 cr***
1.1	English		6 cr		
1.2	CSPR		6 cr		
1.3	CSPR equivalent		6 cr		
1.4	LISP 200		1 cr		
2. Department Requirements					***63 cr***
2.1	*Courses from the Major*				
2.1.1	*Major Courses*			*33 cr*	
	BIOL 201	General Biology I	3 cr		
	BIOL 202	General Biology I Lab	1 cr		
	BIOL 203	General Biology II: An introduction to Physiology	3 cr		
	BIOL 204	General Biology II An introduction to Physiology Lab	1 cr		
	BIOL 207	General Ecology	3 cr		
	BIOL 213	Cell Biology	3 cr		
	BIOL 214	Cell Biology Lab	1 cr		
	BIOL 245	Plant Physiology	3 cr		
	BIOL 246	Plant Physiology Lab	1 cr		
	BIOL 251	Principles of Biochemistry	3 cr		
	BIOL 261	Microbiology	3 cr		
	BIOL 262	Microbiology Lab	1 cr		
	BIOL 283	Genetics	3 cr		
	BIOL 284	Genetics Lab	1 cr		
	BIOL 285	Molecular Biology	3 cr		
2.1.2	*Electives within the Department (Major Electives)*			*08 cr*	
	Students will choose 8 credits from the list below:				
	BIOL 208	General Ecology Lab	1 cr		
	BIOL 221	Zoology	3 cr		
	BIOL 222	Zoology Lab	1 cr		
	BIOL 223	Comparative Vertebrate Anatomy	3 cr		
	BIOL 224	Comparative Vertebrate Anatomy Lab	1 cr		
	BIOL 225	Animal Physiology	3 cr		
	BIOL 226	Animal Physiology Lab	1 cr		
	BIOL 227	Neurophysiology	3 cr		
	BIOL 229	Immunobiology	3 cr		
	BIOL 230	Immunobiology Lab	1 cr		
	BIOL 231	Developmental Biology	3 cr		
	BIOL 232	Developmental Biology Lab	1 cr		
	BIOL 233	Endocrinology	3 cr		
	BIOL 237	Principles of Human Physiology	3 cr		
	BIOL 238	Principles of Human Physiology Lab	1 cr		
	BIOL 241	Botany	3 cr		

	BIOL 242	Botany Lab	1 cr	
	BIOL 243	Plant Anatomy	3 cr	
	BIOL 244	Plant Anatomy Lab	1 cr	
	BIOL 263	Nutrition	3 cr	
	BIOL 265	Parasitology & Virology	3 cr	
	BIOL 267	Parasitology	3 cr	
	BIOL 271	Principles of Soil Science	3 cr	
	BIOL 273	Forensic Biology	3 cr	
	BIOL 286	Molecular Biology Lab	1 cr	
	BIOL 287	Biotechnology & Recombinant DNA	3 cr	
	BIOL 291	Special Topics in Biology	3 cr	
	BIOL 292	Seminars in Biology	1 cr	
	BIOL 293	Bioethics	3 cr	
	BIOL 295	Introduction to Research	3 cr	
2.2	*General Education (service) Courses*			*22 cr*
	CHEM 202	Basic Chemistry	3 cr	
	CHEM 203	Basic Chemistry Lab	1 cr	
	CHEM 240	Basic Organic Chemistry*	3 cr	
	CHEM 245	Organic Chemistry Lab I	1 cr	
	MATH 242	Statistics for Applied Sciences	3 cr	
	PHYS 211	Fundamentals of Physics I	3 cr	
	PHYS 212	Fundamentals of Physics I Lab	1 cr	
	PHYS 213	Fundamentals of Physics II	3 cr	
	PHYS 214	Fundamentals of Physics II Lab	1 cr	
	One course from the list below		3 cr	
	ARAB 201	*Arabic Expression III*	*3 cr*	
	CSIS 273	*Personal Computation Computing for Applied Sciences*	*3 cr* **	
	EVSC 201	*Environmental Sciences: Creating a Sustainable Future*	*3 cr*	
	MATH 290	*History of Mathematics*	*3 cr*	

3. Free Electives *09 cr*

*A Premedical Student, will take CHEM 242 & CHEM 244 (6 cr), instead of CHEM 240. Such student may only choose 6 credits as free electives.

** Recommended for pre-medicine students.

PROGRAM LEARNING OBJECTIVES

1. Introduce students to modern studies in general, molecular, cellular, organ systems and environmental biology
2. Emphasize active, hands-on experience with modern technology
3. Prepare the students to enter the workforce directly as research assistants, data analysts, science teachers or to go on to professional programs in medicine, pharmacy, medical sciences, biotechnology, or science education
4. Equip students with theoretical and practical knowledge to pursue graduate studies in biological sciences, with the aim of following a career in applied and basic academic research or in industry
5. Provide students with technical skills and knowledge to attain critical thinking and evaluation competencies essential for successful careers
6. Expose students to schools of thoughts and general education that sensitize them to current and future societal, environmental, and health-related challenges and problems.

PROGRAM LEARNING OUTCOMES

By the time that undergraduate students receive their degree from our program, they will:
1. Have gained sufficient understanding of the different biological facts and concepts
2. Have acquired knowledge on the most updated findings in different biology fields of study
3. Be able to think logically, communicate clearly and criticize their acquired biological knowledge and experimental skills
4. Be able to use scientific instrumentation and information technology and have acquired written, oral, and multimedia scientific communication skills
5. Be able to exert their acquired technical skills to successfully perform basic research techniques
6. Have acquired enough knowledge and skills to join and excel in professional programs in medicine, pharmacy, medical sciences, biotechnology and science education
7. Be outstanding members of the workforce by having adequate skills to retrieve, evaluate and communicate information from the scientific literature, electronic databases, and experimental data
8. Have enough skills to formulate and evaluate experimental research models based on observations of biological phenomena and apply quantitative methods to solve biological problems.

MINOR IN BIOLOGY

The minor in Biology allows students to gain valuable information in the field of biological sciences while completing their primary field of study. It also allows students to take advanced Biology coursework related to the main discipline. The Faculty of Arts and Sciences offers a Minor in Biology for students who have successfully completed a minimum of 15 credits of Biology courses as follows:

Code	Course Title	Credit
BIOL 201	General Biology I	3
BIOL 202	General Biology I Lab	1
BIOL 203	General Biology II: An introduction to Physiology	3
BIOL 204	General Biology II: An introduction to Physiology Lab	1

Any two courses (6 credits) and one lab (1 credit) picked from the following list*:

Code	Course Title	Credit
BIOL 207	General Ecology	3
BIOL 208	General Ecology Lab	1
BIOL 213	Cell Biology	3
BIOL 214	Cell Biology Lab	1
BIOL 225	Animal Physiology	3
BIOL 226	Animal Physiology Lab	1
BIOL 227	Neurophysiology	3
BIOL 229	Immunobiology	3
BIOL 233	Endocrinology	3
BIOL 237	Principles of Human Physiology	3
BIOL 238	Principles of Human Physiology Lab	1
BIOL 245	Plant Physiology	3
BIOL 246	Plant Physiology Lab	1
BIOL 251	Principles of Biochemistry	3
BIOL 261	Microbiology	3
BIOL 262	Microbiology Lab	1
BIOL 263	Nutrition	3
BIOL 273	Forensic Biology	3
BIOL 283	Genetics	3
BIOL 284	Genetics Lab	1
BIOL 285	Molecular Biology	3
BIOL 286	Molecular Biology Lab	1
BIOL 287	Biotechnology & Recombinant DNA	3
BIOL 291	Special Topics in Biology	3
BIOL 292	Seminars in Biology	1
BIOL 293	Bioethics	3
BIOL 295	Introduction to Research	3

* If carefully chosen, these courses may present a minor with a specific concentration.

BACHELOR'S DEGREE

This is a Sample Course Distribution

SEMESTER 1

Course Code	Course Title	Credit
BIOL 201	General Biology I	3
BIOL 202	General Biology I Lab.	1
CHEM 202	Basic Chemistry	3
CHEM 203	Basic Chemistry Lab.	1
CSIS 273	Personal Computing for Applied Sciences	3
ENGL 203	English Communication Skills III	3
LISP 200	Library Use and Research Methods*	1
Total		**15**

SEMESTER 2

Course Code	Course Title	Credit
BIOL 203	General Biology II: An introduction to Physiology	3
BIOL 204	General Biology II: An introduction to Physiology Lab.	1
CHEM 240	Basic Organic Chemistry**	3
ENGL 204	English Communication Skills IV OR Equivalent	3
MATH 242	Statistics for Applied Sciences	3
PHYS 211	Fundamentals of Physics I	3
PHYS 212	Fundamentals of Physics I Lab.	1
Total		**17**

SEMESTER 3

Course Code	Course Title	Credit
BIOL 283	Genetics	3
BIOL 284	Genetics Lab.	1
CHEM 245	Organic Chemistry Lab I.	1
CSPR	Cultural Studies	3
BIOL 213	Cell Biology	3
BIOL 214	Cell Biology Lab.	1
	Free Elective	3
Total		**15**

SEMESTER 4

Course Code	Course Title	Credit
BIOL 251	Principles of Biochemistry	3
BIOL 285	Molecular Biology	3
CSPR	Cultural Studies	3
PHYS 213	Fundamentals of Physics II	3
PHYS 214	Fundamentals of Physics II Lab.	1
	Major Elective	3
Total		**16**

SEMESTER 5

Course Code	Course Title	Credit
BIOL 207	General Ecology	3
BIOL 261	Microbiology	3
BIOL 262	Microbiology Lab.	1
CSPR	Cultural Studies	3
	Major Elective	3
	Major Elective Lab.	1
Total		**14**

SEMESTER 6

Course Code	Course Title	Credit
BIOL 245	Plant Physiology	3
BIOL 246	Plant Physiology Lab.	1
CSPR	Cultural Studies	3
	Major Elective Lab.	1
	Free Elective	3
	Free Elective	3
Total		**14**
Total credits		**91**

*** This is a free-of-charge University-Required course.**
****A Premedical student must take CHEM 242 and CHEM 244.**

Electives in the Department of Biology

Code	Course Title	Credit
BIOL 208	General Ecology Lab*	1
BIOL 221	Zoology	3
BIOL 222	Zoology Lab	1
BIOL 223	Comparative Vertebrate Anatomy	3
BIOL 224	Comparative Vertebrate Anatomy Lab	1
BIOL 225	Animal Physiology*	3
BIOL 226	Animal Physiology Lab*	1
BIOL 227	Neurophysiology*	3
BIOL 229	Immunobiology*	3
BIOL 230	Immunobiology Lab	1
BIOL 231	Developmental Biology*	3
BIOL 232	Developmental Biology Lab	1
BIOL 233	Endocrinology*	3
BIOL 241	Botany	3
BIOL 242	Botany Lab	1
BIOL 243	Plant Anatomy	3
BIOL 244	Plant Anatomy Lab	1
BIOL 263	Nutrition*	3
BIOL 265	Parasitology & Virology	3
BIOL 267	Parasitology	3
BIOL 271	Principles of Soil Science	3
BIOL 273	Forensic Biology*	3
BIOL 286	Molecular Biology Lab*	1
BIOL 287	Biotechnology & Recombinant DNA*	3
BIOL 291	Special Topics in Biology*	3
BIOL 292	Seminars in Biology*	1
BIOL 293	Bioethics*	3
BIOL 295	Introduction to Research*	3

* Electives in Biology that are offered presently.

COURSE DESCRIPTIONS

All BIOL courses require at least ENGL 101 as co-requisite.

BIOL 201 GENERAL BIOLOGY I **3.0: 3 cr. E**

This introductory course explores the fundamental principles of biology. Topics include the scientific method, cell structure and function, biological macromolecules, genetics, molecular biology, energy transfer through living organisms, and the basic concepts of classification and evolution. The course focuses on understanding biological processes at the cellular and molecular levels, prepaing students for more advanced studies in the life sciences.

BIOL 202 GENERAL BIOLOGY I LABORATORY **0.3: 1 cr. E**

This is the first direct encounter of students with the concrete world of biology. Experiments will cover the subjects and theories introduced in course work. The student will then acquire a working knowledge of biology, and will be familiar with much of the overall aspects of our surrounding environment. In a laboratory framework, many details of the biological world will be explored and thus will become clearer and better understood.
Co-requisite: BIOL 201

BIOL 203 GENERAL BIOLOGY II: AN INTRODUCTION TO PHYSIOLOGY **3.0: 3 cr. E**

General Biology II is designed to supplement the information learned in General Biology I. It is intended to biology majors, pre-health professionals, or those needing an in-depth biology sequence. The course gives a general overview of structure and life processes in animals. Presented with an evolutionary perspective, representative organisms of the various classes are examined with a dissecting eye, through which the animal body is discovered. The course strongly emphasizes comparative animal physiology, showing the structural, functional, and behavioral adaptations that help animals meet environmental challenges. A comparative approach is used to examine how various animal groups have solved similar and diverse problems.

Pre-requisite: BIOL 201

BIOL 204 GENERAL BIOLOGY II: AN INTRODUCTION TO PHYSIOLOGY LABORATORY 0.3: 1 cr. E

General Biology II Laboratory is an active learning experience about different types of tissues and organs in the animal kingdom. Experiments will cover the subjects and theories introduced in course work. Details of the biological world, particularly those aspects which cannot be seen with the unaided eye, remain to be understood, and explored. The way of knowledge acquisition suggested in each session enables students not only to be active recipients to information but will also develop their scientific skills in biology through the performance of observing, inquiring, and reporting about living things.
Co-requisite: BIOL 203

BIOL 205 PRINCIPLES OF HUMAN BIOLOGY 3.0: 3 cr. E

Principles of Human Biology is designed to provide a basic overview of human biology, starting from the most elementary fabrics of life and moving up to the organ systems that make the sophisticated living marvel, the human body. The material of this course is intended to those who are in need of an encompassing view of the human body without necessarily going into the fine details that govern the functions of cells, organs and organ systems. This is an ideal bridging course for individuals coming from all backgrounds. This course is not offered to students majoring in Biology and cannot be counted as a Premedical course.
Biology and pre-medicine students can not register for this course
Students cannot receive credit for both BIOL 201 and BIOL205.

BIOL 207 GENERAL ECOLOGY 3.0: 3 cr. E

Origin and evolution of the biosphere, introduction to climates, ecosystems and biomes. A study of the interrelations of organisms and their environments. Principles of growth, regulation, distribution, structure and energetics of populations and communities are explored.

BIOL 208 GENERAL ECOLOGY LABORATORY 0.3: 1 cr. E

Field and Laboratory exercises illustrating concepts of general ecology. Students will apply ecological techniques and methods to collect data, do the analysis and develop a scientific report. Laboratory sessions involve field and category as well as simulation workd. Fieldwork includes Quadrat to identify plant diversity, Line to identify changes according to the environmental gradients and CO2 sequestration. Mark-recapture is also used to measure mobile populations, statistics in evology and Island Biogeography.
Co-requisite: BIOL 207

BIOL 213 CELL BIOLOGY 3.0: 3 cr. E

A general description of the structure and function of cellular organelles and cell components, with emphasis on mechanisms of cellular sorting, cell signaling and interactions between the cell and its environment. In addition, the course covers the cell cycle and mechanisms of programmed cell death and cellular transformation.
Pre-requisite: BIOL 203

BIOL 214 CELL BIOLOGY LABORATORY 0.3: 1 cr. E

This course aims to equip students with essential cell biology laboratory skills. Students will learn to qualify cells in a suspension and determine cell size using microscopy teachniques. They will also gain proficiency in preparing agarose and acrylamide gels, performing and maintaining cell cultures, and grasping the essential concept of Flow Cytometry and ELISA. Finally, the course covers identifying specific amino acids and sugars in mixtures and sepearting cell organelles using differential centrifugation.
Co-requisite: BIOL 213

BIOL 221 ZOOLOGY 3.0: 3 cr. E

A general introduction to protists and animals without backbones. Emphasis placed on evolutionary and ecological relationships that make an understanding and appreciation of this diverse group of animals possible. A study of the vertebrates with regard to their systematics, ecology, and behavior.
Pre-requisite: BIOL 201

BIOL 222 ZOOLOGY LABORATORY 0.3: 1 cr. E

Exercises designed to introduce students to the 95 percent of all animals without a backbone. Identification of representative vertebrates through examination of specimens.
Co-requisite: BIOL 221

BIOL 223 COMPARATIVE VERTEBRATE ANATOMY 3.0: 3 cr. E

A comparative study of the functional adaptations, which caused structural changes in different chordate animals with special emphasis on the human anatomy.
Pre-requisite: BIOL 203

BIOL 224 COMPARATIVE VERTEBRATE ANATOMY LABORATORY 0.3: 1 cr. E

A practical comparison of the anatomy of different vertebrates ranging from simplest forms to the most complex especially human.

Co-requisite: BIOL 223

BIOL 225 ANIMAL PHYSIOLOGY 3.0: 3 cr. E

The course is a well-organized and engaging treatment of the fundamental principles of animal physiology with an emphasis on human physiology. Throughout the course, the aim is to integrate concepts from all levels of biological organization to explore the nature of diversity in cells, physiological systems, and whole animals. The course also entails a comparative study of physiological systems, circulation, respiration, reproduction, osmoregulation and excretion, nervous and endocrine coordination.
Pre-requisite: BIOL 203

BIOL 226 ANIMAL PHYSIOLOGY LABORATORY **0.3: 1 cr. E**

Experimental investigation of various functions of cells by isolation and characterization of subcellular parts and examination of cellular processes such as membrane transport and cell excitability. Experimental examination of the various vertebrate organ systems and how different animals deal with physiological problems.

Co-requisite: BIOL 225

BIOL 227 NEUROPHYSIOLOGY **3.0: 3 cr. E**

An upper level course on the nervous system comprising organizational studies of molecular, cellular, circuit- level and behavioral aspects of brain functions. This course also offers detailed examination of biochemical and physiological central nervous system processes and the basics of various neurological and behavioral disorders.

Pre-requisite: BIOL 213

BIOL 229 IMMUNOBIOLOGY **3.0: 3 cr. E**

The course provides basic knowledge of the immune response and its involvement in health and disease. Introductory concepts of immunity, structure and function of the immune system, antigens and antibodies, complement, genetic basis of the immune response, humoral and cellular immunity, immunological tolerance, organ and tissue transplantation, allergy and autoimmunity.
Pre-requisite BIOL 203

BIOL 230 IMMUNOBIOLOGY LABORATORY **0.3: 1 cr. E**

This course discusses subjects related to the mammalian immune system along with the application of various techniques used in the field of immunology such as leukocyte count, western blotting, immunoprecipitation, and ELISA.
Co-requisite: BIOL 229

BIOL 231 DEVELOPMENTAL BIOLOGY **3.0: 3 cr. E**

This course is a study of the fundamental principles and mechanisms that govern development in various animals, with an emphasis on the cellular and molecular aspects that control this development.
Pre-requisite: BIOL 213

BIOL 232 DEVELOPMENTAL BIOLOGY LABORATORY **0.3: 1 cr. E**

Thorough practical investigation of the different developmental stages in a number of animals belonging to different classes.
Co-requisite: BIOL 231

BIOL 233 ENDOCRINOLOGY **3.0: 3 cr. E**

This course examines hormones, their structures, synthesis, secretion, role, and regulation. It also deals with endocrine diseases and disorders. This course gives special attention to hypothalamic hormones, their homeostatic regulation by the hypothalamus-pituitary axis. The course covers the molecular, hormonal and neural bases of sexual dimorphism and consequences on adult pathophysiology and behavior. Students are exposed to primary research in the form of published research articles.
Pre-requisite: BIOL 203

BIOL 237 PRINCIPLES OF HUMAN PHYSIOLOGY **3.0: 3 cr. E**

The course is organized around the physiology of the human body, with emphasis on the major organ systems. Throughout the course, the aim is to integrate concepts from all levels of organization to explore the nature of diversity in cells, the tissues, the organs and the physiological systems. The course entails a study of circulation, respiration, reproduction, osmoregulation and excretion, nervous and endocrine coordination.
Pre-requisite: BIOL203

BIOL 238 PRINCIPLES OF HUMAN PHYSIOLOGY LABORATORY **0.3: 1 cr. E**

Experimental investigation of various functions of representative tissues by isolation and characterization of cellular processes, such as membrane transport and cell excitability. Examination of the various organ systems and how they deal with physiological problems.
Co-requisite: BIOL237

BIOL 241 BOTANY **3.0: 3 cr. E**

An evolutionary survey of the plant kingdom: Classification, morphology and anatomy, adaptations for survival, and representative types and life cycles from the simplest to the most advanced groups.
Pre-requisite: BIOL 201

BIOL 242 BOTANY LABORATORY **0.3: 1 cr. E**

Field and laboratory exercises to study plants ranging from the simplest to the most advanced groups. Identification of structural features of lower and higher plants.
Co-requisite: BIOL 241

BIOL 245 PLANT PHYSIOLOGY **3.0: 3 cr. E**

Selected aspects of the chemical and physical processes occurring in plants, including water relations and transpiration, photosynthesis, respiration, translocation of sugars, the assimilation of nitrogen and sulfur, mineral nutrition, growth and development, phytohormones and the metabolism of natural products.

Pre-requisite: BIOL 201
Co-requisite CHEM 240/CHEM 244

BIOL 246 PLANT PHYSIOLOGY LABORATORY **0.3: 1 cr. E**

Introduction to experimental techniques used to study the biochemistry and physiology of plant growth. Students get to experience the extent of transpiration, symptoms of mineral deficiencies, varieties of natural products and hormonal action.
Co-requisite: BIOL 245

BIOL 251 PRINCIPLES OF BIOCHEMISTRY **3.0: 3 cr. E**

The course is designed to introduce the basic concepts of biochemistry. Coverage includes a thorough description of the biochemical framework: amino acids, proteins, enzymes, lipids, carbohydrates & nucleic acids. In addition, the course provides an overview of bioenergetics and metabolism and an in-depth description of cellular respiration, and lipid oxidation.
Pre-requisite: BIOL201
Co-requisite: CHEM 240/CHEM 244

BIOL 261 MICROBIOLOGY **3.0: 3 cr. E**

This is an introductory microbiology course with emphasis on health sciences. It explores the biology of microorganisms through three areas of concentration. Among the overarching principles first explored: study of the microbial structure and function, growth of microorganisms, metabolic pathways, genetic variations and mutations, and environmental impact of microorganisms. The next section encompasses the most common disease-causing bacteria, the challenges posed, antibiotics and antibiotic resistance. The beneficial effect they have on our health through bacterial antagonism is specifically highlighted. The last part is devoted to the study of viruses and virus-like agents, and the multiple diseases caused by these infectious particles.
Pre-requisite: BIOL 203

BIOL 262 MICROBIOLOGY LABORATORY **0.3: 1 cr. E**

The goal of this laboratory is to expose the students to the fascinating dynamic world of microbiology and make students aware of microbes in their daily lives. It is therefore designed to introduce the students to the basic microbiological techniques of bacterial isolation, purification, staining and observation, identification, counting and growth. Moreover, the student is encouraged to develop a constant awareness of the presence and ubiquity of microorganisms and their relationship to the human world.

Co-requisite: BIOL 261

BIOL 263 NUTRITION **3.0: 3 cr. E**

The course encompasses an integrated overview of the physiological requirements of energy and functions of the major nutrients that are determinants of health and disease. The topics covered also include dietary sources of nutrients, intake levels along with energy input and output, assessment of health status in individuals and populations, the development of dietary guidelines and nutrition policies in different countries, and the role of diet in the development of chronic diseases, body composition assessment, and sports nutrition. A special emphasis is given to the impact of intestinal microbiome on human health through presentations based on the latest research in the field.

Pre-requisite: BIOL251

BIOL 265 PARASITOLOGY & VIROLOGY **3.0: 3 cr. E**

General description of animal parasites: classification, morphology, life cycles and physiology.

Pre-requisite: BIOL 203

BIOL 267 PARASITOLOGY **3.0: 3 cr. E**

This course covers the basic aspects of parasites. Topics covered include morphological forms, developmental life cycle, transmission mechanisms, diagnosis, immunology, epidemiology, treatment and control of various parasites affecting humans. During this course, students will also have the chance to present and discuss the latest research articles related to parasite vaccine development and potential anti-parasitic drugs.

Pre -requisite: BIOL 201

BIOL 271 PRINCIPLES OF SOIL SCIENCE **3.0: 3 cr. E**

Introduction to soil science with an emphasis on soil genesis and development. Overview of the physical and mechanical characteristics. Plant, soil, water relations, microbial activities, and organic matter will be discussed.
Co-requisite: CHEM 240/CHEM244

BIOL 273 FORENSIC BIOLOGY **3.0: 3 cr. E**

Forensic biology is an application of concepts and procedures utilized in biological science in a medico-legal context. Students will learn to analyze cellular and tissue samples as well as physiological fluids and other biological evidence that are relevant for forensic investigation and legal cases.
Pre-requisite: CHEM202, BIOL203

BIOL 283 GENETICS **3.0: 3 cr. E**

With this course, an undergraduate student will be exposed to a clear, comprehensive, and balanced introduction to genetics and genomics. The material deals with transmission genetics and molecular genetics, as fully integrated subjects, and provides an understanding of the basic processes of gene transmission, mutation, organization, replication, expression, and regulation. It also provides a brief overview in relation to the genetics of bacteria and extra-nuclear inheritance as well as the chromosome organization, behavior and abnormalities.

Pre -requisite: BIOL201

BIOL 284 GENETICS LABORATORY **0.3: 1 cr. E**

This laboratory is designed to familiarize the students with several concepts and techniques applied in the field of Genetics. The students will be exposed to the DNA structure, the transmission genetics applications and the principle of DNA sequencing. In addition, they will practice DNA extraction and amplification as well as DNA separation on agarose gel for the detection of DNA polymorphisms. This lab is also intended to introduce students to the techniques that are used for the preparation of a metaphase chromosome spread in order to screen for chromosomal abnormalities in the field of cytogenetics.

Co-Requisite: BIOL 283

BIOL 285 MOLECULAR BIOLOGY **3.0: 3 cr. E**

With this course, the student will acquire knowledge in the field of modern molecular biology as it covers the molecular mechanisms of gene expression and regulation at the transcriptional and post-transcriptional level in eukaryotes, as well as the fundamental aspects of recombinant DNA technology and the most recent techniques that are used in the field. It also provides a brief overview of the regulation of protein function in eukaryotes with major emphasis on the methods that are used to study the relevant mechanisms in the cell. The course also re-examines the different types of signaling pathways that control gene activity in the eukaryotic cell model by highlighting their role in health and disease.
Pre-requisite: BIOL 283

BIOL 286 MOLECULAR BIOLOGY LABORATORY **0.3: 1 cr. E**

Elective laboratory that includes an introduction to DNA, RNA and protein extraction, purification and separation techniques and recombinant DNA technology.
Co-requisite: BIOL 285

BIOL 287 BIOTECHNOLOGY & RECOMBINANT DNA **3.0: 3 cr. E**

A course which deals with recombinant DNA technology and its uses in the various fields of biology such as plant and animal amelioration, and bioremediation.
Pre-requisite: BIOL283

BIOL 291 SPECIAL TOPICS IN BIOLOGY **3.0: 3 cr. E**

Course discussing various topics of Biology with special contemporary importance. Subjects may include advances in technical and theoretical knowledge as well as discussions of specific topics like cancer, cloning, theoretical biology, etc.
Pre-requisite: BIOL 203

BIOL 292 SEMINARS IN BIOLOGY **1.0: 1 cr. E**

Seminar-based course discussing topics of high interest presented by invited or resident faculty. Students will learn how to write and present a term paper relevant to the course contents.
Pre-requisite: BIOL 203

BIOL 293 BIOETHICS **3.0: 3 cr. E**

This course introduces the students to the field of bioethics, its broad multidisciplinary remit, and to the most influential moral theories, which inform analysis of ethical questions in the field of Life Sciences, broadly conceived. The course will cover and explore a range of topics to facilitate the learning experience and development of skills in moral reasoning and ethical analysis. Topics include autonomy, paternalism, truth-telling, confidentiality, informed consent, life and death, reproductive technology, genetic engineering, research ethics, pandemic ethics and justice in healthcare.
Pre-requisite: BIOL 203

BIOL 295 INTRODUCTION TO RESEARCH **3.0: 3 cr. E**

This course relates to research bases and methodology, study designs, oral communication, bibliographic handling, and writing (Elaboration of a grant proposal, basic principles and methods in article writing, critique of an article). It also consists of understanding, dissecting, and presenting a scientific paper. This course is of special importance for students who wish to expand their presentation, comprehension, and writing skills in scientific research, since oral and written communication are the foundations of a successful career as a scientist.

Pre-requisite: ENGL203, BIOL203

Regarding the course descriptions for CSPR, CSPR-Equivalent, CSIS, ENGL, MATH, PHYS, Elective courses, refer to the corresponding Department.

4.4 DEPARTMENT OF CHEMISTRY

Chair of Department: Pierre Obeid, Ph.D., pierre.obeid@balamand.edu.lb

BACHELOR'S DEGREE

MISSION STATEMENT

The Department of Chemistry aims to provide its students, within the BS program, with the opportunity to learn about the traditional four main fields of chemistry and the corresponding emerging fields. This will be done through classroom courses, laboratory courses and research. Students are anticipated to acquire the basic concepts of chemistry, develop communication skills, as well as critical and analytical thinking. This will qualify them for opportunities in fields of education, industry, research (science, environment, health) and present them as scientifically literate citizens.

Plan of Study (POS)

Total Credits within a BS program **91 cr**

1 University Requirements ***19cr***

1.1	English	6 cr	
1.2	CSPR	6 cr	
1.3	CSPR equivalent	6 cr	
1.4	LISP 200	1 cr	

2 Department Requirements ***57 cr***

2.1 Courses from the Major (minimum 40%, i. e., 36 credits)

2.1.1 Major Courses *39 cr*

CHEM 202	Basic Chemistry	3 cr
CHEM 203	Basic Chemistry Lab	1 cr
CHEM 222	Analytical Chemistry	3 cr
CHEM 224	Instrumental Analysis	3 cr
CHEM 242	Organic Chemistry I	3 cr
CHEM 244	Organic Chemistry II	3 cr
CHEM 245	Organic Chemistry Lab I	1 cr
CHEM 246	Applied Molecular Spectroscopy	3 cr
CHEM 247	Physical Organic Chemistry Lab	1 cr
CHEM 260	Statistical Mechanics and Thermodynamics	3 cr
CHEM 262	Physical and Chemical Kinetics	3 cr
CHEM 264	Quantum Theory and Structure of Matter	3 cr
CHEM 270	Inorganic Chemistry I	3 cr
CHEM 272	Inorganic Chemistry II	3 cr
CHEM 299	BS Project	3 cr

2.1.2 Electives within the Department *01 cr*

Students are requested to choose one of the 1-credit courses from the list below:

CHEM 223	Analytical Chemistry Laboratory	1 cr
CHEM 263	Physical Chemistry Laboratory	1 cr
CHEM 273	Inorganic Chemistry Laboratory	1cr
SEED 201	The Social service Experience	1 cr
SEED 202	The Education Service Experience	1 cr
SEED 203	The Environment Service Experience	1 cr
SEED 204	The Community Service Experience	1 cr

2.2 General Education Courses *17 cr*

MATH 200	Calculus I	3 cr
MATH 270	Differential Equations	3 cr
PHYS 211	Fundamentals of Physics I	3 cr
PHYS 212	Fundamentals of Physics I Lab	1 cr
PHYS 213	Fundamentals of Physics II	3 cr
PHYS 214	Fundamentals of Physics II Lab	1 cr

One course from the list below 3 cr

ARAB 201	*Arabic Expression III*	*3 cr*
CSIS 273	*Personal Computation Computing for Applied Sciences*	*3 cr* *
EVSC 201	*Environmental Sciences: Creating a Sustainable Future*	*3 cr*
MATH 290	*History of Mathematics*	*3 cr*

3 Free Electives ***15 cr***

* Recommended for pre-medicine students.

PROGRAM LEARNING OBJECTIVES

The BS program in Chemistry aims at providing students with the following knowledge and skills:

1. Understand the fundamentals in the various fields in chemistry
2. Acquire skills in problem solving and critical thinking
3. Acquire safety, operational and analysis skills required in chemistry laboratories
4. Communicate effectively in the chemistry field and develop interpersonal skills
5. Be able to join a graduate program in a field of study related to chemistry
6. Be able to fit in any related employment opportunity: such as research, industry, teaching and administration

PROGRAM LEARNING OUTCOMES

Upon the successful completion of the BS curriculum in Chemistry, graduates must be able to demonstrate:

1. Execution of fundamental laboratory experiments, resulting in a scientific report
2. Effective communication and defense of scientific information and data
3. Overall knowledge in the various fields of chemistry
4. Theoretical and experimental application of chemical concepts and instrumentation
5. Use of critical thinking in solving chemistry problems/exercises
6. Basic knowledge in the fields of Mathematics and Physics
7. Acquisition of the required skills for future professional endeavors

PRE-MED TRACK

The Bachelor's Degree Curriculum in Chemistry includes all courses recommended to prepare students for the MCAT. These courses are:

Biology*	***A minimum of 8 credits: BIOL 201, 202, 203, 204***
Chemistry	***A minimum of 12 credits: CHEM 202, 222, 242, 244***
Humanities and Social Sciences	***A minimum of 6 credits: SOCL + PSYC***
Physics	***A minimum of 8 credits: PHYS 211, 212, 213, 214***

* The Bachelor's Degree Curriculum in Chemistry includes 15 credits of free electives which allow students to ***meet the Biology course requirement for the MCAT examination without the need for extra credits***.
Recommended courses are: Biochemistry BIOL 251, Cell Biology BIOL 213, Genetics BIOL 283 and Molecular Biology BIOL 285

* Premedical students can substitute two CSPR courses with Psychology PSYC 200 and Sociology SOCL 202

MINOR IN CHEMISTRY

The Faculty of Sciences offers a Minor in Chemistry for students who have successfully completed a minimum of 15 credits of chemistry courses as follows:

Code	Course Title	Credit
CHEM 202	Basic Chemistry	3
CHEM 222	Analytical Chemistry	3
CHEM 240 *	Basic Organic Chemistry	3
CHEM 260	Statistical Mechanics and Thermodynamics OR	
CHEM 262	Physical and Chemical Kinetics OR	
CHEM 264	Quantum Theory and Structure of Matter	3
CHEM 246	Applied Molecular Spectroscopy OR	
CHEM 270	Inorganic Chemistry I	3

* A student who is already registered for CHEM 242 and CHEM 244 to meet "pre-medical" requirements need not register for CHEM 240 to meet " Minor in Chemistry " requirements.

BACHELOR'S DEGREE

Students are recommended to register for their courses in the following order:

SEMESTER 1		
Course Code	**Course Title**	**Credit**
CHEM 202	Basic Chemistry	3
CHEM 203	Basic Chemistry Lab	1
ENGL 203	English Communication Skills III	3
LISP 200	Library Use and Research Methods	1
MATH 200	Calculus I	3

	POS section 2.2	3
	Total	**14**

SEMESTER 2		
Course Code	**Course Title**	**Credit**
CHEM 222	Analytical Chemistry	3
CHEM 242	Organic Chemistry I	3
ENGL 204 (eqv)	English Communication Skills IV (or Equivalent)	3
MATH 270	Differential Equations	3
PHYS 211	Fundamentals of Physics I	3
PHYS 212	Fundamentals of Physics I Lab	1
	Total	**16**

SEMESTER 3		
Course Code	**Course Title**	**Credit**
CHEM 244	Organic Chemistry II	3
CHEM 245	Organic Chemistry Lab I	1
CHEM 262	Physical and Chemical Kinetics	3
CSPR	A course in cultural studies	3
PHYS 213	Fundamentals of Physics II	3
PHYS 214	Fundamentals of Physics II Lab	1
	Total	**14**

SEMESTER 4		
Course Code	**Course Title**	**Credit**
CHEM 224	Instrumental Analysis	3
CHEM 246	Applied Molecular Spectroscopy	3
CHEM 247	Physical Organic Chemistry Lab	1
CHEM 260	Statistical Mechanics and Thermodynamics	3
CHEM 270	Inorganic Chemistry I	3
CSPR	A course in cultural studies	3
	Total	**16**

SEMESTER 5		
Course Code	**Course Title**	**Credit**
CHEM 272	Inorganic Chemistry II	3
CSPR-Equivalent		3
	Electives	9
	Elective within Department	1
	Total	**16**

SEMESTER 6		
Course Code	**Course Title**	**Credit**
CHEM 264	Quantum Theory and Structure of Matter	3
CHEM 299	BS Project	3
CSPR-Equivalent		3
	Electives	6
	Total	**15**
	Total Credits	**91**

COURSE DESCRIPTIONS

All CHEM courses require at least ENGL 101 as co-requisite.

CHEM 202 BASIC CHEMISTRY **3.0: 3 cr. E**

This course which introduces the students to various important topics such as the origin of the atomic theory, atomic weights and formulae, stoichiometry and the mole concept and their applications in various types of chemical reactions. The course will also discuss acids, bases and their applications, properties of gases and their laws. In addition, important topics such as liquids and solutions, chemical equilibrium, quantum theory and structure of atoms, as well as, molecular geometry and thermo-chemistry will be discussed.

Pre-requisite: CHEM 102 and MATH 113

CHEM 203 BASIC CHEMISTRY LABORATORY **0.3: 1 cr. E**

This is a course in basic chemistry laboratory which introduces the students to the following topics: Precision of measurement, acid-

base titration, oxidation-reduction titration, spectrophotometry, Group I cations, acid-base potentiometric titration, solubility of sodium bicarbonate, Ksp of calcium hydroxide, anions and total hardness of water. This course provides an opportunity for our students to be engaged in actual chemical procedures where practical experience will be gained as a result.
Co-requisite: CHEM 202

CHEM 208 FUNDAMENTALS IN CHEMISTRY 3.0:3 cr. E
This course introduces Non-major/non-premedicine students to the basic principles of chemistry. The course discusses basic general and organic chemistry, water chemistry, atmospheric chemistry, Inorganic and Organic pollutants as well as hazardous waste.

- *Students cannot receive credit for both CHEM 202 and CHEM 208.*
- *Chemistry and pre-medicine students can not register for this course*
- *This course is not a pre-medical course and is not equivalent to CHEM 202 and should not be taken by students who have already taken CHEM 202*

CHEM 209 FUNDAMENTALS IN CHEMISTRY LABORATORY 0.3:1 cr. E
This is a laboratory course which introduces public health students to experiments in basic and applied chemistry.

- *(This course is not a pre-medical course and is not equivalent to CHEM 203)*
- *Students cannot receive credit for both CHEM 203 and CHEM 209.*

Co-requisite: CHEM 208

CHEM 222 ANALYTICAL CHEMISTRY 3.0: 3 cr. E
This is a fundamental course in Analytical chemistry that covers the following topics: Errors in chemical analysis, Statistical evaluation of analytical data, Gravimetric methods of analysis, Titrimetric methods of analysis, Aqueous solution chemistry, Activities and activity coefficients, Equilibrium calculations, Precipitation titration, Neutralization titration, Complex acid-base systems, Complex-formation titration, Electrochemistry, Applications of oxidation-reduction Titrations, and Chemical Kinetics.
Pre-requisite: CHEM 202

CHEM 223 ANALYTICAL CHEMISTRY LAB 0.3: 1 cr. E
This course aims, to familiarize students with the laboratory environment and to introduce them to the proper and safe way of running an experiment in analytical chemistry. The experiments are designed to adapt the students with the manipulation of modern analytical instruments such as Potentiometer, pH-meter, Conductometer, Voltmeter, Amperometer, etc.
Pre-requisites: CHEM 203 and 222

CHEM 224 INSTRUMENTAL ANALYSIS 3.0: 3 cr. E
This is an advanced course in Analytical Chemistry that aims to prepare students for graduate studies and research. In this course students will learn about the principles, instrumentations and applications of various research techniques, will attend seminars, and carry out a short research project that they have to present towards the end of the semester in front of a jury. The research techniques covered are a selection from: Potentiometry, Electrogravimetry, colorimetry, Voltametry, Spectroscopy, Chromatography, NMR and Mass Spectrometry.
Pre-requisite: CHEM 222

CHEM 240 BASIC ORGANIC CHEMISTRY 3.0: 3 cr. E
The course is designed for non-major, non-premidicine students and outlines the combined theories and fundamental concepts of organic chemistry, including structure, shape, IUPAC nomenclature, stereoisomerism, optical activity, absolute configuration and properties of the following groups: alkanes, alkenes, alkynes and aromatic hydrocarbons; compounds containing functional groups such as halogen, hydroxyl, carbonyl, carboxylic acids and amines. Emphasis is put on important synthesis methods and reagents, basic reaction mechanisms, important naturally-occurring and synthetic organic compounds.
Pre-requisite: CHEM 202

- *Chemistry and pre-medicine students can not register for this course*
- *CHEM 240 is neither equivalent nor transferable towards CHEM 242 or CHEM 244*

CHEM 242 ORGANIC CHEMISTRY I 3.0: 3 cr. E
This Chemistry course introduces the students to the following topics : Methane and Alkanes, Stereochemistry, Substitution and Elimination reactions involving mechanism, Alkenes, Alkynes, Dienes, Alcohols, Ethers and cyclic aliphatic compounds.
Pre-requisite: CHEM 202
Students cannot receive credit for both CHEM 240 and CHEM 242

CHEM 244 ORGANIC CHEMISTRY II 3.0: 3 cr. E
This course aims to furnish students with the theoretical skills in organic chemistry. In the first part of the course, students will deal with aromatic-aliphatic compounds (essentially benzene and arenes). In the second part, the course will discuss the main functional groups: alcohols, phenols, ethers and epoxides, aldehydes and ketones, carboxylic acids and derivates, amine and amides. The third part will briefly cover spectroscopic techniques (H-NMR and IR) and explain the structure determination of organic molecules.
Pre-requisite: CHEM 242
Students cannot receive credit for both CHEM 240 and CHEM 244

CHEM 245 ORGANIC CHEMISTRY LAB I 0.3: 1 cr. E
This is a course in organic chemistry laboratory 1 which introduces the students to the following topics: melting point, boiling point, distillation, crystallization, liquid-liquid extraction, drying agents, isolation of caffeine from natural sources, synthesis of acetyl

salicylic acid, chemistry of alcohols, the amylenes: 2-methyl-2- butene, preparation of alkyl halides, adsorption chromatography and reactions of aldehydes and ketones. This course provides an opportunity for our students to be engaged in actual chemical procedures where practical experience will be gained as a result.
Pre-requisite: CHEM 242. Co-requisite: CHEM 240 or CHEM 244

CHEM 246 APPLIED MOLECULAR SPECTROSCOPY 3.0: 3 cr. E
This course outlines principles and instrumentation of a number of spectroscopic techniques such as: Nuclear Magnetic Resonance, Infrared, Ultraviolet, and Visible spectroscopy, in addition to Mass Spectrometry. Students will analyze IR, UV, NMR and mass spectra to identify and determine the structure of an organic compound.
Pre-requisite: CHEM 244

CHEM 247 PHYSICAL ORGANIC CHEMISTRY LAB 0.3: 1 cr. E
This laboratory course blends between advanced organic chemistry topics and application of physical chemistry concepts. Synthesis of different organic compounds using known mechanistic pathways, like Cannizaro reaction, will be sudied. Additionally, key physical chemistry phenomena, with focus on kinetic studies of reactions like oxidation and saponification, will also be covered.
Pre-requisites: CHEM 245 and CHEM 262. Co-requisite: CHEM 244

CHEM 260 STATISTICAL MECHANICS AND THERMODYNAMICS 3.0: 3 cr. E
The course covers properties of gases, The First Law of thermodynamics: concepts and machinery, The Second Law of thermodynamics: concepts and machinery, Change of state and Equilibrium electrochemistry.
Pre-requisite: CHEM 202

CHEM 262 PHYSICAL AND CHEMICAL KINETICS 3.0: 3 cr. E
This course deals with the theoretical aspects of chemical reaction kinetics, including rate laws, rate constants, classification of kinetic processes: order of reaction, quasistationarity principle, analysis of kinetic data (integration, differential, isolation, and relaxation methods), formal description of complex reactions: sequential reactions, parallel reactions, reversible reaction, enzyme kinetics, simplification of the description of complex reactions: chemical and mathematical methods, temperature and pressure dependence of the reaction rate. In addition, migration properties of gases (diffusion, heat transfer, viscosity,…) are considered with an eye on the relation to collision theory and its implication in theoretical chemical kinetics. Moreover, the course deals with the experimental aspects of chemical reaction kinetics including stopped flow, fast and ultra-fast processes, temperature-jump relaxation methods, molecular beam, shock tube and flash photolysis techniques. Reactions in the gas phase, liquid phase, and on surfaces are discussed with examples drawn from atmospheric, combustion, industrial, catalytic, and biological chemistry.
Pre-requisite: CHEM 202

CHEM 263 PHYSICAL CHEMISTRY LAB 0.3: 1 cr. E
This laboratory course includes experiments that study the following topics: 1st law of thermodynamics, Universal gas constant: Isobar and Isochor; Enthalpy of vaporization, Enthalpy of combustion, Enthalpy of formation, Enthalpy of reaction; Entropy; Trouton's rule, Raoult's law, Henry's law; Hess' law; Calorimetry; Reaction rate: concentration and temperature dependence.
Pre-requisites: CHEM 203 and CHEM 260. Co-requisite: CHEM 262 or 264

CHEM 264 QUANTUM THEORY AND STRUCTURE OF MATTER 3.0: 3 cr. E
This course deals with the theoretical aspects of quantum chemistry, including black body radiation, the photoelectric effect, Compton's effect, and other phenomena that show how classical mechanics fail to explain experimental observations. The spectrum of the hydrogen atom is explained using Bohr Theory before the consideration of hydrogenic atoms and electronic orbitals. A particle in different spaces is then considered and probability equations are developed to describe the behavior of the particle in a one, two and three dimensional potential wells. The tunneling effect is also considered followed by the introduction of the Schrödinger equation that is then applied to hydrogen, hydrogenic atoms and finally polyelectronic atoms. Spectral terms are then introduced and the effect of a magnetic field on the spectra of different atoms is detailed (Zeeman effect). Finally, the valence bond theory and molecular orbital theory are presented and insights in the orbitals present in polyatomic systems are investigated.
Pre-requisite: CHEM 202

CHEM 270 INORGANIC CHEMISTRY I 3.0: 3 cr. E
This course presents the first concepts in Inorganic Chemistry. It starts from the atomic structure of elements and elaborates towards bonding and structures within inorganic molecules. The structure aspect is then discussed for simple ionic solids, with an introduction to solid-state phases. This is followed by the study of acids and bases as well as redox reactions from an inorganic perspective, and the discussion of molecular symmetry of different inorganic molecules.
Pre-requisite: CHEM 202

CHEM 272 INORGANIC CHEMISTRY II 3.0: 3 cr. E
This course builds up on the concepts discussed in CHEM 270 to focus on the study of coordination chemistry, a central part of Inorganic Chemistry. It introduces coordination compounds, their naming and structural features. It then elaborates towards d-metal complexes and their electronic structures and reactivity in particular, and finishes with an overview about organometallic chemistry. The physical techniques in studying and characterizing inorganic compounds are also discussed within the course.
Pre-requisite: CHEM 270

CHEM 273 INORGANIC CHEMISTRY LAB 0.3: 1 cr. E
Preparation of some inorganic compounds and study of their properties.
Pre-requisite: CHEM 270. Co-requisite: CHEM 272

CHEM 286 POLYMER CHEMISTRY 3.0: 3 cr. E
Basics of polymer chemistry. Importance of polymers to our life. Stoichiometry of flexible chain molecules. Some microscopic

features of bulk polymers. Methods for molecular characterization of polymers. Step and chain polymerization reactions-mechanisms and kinetics. Investigation onto co-polymerization strategy. Different polymerization methods.
Pre-requisite: CHEM 244
Co-requisite: CHEM 270 and CHEM 272

CHEM 290 INDUSTRIAL CHEMISTRY **3.0: 3 cr. E**
This Chemistry course introduces the students to the following topics: Nitrogen industries, Ceramic industries, Water purification and recycling, Soap and detergents, Portland Cement (Calcium and magnesium compounds), Glass industries, Phosphorous industries, Pollution, Sulfur and sulfuric acids.
Pre-requisites: CHEM 260 and CHEM 270

CHEM 292 ENVIRONMENTAL CHEMISTRY **3.0: 3 cr. E**
Physics and chemistry of the ozone layer, catalytic processes; the ozone hole; urban ozone; acid rain, indoor and outdoor air pollution; mechanism of the greenhouse effect; climate-modifying effects of aerosols; toxic organic chemicals; pollution and purification of water; modern waste water and air purification techniques; toxic heavy metals; municipal wastes; soils and sediments; hazardous wastes; renewable energy.

CHEM 294 GREEN CHEMISTRY **3.0: 3 cr. E**
Principles and concepts of green chemistry; sustainable development, atom economy, reducing toxicity; waste production and problems; costs and waste minimization techniques; measuring environmental performance; environmental management, eco-labels and legislation; catalysis and green chemistry; organic solvents and volatile organic compounds; solvent-free systems; alternative solvents; emerging greener technologies; industrial case studies; society and sustainability.
Pre-requisite: CHEM 202

CHEM 299 BS PROJECT **0.9: 3 cr. E**

Regarding the course descriptions for CSPR, CSPR-Equivalent, CSIS, ENGL, MATH, PHYS, Elective courses, refer to the corresponding Department.

4.5 Courses In Chinese Language

CHIN 201 CHINESE LANGUAGE I (C) **3.0: 3 cr. C**
This course introduces the student to the Chinese language (Beginners I).

CHIN 202 CHINESE LANGUAGE II (C) **3.0: 3 cr. C**
This course introduces the student to the Chinese language (Beginners II). Pre-requisite: CHIN 201

4.6 DEPARTMENT OF COMPUTER SCIENCE

Chair of Department: Amine Bitar, Ph.D., amine.bitar@balamand.edu.lb, csis@balamand.edu.lb

The Department of Computer Science provides a fundamental education to prepare students for positions in industry, government, education, or commerce, or to pursue graduate study. It offers the following degrees:

- BS in Computer Science (Applied).
- BS in Computer Science with Teaching Diploma.
- MS in Computer Science.

Program Features

Applied computer science is the application of scientific methods, technical computing concepts for the development of skills in organizational leadership and strategy that drive the processes that manipulate data with theories taking a practical approach in information systems development.

Plan of Study (POS):

Total Credits within a BS program **91 cr**

1	***University Requirements***			***16 cr***
1.1	English	6 cr		
1.2	CSPR	6 cr		
1.3	CSPR equivalent	3 cr		
1.4	LISP 200	1 cr		
2	***Department Requirements***			***66 cr***
2.1	*Courses from the Major (minimum 40%, i. e., 36 credits)*			
2.1.1	*Major Courses (minimum 40%, i. e., 36 credits)*		*54 cr*	
CSIS 200	Introduction to Computers and Programming	3 cr		
CSIS 215	Object-Oriented Programming	3 cr		
CSIS 216	Data Structure	3 cr		
CSIS 217	Advanced Data Structure	3 cr		
CSIS 221	Operating Systems	3 cr		
CSIS 222	Principles of Computer Networking and Communication	3 cr		
CSIS 223	Network Configuration and Programming	3 cr		
CSIS 228	Web Programming	3 cr		
CSIS 231	Java Technology	3 cr		
CSIS 235	Mobile Computing	3 cr		
CSIS 250	Computer Graphics	3 cr		
CSIS 260	Introduction to Artificial Intelligence	3 cr		
CSIS 270	Databases	3 cr		
CSIS 277	Information Systems Management	3 cr		
CSIS 279	Advances in Computer Science	3 cr		
CSIS 284	Software Analysis and Design	3 cr		
CSIS 285	Basic Programming Lab	1 cr		
CSIS 286	Object Oriented Programming Lab	1 cr		
CSIS 287	Data Structure Lab	1 cr		
CSIS 290	Senior Project	3 cr		
2.2	*General Education (service) Courses*		*12 cr*	
MATH 201	Mathematics for Computation	3 cr		
MATH 212	Discrete Mathematics	3 cr		
MATH 241	Statistics I	3 cr		
MATH 246	Probability for Engineers	3 cr		
3	***Free Electives***			***9 cr***

Learning outcomes

Graduates of the program will have an ability to:

1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines

to identify solutions

2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline

3. Communicate effectively in a variety of professional contexts

4. Recognize professional responsibilities and make informed judgments in computing practice based on legaland ethical principles

5. Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline

Career Opportunities

Graduates excel as software developers and can quickly become experts at developing large scale software, working in teams and producing robust products that meet customer needs. They are prepared to work in a diverse marketplace and find opportunities in a wide variety of careers in IT, business, education, government and the non-profit sector.

BACHELOR'S DEGREE

Students must successfully complete a minimum of 91 credits of required courses provided that they satisfy the standards set by the University of Balamand and the Faculty of Arts & Sciences. Students are recommended to register for their courses in the following order:

SEMESTER 1

Course Code	Course Title	Credit
CSIS 200	Introduction to Computers & Programming	3
CSIS 222	Networking Principles and Design	1
CSIS 285	Basic Programming Lab	3
MATH 201	Mathematics for Computation	3
ENGL 203	English Communication Skills III	3
LISP 200	Library Use and Research Methods	1
Total		**14**

SEMESTER 2

Course Code	Course Title	Credit
CSIS 215	Object Oriented Programming	3
CSIS 221	Operation System	3
CSIS 270	Databases	3
CSIS 286	OOP Lab	1
MATH 212	Discrete Mathematics	3
ENGL 204	English Communication Skills IV	3
Total		**16**

SECOND YEAR

SEMESTER 3

Course Code	Course Title	Credit
CSIS 216	Data Structures	3
CSIS 228	Web programming	3
CSIS 235	Mobile Computing	3
CSIS 287	Data Structures Lab	1
MATH 246	Probability	3
CSPR 20X		3
Total		**16**

SEMESTER 4

Course Code	Course Title	Credit
CSIS 231	Java Technologies	3
CSIS 223	Network Configuration and Programming	3
CSIS 284	Software Analysis and Design	3
MATH 241	Statistics I	3

CSPR 20X	3
Total	**15**

INTERNSHIP

THIRD YEAR

SEMESTER 5

Course Code	Course Title	Credit
CSIS 260	Introduction to Artificial Intelligence	3
CSIS 277	Information Systems Management	3
CSIS 279	Advances in Computer Science	3
CSPR 20X	General Education	3
	Free Elective	3
Total		**15**

SEMESTER 6

Course Code	Course Title	Credit
CSIS 217	Advanced Data Structures	3
CSIS 250	Computer Graphics	3
CSIS 290	Senior Project	3
	Free Elective	3
	Free Elective	3
Total		**15**

Total credits **91**

(Lisp 200 is free of charge)

COURSE DESCRIPTIONS

All CSIS courses require at least ENGL 003 as co-requisite.

CSIS 200 INTRODUCTION TO COMPUTERS AND PROGRAMMING **3.0: 3 cr. E**

This course provides students with a foundation of computing and algorithmic principles. It is intended to establish concrete skills in the constructs and algorithmic methods as an essential part of the software development process. Teaching is carried out by way of a lecture-and-homework agenda that emphasizes the design, construction, and analysis of algorithms, coupled to a lab-and-project agenda focused on the application of those principles in the use of software packages. Lecture-and-homework topics include: pseudo-language, algorithms, programming life cycle, decision constructs, repetition structures, methods, and arrays. The course comprises mandatory laboratory components where the introduced concepts are strengthened and emphasized through hands-on practical weekly experiments.

Co-requisite: CSIS 285

Students can not receive more than 3 credits for registering for CSIS 200, 273, and/or 283 in any combination

CSIS 206 PRINCIPLES OF PROGRAMMING **3.0: 3 cr. E**

This course is designed to introduce students to the concept of computing and programming principles. It is intended to establish concrete skills in the constructs and algorithmic methods as an essential part of the software development process. The topics include: algorithms, procedural programming, data representation, basic programming control structures (sequence, selection and repetition), functional decomposition, functions call and arrays.

CSIS 215 OBJECT ORIENTED PROGRAMMING **3.0: 3 cr. E**

This is an advanced programming course. It covers the programming paradigms with examples, and the transition between modular programming and object-oriented programming. The course also covers data categorization and subdivision into classes and discusses inheritance of operations from one class to another. Topics include: Advanced Arrays, Files, object-oriented analysis and design, class abstraction, objects and classes, encapsulation, inheritance, polymorphism, composition, Exception Handling. The course comprises mandatory laboratory components where the introduced concepts are strengthened and emphasized through hands-on practical weekly experiments.

Pre-requisite: CSIS 200

Co-requisite: CSIS 286

CSIS 216 DATA STRUCTURE **3.0: 3 cr. E**

The aim of this course is to provide an introduction to computer algorithms and data structures, with an emphasis on foundational material. Students will learn how to model data in a computer, how to specify and use standard ADTs, and how to implement such ADTs with standard data structures. An object-oriented approach to data structures and algorithms. Topics include: Recursive thinking, Generics, different data structure such as array and dynamic arrays, sorting algorithms, Time/Complexity analysis techniques, pointer based structure, and linked list, stacks, queues and priority queues. The course comprises mandatory laboratory components where the introduced concepts are strengthened and emphasized through hands-on practical weekly experiments.

Pre-requisite: CSIS 215

Co-requisite: CSIS 287

CSIS 217 ADVANCED DATA STRUCTURES **3.0: 3 cr. E**

The course is intended to deepen the clear understanding of both theory and implementation details underlying the advanced data structures and data abstractions such as: trees, binary search trees, graphs, weighted graph, search trees, hash tables, and GUI Basics. It is also to strengthen the students' ability to write correct programs using these and related data structures.

Prerequisite: CSIS 216

CSIS 221 OPERATING SYSTEMS **3.1.5: 3 cr. E**

This course is a comprehensive survey of operating systems principles. Topics covered include: process description and control, threads, process and disk scheduling, file and memory and I/O management, concurrency, networking and distributed processing, security. The course comprises mandatory laboratory components where the introduced concepts are strengthened and emphasized through hands-on practical weekly experiments.

Prerequisite: CSIS 200

CSIS 222 PRINCIPLES OF COMPUTER NETWORKING AND COMMUNICATION **3.1.5: 3 cr. E**

This course is an introduction to network principles and network design. Topics include: Basic concepts and terminology of computer networks, networking models and theory, networking protocols, LAN, WAN, MAN, wireless and mobile network technologies, network performance, layers of the Internet Protocol Suite (the TCP/IP family of protocols), Internet addressing (IPv4, IPv6), Error Controls, Routing Algorithms, network protocols (such as TCP, UDP, HTTP, SMTP, FTP, IPSec), and network applications and services (such as DNS, peer-to-peer networks, web servers, VLAN, VPN, MPLS). The course comprises mandatory laboratory components where the introduced concepts are strengthened and emphasized through hands-on practical weekly experiments.

CSIS 223 NETWORK CONFIGURATION AND PROGRAMMING **3.0: 3 cr. E**

This course provides a foundation of network management and programming including network security, distributed systems and socket programming. Strategies for maintaining robust and secure networks are explored. Topics include, but are not limited to: Quality of Service (QoS) in IP networks, routing protocols, network management (SNMP), network security. Programming assignments include developing simple and multi-client and server software using sockets, distributed systems programming using RMI, and message passing using MPI.

Pre-requisites: CSIS 215 and CSIS 222

CSIS 228 WEB PROGRAMMING **3.0: 3 cr. E**

This course introduces a state-of-the-art technology used in designing and developing rich multi-tiered web- based applications. The basics of client-server web programming, web-services, web servers and multi-tiered application using a relational database. Those fundamentals will be thought through the development of a sample application that exposes a website and a REST API. This course will emphasize on implementing web architecture best practices to build single-page, multi-page, and hybrid web apps.

Pre-requisites: CSIS 215, CSIS 222 and CSIS 270

CSIS 231 JAVA TECHNOLOGY **3.0: 3 cr. E**

This course introduces Java as a technology and a development and deployment platform (J2SE). It provides students with the skills to create applications that leverage the object-oriented features of Java. The course introduces students to GUI programming, multithreading, networking, and event-driven programming using Java technology GUI components. Students will create applications using advanced Java GUI techniques and connect to SQL database systems by using the core aspects of JDBC API. Other topics include: Exception handling, multi-threading, two-tier and three-tier Java technology applications.

Pre-requisite: CSIS215

CSIS 235 MOBILE PROGRAMMING **3.1.5: 3 cr. E**

Mobile computing is a growing developed communication system in distributed networks. It is a part of Human Computer Interaction where users interact with portable mobile devices. This course covers the fundamental concepts of mobile computing including mobile area overview, concentrations on problems and solutions in mobile networking, mobility and data management, and service management. Topics include mobile communication, data and service management, characteristics of mobile applications, effective user interfaces and design, data manipulation, and multi-views applications. The course comprises mandatory laboratory components where the introduced concepts are strengthened and emphasized through hands-on practical weekly experiments.

Pre-requisites: CSIS 215, CSIS 222 and CSIS 270

CSIS 250 COMPUTER GRAPHICS **3.0: 3 cr. E**

This course provides an introduction to computer graphics including: graphics pipeline, geometrical transformation in 2D and 3D, projection, transformations, representing curves and surfaces, visible surface determination, texture mapping, advanced modeling techniques, color theory, realism, and rendering, splines, elimination and shading. In this course, students will learn computer graphics concepts to design and implement applications and games.
Pre-requisite: CSIS 216

CSIS 251 COMPUTER GRAPHICS DESIGN I **3.0: 3 cr. E**

The student learns how to produce different kinds of advertising art, technical drawing, book illustration, and map production. Topics covered include: drawing, transformations, layers, color palette, 3D drawing, perspective, light, rendering, and texture.

CSIS 260 INTRODUCTION TO ARTIFICIAL INTELLIGENCE **3.0: 3 cr. E**

This course explores the concepts and technics at the foundation of modern artificial intelligence through lectures and hands-on projects. Its objective is to place students in a position to select AI solutions based on well-informed assessment. The acquired knowledge and experience can be a footing for further study or implementation.
Pre-requisite: CSIS216

CSIS261 ARTIFICIAL INTELLIGENCE APPLICATIONS **3.0: 3 cr. E**

The course is a study of AI in an applied perspective. It describes the latest generation of AI techniques and what they can actually do. It is intended to illustrates both the potential and current limitations of these techniques with examples from a variety of applications. Labs include hands-on application of AI techniques and the appropriate technologies for a given problem and anticipation of potential consequences when an application is deployed.
Pre-requisite: CSIS260

CSIS 270 DATABASES **3.1.5: 3 cr. E**

The course introduces the student to data modeling by understanding the concepts of data, schema, sub-schema, the levels of data representation, relations and attributes, normalization, SQL, database integrity, security and concurrency, semi and non-structured databases. The course comprises mandatory laboratory components where the introduced concepts are strengthened and emphasized through hands-on practical experiments.
Pre-requisite: CSIS 200

CSIS 273 APPLIED DIGITAL SkILLS FOR SCIENCES **3.0: 3 cr. E**

This course is intended for Sciences undergraduate students (non CSIS majors) to introduce the basic computer and technology terminology used in processing data to produce information in society, and building a positive attitude towards technology based on an understanding of the components, taking into consideration that these knowledge and attitude are among the 21st century skills required to increase understanding of and integration in the digital ecosystem.towards technology based on an understanding of the components, taking into consideration that these knowledge and attitude are among the 21st century skills required to increase understanding of and integration in the digital ecosystem.
CSIS students cannot register for this course
(This course is not equivalent to CSIS 200)
Students can not receive more than 3 credits for registering for CSIS 200, 273, and/or 283 in any combination

CSIS 277 INFORMATION SYSTEMS MANAGEMENT **3.0: 3 cr. E**

The course covers the fundamental principles of IT Service Management and best practices in project management assuming the graduates are heading to be IT Managers and Professionals. The methodology is intended to be as practical as possible, highlighting how to actually apply best practices in the industry. In addition, long-term sustainability requires that these principles also be framed in governance policies and procedures, and so the important aspects in these policies and procedures are attacked and deliberated.
Pre-requisite: CSIS 284

CSIS 279 ADVANCES IN COMPUTER SCIENCE **3.0: 3 cr. E**

This course covers topics of current advanced interest in computer science that do not fall into a standard subarea of the curriculum. The course load involves manipulating latest technologies for the development of web-based applications and using design patterns such as MVC. Through projects students will get hands- on designing and implementing interesting real applications. It is expected that the course will help students develop software design, analysis and implementation abilities through working with experts on innovative tools and methodologies in some emerging area of high importance.
Pre-requisites: CSIS 228 and CSIS 235

CSIS 283 APPLIED DIGITAL SKILLS FOR HUMANITIES **3.0: 3 cr. E**

This course is intended for Humanities undergraduate students (non CSIS majors) to introduce the basic computer and technology terminology used in processing data to produce information in society, and building a positive attitude towards technology based on an understanding of the components, taking into consideration that these knowledge and attitude are among the 21st century skills required to increase understanding of and integration in the digital ecosystem.
CSIS students cannot register for this course
(This course is not equivalent to CSIS 200)
Students can not receive more than 3 credits for registering for CSIS 200, 273, and/or 283 in any combination

CSIS 284 SOFTWARE ANALYSIS AND DESIGN **3.0: 3 cr. E**

The purpose of this course is to familiarize students with concepts, methods, and tools for the analysis and design of software systems, with emphasis on methods applied in large product development projects. The course introduces common design principles and patterns that support the development of maintainable, reusable and extensible software.
Pre-requisites: CSIS 228 and CSIS 235

CSIS 285 BASIC PROGRAMMING LAB **0.1.5: 1 cr. E**

The basic programming lab introduces students to features of the programming environment, to demonstrate coding and debugging techniques, and to implement example programs demonstrating concepts introduced earlier in the Introduction to Computers and Programming course (CSIS 200).
Co-requisite: CSIS 200

CSIS 286 OBJECT-ORIENTED PROGRAMMING LAB **0.1.5: 1 cr. E**

This Lab is to be taken simultaneously with the OOP course (CSIS 215) Lab sessions are dedicated to students to work individually implementing the algorithms and codes already handled in the exercise sessions. The lab is to enable the students to master the techniques of problem solving and then writing efficient programs for those problems. Equal emphasis is placed on both the abstract and concrete versions of a concept so that the students learn about the concept itself and its implementation and application.
Co-requisite: CSIS 215

CSIS 287 DATA STRUCTURE LAB **0.1.5: 1 cr. E**

The Data Structure Lab is to be taken simultaneously with the Data Structure course (CSIS 216) and it aims at making students competent in handling abstract concepts, using those concepts in problem solving, and then making these abstractions concrete using a programming language.
Co-requisite: CSIS 216

CSIS 288 MOBILE PROGRAMMING LAB **0.1.5: 1 cr. E**

The Mobile Programming Lab focuses on teaching the details of the implementation of the front end of a complex handheld application involving the concepts in the Mobile programming environment. Students will gain practical knowledge of the platforms, development environment, application fundamentals and the activity lifecycle and reconfiguration.

CSIS 290 SENIOR PROJECT **3.0: 3 cr. E**

The purpose of the course is to provide an opportunity to finish a project under the direct supervision of a faculty member. The project should cover the practical aspect of a research and its design from conception through implementation and testing. Students meet regularly with the instructor to track technical and project management issues. Complete project documentation, written reports and oral presentations are required.
Pre-requisites: CSIS 279 and CSIS 284

CSIS 293 DIRECTED STUDY IN DATABASES II **1.5.0: 1 cr. E**

The course's aim is to develop in students their mastery of new database technologies, and their ability to independently update their knowledge and its applications (forms, reports…). Tutorials on one specific database area, taking into consideration the new developments in technology, and lab notes will be provided by the Department. The course supervisor assigns weekly meetings with the students for follow up.
Pre-requisite: CSIS 270

CSIS 296 DIRECTED STUDY IN NETWORKING **1.5.0: 1 cr. E**

The course's aim is to develop in students their mastery of new techniques and methods in networking and 44 Faculty of Arts and Sciences their applications. Tutorials and lab notes are provided by the Department. A supervisor is assigned for the course. The content might vary from one semester to another, taking into consideration the new developments in technology. The students and the supervisor meet once a week for follow up.
Pre-requisite: CSIS 222

CSIS 297 DIRECTED STUDY IN PROGRAMMING **1.5.0: 1 cr. E**

The course's aim is to develop in students their ability to independently update their knowledge through tutorials and lab notes. A supervisor is assigned for the course. The offered language is selected by the Department taking into consideration the market demand. The students and the supervisor meet once a week for follow up.
Pre-requisite: CSIS 200

CSIS 298 SEMINARS IN COMPUTING **1.5.0: 1 cr. E**

This course provides an opportunity to meet with experts or people working on new developments in the computing field. Upon completion, students should be able to demonstrate an understanding of a specific area of study through a project, paper and a presentation.
Pre-requisite: Advisor consent

Regarding the course descriptions for ACCT, ECON, CSPR, CSPR-Equivalent, ENGL and MATH courses, refer to the corresponding Department.

4.7 CULTURAL STUDIES PROGRAM

Program Chair: Mohamad Rihan, Ph.D. Mohamad.rihan@balamand.edu.lb

Mission Statement

The mission of the Cultural Studies Program is to provide undergraduate courses in the humanities and social sciences that fulfill the University of Balamand's goals for undergraduate education, including the raising of its students' academic standards and cultural awareness, the development of critical thinking and the advancement of knowledge. The program reflects the vision of the University regarding its cultural role, social function and cultural heritage rooted not only in man's material life, but also in the manifestations of the human mind and its capacities for transcendent thought.

Teaching Methodology

The Cultural Studies Program adopts a teaching methodology that is based on close reading and discussion of texts and other sources of knowledge, and active student participation. Courses may include some introductory lectures. The overall Program is under the supervision of the chairman of the program, who will ensure the coherence of course content and the vision of the program.

The Cultural Studies Program has four main streams and each stream provides a variety of course offerings.

STREAM ONE: CULTURE AND RELIGION

The Culture and Religion stream focuses upon the historical interdependencies of religion and culture in the Mediterranean context. The courses are interdisciplinary, based on foundational texts, and include history, religion, myth, law, philosophy and literature within the geographical and temporal contexts of Ancient Egypt and Mesopotamia, Ancient Greece and Rome, medieval Christian and Islamic civilization.

CSPR 211 ANCIENT CULTURES AND RELIGIONS 3.0: 3 cr. E /F

This course explores the development of ancient civilizations and religious beliefs in Mediterranean and Near-Eastern societies. The course includes topics such as the nature of belief; mythology and polytheism; the invention of writing and religious symbols; the birth of philosophy, literature, politics and other intellectual traditions.

Co-requisite: ENGL 203 for CSPR 211E or FREN 201 for CSPR 211F.

CSPR 212 CHRISTIAN AND ISLAMIC CULTURES 3.0: 3 cr. E/F

This course introduces students to the Abrahamic religious discourses of Christianity and Islam as manifested in different fields of cultural production. It includes religious doctrines, theology, philosophy, literature and history across late Antiquity and the Middle Ages. It also discusses the interactions between Eastern Christianity and Islam as well as the influence of the Byzantine and Arab Islamic traditions on Renaissance.

Co-requisite: ENGL 203 for CSPR 212E or FREN 201 for CSPR 212F.

STREAM TWO: CULTURE AND REASON

The Culture and Reason stream introduces students to major intellectual issues that have preoccupied thinkers from antiquity to modern times. Based on reading major classical texts, these courses may explore questions concerning the existence of the world and God; the relationship between man and nature; human reason and its limits and ethics.

CSPR 221 kNOWLEDGE AND REALITY 3.0: 3 cr. E/F

This course deals with some essential theoretical questions such as the existence of nature and the world, the extent to which we gain knowledge of them, and how we calibrate our existence to them. Other issues addressed in the course may include the question of how the body is connected to the mind; the question of how scientific knowledge of the world is possible and whether there are other forms of knowledge of the world than science; the question of what it means for two events to be related in terms of cause and effect; skepticism and belief; space and time; and virtual realities.

Co-requisite: ENGL 203 for CSPR 221E or FREN 201 for CSPR 221F.

CSPR 222 ETHICS AND AESTHETICS 3.0: 3 cr. E/F

This course focuses on issues related to how we ought to live in accordance with the good, ethical and the beautiful. It may include questions concerning art, creativity, rights and responsibilities, our relation to others and the environment; happiness and the mastery of instincts; or the basis upon which we make moral and aesthetic judgements. It ends with some challenges to the ideas of the good and the beautiful.

Co-requisite: ENGL 203 for CSPR 222E or FREN 201 for CSPR 222F.

STREAM THREE: CULTURE AND MODERNITY

The Culture and Modernity stream deals with the emergence and development of the modern and contemporary world, and the challenges that it confronts today as a result of its own unresolved contradictions. The two courses in the stream explore the ways in which Enlightenment and the rule of reason have cultivated the promise of progress, emancipation and human liberation, a promise, however, that is yet to be entirely fulfilled.

CSPR 231 MODERN THOUGHT **3.0: 3 cr. E/F**

This course focuses on the scientific, religious, social, political and economic changes that make up the modern world. It includes the scientific revolution, the Enlightenment, the American, French and Industrial revolutions and the long nineteenth century.

Co-requisite: ENGL 203 for CSPR 231E or FREN 201 for CSPR 231F.

CSPR 232 CONTEMPORARY CHALLENGES **3.0: 3 cr. E/F**

This course examines contemporary thought and the challenges that emerged in the cultural, religious, social, political, and economic domains today across the world. Topics the course may focus upon include human rights, globalization, fundamentalism and terrorism, racism, immigration/emigration, Christian-Muslim relations, gender as well as the confrontation between modern culture, religious identity, and traditional values.

Co-requisite: ENGL 203 for CSPR 232E or FREN 201 for CSPR 232F

STREAM FOUR: MODERN ARAB CULTURE

The Modern Arab Culture stream offers courses that introduce some of the major works, thinkers and themes of the modern Arab world, especially in their responses to the increased impact of Western thought since the Enlightenment. Courses in this stream will invite students to explore the issues posed by Arab thinkers and cultures, and to consider the distinctive characteristics of the region, its cultures and its Eastern heritage within the context of broader cultural developments.

CSPR 241 MODERN ARAB THOUGHT **3.0: 3 cr. E/A/F**

The aim of this course is to introduce the Nineteenth and Twentieth centuries as the revival period of Arab culture within the context of important political transformations on both the local and international levels. The development of contemporary Arab thought since An-Nahda will be addressed through its engagement with the developments in Western schools of thought on the one hand, and with the social, economic, political and religious challenges confronting modern Arab societies on the other.

Co-requisite: ENGL 203 for CSPR 241E, FREN 201 for CSPR 241F or ARAB 102 for CSPR 241A.

CSPR 242 MODERN ARAB LITERATURE **3.0: 3 cr. A/E/F**

This course focuses upon the literary arts, primarily in the domains of poetry, narrative and drama, and their developments since the An-nahda in relation to both form and content. The course will be based upon the close study of literary texts, both modern and contemporary, within a comparative context when necessary by considering their relation to classical Arab and Western works, especially during phases of 'modernization' in Arab literary history.
Co-requisite: ENGL 203 for CSPR 242E, FREN 201 for CSPR 242F or ARAB 102 for CSPR 242A

STREAM FIVE: CULTURE AND SCIENCES

CSPR 251 NATURALISM AND LIFE **3.0: 3 cr. E/F**

The course deals with the question of what it means to be alive and to be free. This question is explored by tracing all manifestations of life, from the most elementary forms of organic life to the highest forms of rational agency, so as to conclude that only living self-conscious organisms can be free. By looking at Aristotle's distinction between nourishment, perception and reasoning, an understanding of rational life will emerge as a distinctive form of life characterized by a moral commitment to the production and reproduction of our lives, both in a metabolic relation with nature and in a relation to other living beings. These questions of life, freedom and moral commitment and responsibility will be pursued through an engagement with Aristotle, Marx, Adorno, Foot, Nussbaum, Korsgaard as well as some contemporary debates in the philosophy of biology.

Co-requisite: ENGL 203 for CSPR 251E, FREN 201 for CSPR 251F.

List of CSPR equivalent Courses

The following courses are nominated by the department as CSPR equivalent courses. For course description, refer to the corresponding department:

1.	ARAB 211	The Arabic Novel
2.	ARAB 236	Folk Literature
3.	ARAB 246	The Arabic Drama
4.	ARCL 201	An introduction to Lebanese and Near-Eastern Archaeology
5.	EDUC 228	Sociology of Education
6.	FREN231	Histoire des Mouvements Littéraires
7.	FREN 240	Littérature Francophone
8.	FREN 261	Littératures étrangères
9.	FREN 260	Le Roman au XXème Siècle
10.	FREN 265	Le Theatre du XXème Siècle
11.	FREN 290	Cinéma et Littérature
12.	HIST 253	History of Modern Lebanon
13.	MCOM 227	Media and Society
14.	PHIL 201	Introduction to Philosophy

15.	PSIA 201	Introduction to Political Science
16.	PSIA 226	Political Ideologies
17.	PSIA 255	Civic engagement and Community service
18.	PSYC 200	Introduction to Psychology
19.	SOCL 202	Sociology
20.	SUST 211	Ethics at the Intersection of Science, Technology, and Environment
21.	SUST 219	Engineering Ethics for a Sustainable Profession
22.	SUST 221	Introduction to Sustainability
23.	SUST 229	Sustainable Development for Engineers
24.	THEA 262	Introduction to the Art of Theater
25.	THEA 267	Theatrical Direction

Regarding the course descriptions for ARAB, ARCL, EDUC, ENGL FREN, HIST, MCOM, PHIL, PSIA, PSYC, SOCL, SUST and THEA courses, refer to the corresponding Department.

4.8 DEPARTMENT OF EDUCATION

Chair of Department: Guenia Zgheib, Ph.D., guenia.zgheib@balamand.edu.lb

The Department of Education at the University of Balamand seeks to develop in student-teachers' minds a scientific way of thinking and an interdisciplinary approach to education through a well-designed program of courses. The courses introduce students to basic knowledge and skills necessary for the practice of the profession of education. The department insists on the integrity of the human being and the inter-relationship among physical, cognitive and socio-affective fields of functioning. This philosophy is promoted through the adoption of an interdisciplinary and socio-constructivist approach to training educators. In addition to preparing skilled educators, the department aims to instill in them scientific thinking, knowledge of the disciplines to be taught in Lebanese schools, knowledge of the learner they will be working with and of the learning methodologies they may possibly choose to adopt. It also aims to cultivate student- teachers' understanding of the educational system in general and of the Lebanese system in particular.

The undergraduate program of study leads to the following degrees:

I- Bachelor of Arts in Education

II- Teaching Diploma

A minor course of study in Education is possible by successfully completing 15 credits/5 courses in Education.

Aims of the Bachelor of Arts Level:

a- To prepare educators for basic education (Grade 1-6) with instructional knowledge about the core disciplines required in schools as well as knowledge of the Lebanese educational system that guides the process. The university dimension of this preparation aims to create foundations rather than to transmit a block of encyclopedic knowledge.

b- To prepare educators with scientific, critical thinking skills, able to question, as active participants, the choices and practices of the educational system and to create solutions when needed.

c- To prepare research- oriented and motivated educators to be active participants in their career development.

d- To prepare educators, in at least two languages, which will enable them to possess the proficiency necessary to understand educational communication adequate for the school environment and the academic community, both orally and in writing.

e- To prepare educators to be class instructors (Grade1-6) capable of classroom management and lesson preparation in the different disciplines.

f- To prepare educators to demonstrate skills, understand and apply concepts related to educational technology.

I- THE BACHELOR OF ARTS PROGRAM

To qualify for a BA in Education, the student must complete a total of 91 credits, distributed as follows:

Total credits within a BA program				**91 cr**
1	***University Requirements***			***19 cr***
1.1	English /French courses	6 cr		
1.2	CSPR courses	6 cr		
1.3	CSPR equivalent courses	6 cr		
1.4	LISP 200	1 cr		
2	***Department Requirements***			***60 cr***
2.1	*Courses from the Major (minimum 40%, i. e., 36 credits)*		*45 cr*	
2.1.1	*Major Courses (18 courses)*	*42 cr*		
	EDUC 213 Foundations of Education	3 cr		
	EDUC 216 Educational Assessment	3 cr		
	EDUC 217 General Didactics	3 cr		
	EDUC 250 Use of Computer Applications in Education	3 cr		
	EDUC 261 Children's Literature	3 cr		
	EDUC 275 Classroom Management	3 cr		
	EDUC 290 Education for Special Needs	3 cr		
	EDUC 211 Teaching Social Sciences	3 cr		
	EDUC 243 Teaching Arabic at the Elementary Level	3 cr		
	EDUC 245/247 Teaching French/ Teaching English	3 cr		
	EDUC 251 Teaching Arithmetic at the Elementary Level	3 cr		
	EDUC 256 Teaching Geometry at the Elementary level	3 cr		
	EDUC 264 Teaching Applied Sciences in Elementary Schools	3 cr		
	PRAC 220 Practicum in Elementary Schools I	1 cr		
	PRAC 221 Practicum in Elementary Schools II	2 cr		
2.1.2	*Electives within the Department*	*03 cr*		

One course from the list below:			3 cr	
EDUC 296 Visual Arts: Pedagogy and Creativity		3 cr		
MUSC 211 Foundation of Music or Visual Arts		3 cr		
2.2 General Education (service) Courses				*15 cr*
ARAB 201			3 cr	
PSYC 212 Child Development			3 cr	
PHED 214 Movement, Play and Health			3 cr	
THEA 262 Introduction to the Art of Theater			3 cr	
One course from the list below:			3 cr	
ASTR 201	*Fundamentals of Astronomy*	*3 cr*		
CSIS 283	*Applied Digital Skills for Humanities*	*3 cr*		
EVSC 201	*Introduction to Environmental Sciences*	*3 cr*		
GEOL 201	*Fundamentals of Geology,*	*3 cr*		
3 Free Electives				***12 cr***

NB:

•EDUC 217 is a pre-requisite course for all didactic courses.

•A passing grade of at least 70% is required for the following courses: EDUC 213, EDUC 217, PSYC 212, ARAB 201 and FREN 201 or ENGL 203.

• All TD Level courses need special permission for registration if the student is not in the TD Program or wants to take a course as an elective.

TEACHING DIPLOMA IN EDUCATION

The University of Balamand offers 3 options for the Teaching Diploma in both English and French. All three options are 21 credits (7 courses) and can be completed within one year.

TD – Basic Education: For applicants with a bachelor's degree in education
TD – Specialized: For applicants with a bachelor's degree in a subject taught at school (Math, Physics, Chemistry, English, French, Biology, Economics, Arts, Arabic, and Physical Education)

THE TEACHING DIPLOMA (TD) PROGRAM IN EDUCATION

This TD program is for students who have an undergraduate degree (BA) in education.

Aims of the TD in Basic Education (Grade 1 to 6):

* To prepare teachers to apply their knowledge of teaching and instructional methodologies in accordance with the Lebanese curriculum.

* To prepare teachers to consider learner characteristics when doing lesson preparation and classroom management at the basic education level (Grades 1-6).

Aims of the TD in various specializations:

* To prepare students with a BA or BS in a specific discipline.

* To be able to teach this discipline with an emphasis on developing students' knowledge of instructional methodologies and the Lebanese educational system.

1- TD - EDUCATION:

Students are required to take the following 24 credits

EDUC 212	Teaching Early Literacy	3.0: 3 cr
EDUC 221	Trends in Education	3.0: 3 cr
EDUC 224	Inclusive Education	3.0:3 cr
EDUC 253	Instructional Computer Applications in Education	3.0: 3 cr
EDUC 291	Interdisciplinary Project Design	3.0: 3 cr
PRAC 223	Practice of Teaching – TD Education	3.0: 3 cr
EDUC		Elective
PSYC 254	Psychology of Learning	3.0: 3 cr

2- TD - SPECIALIZED:

This TD program is for students who have an undergraduate degree (BA) in a subject that is taught in schools (Mathematics, Physics, Chemistry, Biology, English, French, Arabic, Economics, Computers Science, Physical Education, Arts,…). Students are required to take the following 24 credits: 18 credits from the courses below and 6 credits from the specialized courses depending on the specialty.

EDUC216	Educational Assessment	3.0: 3 cr
EDUC 217	General Didactics	3.0: 3 cr
EDUC 253	Instructional Computer Applications in Education	3.0: 3 cr
EDUC 275	Classroom Management	3.0: 3 cr
PRAC 222	Practice of Teaching at the Intermediate and Secondary Level	3.0: 3 cr
PSYC 214	Adolescent Development	3.0: 3 cr
	Specialty Course 1	3.0: 3 cr
	Specialty Course 2	3.0: 3 cr

COURSE DESCRIPTIONS

Unless stated otherwise, all EDUC courses require at least ENGL 102 or FREN 102 as pre-requisite.

EDUC 211 TEACHING SOCIAL SCIENCES 3.0:3 cr. E/F

This course intends to introduce students to the major concepts tackled in the national curriculum for Social Sciences. This aspect of the course focuses on the dynamic relationships between geography, history, and civics. Another aim is to develop the didactic skills related to the teaching of this discipline. Students will learn to recognize how concepts related to the discipline are developmentally constructed in children's minds. They will be able to choose the strategies and tools to facilitate this construction. In addition, students will learn to develop interdisciplinary activities that reinforce the learning of the discipline. Methodologically the course exposes students to educational problems related to the discipline and encourages them to propose hypothetical solutions. Pre-requisite: EDUC 217

EDUC 212 TEACHING EARLY LITERACY 3.0:3 cr. E/F

This course will cover the strategies, methodologies and practical applications pertaining to the stages of early literacy education in the language arts classroom. The theoretical debate between the teaching of reading through phonics or whole language approaches will be covered and practical solutions will be tackled through lessons and units that combine these approaches. The stages of teaching writing and graphic expression will also be covered theoretically and practically. The teaching of reading and writing to struggling readers will be covered as well.

EDUC 213 FOUNDATIONS OF EDUCATION 3.0: 3 cr. E/F

This course introduces students to the evolution of education throughout history. The course will use a comparative approach to enable the students to become conscious of existing bonds between the different components of an educational operation and the socio-historical context of its development. The Lebanese system will receive specific emphasis and analysis. Pioneers of educational theory such as, Rousseau, Dewey, Montessori, Freinet, etc. will be critically analyzed for their relationship with their context.

EDUC 216 EDUCATIONAL ASSESSMENT 3.0: 3 cr. E/F

This course introduces students to objectives and techniques used in assessment. It focuses on the interdependent relationship between the intended learning outcomes and the assessment system. In addition, the course familiarizes the student with a variety of assessment instruments. The student is required to master the principal computing tools appropriate to grade distribution and grade comparison as well as to elementary statistical studies.

EDUC 217 GENERAL DIDACTICS 3.0: 3 cr. E/F

The objective of this course is to become acquainted with didactic terminology and concepts. It includes a theoretical and practical part. The theoretical part anchored in a scientific experimental methodology of thinking consists of developing the different concepts: didactic triangle, didactic transposition, didactic contract, didactic mediation and didactic situation. The practical part anchored in a scientific experimental methodology of acting aims at describing, explaining and critically analyzing concrete teaching - learning situations.

EDUC 221 TRENDS IN EDUCATION 3.0:3 cr. E/F

This course focuses on contemporary trends in education. Students will explore the effects of the technological and social developments on new trends in teaching and learning. The course also highlights the relation between education and the changing demands of the labor market. (TD Level)

EDUC 224 INCLUSIVE EDUCATION **3.0:3 cr. E/F**

This course aims to introduce students to the range of programs, instructional strategies and tools that are currently utilized to meet the needs of diverse learners in inclusive school settings. Students develop an understanding of planning for individual learners in a group setting to optimise learning and promote social integration for all students. Students will complete 10-12 hours of the practicum experience. (TD Level)

EDUC 243 TEACHING ARABIC AT THE ELEMENTARY LEVEL **3.0: 3 cr. E/F**

This course intends to introduce students to the major concepts tackled in the national curriculum for the Arabic language, in both oral and written skills, specifically at the elementary level. Another aim is to develop the didactic skills related to the teaching of this discipline. Students will learn to recognize how concepts related to the discipline are developmentally constructed in children's minds. They will be able to choose the strategies and tools to facilitate this construction. In addition, students will learn to develop interdisciplinary activities that reinforce the learning of the discipline. Methodologically the course exposes students to educational problems related to the discipline and encourages them to propose hypothetical solutions. Students will be asked to observe classes, and to prepare and give model lessons in preparation for the training in the fourth year.

Pre-requisite: EDUC 217

EDUC 245 TEACHING FRENCH AT THE ELEMENTARY LEvEL **3.0: 3 cr. E/F**

This course intends to introduce students to the major concepts tackled in the national curriculum for the French language, in both oral and written skills, specifically at the elementary level. Another aim is to develop the didactic skills related to the teaching of this discipline. Students will learn to recognize how concepts related to the discipline are developmentally constructed in children's minds. They will be able to choose the strategies and tools to facilitate this construction. In addition, students will learn to develop interdisciplinary activities that reinforce the learning of the discipline. Methodologically the course exposes students to educational problems related to the discipline and encourages them to propose hypothetical solutions. Students will be asked to observe classes, and to prepare and give model lessons in preparation for the training in the fourth year.

Pre-requisite: EDUC 217

EDUC 247 TEACHING ENGLISH AT THE ELEMENTARY LEvEL **3.0: 3 cr. E/F**

This course intends to introduce students to the major concepts tackled in the national curriculum for the English language, in both oral and written skills, specifically at the elementary level. Another aim is to develop the didactic skills related to the teaching of this discipline. Students will learn to recognize how concepts related to the discipline are developmentally constructed in children's minds. They will be able to choose the strategies and tools to facilitate this construction. In addition, students will learn to develop interdisciplinary activities that reinforce the learning of the discipline. Methodologically the course exposes students to educational problems related to the discipline and encourages them to propose hypothetical solutions. Students will be asked to observe classes, and to prepare and give model lessons in preparation for the training in the fourth year.

Pre-requisite: EDUC 217

EDUC 250 USE OF COMPUTER APPLICATIONS IN EDUCATION **3.0: 3 cr. E/F**

This course prepares students with skills to use technology as a tool in their professional lives. The course focuses on computer applications that relate to educational tasks building student-teachers' computer literacy. Students will create documents such as lesson plans, and reports using desktop publishing, work with Excel spreadsheets for the purpose of learning how to create grade reports and conduct descriptive statistics on a class, and create presentations using PowerPoint. The PowerPoint program will be thoroughly introduced to include the applications of sound, picture, text, animation, and hyper-links to be create sophisticated lessons.

EDUC 251 TEACHING ARITHMETIC AT THE ELEMENTARY LEvEL **3.0: 3 cr. E/F**

This course intends to introduce students to the major concepts tackled in the National curriculum for arithmetic. This aspect requires students to demonstrate mathematical knowledge related to the theory of numbers, mathematical logic, addition and subtraction, operations and calculation, and multiplication and division. Another aim is to develop the didactic skills related to the teaching of this discipline. Students will learn to recognize how concepts related to the discipline are developmentally constructed in children's minds. They will be able to choose the strategies and tools to facilitate this construction. In addition, students will learn to develop interdisciplinary activities that reinforce the learning of the discipline. Methodologically the course exposes students to educational problems related to the discipline and encourages them to propose hypothetical solutions. Students will be asked to observe classes, and to prepare and give model lessons in preparation for the training in the fourth year.

Pre-requisite: EDUC 217

EDUC 253 INSTRUCTIONAL COMPUTER APPLICATIONS IN EDUCATION **3.0: 3 cr. E/F**

This practical course introduces students to basic knowledge about computer applications in education. Students will be introduced to the concepts of 'intranet' so that they can be prepared to function in schools that are so equipped. Also, E-beam or Smartboard software will be introduced. Students will also learn how to search the internet effectively through the use of Boolean expressions and keywords in order to be able to take advantage of the many free educational software tools available for lesson construction. In

addition, specific software for educational purposes will be learned. For example, Hot Potatoes, Quiz Maker, Toolbook and Reading readiness programs, etc. Methodologically the course will be designed as a project-based course and students will be required to produce active-learning projects.

EDUC 255 TEACHING ARABIC AT THE INTERMEDIATE LEVEL 3.0: 3 cr. A

This course intends to introduce students to the major concepts tackled in the national curriculum for the Arabic language, and literature both the oral and written skill, specifically at the intermediate level. Another aim is to develop the didactic skills related to the teaching of this discipline. Students will learn to recognize how concepts related to the discipline are developmentally constructed in learners' minds. They will be able to choose the strategies and tools to facilitate this construction. Methodologically the course exposes students to educational problems related to the discipline and encourages them to propose hypothetical solutions. Students will be asked to observe classes, and to prepare and give model lesson plans in preparation for the practicum courses. (TD Level)

EDUC 256 TEACHING GEOMETRY AT THE ELEMENTARY LEVEL 3.0: 3 cr. E/F

This course is to introduce students to the major concepts tackled in the national curriculum for Geometry at the elementary level. Another aim is to develop the didactic skills related to the teaching of this discipline. Students will learn to recognize how concepts related to the discipline are developmentally constructed in children's minds. They will be able to choose the strategies and tools to facilitate this construction. In addition, students will learn to develop interdisciplinary activities that reinforce the learning of the discipline. Methodologically the course exposes students to educational problems related to the discipline and encourages them to propose hypothetical solutions. Students will be asked to observe classes, and to prepare and give model lesson plans in preparation for the practicum courses.

Pre-requisite: EDUC 217

EDUC 257 TEACHING FRENCH AT THE INTERMEDIATE LEVEL 3.0: 3 cr. E/F

This course is to introduce students to the major concepts tackled in the national curriculum for French language and literature, both the oral and written skills, specifically at the intermediate level. Another aim is to develop the didactic skills related to the teaching of this discipline. Students will learn to recognize how concepts related to the discipline are developmentally constructed in learners' minds. They will be able to choose the strategies and tools to facilitate this construction. Methodologically the course exposes students to educational problems related to the discipline and to encourage them to propose hypothetical solutions. Students will be asked to observe classes, and to prepare and give model lesson plans in preparation for the practicum courses.

EDUC 258 TEACHING ALGEBRA AT THE INTERMEDIATE LEVEL 3.0: 3 cr. E/F

This course is to introduce students to the major concepts tackled in the national curriculum for Algebra specifically at the intermediate level. This aspect requires students to analyze various conceptual aspects of mathematical disciplines specifically algebra. Another aim is to develop the didactic skills related to the teaching of this discipline. Students will learn to recognize how concepts related to the discipline are developmentally constructed in learners' minds. They will be able to choose the strategies and tools to facilitate this construction. Methodologically the course exposes students to educational problems related to the discipline and encourages them to propose hypothetical solutions. Students will be asked to observe classes, and to prepare and give model lesson plans in preparation for the practicum courses.

EDUC 261 CHILDREN'S LITERATURE 3.0: 3 cr. E/F

The aim of this course is to introduce students to the multiple uses of stories in interdisciplinary education. Students will be trained to critically assess educational stories for children 6 to 12 years old, as well as to choose proper stories for intended purposes. Students will gain the skills needed to act and tell stories effectively.

EDUC 264 TEACHING APPLIED SCIENCES IN ELEMENTARY SCHOOLS 3.0:3 cr. E/F

This course intends to introduce students to the major concepts tackled in the national curriculum for the applied and life sciences in elementary school. Another aim is to develop the didactic skills related to the teaching of this discipline. Students will learn to recognize how concepts related to the discipline are developmentally constructed in children's minds. They will be able to choose the strategies and tools to facilitate this construction. In addition, students will learn to develop interdisciplinary activities that reinforce the learning of the discipline. Methodologically the course exposes students to educational problems related to the discipline and encourages them to propose hypothetical solutions.

Pre-requisite: EDUC 217

EDUC 268 TEACHING BIOLOGY AND CHEMISTRY AT THE INTERMEDIATE LEVEL 3.0: 3 cr. E/F

This course intends to introduce students to the major concepts tackled in the national curriculum for Biology and Chemistry at the intermediate level. Another aim is to develop the didactic skills related to the teaching of this discipline. Students will learn to recognize how concepts related to the discipline are developmentally constructed in learners' minds. They will be able to choose the strategies and tools to facilitate this construction. In addition, students will learn to develop interdisciplinary activities that reinforce the learning of the discipline. Methodologically the course exposes students to educational problems related to the discipline and encourages them to propose hypothetical solutions. Students will be asked to observe classes, and to prepare and give model lessons in preparation for the practicum courses.

EDUC 275 CLASSROOM MANAGEMENT **3.0: 3 cr. E/F**

This course explores the role of the teacher as a moral agent who reflects ethical actions, decisions and professional practice in the classroom. The course also reviews and analyzes ways that a teacher can establish a positive classroom atmosphere through the review and analysis of several theoretical frameworks for behavior intervention. Students become aware of the role of the teacher as a relational-agent responsible for managing the components of the classroom environment in order to establish the appropriate atmosphere for facilitating learning and development. Methodologically the course exposes students to minor and major managerial issues and encourages them to propose hypothetical solutions or interventions.

EDUC 277 TEACHING ENGLISH AT THE INTERMEDIATE LEVEL **3.0: 3 cr. E/F**

This course intends to introduce students to the major concepts tackled in the national curriculum for the English language, both oral and written skills, at the intermediate level. Another aim is to develop the didactic skills related to the teaching of this discipline. Students will learn to recognize how concepts related to the discipline are developmentally constructed in learners' minds. They will be able to choose the strategies and tools to facilitate this construction. In addition, students will learn to develop interdisciplinary activities that reinforce the learning of the discipline. Methodologically the course exposes students to educational problems related to the discipline and encourages them to propose hypothetical solutions. Students will be asked to observe classes, and to prepare and give model lessons in preparation for the practicum courses. TD level course (special permission)

EDUC278 TEACHING ART I **3.0: 3 cr. A**

This course prepares students to experiment different techniques in visual arts and the methods of teaching these techniques. Students are trained to reflect on their practice and to comment on the creative aspects in the development process of the artistic work.

EDUC279 TEACHING ART II **3.0: 3 cr. A**

This course helps students to design interdisciplinary or multidisciplinary projects in visual arts. It aims at weaving direct or indirect links between visual arts and other taught disciplines.

EDUC 280 TEACHING COMPUTER I **3.0: 3 cr. E/F**

This course intends to introduce students to the major concepts tackled in the national curriculum for the teaching of computer at the intermediate level. Another aim is to develop the didactic skills related to the teaching of this discipline. Students will learn to recognize how concepts related to the discipline are developmentally constructed in learners' minds. They will be able to choose the strategies and tools to facilitate this construction. In addition, students will learn to develop interdisciplinary activities that reinforce the learning of the discipline. Methodologically the course exposes students to educational problems related to the discipline and encourages them to propose hypothetical solutions. Students will be asked to observe classes, and to prepare and give model lessons in preparation for the practicum courses.

EDUC 281 SELECTED TOPICS IN TEACHING ENGLISH **3.0: 3 cr. E**

This course intends to delve into issues related to the teaching of English at the intermediate level. The course will deal with current issues for example the use of ICT in the teaching of English, and the use of drama and literature as teaching tools among other themes. The course will also explore ways to integrate the language skills effectively. Methodologically the course exposes students to educational problems related to the discipline and
encourages them to propose hypothetical solutions. Students will be asked to observe classes, and to prepare and give model lessons in preparation for the practicum courses.

EDUC 282 SELECTED TOPICS IN TEACHING FRENCH **3.0: 3 cr. F**

This course intends to delve into issues related to the teaching of French at the intermediate level. The course will deal with current issues for example the use of ICT in the teaching of French, and the use of drama and literature as teaching tools among other themes. The course will also explore ways to integrate the language skills effectively. Methodologically the course exposes students to educational problems related to the discipline and encourages them to propose hypothetical solutions. Students will be asked to observe classes, and to prepare and give model lessons in preparation for the practicum courses.

EDUC 283 SELECTED TOPICS IN TEACHING ARABIC **3.0: 3 cr. A**

This course intends to delve into issues related to the teaching of Arabic at the intermediate level. The course will deal with current issues for example the use of ICT in the teaching of Arabic, and the use of drama and literature as teaching tools among other themes. The course will also explore ways to integrate the language skills effectively. Methodologically the course exposes students to educational problems related to the discipline and encourages them to propose hypothetical solutions. Students will be asked to observe classes, and to prepare and give model lessons in preparation for the practicum courses.

EDUC 284 TEACHING GEOMETRY AT THE INTERMEDIATE LEVEL **3.0: 3 cr. E/F**

This course is to introduce students to the major concepts tackled in the national curriculum for Geometry specifically at the

intermediate level. This aspect requires students to analyze various conceptual aspects of mathematical disciplines including mathematical analysis, and geometry. Another aim is to develop the didactic skills related to the teaching of this discipline. Students will learn to recognize how concepts related to the discipline are developmentally constructed in learners' minds. They will be able to choose the strategies and tools to facilitate this construction. Methodologically the course exposes students to educational problems related to the discipline and encourages them to propose hypothetical solutions. Students will be asked to observe classes, and to prepare and give model lesson plans in preparation for the practicum courses.

EDUC 285 TEACHING PHYSICS AT THE INTERMEDIATE LEVEL 3.0: 3 cr. E/F

This course intends to introduce students to the major concepts tackled in the national curriculum for Physics at the intermediate level. Another aim is to develop the didactic skills related to the teaching of this discipline. Students will learn to recognize how concepts related to the discipline are developmentally constructed in learners' minds. They will be able to choose the strategies and tools to facilitate this construction. In addition, students will learn to develop interdisciplinary activities that reinforce the learning of the discipline. Methodologically the course exposes students to educational problems related to the discipline and encourages them to propose hypothetical solutions. Students will be asked to observe classes, and to prepare and give model lessons in preparation for the practicum courses.

EDUC 286 TEACHING COMPUTER II 3.0: 3 cr. E/F

This course intends to introduce students to the major concepts tackled in the national curriculum for the teaching of computer at the intermediate level. Another aim is to develop the didactic skills related to the teaching of this discipline. Students will learn to recognize how concepts related to the discipline are developmentally constructed in learners' minds. They will be able to choose the strategies and tools to facilitate this construction. In addition, students will learn to develop interdisciplinary activities that reinforce the learning of the discipline. Methodologically the course exposes students to educational problems related to the discipline and encourages them to propose hypothetical solutions. Students will be asked to observe classes, and to prepare and give model lessons in preparation for the practicum courses.

EDUC 287 TEACHING ECONOMICS I 3.0: 3 cr. E/F/A

This course intends to introduce students to the major concepts tackled in the Lebanese national curriculum for Economics. Another aim is to develop the didactic skills related to the teaching of this discipline. Students will learn to recognize how concepts related to the discipline are developmentally constructed in learners' minds. They will be able to choose the strategies and tools to facilitate this construction. In addition, students will learn to develop interdisciplinary activities that reinforce the learning of the discipline. Methodologically the course exposes students to educational problems related to the discipline and encourages them to propose hypothetical solutions. Students will be asked to observe classes, and to prepare and give model lessons in preparation for the practicum courses.

EDUC 288 TEACHING ECONOMICS II 3.0: 3 cr. E/F/A

This course intends to introduce students to the major concepts tackled in the Lebanese national curriculum for Economics. Another aim is to develop the didactic skills related to the teaching of this discipline. Students will learn to recognize how concepts related to the discipline are developmentally constructed in learners' minds. They will be able to choose the strategies and tools to facilitate this construction. In addition, students will learn to develop interdisciplinary activities that reinforce the learning of the discipline. Methodologically the course exposes students to educational problems related to the discipline and encourages them to propose hypothetical solutions. Students will be asked to observe classes, and to prepare and give model lessons in preparation for the practicum courses.

EDUC 290 EDUCATION FOR SPECIAL NEEDS 3.0: 3 cr. E/F

This course deals with issues related to children with "special needs". It explores the etiology and symptoms of physical, cognitive or socio-affective disadvantages that interfere with the learning experiences of children in mainstream schools. The course aims to enable students to screen (and not assess) children's difficulties, to prepare a detailed observational report, to propose adequate orientation toward specialized interventions and to understand and follow specialists' recommendations.

EDUC 291 INTERDISCIPLINARY PROJECT DESIGN 3.0: 3 cr. E/F

This course prepares students to collectively produce interdisciplinary extracurricular activities that relate to the educational demands of the community. Students will learn about the major production aspects necessary for the execution of this kind of activity. The types of projects students will become familiar with include theatrical productions, movie making, publications, fundraising activities, environmental awareness campaigns etc. The course requires the use of different materials or virtual resources.

EDUC 292 TEACHING OF PHYSICAL EDUCATION I 3.0: 3 cr. E/F

This course is divided into two parts. The first part serves as a general introduction to the history, rules, and technical evolution of team sports. It offers pedagogic and didactic preparation for teaching individual techniques, exercise planning, and teamwork. This course also discusses the role of motor ability and specific psychological development in learning various moves in team sports. The second part discusses various methods of teaching and training swimming enabling individuals to adapt their

teaching strategies according to the physical and technical needs of their students. Particular forms of training cycles and programs based on different levels (beginners, young students, adults or professional athletes) are also covered.

EDUC 293 TEACHING OF PHYSICAL EDUCATION II 3.0: 3 cr. E/F

This course is divided into two parts. The first part discusses the process of teaching and training in Track and Field enabling individuals to tailor their teaching strategy according to the physical and technical needs of their students. This course also covers particular forms of training cycles and programs based on different levels (beginners, young students, adults or professional athletes). The second part serves as a general introduction to the history, rules, technical evolution and modern development of gymnastics. It offers educational and didactic preparation in teaching basic techniques, specific motor development and development of physical qualities (power, speed and endurance). This course also discusses the complex relation between teaching methodology and age, development of specific psychological qualities, and artistic creativity.

EDUC 296 VISUAL ARTS: PEDAGOGY AND CREATIVITY 3.0: 3 cr. A

This course offers an introduction to the basic and various artistic techniques and media useful and helpful in education, considering art as an important intellectual and emotional means of communication. This know- how will help the student to explore visual arts through a series of practical projects. Creativity and its process constitute the main objective of this course, as well as the development and mastering of the practical techniques.

PRAC 220 PRACTICUM IN ELEMENTARY SCHOOLS I 1.0: 1 cr. E/F/A

This training course gives students in Education Sciences their first contact with students in elementary schools. Students learn to observe and to analyze teaching practices in a real school environment based on the principles and theories they have learned. The Practicum Policy Book will be referred to.
Pre-requisites: EDUC 217 and EDUC 275

PRAC 221 PRACTICUM IN ELEMENTARY SCHOOLS II 2.0: 2 cr. E/F/A

This training course is intended to familiarize students with the realities and practicalities of the school environment in elementary levels. The course offers students the opportunity to participate in classroom teaching and activities. The Practicum Policy Book will be referred to.
Pre-requisites: EDUC 217 and EDUC 275

PRAC 222 PRACTICE OF TEACHING AT THE INTERMEDIATE AND SECONDARY LEVELS 3.0: 3 CR. E/F/A

The purpose of this course is to prepare students to take on the responsibility of teaching the intermediate levels. They will be responsible for a class throughout a semester and will teach their subject of specialization. Students will also be required to maintain a portfolio of lesson plans and reflective journal entries The Practicum Policy Book will be referred to.

PRAC 223 PRACTICE OF TEACHING – TD EDUCATION 3.0:3 cr E/F

The purpose of this course is to prepare students to take the responsibility of teaching in the first and second cycles in the elementary levels (grades 1-6). They will be placed with a classroom teacher during the semester, and will teach several subjects.

Regarding the course descriptions for CSPR, CSPR-Equivalent, ENGL MUSC, PHED, PSYC and THEA courses, refer to the corresponding Department.

4.9 DEPARTMENT OF ENGLISH LANGUAGE AND LITERATURE

Chair of Department: Omar Adra, omar.adra@balamand.edu.lb

The Department of English Language and Literature offers:

- The Intensive English Program
- The Composition and Rhetoric Sequence
- The Bachelor of Arts in English Language and Literature Program
- A Minor in English, 15 credits of courses (with ENGL codes), excluding the 6 cr. University Requirements (203 and 204 equivalent)

MISSION STATEMENT

The Department of English Language and Literature is committed to the development of the English language skills of UOB students through offering English communication courses that focus on academic writing, critical and analytical thinking, and proficiency in oral communication. The students will also be introduced to the function of the English language in society, and the world of culture, ideas and imagination. Students majoring in English are exposed to a rich curriculum that immerses them in English language and literature. The diverse teaching approaches help students become critical thinkers, active learners, and good writers.

INTENSIVE ENGLISH

The Intensive English Program (IEP) aims to improve students' English language skills in the areas of speaking, listening, writing, grammar, reading and vocabulary. It helps students with a pre-college language level to quickly gain the language competence needed to succeed in university courses. Students are placed into an intensive English level based on the results of their SAT writing score or TOEFL score.

- ENGL 002 INTENSIVE ENGLISH II
- ENGL 003 INTENSIVE ENGLISH III

COMPOSITION AND RHETORIC

The Composition and Rhetoric Sequence aims to make students better thinkers and better communicators by preparing them for the communicative demands of their academic and professional development and developing their skills in critical analysis. Students are placed into a level designated by the SAT scores, TOEFL test, or by successful completion of the previous level.

- ENGL 101 ENGLISH COMMUNICATION SKILLS I
- ENGL 102 ENGLISH COMMUNICATION SKILLS II
- ENGL 203 ENGLISH COMMUNICATION SKILLS III

BACHELOR OF ARTS IN ENGLISH LANGUAGE AND LITERATURE

Students wishing to major in English Language and Literature are conditionally accepted into the program until they obtain a grade of 70 or above in ENGL 203. To qualify for a BA in English, the student must complete a total of 91 credits, distributed as follows:

Plan of Study (POS)

Total Credits within a BS program				**91 cr**
1	***University Requirements***			***19 cr***
1.1	English	6 cr		
1.2	CSPR	6 cr		
1.3	CSPR equivalent	6 cr		
1.4	LISP 200	1 cr		
2	***Department Requirements***			***57 cr***
2.1.	*Courses from the Major*	*(minimum 40%, i. e., 36 credits)*		
2.1.1	*11 Major (Core) Courses*		*33 cr*	
ENGL 219	Classical Foundations of English Literature	3 cr		
ENGL 220	Approaches to Literature: Ways of Reading	3 cr		
ENGL 221	Literature I: Renaissance to Romanticism	3 cr		
ENGL 222	Literature II: 1800 - Present Day	3 cr		
ENGL 223	Comparative and World Literatures	3 cr		
ENGL 238	Introduction to Literary Theory	3 cr		
ENGL 239	The History of the English Language	3 cr		
ENGL 253	Creative Writing	3 cr		
ENGL 261	Senior Seminar	3 cr		
ENGL 262	Linguistics I	3 cr		
ENGL 263	Linguistics II	3 cr		

2.1.2 Electives within the Department *15 cr*

Students are requested to choose 5 courses (3 credits each) from the list below:

ENGL 230	Introduction to Language	*3 cr*
ENGL 231	Medieval Literature	*3 cr*
ENGL 234	Romantic Poetry and Prose	*3 cr*
ENGL 236	Modern Literature in English	*3 cr*
ENGL 237	Survey of American Literature	*3 cr*
ENGL 242	Drama to 1900	*3 cr*
ENGL 243	Novel to 1900	*3 cr*
ENGL 244	Modern Drama	*3 cr*
ENGL 245	The Modern Novel	*3 cr*
ENGL 246	Modern Poetry	*3 cr*
ENGL 247	Topics in American Literature	*3 cr*
ENGL 250	Language, Society, and Culture	*3 cr*
ENGL 251	Discourse Analysis	*3 cr*
ENGL 254	Creative Writing Workshop	*3 cr*
ENGL 255	Topics in World Literature	*3 cr*
ENGL 256	Literature and Identity	*3 cr*
ENGL 257	Literature and Film	*3 cr*
ENGL 264	Independent Study	*3 cr*
ENGL 265	Literature, Media, and Popular Culture	*3 cr*
ENGL 266	Books and Writers	*3 cr*

2.2 General Education Courses *9 cr*

2.2.1 ARAB 201 or any ARAB course* 3cr

2.2.2 One 3-credit course from the Sciences (Natural Sciences such as BIOL, CHEM, EVSC, PHYS) or CSIS283

2.2.3 One 3-credit course from the Arts from the below 3cr

EDUC 228, MCOM 201, MCOM 227, PHED 255, PSIA 201, PSIA 202, PSYC 200, SOCL 202, THEA 260, THEA 265, TRAN 230, TRAN 240

3 Free Electives ***15 cr***

* *Students who are exempted from taking Arabic may choose any language course instead.*

DESCRIPTIONS OF ENGL COURSES

ENGL 002 INTENSIVE ENGLISH II* **15.0: 10 cr. E**

This course is one of two in the Intensive English Program; it focuses on developing the student's ability to read, write and speak, from an intermediate to an upper intermediate proficiency level, using English as the language of communication. Through communicative and interactive activities, the course provides students with the language skills necessary for university course work.
Students can also take a maximum of 3 credits of ARAB, CSPR (in Arabic), or any course that is offered in a language other than English, in addition to ENGL002

*Based on their English Language Test some students may be placed in a "special section"and the additional tutorial support in the English Language Center.

ENGL 003 INTENSIVE ENGLISH III **12.0: 8 cr. E**

This course is one of two courses in the Intensive English Program; it focuses on developing the student's ability to read, write and speak, from an upper-intermediate to an advanced level, using English as the language of communication. Through communicative and interactive activities, the course provides students with the language skills necessary for university course work.
Students can take a maximum of 6 credits which do not require a high pre-requisite English level, in addition to ENGL003

ENGL 101 ENGLISH COMMUNICATION SKILLS I **3.0: 3 cr. E**

This course focuses on training students to communicate in an academic environment. Emphasis is placed on the comprehension and analysis of oral and written texts and the production of paragraphs and short essays. Oral communication through formal and informal discussions and presentations is an integral element of the course. Pre-requisite: ENGL 003 or TOEFL score between 527 and 567; SAT score of 380-439.

ENGL 102 ENGLISH COMMUNICATION SKILLS II **3.0: 3 cr. E**

This course intends to develop the language skills required for successful participation in academic studies at the university level. Writing skills are emphasized with particular focus on developing a documented, argumentative essay. Oral communication skills are nurtured through formal or informal discussions and presentations.
Pre-requisite: ENGL 101 or TOEFL score between 570 and 597; SAT score of 440-489.

ENGL 203 ENGLISH COMMUNICATION SKILLS III **3.0: 3 cr. E**
This course is designed as a writing workshop that emphasizes writing for particular purposes and particular audiences. Students' ability to read critically and analyze texts of various types and styles is stressed. Importance is placed on students' ability to synthesize and incorporate a variety of sources in their writing. The oral communication skill is nurtured through formal and informal discussions and presentations.
Pre-requisite: ENGL 102 or TOEFL score above 600; SAT score of 490 or above.

ENGL 219 CLASSICAL FOUNDATIONS OF ENGLISH LITERATURE **3.0: 3 cr. E**
This course is a sustained study of historical, biographical, thematic and formal elements of the classical and mythological foundations of literature in English. Students will read translations of authors such as Ovid, Homer, Sappho, Virgil and Sophocles, as well as others of major significance in poetry, drama, and prose to better understand their relevance to English literature.
Co-requisite: ENGL 203

ENGL 220 APPROACHES TO LITERATURE: WAYS OF READING **3.0: 3 cr. E**
This course is an introduction to literary study that develops students' critical reading skills through the analysis of poetry, prose, drama, and film. Themes of the course will focus on the ways different individuals, societies and cultures represent themselves in literature, and how we read and interpret those forms of representation through the application of basic, critical literary tools and theories.
Co-requisite: ENGL 203
This course satisfies the exit requirements of the Department of English Language and Literature in oral communication, critical thinking, academic writing, and writing for different purposes.

ENGL 221 LITERATURE I: RENAISSANCE TO ROMANTICISM **3.0: 3 cr. E**
This course consists of a sustained study of historical, biographical, thematic and formal elements of the Old English, Medieval, Renaissance, and Early Modern eras, Student readings will be readings drawn from the works of figures such as Chaucer, Spenser, Marlowe, Shakespeare, Donne, Milton, Pope, Swift, and Johnson, as well as others of major significance, in poetry, drama, and prose.
Pre-requisite: ENGL 203

ENGL 222 LITERATURE II: 1800-PRESENT DAY **3.0: 3 cr. E**
Course content will reflect the changing aesthetics, sensibilities and cultural phenomena in the literary period from Romanticism to Postmodernity. The course may include literary works of major authors of the period such as Coleridge, Mary Shelley, Carlyle, Rosetti, Hopkins, Tennyson, Dickens, Dickinson, Woolf, Eliot, Stevens and Beckett along with important critical works.
Pre-requisite: ENGL 203

ENGL 223 COMPARATIVE AND WORLD LITERATURES **3.0: 3 cr. E**
This course examines literature within an international frame, reading literature across borders of language, time, and place. Students refine their abilities to critically analyze texts of a variety of genres. In learning to respond to the world of the text, students learn to read the world around them.
This course satisfies the exit requirements of the Department of English Language and Literature in oral communication, critical thinking, academic writing, and writing for different purposes.
Pre-requisite: ENGL 203

ENGL 230 INTRODUCTION TO LANGUAGE **3.0: 3 cr. E**
This course is a general introduction to language and to the nature of the human communication system. Topics included in the course are language and mind, first and second language acquisition, language maintenance, shift and death, and the social and cultural factors which affect language.
This course satisfies the exit requirements of the Department of English Language and Literature in oral communication, critical thinking, academic writing, and writing for different purposes.
Pre-requisite: ENGL 203

ENGL 231 MEDIEVAL LITERATURE **3.0: 3 cr. E**
This course examines the literature of the Medieval period, broadly defined. Themes such as the discourse of love, the role of religion in social life, and the political manifestations in medieval times may be treated through the troubadour tradition, the Arthurian cycle and Celtic legends such as Tristan and Isolde.
Pre-requisite: ENGL 203

ENGL 234 ROMANTIC POETRY AND PROSE **3.0: 3 cr. E**
This course examines the poetry and prose of the romantic period with attention to social and historical contexts. Pre-requisite: ENGL 203

ENGL 236 MODERN LITERATURE **3.0: 3 cr. E**
This course traces the changes and developments in literature since the end of the nineteenth century across a range of genres
Pre-requisite: ENGL 203

ENGL 237 SURVEY OF AMERICAN LITERATURE **3.0: 3 cr. E**
Students are introduced to American literature as a separate field from English literature This may include topics taken from early

Puritan writing, American Romanticism and Realism up to the literature of post-modernism.
This course satisfies the exit requirements of the Department of English Language and Literature in oral communication, critical thinking, academic writing, and writing for different purposes.
Pre-requisite: ENGL 203

ENGL 238 INTRODUCTION TO LITERARY THEORY 3.0: 3 cr. E
This course introduces different critical approaches and practices in literary studies from classical times to the present in order to expand the range of critical tools available to literature students and to increase the range of their critical vocabularies. Emphasis in the course will be placed not only on an understanding of the range of literary theory but also upon the application of critical frameworks to literary texts.
Pre-requisite: ENGL 203

ENGL 239 THE HISTORY OF THE ENGLISH LANGUAGE 3.0: 3 cr. E
This course is an introduction to the historical development of the English language from its Indo-European past through its major periods: Old English, Middle English, Early Modern English, and Modern English. The course examines the history of English within the British Isles, its spread outside the British Isles and its rise to global preeminence.
This course satisfies the exit requirements of the Department of English Language and Literature in oral communication, critical thinking, academic writing, and writing for different purposes.
Pre-requisite: ENGL 203

ENGL 242 DRAMA TO 1900 3.0: 3 cr. E
This course is a study of drama from its earliest roots up until the start of the 20th century. The course may take include topics such as Elizabethan and Jacobean drama, the morality plays, and plays of tragedy and revenge with attention to contemporaneous contexts of history and culture, and aesthetic and literary movements.

ENGL 243 THE NOVEL TO 1900 3.0: 3 cr. E
This course deals with the origins of the novel from such authors as Fielding, Richardson, Defoe and Austen and may include other major novelists of the 19th century.
Pre-requisite: ENGL 203

ENGL 244 MODERN DRAMA 3.0: 3 cr. E
This course consists of the reading and analysis of drama of the twentieth and twenty-first centuries with attention to the contemporaneous contexts of history, social issues, aesthetic and literary movements, and corresponding national culture.
This course satisfies the exit requirements of the Department of English Language and Literature in oral communication, critical thinking, academic writing, and writing for different purposes.
Pre-requisite: ENGL 203

ENGL 245 THE MODERN NOVEL 3.0: 3 cr. E
This course consists of the reading and analysis of novels of the twentieth and twenty- first centuries with attention to contemporaneous contexts of history, social issues, aesthetic and literary movements, and corresponding national culture.
This course satisfies the Department of English Language and Literature's exit requirements in oral communication critical thinking, academic writing and writing for different purposes.
Pre-requisite: ENGL 203

ENGL 246 MODERN POETRY 3.0: 3 cr. E
This course consists of the reading and analysis of primarily twentieth and twenty-first century poetry with attention to contemporaneous contexts of history, social issues, aesthetic and literary movements, and corresponding national culture..
Pre-requisite: ENGL 203

ENGL 247 TOPICS IN AMERICAN LITERATURE 3.0: 3 cr. E
This course focuses on the study of a particular author, period, topic or problem taken from American literature.
This course satisfies the exit requirements of the Department of English Language and Literature in oral communication, critical thinking, academic writing, and writing for different purposes.
Pre-requisite: ENGL 203

ENGL 250 LANGUAGE, SOCIETY AND CULTURE 3.0: 3 cr. E
This course examines the dynamic relationship between language, society and culture, and the role language plays in representing social and cultural categories.
This course satisfies the exit requirements of the Department of English Language and Literature in oral communication, critical thinking, academic writing, and writing for different purposes.
Pre-requisite: ENGL 203

ENGL 251 DISCOURSE ANALYSIS 3.0: 3 cr. E
This course is an introduction to the central theories and methods in the analysis of spoken and written units of language, which are larger than the sentence. Topics include speech act theory, implicature, ethnography of communication, conversation analysis, interactional sociolinguistics, and critical discourse analysis. The course places particular focus on the examination of real-life samples of language.
This course satisfies the exit requirements of the Department of English Language and Literature in oral communication, critical

thinking, academic writing, and writing for different purposes.
Pre-requisite: ENGL 203

ENGL 253 CREATIVE WRITING **3.0: 3 cr. E**
A course for new writers wishing to establish and enhance basic skills in original writing. Equal attention will be given to the work turned in for critique and to the development of the student's critical skills.
This course satisfies the exit requirements of the Department of English Language and Literature in oral communication, critical thinking, academic writing, and writing for different purposes.
This course satisfies the exit requirements of the Department of English Language and Literature in oral communication, critical thinking, academic writing, and writing for different purposes.
Pre-requisite: ENGL 203

ENGL 255 TOPICS IN WORLD LITERATURE **3.0: 3 cr. E**
This course focuses particularly upon the study of themes, issues, works or literary movements that tend to cross different languages, cultures and national borders .
This course satisfies the exit requirements of the Department of English Language and Literature in oral communication, critical thinking, academic writing, and writing for different purposes.
Pre-requisite: ENGL 203

ENGL 256 LITERATURE AND IDENTITY **3.0: 3 cr. E**
This course will examine literature as an expression of various national, racial, ethnic or gender identities.
This course satisfies the exit requirements of the Department of English Language and Literature in oral communication, critical thinking, academic writing, and writing for different purposes.
Pre-requisite: ENGL 203

ENGL 257 LITERATURE AND FILM **3.0: 3 cr. E**
This course will focus on the aesthetic relationships between literature and film, taking as its focus themes such as film as text, translation of literature into film, intertextual relationships between literature and film, and the literary and filmic image.
This course satisfies the exit requirements of the Department of English Language and Literature in oral communication, critical thinking, academic writing, and writing for different purposes.
Pre-requisite: ENGL 203

ENGL 260 ELT PEDAGOGY **3.0: 3 cr. E**
This course provides students with a theoretical foundation for the teaching of the English language. The course develops a basic understanding of the principles of teaching language skills as well as the teaching of literature.
Pre-requisite: ENGL 203

ENGL 261 SENIOR SEMINAR **3.0: 3 cr. E**
This course provides a senior capstone experience for the English major students. This course will afford each student the opportunity to focus on a subject of interest and pursue a semester-long project culminating in a senior essay of 5000+ words.
Pre-requisites: ENGL 203 and Senior status.

ENGL 262 LINGUISTICS I **3.0: 3 cr. E**
This course introduces language as a system and focuses on basic concepts in phonetics, phonology, morphology and syntax.
Pre-requisite: ENGL 203

ENGL 263 LINGUISTICS II **3.0: 3 cr. E**
This course focusses on meaning in language (semantics and pragmatics) and the social context of language.
Pre-requisite: ENGL 203

ENGL 264 INDEPENDENT STUDY **3.0: 3 cr. E**
For students with well-defined goals and motivation, independent study provides a way to earn academic credit while pursuing a topic or project of particular interest in the field of English language or literature that is not offered as a regularly scheduled course.
Pre-requisites: ENGL 203 and Senior status.

ENGL 265 LITERATURE, MEDIA AND POPULAR CULTURE **3.0: 3cr. E**
This course views its texts through the lens of one or more theoretical frames. Works may include films and videos, magazines and tabloids, historical documents, audio recordings, literary works, works from the plastic arts, and artifacts. Theoretical approaches such as feminism, Marxism, new historicism, psychoanalysis, and poststructuralism may be utilized.
This course satisfies the exit requirements of the Department of English Language and Literature in oral communication, critical thinking, academic writing, and writing for different purposes.
Pre-requisite: ENGL 203

ENGL 270 DRAMA WRITING STUDIO **3.0: 3 cr. E**
This course will focus on the art of writing for theatre performance through the original composition of dramatic scenes, revised

through workshop critique to be made stage worthy, through to studio production, with the goal of creating original plays.

ENGL 273 CREATIVE WRITING WORKSHOP II **3.0: 3 cr. E**
This course will have as its goal to further develop students' practice of creative writing in the main genres of imaginative literature through advanced expectations of performance, knowledge and craft as they relate to the processes of drafting, critique and revision.

ENGL 279 CREATIVE WRITING: NONFICTION PROSE **3.0: 3 cr. E**
A course in the study of authors and their works in the recently conceived genre categorized as creative nonfiction, with the goal of inspiring original writing in the genre through the practice of writing nonfiction prose utilizing writing techniques previously associated with fiction.

ENGL 281 SCREENWRITING **3.0: 3 cr. E**
A course on composing short filmic texts from initial concept to treatment, and through collaborative production to final cut, learning the essential technical as well as aesthetic elements of writing for cinema by studying the process through readings, analyzing screenplays from film classics, and participation in workshops.

Regarding the course descriptions for CSPR and CSPR-Equivalent courses, refer to the corresponding Department.

4.10 DEPARTMENT OF ENVIRONMENTAL SCIENCES

Chair of Department: Pierre Obeid, Ph.D., pierre.obeid@balamand.edu.lb

The Department of Environmental Sciences offers a Bachelor of Science (B.Sc.) degree to students who have successfully completed a minimum of **91 credits** of required courses provided that they satisfy the standards set by the University and the Faculty.

Program Mission:

The Department of Environmental Sciences trains students to understand the scientific basis of the environmental crisis, as well as the social, political and economic factors that affect environmental problems and solutions. The essence is to provide students with the scientific foundation, and the holistic critical thinking skills to better understand and manage environmental issues. The department fulfills the growing need for wise environmental management in this region, and, due to its unique combination of offering instruction and conducting research in numerous scientific areas; the department further promotes cooperation and exchange among traditional disciplines and faculties that share similar methodological and philosophical problems.

Program Learning Objectives:

The Bachelor of Science degree in Environmental Sciences aims to:

1. Provide students with the scientific foundation to understand the principles governing life and the interactions between living organisms and their surroundings
2. Train students to sample and to monitor environmental conditions using both modern and traditional technology
3. Develop students' natural resources management skills
4. Instill in students life-long learning habits and scholarly inquiry so that they become leaders in their discipline
5. Build the students' oral communication and scientific writing skills
6. Prepare students for employment or graduate studies by gaining hands-on work experience in environmental issues.

Program Learning Outcomes:

Upon graduation with a Bachelor of Science in Environmental Sciences, students will be able to:

1. Identify and explain environmental processes and human - environment interactions
2. Apply interdisciplinary perspectives and approaches to environmental problems
3. Use various instruments, software and techniques to analyze, sample and monitor environmental conditions
4. Critically assess and evaluate environmental problems at a local and global scale
5. Devise and implement management strategies for various natural resources
6. Draft professional reports, including description, analysis and recommendations for environmental issues
7. Design effective oral presentations and scientific papers.

To graduate with a B.Sc. in Environmental Sciences, students must complete the following:

Total Credits within a BS program				**91 cr**
1	***University Requirements***			***19cr***
1.1	English	6 cr		
1.2	CSPR	6 cr		
1.3	CSPR equivalent	6 cr		
1.4	LISP 200	1 cr		
2	***Department Requirements***			***72 cr***
2.1.Courses from the Major	*(minimum 40%, i. e., 36 credits)*			
2.1.1Major Core Courses				*41 cr*
EVSC 201	Environmental Sciences: Creating a Sustainable Future	3 cr		
EVSC 203	Earth Observation and GIS	3 cr		
EVSC 204	Earth Observation and GIS Lab	1 cr		
EVSC 205	Introduction to Evolution and Environmental Adaptation	3 cr		
EVSC 207	Coastal Zone Management	3 cr		
EVSC 211	Project Residency	3 cr		
EVSC 213	Restoration and Reclamation Ecology	3 cr		
EVSC 233	Pollution Sources and Transport in Ecosystems	3 cr		
EVSC 239	Environmental Economics and Development	3 cr		
EVSC 241	Natural Resources Planning and Policy	3 cr		

EVSC 243	Special Topics for Environmental Sciences	3 cr	
EVSC 245	Marine Ecosystems	3 cr	
EVSC 246	Marine Ecosystems Lab	1 cr	
EVSC 249	Writing for Environmental Professionals	3 cr	
EVSC 253	Methods in Environmental Impact Analysis	3 cr	

2.1.2 Major Elective courses *3 cr*

Students are requested to choose a 3-credit course from the list below:

EVSC 202	Fundamentals of Geology	3 cr
EVSC 209	Introduction to Aquaculture	3 cr
EVSC 221	Assessment and Management of Fish Populations	3 cr
EVSC 222	Assessment and Management of Fish Populations Lab	1 cr
EVSC 234	Pollution Sources and Transport in Ecosystems Lab	1 cr
EVSC 237	Ecotourism Planning and Development	3 cr
EVSC 251	Protected Areas Management and Planning	3 cr

2.2 General Education (service) Courses *28 cr*

BIOL 201	General Biology I	3 cr
BIOL 202	General Biology I Lab	1 cr
BIOL 207	General Ecology	3 cr
BIOL 208	General Ecology Lab	1 cr
CHEM 292	Environmental Chemistry	3 cr
CHEM 202	Basic Chemistry	3 cr
CHEM 203	Basic Chemistry Lab	1 cr
CHEM 240	Basic Organic	3 cr
MATH 242	Statistics for Applied Sciences	3 cr
PHYS 211	Fundamentals of Physics I	3 cr
PHYS 212	Fundamentals of Physics I Lab	1 cr
One course from the list below		3 cr

ARAB 201	*Arabic Expression III*	*3 cr*
CSIS 273	*Personal Computation Computing for Applied Sciences*	*3 cr* *
MATH 290	*History of Mathematics*	*3 cr*

3 Free Electives ***0 cr***

* Recommended for pre-medicine students.

BACHELOR OF SCIENCE IN ENVIRONMENTAL SCIENCES

SEMESTER 1

Code	Course Title	Credit
BIOL 201	General Biology I	3
BIOL 202	General Biology I Lab	1
CHEM 202	Basic Chemistry	3
CHEM 203	Basic Chemistry Lab	1
ENGL 203	English Communication Skills III	3
EVSC 201	Environmental Sciences: Creating a Sustainable Future	3
LISP 200	Library Use and Research Methods	1
Total		**15**

SEMESTER 2

Code	Course Title	Credit
BIOL 207	General Ecology	3
BIOL 208	General Ecology Lab	1
CSIS 273	Applied Digital Skills for Sciences	3
CSPR 201	Civilization and Relegion	3
ENGL 204	English Communication Skills IV	3
EVSC 203	Earth Observation and GIS	3
EVSC 204	Earth Observation and GIS Lab	1
Total		**17**

SEMESTER 3

Code	Course Title	Credit

CHEM 240	Basic Organic Chemistry	3
EVSC 205	Introduction to Evolution and Environmental Adaptation	3
EVSC 213	Restoration and Reclamation Ecology	3
EVSC 249	Writing for Environmental Professionals	3
PHYS 211	Fundamentals of Physics I	3
PHYS 212	Fundamentals of Physics I Lab	1
Total		**16**

SEMESTER 4

Code	Course Title	Credit
CHEM 292	Environmental Chemistry	3
CSPR 202	Philosophy and Culture	3
EVSC 245	Marine Ecosystems	3
EVSC 233	Pollution Sources and Transport in Ecosystems	3
EVSC 246	Marine Ecosystems Lab	1
MATH 242	Statistics for Applied Sciences	3
Total		**16**

SUMMER SEMESTER

Code	Course Title	Credit
EVSC 211	Project Residency	3
Total		**3**

SEMESTER 5

Code	Course Title	Credit
CSPR 203	Cultures and Society	3
EVSC 207	Coastal Zone Management	3
EVSC 239	Environmental Economics and Development	3
Elective		3
Total		**12**

SEMESTER 6

Code	Course Title	Credit
CSPR 204	Arabic Thought and Culture	3
EVSC 241	Natural Resources Planning and Policy	3
EVSC 243	Special Topics for Environmental Sciences	3
EVSC 253	Methods in Environmental Impact Analysis	3
Total		**12**

Total credits **91**

ENVIRONMENTAL SCIENCE ELECTIVE COURSES

Code	Course Title	Credit
EVSC 202	Fundamentals of Geology	3
EVSC 209	Introduction to Aquaculture	3
EVSC 221	Assessment and Management of Fish Populations	3
EVSC 222	Assessment and Management of Fish Populations Lab	1
EVSC 234	Pollution Sources and Transport in Ecosystems Lab	1
EVSC 237	Ecotourisim Planning and Development	3
EVSC 251	Protected Areas Management and Planning	3

Minor in Environmental Sciences

The Department of Environmental Sciences offers a Minor available to all Faculties at the University. This minor presents the students with the opportunity to focus on a growing national and international issue by taking only 15 credits (5 courses) at the Department. In addition to the 4 mandatory courses (EVSC 201, EVSC 233, EVSC 241, and EVSC 243) students may choose an additional course between any of the remaining EVSC courses for completing the requirements for the Minor.

Refer to the table below for details.

Environmental Sciences Courses	Credit
EVSC 202: Fundamentals of Geology	3
EVSC 207: Coastal Zone Management	3
EVSC 209: Introduction to Aquaculture	3
EVSC 211: Project Residency	3
EVSC 213: Restoration and Reclamation Ecology	3
EVSC 221: Assessment and Management of Fish Populations	3
EVSC 222: Assessment and Management of Fish Populations Lab	1
EVSC 237: Ecotourism Planning and Development	3
EVSC 239: Environmental Economics and Development	3
EVSC 245: Marine Ecosystems	3
EVSC 246: Marine Ecosystems Lab	1
EVSC 249: Writing for Environmental Professionals	3
EVSC 251: Protected Areas Management and Planning	3
EVSC 253 :Methods in Envoronmental Impact Analysis	3

COURSE DESCRIPTIONS

All EVSC courses require at least ENGL 101 as co-requisite.

EVSC 100 INTRODUCTION TO ENVIRONMENTAL SCIENCE 3.0: 3 cr. E
This course will introduce the principles of basic-science and technology involved in processes of environmental change, pollution and protection of natural resources, and their implications to economic and human systems (for Freshman students only).

EVSC 201 ENVIRONMENTAL SCIENCES: CREATING A SUSTAINABLE FUTURE (Major) 3.0: 3 cr. E
This course introduces students to the root causes of the environmental crisis, explains how to critically analyze all of the issues and competing viewpoints, provides in depth case studies and the latest statistics and scientific findings within the field. It examines the interactions between humans, social systems, and environmental damage across the globe, emphasizes the need for fundamental changes in human behavior and shows how systems can be redesigned to be sustainable.

EVSC 202 FUNDAMENTALS OF GEOLOGY (Elective) 3.0: 3 cr. E
This course is designed to provide the basic principles and fundamental concepts of the various aspects of geological sciences. Emphasis will be on the internal structure of the Earth, properties of minerals, mineral groups, formation and behavior of earth materials, description, classification, and mode of formation of the igneous, sedimentary, and metamorphic rock groups, surface processes, geological structures, groundwater, causes and classification of landslides, earthquakes, and plate tectonics. A one-day field trip is part of the course and gives the students an opportunity to identify the different rocks and structures and processes learnt in class, therefore, helps the students gain a real world experience in geology.

EVSC 203 EARTH OBSERVATION AND GEO-INFORMATION ANALYSIS (Major) 3.0: 3 cr. E
This course covers the basic conceptual knowledge of satellite remote sensing imagery and addresses digital image analysis including data acquisition, image correction, enhancement, and classification. It introduces visualization, analysis and integration of geospatial data using Geographic Information Systems (GIS).

EVSC 204 EARTH OBSERVATION AND GEO-INFORMATION ANALYSIS LABORATORY (Major) 1.0: 1 cr. E
Covers practical exercises on remote sensing, GIS software, digital data entry, data viewing, basic image enhancement, corrections, analyses, and classifications.
Co-requisite: EVSC 203

EVSC 205 INTRODUCTION TO EVOLUTION AND ENVIRONMENTAL ADAPTATION (Major) 3.0: 3 cr. E
This course examines concepts and theories that underlie our understanding of evolution, ecology, diversity and the adaptation of living things to their natural environment. Topics include the origins of diversity, evolutionary change, phylogeny and classification, diversity in form and function, evolution by natural selection, modes of speciation, and long-term trends in evolution and adaptations.

EVSC 207 COASTAL ZONE MANAGEMENT (Major) 3.0: 3 cr. E
This course introduces the student to a wide range of coastal environments including studies on rocky and sandy beaches. The

course mixes theory and practice of coastal planning and management and demonstrates the importance of combining abstract and technical elements to achieve the best outcome for the coastal zone. Case studies will show examples of sound practice and differences in approaches around the world as well as the linkage between scales of coastal planning.

EVSC 209 INTRODUCTION TO AQUACULTURE (Elective) 3.0: 3 cr. E

This course introduces the history of Aquaculture and its importance. Covers the fundamentals of engineering, nutrition, husbandry, diseases of cultured fishes and management of fish farms.

EVSC 211 PROJECT RESIDENCY (Major) 3.0: 3 cr. E

This course provides students with practical experience through their participation in on-going projects at organizations or institutions working in the fields of environment and development. Students are required to complete their residency over a period of two months under the supervision of a Faculty member.

EVSC 213 RESTORATION AND RECLAMATION ECOLOGY (Major) 3.0: 3 cr. E

Theory and case studies of disturbances, restoration and reclamation; character and processes of ecological systems; types of natural systems; types of disturbance and their impact; restoration and reclamation strategies for forests, deserts, watersheds, riparian zones, streams and rivers.

EVSC 221 ASSESSMENT AND MANAGEMENT OF FISH POPULATIONS (Elective) 3.0: 3 cr. E

This course introduces the theory and methods for estimating vital statistics of fish populations, the use of computers and statistical software to describe, analyze, and model attributes of fish populations, applied aquatic and fish ecology related to fisheries, the role of planning in fisheries management and the application of management tools and assessment of their efficacy.

EVSC 222 ASSESSMENT AND MANAGEMENT OF FISH POPULATIONS LAB (Elective) 1.0: 1 cr. E

Laboratory sessions include giving the students hands on experience with different fishing techniques, tagging studies and fish population sampling. Involves ½ day field trips out at sea.
Co-requisite: EVSC 221

EVSC 233 POLLUTION SOURCES AND TRANSPORT IN ECOSYSTEMS (Major) 3.0: 3 cr. E

This course introduces students to the different sources of pollutions and their means of transport in air, soil and water. Toxic action and fate of environmental pollutants, pollution control, eco-toxicological impact and standard testing methods will be covered.

EVSC 234 POLLUTION SOURCES AND TRANSPORT IN ECOSYSTEMS LAB (Elective) 1.0: 1 cr. E

Laboratory sessions and field trips to appropriate locations where the theoretical information can be consolidated into practical knowledge.
Co-requisite: EVSC 233

EVSC 237 ECOTOURISM PLANNING AND DEVELOPMENT (Elective) 3.0: 3 cr. E

This course offers students a study of the fundamental concepts of nature based tourism planning and its contribution to community development. The course emphasizes the negative and positive economic, social, and environmental impacts of nature based tourism.

EVSC 239 ENVIRONMENTAL ECONOMICS AND DEVELOPMENT (Major) 3.0: 3 cr. E

Significant environmental destruction is caused by insufficient and incorrect attention to economics. Examples include subsidized prices for natural resources, neglect of external costs and benefits, and an excessive commitment to GNP growth and its neglect of the biophysical system in which the economy is embedded. In this class, students will be introduced to basic micro- and macroeconomics, distribution and trade, and the application of economic and social science principles and techniques to production, consumption, and valuation of natural resources. Students will also study differences between standard economists and the more interdisciplinary ecological economists.

EVSC 241 NATURAL RESOURCES PLANNING AND POLICY (Major) 3.0: 3 cr. E

Students will study scientific, environmental, social and institutional factors affecting planning and policy making, with a focus on community-based natural resource management. The course focuses on ecosystem- based planning and policy issues through development of a multiple-use plan. Sources and use of environmental data are discussed and illustrated. A general overview of environmental laws on the national scale will be attempted.

EVSC 242 NATURAL RESOURCES PLANNING AND POLICY LAB (Major) 1.0: 1 cr. E

This course focuses on the applications of remote sensing, forest fire management and policy tools. Co-Requisite: EVSC 241.

EVSC 243 SPECIAL TOPICS FOR ENVIRONMENTAL SCIENCES (Major) 3.0: 3 cr. E

This course introduces students to the new and current topics in the environmental sciences. Sessions will include exposure to

environmental impact assessment methodologies, GIS systems, remote sensing and modeling and their applications to the environmental sciences and decision making. An overview of Lebanese environmental laws, policies and legal processes will also be covered.

EVSC 245 MARINE ECOSYSTEMS (Major) 3.0: 3 cr. E

The course will present a broad overview of the field of marine biology. It will introduce the student to the marine environment, the physical forces governing marine organisms, the different marine ecosystems, the diversity of marine life, and techniques of investigation of marine systems.

EVSC 246 MARINE ECOSYSTEMS LAB (Major) 1.0: 1 cr. E

Applies principles discussed in class. Students will gain experience in marine sampling techniques and the identification and adaptation of marine plants and animals to marine environments.
Co-requisite: EVSC 245

EVSC 249 WRITING FOR ENVIRONMENTAL PROFESSIONALS (Major) 3.0: 3 cr. E

This course introduces students to the principles and practice of writing skills required of environmental professionals. Students will develop proficiency in determining the purpose of a document, analyzing the audience; selecting, developing and organizing the information in an appropriate design, and writing clearly, precisely, and effectively.

EVSC 251 PROTECTED AREAS MANAGEMENT AND PLANNING (Elective) 3.0: 3 cr. E

This course introduces principles and methods of management of protected areas. Current principles and practices relevant to the planning of protected areas and recreational environments in wild settings. It includes the integration of biological and sociological criteria in the management of protected areas and recreational environments.

EVSC 253 METHODS IN ENVIRONMENTAL IMPACT ANALYSIS (Major) 3.0: 3 cr. E

This course introduces the most recent methods in environmental impact analysis, namely Environmental Impact Assessment, Life Cycle Assessment, Risk Analysis and Ecological Footprint. Students will be exposed to real case studies and will develop practical projects allowing them to get acquainted with some of the main tools for environmental impact evaluation.

Regarding the course descriptions for BIOL, CHEM, CSPR, CSPR-Equivalent, ENGL, MATH and PHYS courses, refer to the corresponding Department.

4.11 DÉPARTEMENT DE LANGUE ET LITTÉRATURE FRANÇAISES

Chef de département: Maria Nasr, PhD, maria.m.nasr@balamand.edu.lb

Le département de Langue et Littérature françaises prépare les étudiant(e)s à l'obtention:

- D'un B.A. en Langue et Littérature Françaises.
- D'un Mastère en Langue et Littérature françaises.

La spécialisation en Langue et Littérature françaises (LLF) consacre une vision de la question de la littérature et de la langue, propre à l'Université de Balamand. Portant sur des auteurs et des itinéraires reconnus, ce programme opère une scansion thématique du fait littéraire soulignant l'interférence des savoirs, la transdisciplinarité et la pluralité des approches critiques, sans pour cela omettre ou négliger les impératifs d'ordre chronologique ou générique. En outre, l'enseignement que dispense le département vise à transmettre aux étudiant(e)s des savoirs mais aussi des savoir-faire en linguistique générale et appliquée et en Français Langue Etrangère et Seconde (FLE/S).

Cette spécialisation ouvre devant l'étudiant(e) des perspectives professionnelles diverses: enseignement, critique littéraire, journalisme littéraire, métiers de la communication, de la culture et de l'information.

Tout étudiant intéressé par une mineure en Langue et Littérature Françaises devrait prendre 15 crédits dans le cadre de ce département.

A. PROGRAMME DE LA LICENCE

Total credits within a BA program **91 cr**

1 University Requirements ***19 cr***

1.1	FREN201/202 or equivalent	6 cr
1.2	CSPR courses	6 cr
1.3	CSPR equivalent courses or CSPR	6 cr
1.4	LISP 200	1 cr

2 Department Requirements ***57 cr***

2.1.1 Major Courses (17 courses) *51 cr*

FREN 204	Atelier théâtre et langue française	3 cr
FREN 210	Introduction à la linguistique	3 cr
FREN 211	Morpho-syntaxe	3 cr
FREN 231	Histoire des mouvements littéraires	3 cr
FREN 232	La poésie au XIXe siècle	3 cr
FREN 235	Autobiographie et écriture de soi	3 cr
FREN 237	Le roman au XIXe siècle	3 cr
FREN 240	Littérature francophone	3 cr
FREN 254	La temporalité narrative	3 cr
FREN 260	Le roman au XXe siècle	3 cr
FREN 261	Littératures étrangères	3 cr
FREN 262	La poésie du XXe siècle	3 cr
FREN 265	Le théâtre du XXe siècle	3 cr
FREN 272	Les TIC dans l'enseignement du FLE	3 cr
FREN 277	Grammaire normative	3 cr
FREN 290	Cinéma et Littérature	3 cr
FREN 299	Atelier d'écriture	3 cr

2.1.2 Electives Within the Department *0 cr*

2.2 General Education (service) Courses *6 cr*

ARAB201 Arabic Expression III 3 cr

One course from the list below: 3 cr

ASTR 201	*Fundamentals of Astronomy*	*3cr*
CSIS 283	*Applied Digital Skills for Humanities*	*3cr*
EVSC 201	*Introduction to Environmental Sciences*	*3cr*
GEOL 201	*Fundamentals of Geology*	*3cr*

3 Free Electives ***15 cr***

Une note de passage d'au moins 70 % est requise pour les cours suivants: FREN 201 et FREN 202.

A. COURS DE MISE à NIVEAU

FREN 002	Français, langue seconde I	7.0: 5 cr
FREN 003	Français, langue seconde II	7.0: 5 cr
FREN 101	Outils de la communication écrite et orale II	3.0: 3 cr.
FREN 102	Français, langue seconde III	3.0: 3 cr

B. MINEURES

Les mineures sont destinées aux étudiant(e)s venant d'autres départements.

Pour obtenir l'une des deux mineures proposées, l'étudiant(e) devra réussir aux 5 matières suivantes:

MINEURE 1 - LITTÉRATURE MODERNE:

FREN 231	Histoire des mouvements littéraires	3.0: 3 cr
FREN 232	La poésie au XIXe siècle	3.0: 3 cr
FREN 237	Le roman au XIXe siècle	3.0: 3 cr
FREN 265	Le théâtre du XXe siècle	3.0: 3 cr
FREN 290	Cinéma et Littérature	3.0: 3 cr

MINEURE 2 – LANGUE FRANÇAISE:

FREN 204	Atelier théâtre et langue française	3.0: 3 cr
FREN 210	Introduction à la linguistique	3.0: 3 cr
FREN 211	Morpho-syntaxe	3.0: 3 cr
FREN 272	Les TIC dans l'enseignement du FLE	3.0: 3 cr
FREN 277	Grammaire normative	3.0: 3 cr

DESCRIPTIF DES MATIÈRES

COURS DE REMISE À NIVEAU

FREN 002 FRANÇAIS, LANGUE SECONDE I **7.0: 5 cr. F**

En rupture avec les méthodes traditionnelles et normatives, ce cours plonge d'emblée l'étudiant dans des situations de communication orale et écrite : discussions, commentaires de textes, vidéoclips, jeux de rôle, etc. L'étudiant(e) sera capable de comprendre des expressions et un vocabulaire d'usage courant, de lire des textes simples, de trouver une information particulière dans un document. L'apprenant(e) sera aussi en mesure d'échanger des informations sur des sujets familiers, ainsi que d'écrire correctement des textes courts et simples.

FREN 003 FRANÇAIS, LANGUE SECONDE II **7.0: 5 cr. F**

Ce cours vise à consolider et enrichir le vocabulaire de base de l'apprenant(e), et à développer ses compétences orales et écrites. À travers les activés proposées en classe, l'étudiant(e) sera amené à mener des échanges sur des sujets quotidiens, abstraits ou culturels, exprimer de façon simple et cohérente son opinion et ses sentiments, comprendre les points essentiels de documents concernant la vie quotidienne ou des situations familières.

Prérequis : FREN 002

FREN 011 FRANÇAIS LANGUE DE SPÉCIALITÉ **3.0: 3 cr. F**

Ce cours s'adresse aux étudiants du THM et vise à consolider et à enrichir le vocabulaire de l'industrie touristique et hôtelière, et à développer les compétences orales et écrites de l'apprenant. Ce cours permettra aux étudiants de communiquer avec plus d'aisance à travers les activés proposées en classe en utilisant le vocabulaire propre à ces deux secteurs. Il met l'accent sur la communication écrite et orale à travers des activités pratiques et interactives.

FREN 101 OUTILS DE LA COMMUNICATION ÉCRITE ET ORALE II **3.0: 3 cr. F**

Ce cours s'adresse à des apprenants ayant déjà acquis le niveau B1 du CECRL en langue française. Il vise à améliorer leur compréhension du français à la lecture et à l'audition à travers l'analyse de textes oraux et écrits. L'étudiant(e) apprendra aussi dans ce cours à reformuler le contenu d'un texte, à rédiger un article de presse et à exposer brièvement son point de vue à l'écrit et à l'oral.

Prérequis : FREN 003

FREN 102 FRANÇAIS, LANGUE SECONDE III **3.0: 3 cr. F**

Ce cours permettra aux étudiants de communiquer avec plus d'aisance et d'assurance dans des situations de la vie courante et en milieu universitaire. Il met l'accent sur la communication écrite et orale à travers des activités pratiques et interactives comme le résumé, les écrits argumentatifs, et les débats d'opinion. Il vise aussi à développer les connaissances grammaticales et lexicales des étudiants à partir de l'analyse de différents types de documents écrits et audio.

Prérequis : FREN 101

FREN 201 TECHNIQUES DE L'EXPRESSION I **3.0: 3 cr. F**

Ce cours a pour objectif de permettre aux étudiants une meilleure pratique de la langue française tant au niveau de l'écrit qu'à celui de l'oral. Il développe l'esprit critique à travers des synthèses de plusieurs documents et la rédaction d'une critique d'article. De même, ce cours vise à l'initiation des apprenants à la préparation d'une brève revue de littérature autour d'un thème donné. Pour une plus grande aisance dans la pratique orale de la langue française, des séances de discussions à travers des débats argumentatifs créeront une ambiance dynamique et interactive favorisant une meilleure fluidité verbale.

Prérequis : FREN 102

FREN 202 TECHNIQUES DE L'EXPRESSION II **3.0: 3 cr. F**

Ce cours vise à permettre à l'étudiant de bien mener une synthèse, un commentaire composé et une dissertation. Des travaux pratiques et dirigés l'orienteront vers une meilleure organisation de sa pensée et une amélioration de son sens de l'analyse.
Ce cours est un equivalent de FREN 254.
Prérequis: FREN 201

LES MATIÈRES REQUISES PAR LE DÉPARTEMENT

FREN 204 ATELIER THÉÂTRE ET LANGUE FRANÇAISE **3.0: 3 cr. F**

Le processus et les techniques de l'expression théâtrale seront mis au service d'une approche ludique de la langue française. Le système de communication théâtrale favorisera l'expression orale en suscitant l'envie, le désir, et le besoin de s'exprimer en français.

Ce cours permet à l'étudiant de s'engager dans le jeu théâtral, de développer ses capacités d'expression en public, afin de constituer une fonction personnelle de la langue.

FREN 210 INTRODUCTION A LA LINGUISTIQUE **3.0: 3 cr. F**

Introduction aux principaux concepts et théories linguistiques suivie d'une étude du système phonétique et phonologique du français.

FREN 211 MORPHO-SYNTAXE **3.0: 3 cr. F**

Ce cours a pour objet l'étude des règles de combinaison des unités signifiantes ainsi que l'acquisition de l'essentiel des mécanismes linguistiques régissant la structure de la phrase française (simple et complexe) et de ses transformations. Y seront examinées, d'un point de vue méthodologique, les différentes approches de la notion de phrase, du genre et du nombre, et les différents aspects de la morphologie du verbe, du substantif et de l'adjectif.

FREN 231 HISTOIRE DES MOUVEMENTS LITTÉRAIRES **3.0: 3 cr. F**

Sur un fond chronologique et historique allant de l'humanisme aux temps modernes en passant par le classicisme et le siècle des lumières, ce cours vise à fournir une vision globale de l'évolution de l'esprit français et du fait littéraire, à travers un étude des genres (narratif, poétique et dramatique) et des courants littéraires dans le rapport qu'ils entretiennent avec l'ensemble du mouvement social et intellectuel, et l'évolution des idées et des formes de l'art.

FREN 232 LA POÉSIE AU XIXe SIÈCLE **3.0: 3 cr. F**

Romantisme, parnasse, symbolisme, trois moments dans une lente et laborieuse évolution de la poésie française au XIXe siècle dont la deuxième moitié annoncera le début des temps modernes. L'étude mettra l'accent tant sur l'analyse des thèmes que sur l'évolution des formes du langage poétique.

FREN 235 AUTOBIOGRAPHIE ET ÉCRITURE DE SOI **3.0: 3 cr. F**

Ce cours portera sur toute une tradition de l'autobiographie en remontant jusqu'à Montaigne pour en venir ensuite, et de manière systématique, à des auteurs modernes (Sartre, Camus, Sarraute, etc.). A travers des œuvres relevant du genre proprement autobiographique ou de genres qui lui sont voisins, s'interroger sur ce qui fait l'originalité de ce mode d'écriture qui se propose de dévoiler l'intériorité du moi à l'extériorité turbulente du monde.

FREN 237 LE ROMAN AU XIXe SIÈCLE **3.0: 3 cr. F**

Caractérisé par la grande entreprise balzacienne et l'art flaubertien sans oublier les apports de Stendhal et de Zola, le roman du XIXe siècle sera étudié à partir d'œuvres représentatives de ces auteurs, en mettant l'accent sur le passage du roman comme » témoin de l'universel « au roman comme pure construction verbale**.**

FREN 240 LITTÉRATURE FRANCOPHONE **3.0: 3 cr. F**

La littérature francophone abordée à la lumière d'une approche transdisciplinaire et transculturelle. Tel est l'objectif de ce cours où seront soulevées les questions d'appartenance, d'identité et de rapport au langage, à travers l'étude d'œuvres d'auteurs qui ont adopté le français comme langue de culture et de communication.

FREN 254 LA TEMPORALITÉ NARRATIVE **3.0: 3 cr. F**

Etude des petits ensembles narratifs dont le genre est, sinon mal défini, du moins non encore fixé et assez problématique. Relevant de la tradition populaire orale tout autant que de la littérature écrite, ces petits ensembles seront étudiés suivant le fond thématique qui les distingue et aussi suivant leurs structures formelles spécifiques.
Ce cours est un equivalent de FREN 202.

FREN 260 LE ROMAN AU XXe SIÈCLE **3.0: 3 cr. F**

A travers des œuvres intégrales représentatives des principaux courants romanesques qui ont jalonné le vingtième siècle, étudier l'évolution qu'a connue le genre romanesque tant au niveau des thèmes qu'à celui de la structure.

FREN 261 LITTÉRATURES ÉTRANGÈRES **3.0: 3 cr. F**

Etudes d'œuvres allemandes, russes, américaines, britanniques, etc. des XIXe et XXe siècles, et des influences réciproques avec la littérature française.

FREN 262 LA POÉSIE DU XXe SIÈCLE **3.0: 3 cr. F**

Il s'agit d'approcher le texte poétique comme interrogation sur les rapports de l'espace avec le langage et comme mise à l'épreuve du souffle et du rythme: parole et voix. L'analyse des œuvres ne s'enfermera pas dans la clôture du texte poétique mais rendra compte de son ouverture à l'espace du dehors.

FREN 265 LE THÉATRE DU XXe SIÈCLE **3.0: 3 cr. F**

L'itinéraire moderne et contemporain du théâtre s'inscrit dans l'objectif d'une reformulation de la fonction de la représentation et de l'acte théâtral. Nous assistons au déclin de l'ancienne vision/représentation du monde au profit d'un théâtre fait de fragments et de fêlures n'hésitant pas à mettre en question et le statut du personnage et la cohérence du sens. Un choix d'œuvres représentatives abordées et étudiées suivant des méthodologies diverses et appropriées.

FREN 272 LES TIC DANS L'ENSEIGNEMENT DU FLE **3.0: 3 cr. F**

Ce cours permet aux futurs enseignants de se familiariser avec les technologies de l'information et de la communication afin d'acquérir les compétences nécessaires pour intégrer le numérique en classe de français langue étrangère. Il offre aussi l'occasion d'interroger le numérique en termes d'innovation, de collaboration, d'autonomie et de formation.

FREN 277 GRAMMAIRE NORMATIVE **3.0: 3 cr. F**

La maîtrise des règles de grammaire, étant l'une des compétences premières d'un bon professeur de langue française, ce cours abordera le problème de la syntaxe française à travers l'étude de la phrase simple et complexe, et des questions reliées à l'accord en général, et à l'accord du participe passé en particulier, ainsi que le problème épineux de l'utilisation des connecteurs logique.

FREN 290 CINÉMA ET LITTÉRATURE **3.0: 3 cr. F**

Ce cours se propose de comprendre et d'analyser les rapports complexes entre la Littérature et le Cinéma. Il présente aux étudiants les modalités théoriques et pratiques, ainsi que l'intérêt épistémologique des adaptations cinématographiques d'une œuvre littéraire.

FREN 299 ATELIER D'ECRITURE **3.0: 3 cr. F**

Séances de réflexion commune et dynamique afin de développer l'imagination des étudiants ainsi que leurs compétences en matière de production écrite.

Concernant les descriptifs des cours CSPR et CSPR-Equivalent, se référer au Département correspondant.

4.12 Courses In Geology

GEOL 201 Fundamentals of Geology **3.0: 3 cr. C**

This course teaches the fundamentals of geology. This course is the core discipline of the earth sciences and encompasses many different phenomena, including plate tectonics and mountain building, volcanoes and earthquakes, and the long-term evolution of Earth's atmosphere, surface, and life. Because of the ever-increasing demand for resources, the growing exposure to natural hazards, and the changing climate, geology is of considerable societal relevance. This course introduces students to the basics of geology. Through a combination of lectures, labs, and field observations, we will address topics ranging from mineral and rock identification to the origin of the continents, from geologic mapping to plate tectonics, and from erosion by rivers and glaciers to the history of life.

4.13 Courses In German Language

GERM 201 GERMAN LANGUAGE I (G) **3.0: 3 cr. G**

It is a 3-credit course for beginners in the German language designed for students who have no previous knowledge of the German language. Throughout the course, students will acquaint themselves with basic German vocabulary, the fundamentals of German phonetics, grammar, spelling and socio cultural knowledge. Emphasis is placed on students' use of German in authentic situations of everyday life.

GERM 202 GERMAN LANGUAGE II (G) **3.0: 3 cr. G**

This course introduces the student to the German language (Beginners II).

4.14 Courses In Greek Language

GREK 201 GREEK LANGUAGE I (k) **3.0:3 cr. k**

It is a 3-credit course for beginners in Greek language designed for students who have no previous knowledge of the Greek language. Throughout the course, students will acquaint themselves with basic Greek vocabulary, the fundamentals of Greek phonetics, grammar, spelling and sociocultural knowledge. Emphasis is placed on students' use of Modern Greek authentic situations of everyday life.

GREK 202 GREEK LANGUAGE II (k) **3.0:3 cr. k**

It is a 3-credit course for beginners in Greek language designed for students who have basic knowledge of the Greek language. Throughout the course, students will acquaint themselves with basic Greek vocabulary, the fundamentals of Greek phonetics, grammar, spelling and sociocultural knowledge. Emphasis is placed on students' use of Modern Greek authentic situations of everyday life.

Pre-requisite: GREK201

4.15 DEPARTMENT OF HISTORY

Chair of Division: Mohamad Rihan Ph.D., mohamad.rihan@balamand.edu.lb

Languages of Instruction: English, Arabic

The Department of History in the Faculty of Arts and Sciences offers programs leading to BA degree in Arab, Byzantine and Church History, allowing students to acquire valuable skills in analysis and criticism. The program of study covers a range of European and Middle Eastern topics through primary and secondary sources with an emphasis on techniques of historical documentation. Instruction methods present the history of cultures with an eye to understanding present conditions and future possibilities. In order to preserve the unique value of history in relation to all social sciences, a critical approach to historical evidence is constantly emphasized. This approach insists on careful analysis of historical texts such as documents, chronicles, and newspapers.

Total credits within a BA program 91 cr

1	***University Requirements***				***19 cr***
	1.1	English /French courses	6 cr		
	1.2	CSPR courses	6 cr		
	1.3	CSPR equivalent courses	6 cr		
	1.4	LISP 200	1 cr		
2	***Department Requirements***				***57 cr***
	2.1	*Courses from the Major*	*(minimum 40%, i. e., 36 credits)*	*51 cr*	
	2.1.1	*Major Courses (13 courses)*		*39 cr*	
		HIST 240	3 cr		
		HIST 241	3 cr		
		HIST 242	3 cr		
		HIST 243	3 cr		
		HIST 250	3 cr		
		HIST 252	3 cr		
		HIST 253	3 cr		
		HIST 255	3 cr		
		HIST 258	3 cr		
		HIST 260	3 cr		
		HIST 261	3 cr		
		HIST 263	3 cr		
		HIST 264	3 cr		
	2.1.2	*Electives within the Department*		*12 cr*	
	Four courses from the list below:		12 cr		
		HIST 220	3 cr		
		HIST 222	3 cr		
		HIST 230	3 cr		
		HIST 244	3 cr		
		HIST 251	3 cr		
		HIST 256	3 cr		
		HIST 257	3 cr		
		HIST 270	3 cr		
	2.2	*General Education (service) Courses*		*06 cr*	
		ARAB201 Arabic Expression III	3 cr		
		One course from the list below:	3 cr		
		ASTR 201 Fundamentals of Astronomy	*3 cr*		
		CSIS 283 Applied Digital Skills for Humanities	*3 cr*		
		EVSC 201 Introduction to Environmental Sciences	*3 cr*		
		GEOL 201 Fundamentals of Geology	*3 cr*		
3	***Free Electives***				***15 cr***

A minor in course of study in History by completing a minimum of 15 credits of history courses.

COURSE DESCRIPTIONS

All HIST courses require at least ENGL 102 as co-requisite.

DEPARTMENT UNDERGRADUATE COURSES

HIST 220 CHRISTIAN ARCHITECTURE IN LEBANON AND SYRIA **3.0: 3 cr. E**

This course covers the Byzantine period in Lebanon and Syria, with emphasis on Christian architecture and its development from A.D. 300 to 600.

HIST 222 A SURVEY OF THE HISTORY OF THE UNITED STATES **3.0: 3 cr. E**

This course covers the survey of the social, cultural and political developments in the United States from the early twentieth century until today.

HIST 230 THE HISTORY OF THE ARAB-ISRAELI CONFLICT I **3.0: 3 cr. E**

This course covers the Arab-Israeli conflict since its inception in the late nineteenth century. It examines the different diplomatic and military phases of the conflict, the role of the Great Powers and the Palestinian and Arab aspects that influenced it.

HIST 240 HISTORY OF EUROPE I **3.0: 3 cr. E**

This course examines fundamental European institutions during the Middle Ages and Early Modern period.

HIST 241 HISTORY OF EUROPE II **3.0: 3 cr. E**

This course examines the Industrial and French Revolutions and their repercussions in 19th-century Europe, including the rise of the bourgeoisie, nationalism, colonialism, organized labor and Romanticism.

HIST 242 HISTORY OF BYZANTIUM **3.0: 3 cr. E**

This course covers the Byzantine Empire and civilization, with emphasis on Church-State relations as seen in events such as the conversion of Constantine, the Ecumenical Councils and the Iconoclastic Controversy.

HIST 243 EAST-WEST RELATIONS IN THE MIDDLE AGES **3.0: 3 cr. E**

This course covers the Near East, Sicily, and the Iberian Peninsula during the period 1100-1500, with emphasis on the Crusades, Mediterranean trade and reciprocal cultural influences.

HIST 244 A SURVEY OF THE HISTORY OF BRITAIN **3.0: 3 cr. E**

This course covers the main stages in the history of the British Isles from 600 to 1945, primarily as background for the study of English Literature.

HIST 250 HISTORY OF THE ARABS DURING THE CLASSICAL PERIOD **3.0: 3 cr. E**

This course covers the Umayyad and Abbasid periods from 640 to 940, with emphasis on particular institutions such as the caliphate, fiscal policy and new patterns of trade.

HIST 251 ARTS AND SCIENCES DURING THE ABBASID PERIOD **3.0: 3 cr. E**

This course covers the flourishing of Arabic culture during the period 750 to 1000, with emphasis on philosophy, poetry, astronomy, mathematics and medicine.

HIST 252 HISTORY OF THE OTTOMAN NEAR EAST **3.0: 3 cr. A**

This course covers the social development of the Arab provinces within the Ottoman Empire, including traditional structures of landowning and taxation, the Tanzimat and other reforms and Western capitulations.

HIST 253 HISTORY OF MODERN LEBANON **3.0: 3 cr. E/A**

This course examines the social and economic development of Mount Lebanon within the Ottoman Empire, including landownership, the rise of the peasantry and the opening to the world market.

HIST 255 ARAB SOCIETY FROM NOMADISM TO PETROLEUM **3.0: 3 cr. E**

This course contrast traditional tribal structures in the Arabian Peninsula and new social developments since the rise of petroleum, such as urbanization, education, and the role of women.

HIST 256 HISTORY OF MODERN MIDDLE EASTERN CITIES **3.0: 3 cr. E**

This course examines and compares the modern institutional and architectural development of Cairo, Damascus, Beirut, Tripoli, and Aleppo.

HIST 257 THE HISTORY OF THE ARAB-ISRAELI CONFLICT II **3.0: 3 cr. E**

This course covers the establishment of Zionism in Palestine, the British Mandate, the division of Palestine, the Arab-Israeli wars and the emergence of the Palestinian national movement.

HIST 258 HISTORY OF THE CONTEMPORARY ARAB WORLD **3.0: 3 cr. E**

This course examines Arab political thought and development during the period 1918 to 1990, including the rise of nationalist movements, independence and the effects of the Cold War on Middle Eastern politics.

HIST 260 HISTORICAL METHOD I **3.0: 3 cr. E**

This course practices analysis of historical texts such as diaries, archives, manuscripts, accounts, and newspapers.

HIST 261 HISTORICAL METHOD II **3.0: 3 cr. E**

This course examines the use of mathematical and scientific methods in the study of economic, social and cultural history.

HIST 263 HISTORICAL DOCUMENTATION I **3.0: 3 cr. E**

This course examines and practices the editing of ancient manuscripts.

HIST 264 HISTORICAL DOCUMENTATION II **3.0: 3 cr. E**

This course examines the indexing and cataloguing of historical sources.

HIST 270 HISTORY OF THE NEW WORLD **3.0: 3 cr. E**

This course covers the Americas from 1492 to 1914, including European discoveries, colonial empires, independent states, migration, slavery and industrial development.

Regarding the course descriptions for ARAB, CSPR, CSPR-Equivalent, CSIS and ENGL courses, refer to the corresponding Department.

4.16 DEPARTMENT OF MASS MEDIA AND COMMUNICATION

Chair of Department: Dima Issa, Ph.D., dima.issa@balamand.edu.lb

The mission of the Mass Media and Communication Program is to equip students with a distinctive competitive advantage in the professional marketplace by integrating rigorous theoretical foundations with practical, hands-on experience. Through the provision of two clearly defined areas of emphasis, the program enables students to pursue specialized study aligned with their individual academic and professional interests. In accordance with the University of Balamand's mission statement, the program underscores the civic and ethical responsibilities of the media, while recognizing its profound societal impact. Accordingly, it affirms the moral obligations that must be embedded within the diverse disciplines of mass communication.

The program of study leads to the following degrees:

- Bachelor of Arts in Mass Media and Communication (2 tracks):
  - Track One: Broadcast Journalism**,** Film Production and Performance
  - Track Two: Marketing Communication**.**

THE BACHELOR OF ARTS PROGRAM

Plan of Study

Total Credits within a BA program				**91 cr**
1	***University Requirements***			***19 cr***
	1.1	English	6 cr	
	1.2	CSPR	6 cr	
	1.3	CSPR equivalent	6 cr	
	1.4	LISP 200	1 cr	
2	***Department Requirements***			***57 cr***
	2.1.	*Core Courses from the Major (Any 33 Cr. from below)*		*33 cr*
		MCOM 200 Audiovisual and Electronic Techniques	3 cr	
		MCOM 201 Multi Media Literacy	3 cr	
		MCOM 202 Media and New Technologies	3 cr	
		MCOM 220 Journalistic Forms	3 cr	
		MCOM 221 Public Relations	3 cr	
		MCOM 222 Ethics and Law in Mass Communication	3 cr	
		MCOM 225 Acting for Film and Television I	3 cr	
		MCOM 226 Image and Image Analysis	3 cr	
		MCOM 227 Media and Society	3 cr	
		MCOM 228 Public Opinion	3 cr	
		MCOM 233 Current Issues in Media	3 cr	
		MCOM 237 Internship	3 cr	
		MCOM 242 Digital Editing	3 cr	
		MCOM 244 Topics	3 cr	
		MCOM 252 Race, Gender and Ethnicity in Film and Television	3 cr	
		MCOM 271 Introduction to Photography	3 cr	
		MCOM 277 Arabic Writing for News and Media	3 cr	
		MCOM 279 Voice, Speech and Performance for Screen (Arabic)	3 cr	
		MCOM 285 Visual Aesthetics: Principles and Techniques	3 cr	
	2.2	Track Courses (Students can choose one of the two following tracks)		*18 cr*
	2.2.1	*Broadcast Journalism and Film Production and Performance (Any 18 Cr.)*		
		MCOM 211 Radio Programming and Podcasting	3 cr	
		MCOM 212 TV Program	3 cr	
		MCOM 216 Newsroom Management	3 cr	
		MCOM 224 Photojournalism	3 cr	
		MCOM 234 TV Reporting	3 cr	
		MCOM 241 Documentary Film-Making	3 cr	
		MCOM 243 Directing and Film-Making	3 cr	
		MCOM 250 Scriptwriting	3 cr	
		MCOM 283 Lighting and Cinematography	3 cr	
		MCOM 284 Improvisation and Movement for Screen	3 cr	
		MCOM 287 Scene Study	3 cr	
		MCOM 294 Advanced Digital Editing	3 cr	
	2.2.2	*Marketing Communication (Any 18 Cr.)*		

MCOM 206 Fundamentals of Marketing		3 cr	
MCOM 231 Global Communication		3 cr	
MCOM 235 Principles of Advertising		3 cr	
MCOM 239 Media Planning and Advertising Campaigns		3 cr	
MCOM 245 Computer Graphics and Video Animation		3 cr	
MCOM 260 Integrated Marketing Communication		3 cr	
MCOM 261 Event Management		3 cr	
MCOM 275 Advanced Event Management and Practicum		3 cr	
MCOM 288 Crisis PR		3 cr	
MCOM 289 Corporate Image: Brands and Branding		3 cr	
MCOM 290 Digital Marketing		3 cr	
MCOM 295 Copy and Concept		3 cr	
2.3 General Education Courses			*6 cr*
ARAB 201 (or any language equivalent for Arabic exempted students)		3 cr	
Any course from below:		3 cr	
ASTR 201 Fundamentals of Astronomy	*3 cr*		
CSIS 283 Applied Digital Skills for Humanities	*3 cr*		
EVSC 201 Introduction to Environmental Sciences	*3 cr*		
GEOL 201 Fundamentals of Geology,	*3 cr*		
3 Free Electives			***15 cr***

For MCOM 277 if students are exempt from Arabic they may register in any*2.2.1 Broadcast Journalism and Film Production and Performance* courses instead

For MCOM 279 if students are exempt from Arabic they may register for any*2.2.1 Broadcast Journalism and Film Production and Performance* courses instead.

Under the guidance and approval of the Academic Advisor, students in *2.2.1 Broadcast Journalism and Film Production and Performance* can subsititute Core courses in 2.1 with courses from *2.2.2 Marketing Communication* and vice versa.

COURSE DESCRIPTIONS

MCOM 200 AUDIOVISUAL AND ELECTRONIC TECHNIQUES **3.0: 3 cr. E**

This practical course introduces students to all forms of media technologies and social media: from web related technologies and research to new media, and social media platforms. As well as a working knowledge of the technology used for recording and production of both audio and visual digital material. Students will learn basic photography, photo editing, scriptwriting, filming, editing, podcasting, blogging, and web content management skills.

Co-requisite: ENGL 003

MCOM 201 MULTI MEDIA LITERACY **3.0: 3 cr. E/A**

Designed to help students develop a critical, and applied understanding of different forms of media, this course aims to expand media literacy and analytical skills. In addition, the course will trace the development of media and media technologies, and assess the ways they have become an integrated part of daily life. Topics such as the role of media messages in shaping our understanding of events, as well as how media ownership correlates with content will be explored.

Co-requisite: ENGL 003

MCOM 202 MEDIA AND NEW TECHNOLOGIES **3.0: 3cr. E**

This course is a study of new technologies of communication in press, radio, television, satellite and network, examining how professional requirements changed in response to new technologies and the different functions of each medium in society.

MCOM 206 FUNDAMENTALS OF MARKETING AND COMMUNICATION **3.0: 3cr. E**

An introductory course in the basics of marketing and communication. Topics in management include the functions of management of communication (planning, organizing, directing and supervising) and their implementation. Topics in Marketing include the evolution of the marketing concept, segmentation and positioning, strategic decisions involving product, price, promotion and distribution.

Co-requisite: ENGL 102

MCOM 211 RADIO PROGRAMMING AND PODCASTING **3.0: 3 cr. E**

Guides students through the various types of radio programming and podcasting. Students will also acquire skills related to produce a short radio news/magazine program and will learn how to critique various broadcasts.

Co-requisite: ENGL 102

MCOM 212 TV PROGRAM **3.0: 3 cr. E**

Covers the theory, art and practice of television, including basic program types, studio procedures and production guidelines. Students will learn basic production techniques that will allow them to create a TV program.
Co-requisite: ENGL 102

MCOM 213 NEWS WRITING **3.0: 3 cr. E**

A practical course where students learn how to write news stories for a variety of different media. The course will cover fact-finding, interviewing, covering beats, as well as the actual writing of the material. In Arabic or English.
Co-requisite: ENGL 203 and/or ARAB 201

MCOM 214 FEATURE WRITING **3.0: 3 cr. E /A**

Students are introduced to different types of feature writing, including profiles, reviews, opinions, human interest stories and other formats. They are also exposed to different styles of writing. In each class, students will be asked to report on articles read and develop their writing skills.
Co-requisite: ENGL 203 and/or ARAB 201

MCOM 216 NEWSROOM MANAGEMENT **3.0: 3 cr. E /A**

A hands-on course where students are introduced to the skills necessary to make them good leaders or managers. The course helps students understand the dynamics of the media organizations they will be working for, as well as to master the mechanics of planning, budgeting and managing staff.
Co-requisite: ENGL 203 and/or ARAB 201

MCOM 220 JOURNALISTIC FORMS **3.0: 3 cr. A /E**

This course introduces students to and trains them in the forms of journalistic reporting (news, reports, interviews, debates, commentaries) as well as exposing them to the actual operation of news agencies.
Co-requisite: ENGL 203 and/or ARAB 201

MCOM 221 PUBLIC RELATIONS **3.0: 3 cr. E**

This course introduces students to the theories, practices, history and principles of Public Relations. Students will explore PR cases, and be will involved in hands-on assignments, including the writing of press releases.
Co-requisite: ENGL 102

MCOM 222 ETHICS AND LAW IN MASS COMMUNICATION **3.0:3 cr. A**

This course covers principles and case studies in mass media: laws and regulations, ethical and professional concerns, governmental regulations and commercial pressures.
Co-requisite: ENGL 003

MCOM 224 PHOTOJOURNALISM **3.0: 3 cr. E**

This course aims to introduce the route of image making as forms of storytelling, and news reporting. The course will highlight the journeys of pioneer and iconic photojournalists and the key stories they documented and reported. Photography, press and printing, news agencies, television were at the service of photojournalism which became the indispensable source of narrative-critical mass communication. It will also introduce students to basic skills in photo journalism.
Co-requisite: ENGL 102

MCOM 225 ACTING FOR FILM AND TELEVISION I **3.0: 3 cr. E**

This course instructs students on the art of performance, covering basic stage acting techniques, to camera performance, and TV broadcasting. Students will be guided through the basic elements required to present, host, and report live and recorded shows and broadcasts.
Co-requisite: ENGL 102

MCOM 226 IMAGE AND IMAGE ANALYSIS **3.0: 3 cr. E**

This course examines approaches to image analysis, enabling students to analyze press photos, images, film and video and examine the relationship between image and text.
Co-requisite: ENGL 102

MCOM 227 MEDIA AND SOCIETY **3.0: 3 cr. E**

This course offers a critical analysis of media and mass communication, from a sociological, cultural and political angle. Students will explore the ways in which visual, audio, digital and literary media can impact and are impacted by society. Through acquiring appropriate theoretical and practical tools and skills, students are encouraged to go beyond a surface view of the media landscape to ask pertinent questions and examine reasons, intentions and objectives of media messages.
Co-requisite: ENGL 203

MCOM 228 PUBLIC OPINION **3.0: 3 cr. E**

This course will examine public opinion and its societal role. The course will focus on understanding how public opinion is shaped as well as how public opinion impacts politics and governing. The course will examine research on the current state of public opinion, and focus on historical developments in opinion, including changes that arose with the development of polling and the advent of television and other electronic media. Students will acquire awareness of propaganda techniques in order to analyze different kinds of political behavior.

Co-requisite: ENGL 102

MCOM 230 INTERNATIONAL PRINT WRITING **3.0: 3 cr. E/A**

This course covers aspects of international journalistic writing in either Arabic or English.

Co-requisite: ENGL 203 and/or ARAB 201

MCOM 231 GLOBAL COMMUNICATION **3.0: 3 cr. E**

This course examines historical, political, economic and cultural trends in global mass communication systems. The course will also examine issues of cultural autonomy, political rights and social justice, in the context of global communication.

Co-requisite: ENGL 203 and/or ARAB 201

MCOM 233 CURRENT ISSUES IN THE MEDIA **3.0: 3 cr. E**

The course will review and analyze current political and social issues making headlines in the media. Students will be expected to read daily newspapers, online publications, and view broadcast documentaries on contemporary issues. Students will be expected to follow the news in Arabic and English. At the completion of the course, students should be able to discuss knowledgeably the coverage of current issues.

Co-requisite: ENGL 203

MCOM 234 TV REPORTING **3.0: 3 cr. E**

A practical course where students learn the techniques required to put together a TV news report. The course addresses the technical and theoretical aspects of TV reporting.

Co-requisite: ENGL 102 and/or ARAB 201

MCOM 235 PRINCIPLES OF ADVERTISING **3.0: 3 cr. E**

This course is a comprehensive introduction to the basic principles of advertising. Topics will include: media planning, integrated communications, creative strategy, social responsibility, advertising ethics, international advertising, role of advertising agencies and current issues in advertising. As part of the course, students will be asked to create magazine ads and story boards.

Co-requisites: MCOM 200 or MCOM 201, ENGL 102

MCOM 237 INTERNSHIP **3.0: 3 cr. E**

This course focuses on an intensive training with TV stations, film companies or other professional associations in collaboration with the university to create a unique teaching/learning environment for the student.

Co-requisite: ENGL 203

MCOM 238 JOURNALISM WORKSHOP **3.0: 3 cr. E/A**

Students produce a daily online publication under the supervision of an instructor.

Co-requisite: ENGL 203

MCOM 239 MEDIA PLANNING AND ADVERTISING CAMPAIGNS **3.0: 3 cr. E**

Students will be able to examine the tactics of achieving advertising and marketing objectives through organizing, implementing and executing advertising campaigns.

Co-requisite: ENGL 102

MCOM 241 DOCUMENTARY FILM MAKING **3.0: 3 cr. E/A**

Students produce a TV documentary, and are introduced to all that this entails, including script writing, camera work, and editing.

Pre-requisite: MCOM 200. Co-requisite: ENGL 102

MCOM 242 DIGITAL EDITING **3.0: 3 cr. E**

Students will learn technical skills required for non-linear digital editing not only as a technical skill but also as a means to storytelling and film creation. Students are required to attend workshops that fall out of class times, to ensure they are given an adequate amount of practical training.

Co-requisites: ENGL 003 and MCOM200

MCOM 243 DIRECTING AND FILM MAKING **3.0: 3 cr. E**

Students will gain basic television and film directing and editing techniques. The result of this course will be to produce, direct and edit a 30 minute television program or short film. MCOM 243 requires students to attend workshops that fall out of class times, to ensure they are given an adequate amount of practical training.

Co-requisites: ENGL 203, MCOM 242 and MCOM 250

MCOM 244 TOPICS **3.0: 3 cr. E**
A different, specialist course every semester.
Co-requisite: ENGL 102

MCOM 245 COMPUTER GRAPHICS AND VIDEO ANIMATION **3.0: 3 cr. E**
This course is an introduction to basic principles, skills, processes, and tools required for graphics and animation production. Students will be involved in computer lab activities designed to help them create their own working digital portfolio.
Co-requisite: ENGL 003

MCOM 250 SCRIPT WRITING **3.0: 3 cr. E**
This course will focus on understanding and developing story, character, structure and style used in scriptwriting. Students will learn the basics of how to conceptualize, develop and produce scripts for narrative feature films. MCOM 250 requires students to attend workshops that fall out of class times, to ensure they are given an adequate amount of practical training.
Co-requisite: ENGL 203 and/or ARAB 201

MCOM 252 RACE, GENDER AND ETHNICITY IN FILM AND TELEVISION **3.0: 3 cr. E**
This course will focus on representation and stereotype in TV and film, tracing the political, economic and social influences on broadcasting.
Co-requisite: ENGL 203

MCOM 260 INTEGRATED MARKETING COMMUNICATIONS **3.0: 3 cr. E**
As marketing communications becomes more integrated, this course discusses the relationship between mass communication tools, marketing, advertising and public relations. The successful application of the marketing communications mix is helped by an understanding of communication theory and buyer behavior theory.
Students will engage in corporate communication writing techniques.
Co-requisite: ENGL 102

MCOM 261 EVENT MANAGEMENT **3.0: 3 cr. E**
This course provides an introduction to the principles and practice of event management, training students to be future managers in the Event Industry. Students will become acquainted with the scope and significance of various planned events, their professional management, and their importance to society and the economy. They will be able to prepare a detailed business plan for an event, incorporating the event concept, organization, operations and logistics, market assessment and strategies, financial plan and budget, risk and security considerations.

MCOM 271 INTRODUCTION TO PHOTOGRAPHY **0.3: 1 cr. E/A**
Students will learn the basics of manual and automatic photography, image framing and aesthetics as well as downloading images, processing and the basics of editing them.
Co-requisite: ENGL 003

MCOM 272 JOURNALISM AND NEWS FINAL PROJECT **0.3: 1 cr. E/A**
Final capstone project course that entails the creation of series of articles or news coverage which follows an identifiable style and identity that the student creates as a writer under the supervision of the teacher.
Pre-requisite: Senior Standing. Co-requisite: ENGL 203

MCOM 273 ACTING FOR FILM AND TELEVISION II **3.0: 3 cr. E/A**
Students will be guided through advanced techniques of preparing for auditions, performing for camera and public speaking; including body awareness, movement, breath and speech patterns.
Co-requisite: ENGL 203

MCOM 274 RADIO, FILM AND TV FINAL PROJECT **0.3: 1 cr. E/A**
Final capstone project that requires the student to create a short film, short documentary, or complete proposal, pitch and pilot episode for TV show or a complete proposal, pitch and finished script for a feature film; conducted under the supervision of the teacher.
Pre-requisite: Senior Standing. Co-requisite: ENGL 203

MCOM 275 ADVANCED EVENT MANAGEMENT AND PRACTICUM **3.0: 3 cr. E/A**
Students will organize a major event in all its steps, from concept creation, to funding to execution and post event publicity. This is an advanced course for students to prepare them for careers in event management and give them hands on training in the field.
Co-requisite: ENGL 203

MCOM 276 MARKETING AND EVENTS FINAL PROJECT **0.3: 1 cr. E/A**
Final capstone project that requires the student to create a complete marketing campaign for a product, company or project with the

creation of a full proposal and plan for the event.
Pre-requisite: Senior Standing. Co-requisite: ENGL 203

MCOM 277 ARABIC WRITING FOR NEWS AND MEDIA **3.0: 3 cr. A**
A practical course in Arabic writing for journalism, news and all other forms of digital, on-air and print mediums. Students will learn advanced writing, script and content creation in Arabic. Students will produce news stories that are accurate, they will understand as well the key differences between hard news, soft news and long-form journalism.
Co-requisite: ARAB 201

MCOM 278 VOICE, SPEECH, AND PERFORMANCE FOR SCREEN **3.0: 3 cr. E**
Students are trained in the ability to deliver speech and perform in front of camera for Broadcast Journalism, TV Acting and Film. The course covers a variety of theory and techniques as well as practical exercise for voice, pronunciation, breath control, presence and body language.
Co-requisite: ENGL 003

MCOM 279 VOICE, SPEECH, AND PERFORMANCE FOR SCREEN **3.0: 3 cr. A**
Students are trained in the ability to deliver speech and perform in front of camera for Broadcast Journalism, TV Acting and Film. The course covers a variety of theory and techniques as well as practical exercise for voice, pronunciation, breath control, presence and body language.
Co-requisite: ENGL 003 (if exempted from Arabic) or ARAB201.

MCOM 280 MEDIA, MYTHOLOGY AND FILM **3.0: 3 cr. E**
This course is a study and an analysis of storytelling from ancient text to modern film. The evolution of storytelling and the elements that resist change and the discussion of what makes storytelling powerful and effective and how myth is created and communicated.
Co-requisite: ENGL 203

MCOM 281 BROADCAST JOURNALISM **3.0: 3 cr. E/A**
This course covers practical training for Broadcast Journalism in both Arabic and English. The course focuses on the skills needed to prepare and perform in front of the camera for various types of Broadcast Journalism and Reporting.
Co-requisite: ENGL 203 and/or ARAB 201

MCOM 283 LIGHTING AND CINEMATOGRAPHY **3.0: 3 cr. E**
This course covers theory of lighting and practical application for film and television. Lighting is not only a technical aspect but also an effective tool in content creation for film and screen. Students are trained both in the practical application of lighting as well as the theoretical design and color theory.
Pre-requisite: MCOM 200. Co-requisite: ENGL 003

MCOM 284 IMPROVISATION AND MOVEMENT FOR SCREEN **3.0: 3 cr. E/A**
This course covers movement for screen as the interplay between anatomy, movement and performance theory. Students will experience a fundamental approach to using the body as a responsive instrument as well as the basis of improvisation as a tool for creativity and character creation.
Co-requisite: ENGL 102

MCOM 285 VISUAL AESTHETICS: PRINCIPLES AND TECHNIQUES **3.0: 3 cr. E**
In an increasingly visually-oriented world, this course focuses on aesthetic theories and how this is used and interpreted in film and media. The study of the visual narrative, frame structure and psychological implications of the visual elements are analyzed in various visual mediums.
Co-requisite: ENGL 203

MCOM 286 PRACTICUM IN FILM AND TV **2.0: 2 cr. E/A**
This course is a series of practical workshops and hands-on training for various film and TV productions at the university as well with professional companies in the field. The course requires hours outside of class times and in various locations around the country.
Co-requisite: ENGL 203

MCOM 287 SCENE STUDY **3.0: 3 cr. E/A**
This course is where acting training and theory are fully applied; where acting for screen becomes a reality. Students explore the layers to text and subtext with its underlying emotions and character developments. Drills, exercises and intensive scene study will help students achieve a higher level of believable acting for screen.
Co-requisite: ENGL 203

MCOM 288 CRISIS PR **3.0: 3 cr. E**
This course teaches students to manage and prevent the "fall-out" associated with crisis occurrence in a social media-driven world. The course not only focuses on damage control but on public relations prevention and the creation of positive media from negative situations.
Co-requisite: ENGL 102

MCOM 289 CORPORATE IMAGE: BRANDS AND BRANDING **3.0: 3 cr. E/A**
This course teaches the tools of creating and managing corporate identity effectively and in an appealing manner. The course details what is required to brand an image and maintain the brand in line with corporate image and goals.
Co-requisite: ENGL 102

MCOM 290 DIGITAL MARKETING **3.0: 3 cr. E**
This course examines digital marketing strategies in both implementation and design with a detailed understanding of digital channels and platforms. Students will formulate, create and analyze digital marketing campaigns.
Co-requisite: ENGL 102

MCOM 291 PRACTICUM IN FILM AND TV II **3.0: 3 cr. E/A**
This course is a series of practical workshops and hands-on training with various film and TV productions at the university as well with professional companies in the field. The course requires hours outside of class times and in various locations around the country.
Co-requisite: ENGL 203

MCOM 292 SENIOR STUDY **2.0: 2 cr. E/A**
This course allows students to research and will prepare for their final capstone project. Students will create a short film, short documentary, or complete proposal, pitch and pilot episode for a TV show or ~~a~~ complete a proposal, pitch and finished script for a feature film; conducted under the supervision of the teacher.
Pre-requisite: Senior Standing. Co-requisite: ENGL 203

MCOM 293 PROFESSIONAL FILM AND TV TRAINING WORKSHOPS **3.0: 3 cr. E/A**
A series of 10 to 12 intense full day workshops (8 to 12 hours per day) offered on Saturdays during the Semester. Each workshop will be offered by a professional in the field of the workshop: Directing, Cinematography, DOP, Camera Operator, Lighting, Pre-Production and Financing, Art Direction, Make-Up, SFX Make Up, Sound Recording, Editing, Sound Design, Coloring. The workshop will be monitored and students evaluated by faculty members but the teachers will be the professionals in each field.
Co-requisite: ENGL 203

MCOM 294 ADVANCED DIGITAL EDITING **3.0: 3 cr. E**
Students trained in non-linear editing will develop their skills to not only edit but learn how editing is the craft of storytelling. Students will learn how to edit multi-layer video, work with tracking and chroma as well as complex editing and effects in order to create real digital storytelling through non-linear editing.
Pre-requisite: MCOM 242. Co-requisite: ENGL 102

MCOM 295 COPY AND CONCEPT **3.0: 3 cr. E/A**
This course focuses on teaching students how to write effective and compelling copy for various marketing materials for various mediums and platforms. Students will learn the elements and concepts of what makes a good advertisement and impactful copy as they practice how to best convey their messages and reach out to the customers.
Co-requisite: ENGL 102

Regarding the course descriptions for CSPR, CSPR-Equivalent and ENGL courses, refer to the corresponding Department.

4.17 DEPARTMENT OF MATHEMATICS

Chair of Department: Abdulrahman Abdulaziz, Ph.D. abdulrahman.abdulaziz@balamand.edu.lb

Objectives of the Program:

The Department of Mathematics offers a program leading to a Bachelor of Science in Mathematics. The program aims at:

- Providing students with a robust and extensive background in mathematics
- Preparing students for graduate and further higher-level studies
- Preparing students to pursue a profession in mathematics or mathematics education or careers in various industries where there is a demand for a rigorous understanding of mathematics or statistics
- Developing the student's ability to pursue knowledge independently by acquiring skills in problem solving, critical thinking, and logical analysis
- Enabling students to understand the power of mathematics and its role in human culture
- Emphasizing the close association of mathematics with the real world and its role in the fields of social sciences, physical and life sciences, engineering, and business

To qualify for a BS degree in Mathematics the student must complete a minimum of 91 credits.

PLAN OF STUDY

Total Credits within a BS program					**91 cr**
1	***University Requirements***				***19 cr***
1.1	English		6 cr		
1.2	CSPR		6 cr		
1.3	CSPR equivalent		6 cr		
1.4	LISP 200		1 cr		
2	***Department Requirements***				***60 cr***
2.1	*Courses from the Major*	*(minimum 40%, i. e., 36 credits)*			
2.1.1	*Major Courses*	*((minimum 40%, i. e., 36 credits)*		*48 cr*	
	MATH 200	Calculus I	3 cr		
	MATH 202	Calculus II	3 cr		
	MATH 205	Real Analysis	3 cr		
	MATH 206	General Topology	3 cr		
	MATH 208	Complex Analysis	3 cr		
	MATH 210	Abstract Algebra	3 cr		
	MATH 211	Linear Algebra I	3 cr		
	MATH 212	Linear Algebra II	3 cr		
	MATH 213	Discrete Mathematics	3 cr		
	MATH 230	Numerical Analysis	3 cr		
	MATH 241	Statistics I	3 cr		
	MATH 246	Probability	3 cr		
	MATH 261	Operations Research	3 cr		
	MATH 270	Differential Equations	3 cr		
	MATH 271	Partial Differential Equations	3 cr		
	MATH 280	Geometry of Curves and Spaces	3 cr		
2.1.2	*Electives within the Department*			*06 cr*	
Students are requested to choose 6 credit courses from the list below:					
	MATH 217	Ring and Modules Theory	3 cr		
	MATH 220	History of Mathematics	3 cr		
	MATH 221	Number Theory	3 cr		
	MATH 243	Statistics II	3 cr		
	MATH 260	Combinatorics and Graph Theory	3 cr		
	MATH 264	Game Theory & Decision Analysis	3 cr		
	MATH 281	Differential Geometry	3 cr		
2.2	*General Education (service) Courses*			*06 cr*	
	CSIS 206	Principles of Programming	3 cr		
	PHYS 211	Fundamentals of Physics I	3 cr		
3	***Free Electives***				***12 cr***

MINOR IN MATHEMATICS

A non-Mathematics student wishing to have a minor in Mathematics must successfully complete 15 credits in the Department of Mathematics, including MATH 205 and MATH 213.

COURSE DESCRIPTIONS

Unless stated otherwise, all MATH courses require at least ENGL 101 as co-requisite.

MATH 200 CALCULUS I **3.0: 3 cr. E**

This course covers the following topics: Techniques of integration, definite and indefinite integrals, applications of definite integrals, sequences, infinite series, Fourier series, graphs in polar coordinates, functions of several variables and double integrals.

Pre-requisite: MATH 113

MATH 200A CALCULUS I FOR TECHNOLOGY **3.0: 3 cr. E/F**

This course covers the following topics: Techniques of integration for definite and their applications. The course then gives an overview of first and second order linear differential equations and their solution sets. The course finally presents Laplace transform, Fourier Series and their applications. (Major specific, non-transferrable)

MATH 201 MATHEMATICS FOR COMPUTATION **4.0: 4 cr. E**

This course covers the following topics: Techniques of integration, first-order differential equations, induction and recursion, matrix algebra, solution of linear systems, power series, and functions of several variables.

Pre-requisite: MATH 113

MATH 202 CALCULUS II **3.0: 3 cr. E**

This course covers the following topics: Multi-variable functions, multiple integrals, cylindrical and spherical coordinates, line integrals, surface area, circulation and flux, Green's theorem, Stokes theorem, Divergence theorem.

Pre-requisite: MATH 200

MATH 205 REAL ANALYSIS **3.0: 3 cr. E**

This course covers the following topics: The real number system, sequences and subsequences, Cauchy sequences, supremum and infimum, accumulation points, pointwise and uniform convergence, limits, continuity of functions, open, closed, connected, compact sets, differentiation and integration.
Prerequisite: MATH 202

MATH 206 GENERAL TOPOLOGY **3.0: 3 cr. E**

This course covers the following topics: Metric spaces, distances, diameters, equivalent metrics, Euclidean spaces. Topological spaces: open sets, accumulation points, closure and neighborhood, bases and subbases for a topology, subspaces, products and quotients. Normed and Hilbert spaces, local connectedness, path connectedness, separation axioms, and completeness.
Pre-requisite: MATH 205

MATH 207 SET THEORY **3.0: 3 cr. E**

This course covers the following topics: Countable and uncountable sets, cardinality and cardinal arithmetics, the construction of the real numbers, the continuum hypothesis, transfinite numbers, the axiom of choice.
Pre-requisite: MATH 206

MATH 208 COMPLEX ANALYSIS **3.0: 3 cr. E**

This course covers the following topics: Complex numbers, analytic functions, derivatives, Cauchy-Reimann equations, complex integrations, Cauchy integral theorem, power series, Taylor and Laurent series, residue theorem, conformal mappings.
Pre-requisite: MATH 205

MATH 210 ABSTRACT ALGEBRA **3.0: 3 cr. E**

This course covers the following topics: Groups, subgroups, homomorphisms and isomorphisms of groups, normal subgroups, quotient groups, cyclic groups, permutation groups, cosets, Lagrange's theorem, orbits, stabilizers, Sylow theorems.
Pre-requisite: MATH 200

MATH 211 LINEAR ALGEBRA I **3.0: 3 cr. E**

This course covers the following topics: Linear systems, matrix operations, echelon form, vector spaces, linear transformations, determinants, eigenvalues and eigenvectors, diagonalization of matrices.
Co-requisite: ENGL 003, MATH113

MATH 212 LINEAR ALGEBRA II **3.0: 3 cr. E**

This course covers the following topics: Reduction of matrices, eigenvalues and eigenvectors, diagonalization and triangulation of matrices and its applications. Minimum polynomials, characteristic subspaces. Bilinear and quadratic forms. Symmetric and Hermitian forms. Reduction of quadratic forms. Euclidean spaces, inner product, orthogonality, orthogonal projection.

Pre-requisite: MATH 211

MATH 213 DISCRETE MATHEMATICS **3.0: 3 cr. E**

This course covers the following topics: Logic, propositional equivalences, mathematical induction, proof methods, sets, power sets, sets and quantification, operations on sets, generalized unions and intersections, functions, one-to-one and onto functions, bijection, inverse functions, composition of functions, direct and inverse images of sets, binary relations, equivalence relations, equivalence classes, partial ordering.
Pre-requisite: MATH 200 or MATH 201

MATH 214 DISCRETE MATHEMATICS FOR COMPUTATION **3.0: 3 cr. E**

This course covers the following topics: Logic using mathematical laws and truth tables, boolean algebra, counting principles, algorithm foundations, and trees.

MATH 215 RINGS AND MODULES THEORY **3.0: 3 cr. E**

This course covers the following topics: Rings, ideals and homomorphisms, quotient rings, rings of fractions, polynomial rings, group rings. Modules, module homomorphisms, quotient modules, direct sums of modules, characteristic and minimal polynomials, rational and Jordan canonical forms, exact sequences, tensor products of modules.
Pre-requisite: MATH 211

MATH218 AVIATION MATHEMATICS II **3.0: 3cr. E/F**

Matrices and Determinants, Linear Simultaneous Equations, Matrix Arithmetic, Eigenvalues and Eigenvectors, Coordinate Transformation, Determinants, Properties, Properties of Determinants and Numerical Solution of Linear Equations, Differential Equations, Laplace Transforms, The general linear first and second order ordinary differential equations ODE, Solving linear second order ordinary differential equations with constant coefficients. Orthogonal functions including Legendre and trigonometric functions. (Major specific, non- transferrable)

MATH220 HISTORY OF MATHEMATICS **3.0: 3cr. E/F**

This course deals with the history of mathematics through the ages and across cultures. Topics include: Roots of modern mathematics in ancient Egypt, Mesopotamia, and Greece; evolution of number systems; the concept of infinity; development of arithmetic, geometry, algebra and analysis.
Prerequisite:

MATH 221 NUMBER THEORY **3.0: 3 cr. E**

This course covers the following topics: Divisibility, congruences, arithmetic functions, Chinese remainder theorem, Fermat theorem, quadratic forms, quadratic reciprocity, Diophantine equations.
Pre-requisite: MATH 211

MATH 230 NUMERICAL ANALYSIS I **3.0: 3 cr. E**

This course covers the following topics: Finite difference calculus, interpolation and extrapolation, solution of systems of linear equations, root of equations, least square curve fitting, numerical integration, numerical solution of ordinary differential equations.
Pre-requisites: MATH 200 or MATH 201 and CSIS 200 or CSIS 206

MATH 231 NUMERICAL ANALYSIS II **3.0: 3 cr. E**

This course covers the following topics: Finite elements methods, solution of elliptic, hyperbolic and parabolic equations, approximation, matrix representation, solution of nonlinear systems, solution of non stationary systems, numerical methods to calculate eigenvalues and eigenvectors.
Pre-requisites: MATH 230 and MATH 271

MATH 241 STATISTICS I **3.0: 3 cr. E**

This course covers the following topics: Sampling theory, estimation of the mean, variance, and proportion parameters for one and two groups. Bayesian estimation, maximum likelihood estimation, hypothesis tests and significations.
Pre-requisite: MATH 246

MATH 242 STATISTICS FOR APPLIED SCIENCES **3.0: 3 cr. E**

This course covers the following topics: Sampling theory, estimation theory, confidence intervals, hypothesis tests and significations, t test (student), F test (Fisher) and χ^2 test (Pearson), linear regressions, and correlation.

MATH 243 STATISTICS II **3.0: 3 cr. E**

This course covers the following topics: One and two-factor analysis of variance (ANOVA), regression and multiple regressions, nonparametric statistics, introduction to time series.
Pre-requisite: MATH 241

MATH 244 CATEGORICAL DATA ANALYSIS **3.0: 3 cr. E**

This course covers the following topics: Stratified data analysis, using model-building strategies, assessing the fit of a binary logistic regression model, and detecting interactions and nonlinear effects, two-way and three- way contingency tables, logistic regression, loglinear models for contingency tables, collapsibility, ordinal associations, multicategory logistic models.

MATH 245 STOCHASTIC PROCESSES **3.0: 3 cr. E**

This course covers the following topics: Measure theoretic probability, martingales, filtration, and stopping theorems, elements of large deviations theory, Brownian motion and reflected Brownian motion, stochastic integration. In addition, the course will cover some applications to finance theory, insurance, queuing and inventory models.

MATH 246 PROBABILITY **3.0: 3 cr. E**

This course covers the following topics: Introduction to descriptive statistics, random variables and probability distribution, mathematical expectation. Discrete probability distributions: uniform, binomial and multinomial, hyper-geometric, negative binomial, geometric and Poisson distributions. Continuous probability distribution: normal distribution, gamma and exponential distributions, χ^2 distribution.

Pre-requisite: MATH 200 / 201

MATH 260 COMBINATORICS AND GRAPH THEORY **3.0: 3 cr. E**

This course covers the following topics: permutations and combinations, Newton's binomial theorem, inclusion-exclusion formula, recurrence relations and generating functions, graphs, subgraphs, degree, graphical sequences, paths, cycles, walks, connectedness, trees, digraphs, tournaments, bipartite graphs, matching.

MATH 261 OPERATIONS RESEARCH **3.0: 3 cr. E**

This course covers the following topics: General linear programming, the simplex method and sensitivity analysis, duality, network models including minimum spanning trees, the shortest route problem and CPM and PERT computations, deterministic and non-deterministic inventory methods.

MATH 262 MATHEMATICS FOR FINANCE **3.0: 3 cr. E**

This course covers the following topics: Fractional exponents and radicals, simple interest, compound interest and compound amount, compound discount and present value, simple annuities, effective annual rate of interest, amortization and equity, and sinking funds.

MATH 264 GAME THEORY & DECISION ANALYSIS **3.0: 3 cr. E**

This course covers the following topics: Matrix games, relation to linear programming, non-zero sum games, decision trees, models for group decisions, utility theory.

Pre-requisite: MATH 261

MATH 265 OPTIMIZATION **3.0: 3 cr. E**

This course covers the following topics: Deterministic and probabilistic models, unconstrained optimization methods: one dimensional search, gradient, Newton, and conjugate direction, genetic algorithms, and nonlinear optimization.

Pre-requisite: MATH 261

MATH 270 DIFFERENTIAL EQUATIONS **3.0: 3 cr. E**

This course covers the following topics: First, second and higher order ordinary differential equations, separable and exact first order equations, Bernoulli and Euler-Cauchy equations, undetermined coefficient, variation of parameters, power series solution, Laplace transform, and classification of partial differential equations.

Pre-requisite: MATH 200

MATH 271 PARTIAL DIFFERENTIAL EQUATIONS **3.0: 3 cr. E**

This course covers the following topics: Linear partial differential equations, separation of variables method, calculus of Fourier series, heat equation, wave equation, Laplace equation, and Sturm-Liouville Eigenvalue problem.

Pre-requisites: MATH 202 and MATH 270

MATH 272 CALCULUS OF VARIATIONS **3.0: 3 cr. E**

This course covers the following topics: Variation of a functional, variational derivative, invariance of Euler's equation, variational problems in parametric form, the Weierstrass-Erdmann conditions, the canonical form of Euler equations, the Legendre transformation, the Hamilton-Jacobi equation, the second variation of a functional, the field of a functional, Hilbert invariant, and variational problems involving multiple integrals.

Pre-requisite: MATH 200

MATH 280 GEOMETRY OF CURVES AND SPACES **3.0: 3 cr. E**

This course covers the following topics: Parametrized curves, arc length, Frenet frame, torsion, curvature, and global differential geometry of plane curves. Parametrized surfaces, first and second fundamental form, Gaussian and mean curvature, parallel transport and geodesics, Gauss–Bonnet theorem

Pre-requisite: MATH 202

MATH 281 DIFFERENTIAL GEOMETRY **3.0: 3 cr. E**

This course covers the following topics: Local coordinates system, atlas, smooth manifolds, sub-Manifolds, tangent vectors, vector fields, tensor fields, submersions, immersions, differential forms, Riemannian metrics, covariant derivative, connections.

Pre-requisite: MATH 202

MATH 282 COMPUTATIONAL GEOMETRY I **3.0: 3 cr. E**

This course covers the following topics: Introduction to computer graphics, the PHIGS and GKS graphics standards, geometrical transformation in 2D and 3D, viewing in 3D, projection, representing curves and surfaces, visible surface determination, advanced modeling techniques (factual models, spline, Bezier), color theory, realism, rendering, elimination and shading.

Pre-requisites: CSIS 206, MATH 200 and MATH 211

MATH 299 BS PROJECT **3.0:3 cr E**

Regarding the course descriptions for BIOL, CHEM, CSPR, CSPR-Equivalent, ECON, ENGL, CSIS, FHSC and PHYS courses, refer to the corresponding Department.

4.18 Courses In Music

MUSC211 FOUNDATION OF MUSIC **3.0:3 cr E**

This course is an introduction to the fundamental principles of note reading, note values, time signature, rhythm, meter and expressive marks. The students will also learn how to play the recorder and develop performanceskills on that instrument. Concepts of major and minor scales, key signatures and the circle of fifths are thoroughly covered. The position of the notes on the keyboard will be learned and playing chors on the piano will be introduced.

MUSC216 ORIENTAL MUSIC **3.0:3 cr E**

Oriental Music is an essential part of the history, culture and heritage of Mediterranean countries. Consequently, students will be introduced to this rich legacy through the performance of some of the rich repertoire as well as through the study of historical and theoretical features of the art form.

MUSC 242 MUSIC APPRECIATION **3.0: 3 cr. E/F**

Music, its form, styles and media, is an essential element of culture. The class studies the musical elements that contribute to creating music and how these elements work in the creation of the unique compositions of various time periods. Students will better understand what is happening when listening to a piece of music and will be able to discern the differences between different time periods through analysis of musical elements. A chronological survey of musical styles from the Baroque to the 20th century is undertaken. The musical survey includes investigating social and political influences on the development of occidental musical styles. Students finish the course able to listen to western art music with understanding and intelligent enjoyment.

MUSC 244 VOICE CLASS **3.0: 3 cr. E/F**

The course is divided into two components: theoretical and applied. Students learn the physiology of the vocal mechanism and particularities of the young and adolescent voice. Additionally, the course offers a practical component encouraging students to apply the theory to their own singing and speaking voices. Through scholarly articles, students are introduced to a wide range of vocal issues and the practical component prepares students to use the singing voice in an educational situation.

4.19 Courses In Plastic Arts

PART 220 VISUAL ARTS **3.0: 3 cr. A**

This course offers a general introduction to the various art techniques and media. It provides theoretical and practical knowledge related to the field of Fine Arts. Its aim is to help students to develop and master a specific know-how by improving their conceptual skills and expression.

PART 225 VISUAL ARTS: GRAPHICS DESIGN **3.0: 3 cr. A**

This course offers students an intensive and practical program of study in graphics and visual art. It consists of in-depth study of various techniques, traditional and new technologies for creative and expressive visualization and communication: the image, in its multiple status and the various visual notations. It also focuses on new graphic technologies such as Computer Graphics.

4.20 DEPARTMENT OF PHILOSOPHY

Chair of Department: Mohamad Rihan, Ph.D., mohamad.rihan@balamand.edu.lb

The Department aims at initiating students to the major issues of Philosophy, taken in their historical context as well as in their connection to other relevant disciplines. The program in the department leads to the degree of Bachelor of Arts. The department supports two language tracks, one in English and one in French.

The department offers a Minor in Philosophy by completing at least 15 credits (5 courses) in Philosophy.

Total credits within a BA program 91 cr

1	***University Requirements***			***19 cr***
1.1	English /French courses		6 cr	
1.2	CSPR courses		6 cr	
1.3	CSPR equivalent courses		6 cr	
1.4	LISP 200		1 cr	
2	***Department Requirements***			***45 cr***
2.1	*Courses from the Major*	*(minimum 40%, i. e., 36 credits)*	*39 cr*	
2.1.1	*Major Courses (13 courses from the list below)*		*39 cr*	
	PHIL 201		3 cr	
	PHIL 202		3 cr	
	PHIL 203		3 cr	
	PHIL 204		3 cr	
	PHIL 205		3 cr	
	PHIL 206		3 cr	
	PHIL 207		3 cr	
	PHIL 208		3 cr	
	PHIL 209		3 cr	
	PHIL 210		3 cr	
	PHIL 211		3 cr	
	PHIL 212		3 cr	
	PHIL 213		3 cr	
	PHIL 214		3 cr	
	PHIL 215		3 cr	
2.1.2	*Electives within the Department*		*00 cr*	
2.2	*General Education (service) Courses*		*06 cr*	
	ARAB201 Arabic Expression III, or Higher 200-level course		3 cr	
	One course from the list below:		3 cr	
	ASTR 201	*Fundamentals of Astronomy*	*3 cr*	
	CSIS 283	*Applied Digital Skills for Humanities*	*3 cr*	
	EVSC 201	*Introduction to Environmental Sciences*	*3 cr*	
	GEOL 201	*Fundamentals of Geology*	*3 cr*	
3	***Free Electives***			***27 cr***
3.1	*Electives from selected courses in Humanities & Social Sciences*		*12 cr*	
3.2	*Free Electives*		*15 cr*	

COURSE DESCRIPTIONS

All PHIL courses require at least ENGL 102 as co-requisite.

PHIL 201 INTRODUCTION TO PHILOSOPHY 3.0: 3 cr. E/F

The objective of this course is to provide students with the general introduction to Philosophy, its major concepts, problems and overall issues touching upon meatphysics, morals and ethics. They will be given an overview of the basic ideas of key philosophers as Plato, Aristotle, Locke, Hume, Kant, Heidegger and others.

PHIL 202 HISTORY OF ANCIENT PHILOSOPHY 3.0: 3 cr. E/F

This course will focus on the ancient Greek philosophers, beginning with the Pre-Socratics and moving on to Socrates, Plato, Aristotle and ending up with Plotinos.

PHIL 203 ARAB MUSLIM PHILOSOPHY 3.0: 3 cr. E/F

This course offers students an introduction to the principal issues and problems treated by such major Arab Muslim philosophers as Ibn Baja, Ibn Sina, Al-Ghazali, Ibn Rushd and the Ikhwan al-Safa.

PHIL 204 THE PHILOSOPHY OF LANGUAGE **3.0: 3 cr. E/F**
The course focuses on the works of Wittgenstein, Russell and Frege.

PHIL 205 THE CONTINENTAL RATIONALISTS **3.0: 3 cr. E/F**
This course dwells on the 17th century Philosophy: centering mainly on: Descartes, Spinoza and Leibnitz, beginning with Descartes' *"Meditations"* and Spinoza's *"Ethics"* and *"theological and political treatises"*, winding up with Leibniz's *"Monadology"*.

PHIL 206 POLITICAL PHILOSOPHY **3.0: 3 cr. E/F**
The treatment of political power and society is studied through the works of Hobbes, Locke, Rousseau, Hegel and Marx, and through the concepts of natural law, State, sovereignty, and individual liberty.

PHIL 207 THE PHILOSOPHY OF KNOWLEDGE **3.0: 3 cr. E/F**
This course deals with the mechanisms of human knowledge, its formation and development as viewed by different Philosophical schools concerned with epistemology and the philosophy of knowledge.

PHIL 208 CONTEMPORARY ARAB THOUGHT AND IDEOLOGIES **3.0: 3 cr. E/F**
Particular attention in this course is given to the 20th century thinkers such as Antun Saade, Zaki Al-Arsouzi,

Michel Aflak, Salah Bitar, and others.

PHIL 209 THE PHILOSOPHY OF THE ENLIGHTENMENT **3.0: 3 cr. E/F**
The course deals with the works and ideas of Enlightenment philosophers on the understanding on metaphysics,

aesthetics, politics and morals.

PHIL 210 INTRODUCTION TO THE PHILOSOPHY OF ART AND AESTHETICS **3.0: 3 cr. E/F**
This course studies the theories of beauty from Plato to the post-modern age. It introduces students to philosophical approaches to art and art objects with a focus on issues such as Nature and imitation, the beautiful and the sublime, genius, imagination, the concept of taste, and others. The course also includes an examination of the affects - how art makes us think and feel in particular ways. Organized around themes, the course will also engage with the ambiguities in the terms 'art' and 'aesthetics' themselves.

PHIL 211 PHILOSOPHY OF RELIGION **3.0: 3 cr. E/F**
The relationship and distinctions between philosophy and religion will be the focus of this course through the study of such topics as reason vs. faith, the problem of evil, mysticism and the nature of revelation.

PHIL 212 GERMAN IDEALISM: HEGEL **3.0: 3 cr. E/F**
This course serves as an introduction to Hegelian thought: The spirit of reason in history, the dialectic of master and slave, the guilty conscience, and subjectivity will be the main themes treated during the semester.

PHIL 213 NIETZSCHE, MARX AND FREUD **3.0: 3 cr. E/F**
This course deals with the philosophical reactions to Hegelian thought as expressed in the works of Nietzsche, Marx and Freud.

PHIL 214 THE TEACHING OF PHILOSOPHY **3.0: 3 cr. E/F**
This course is intended to prepare students to the teaching of philosophy at the secondary school level. Particular attention is given to the different pedagogical perspectives concerning the didactical methods of the discipline.

PHIL 215 POST-COLONIAL THOUGHT **3.0: 3 cr. E/F**
This course investigates the major trends and themes in post-colonial thought and philosophy through an in- depth study of appropriate authors and texts drawn from former colonial regions and societies in the Middle East, Africa, Asia and Latin America.

Regarding the course descriptions for ARAB, CSIS, CSPR, CSPR-Equivalent, ENGL and FREN courses, refer to the corresponding Department.

4.21 DEPARTMENT OF PHYSICAL EDUCATION

Chair of Department: Rawad El Hage, Ph.D, Rawad.Hage@balamand.edu.lb

Language of instruction: French/Arabic or English/Arabic

The objective of the Bachelor degree is to equip students with a thorough understanding of physical activity, Sports sciences and wellness, while also fostering the practical skills for pursuing professional careers in coaching, fitness, recreation and leadership withinthe field of physical activity. This is based on the multiple knowledge sources that they acquire through the physical activities and sports taught at the department.

A student is admitted to the Department of Physical Education based on the decision of the University Admission Committee. Such a decision requires a medical certificate from a physician agreed upon by the University of Balamand, certifying that the health of the candidate allows him/her to pursue studies in this discipline.

New students are subjected to a physical entrance exam in order to determine their physical condition to decide which of the three courses they should take. The objective of this unit is to offer assistance to those who need to improve the level of their physical condition or who need to develop their aquatic skills in order to begin studies in the Department.

The passing grade of these 3 courses is 70/100.

Code	Title	Nb of credits
PHED101	Physical Conditioning I	3 cr.
PHED102	Physical Conditioning II	3 cr.
PHED103	Swimming: Adaptation and Initiation	3 cr.

N.B: This module is not included in the Bachelor of Arts (BA) curriculum.

A. BA IN PHYSICAL EDUCATION

To qualify for a BA in Physical Education, the student must complete a total of 91 credits, distributed as follows:

Total credits within a BA program 91 cr

1	***University Requirements***			***19 cr***
1.1	English /French courses	6 cr		
1.2	CSPR courses	6 cr		
1.3	CSPR equivalent courses	6 cr		
1.4	LISP 200	1 cr		
2	***Department Requirements***			***57 cr***
2.1	*Courses from the Major (minimum 40%, i. e., 36 credits)*			
2.1.1	*Major Courses (17 courses)*		*51 cr*	
	PHED 201 Physical conditioning	3 cr		
	2 team sports (PHED210, PHED211, PHED212, PHED213)	6 cr		
	PHED 208 Bodybuilding	3 cr		
	PHED 220 Gymnastics I	3 cr		
	PHED 221 Gymnastics II	3 cr		
	PHED 230 Athletics I: Running Events	3 cr		
	PHED 231 Athletics II: Jumping Events	3 cr		
	PHED 232 Athletics III: Throwing Events	3 cr		
	PHED 240 Swimming: Alternated Swimming	3 cr		
	PHED 241 Swimming: Simultaneous Swimming	3 cr		
	PHED 250 General Physiology and Neurobiology	3 cr		
	PHED 251 Anatomy and Biomechanics of the Locomotor System	3 cr		
	PHED 252 Bioenergetics of Sports	3 cr		
	PHED 253 Biomechanics of Sports	3 cr		
	PHED 254 Sports Pathology	3 cr		
	PHED 255 Sports and Health	3 cr		
2.1.2	*Electives within the Department*		*00 cr*	
2.2	*General Education (service) Courses*		*06 cr*	
	ARAB 201 Arabic Expression III	3 cr		
	One course from the list below:	3 cr		
	CSIS 283 Applied Digital Skills for Humanities	3 cr		
	ASTR 201 Fundamentals of Astronomy	3 cr		
	EVSC 201 Introduction to Environmental Sciences	3 cr		
	GEOL 201 Fundamentals of Geology	3 cr		

3 Free Electives *15 cr*

N.B: The passing grade in PHED 250, 251, 252, 253, 254 and 255 is 70%.

COURSE DESCRIPTIONS

PHED 101 PHYSICAL CONDITIONING I **3.0: 3 cr. E/F**
This course is designed to offer students an intensive physical conditioning program. The objective is to improve the student's level of performance in order to be accepted as a regular student in the Department. Refer to entrance exam.

PHED 102 PHYSICAL CONDITIONING II **3.0: 3 cr. E/F**
This course, mainly practical, introduces sophomore students to the concept of physical conditioning. It prepares them for the physical demands of the Department's practical disciplines by developing their overall physical qualities.
Refer to entrance exam.

PHED 103 SWIMMING: ADAPTATION AND INITIATION **3 . 0 : 3 c r. E / F**
This course offers an intensive program to students who need special assistance to improve weak points detected during the entrance exam. It focuses on aquatic adaptation such as floating, and rhythmic breathing. Refer to entrance exam.

PHED 200 SPORTS: LIFE STYLE **3.0: 3 cr. E/F**
This course focuses on the benefits of sports and its effects on health. It deals with health issues found in modern society such as stress management, obesity prevention and sedentary behavior. It proposes methods to improve the quality of life by practicing sports. The course includes practical sessions that are designed to help students to better understand their bodies and the body's needs

PHED 201 PHYSICAL CONDITIONING AND DEVELOPING TRAINING PROGRAMS **3.0: 3 cr. E/F**
This course offers students a theoretical approach to the methods and action techniques in the practice of physical education and sports activities. It also teaches the application of correct and efficient strategies in long and short-term programming and planning for sports clubs.

PHED 202 MOUNTAIN BIKING **3.0: 3 cr. E/F**
This practical course is designed to provide students with the basic skills, techniques and fitness needed to learn and practice mountain biking. The course includes mountain bike agility exercises, balance training, climbing and descending workouts and off-road free rides.

PHED 203 RECOVERY TECHNIQUES **3.0: 3 cr. E/F**
This course is designed to provide the students with the basic techniques used for recovery purposes in athletic population and general population involved in sports activities. The course focuses on the following areas: natural recovery techniques, physical therapy techniques and psychological techniques.

PHED 204 COACHING THEORIES **3:0 3cr. E/F**
This theoretical course is designed to provide the students with the basic understanding of different theories of coaching in team and individual sports. The course focuses on the following areas of study: leadership, team management, objective settings and arousal. After understanding those areas of study, the students will be provided with theories and methods that will optimize their coaching skills and thus improve their coaching performance.

PHED 205 HISTORY OF PHYSICAL EDUCATION AND SPORTS **3.0: 3 cr. E/F**
This course traces the historical evolution of the practice of physical education, sports, and trends from ancient times up till now. Students study the role of physical educators in the current educational system. This allows them to fully understand the value of physical education.

PHED 206 MOTOR LEARNING AND PSYCHOMOTOR ACTIVITY **3.0: 3 cr. E/F**
This course gives a general introduction to the history, birth, evolution, and different sections of the psychomotor activity such as corporal schemas, laterality, spatial structure and temporal orientation.
The course focuses on the theories and means used in the motors learning process. It also aims to develop the basic motor abilities that are necessary for enhancing sports performance.
All students enrolled in the TD program are required to take this course.

PHED 207 PHYSICAL EDUCATION IN ELEMENTARY SCHOOL **3.0: 3 cr. E/F**
The principal objective of this course is to allow students to acquire the concepts and skills necessary for the teaching of physical education in the elementary school. This course will familiarize the students with the stages of motor development of the child. Students will cover the concepts of game playing, team building as well as sportsmanship and fair play. This course is essential a practical course where the students will develop a series of body movements based on coordination and equilibrium functions in the maturity level of children aged 3 to 10.

PHED 208 BODYBUILDING **3.0: 3 cr. E/F**

This course will familiarize students with bodybuilding exercises (using free weights and machines). The students will also learn the different movements used in power lifting, weight-lifting and bodybuilding. Finally, this course will focus on the development of abdominal and lower-back muscles.

PHED 209 BASIC CONCEPTS OF PERSONAL TRAINING **3.0: 3 cr. E/F**

The main objective of this course is to allow students to acquire the necessary concepts and skills to master personal training. This course will cover the education approaches to personal training, foundations of exercise science, screening, assessment and defining objectives, and business principles for personal training. This course is essentially a theoretical course where students will learn the basic concepts and resources of personal training.

PHED 210 TEAM SPORTS: VOLLEY-BALL **3.0: 3 cr. E/F**

This course introduces the history of Volley-ball, its origin and its technical and strategic evolution. It introduces different techniques such as serving, setting up, spiking, backcourts, and at nets. The course also covers rules and court strategy.

PHED 211 TEAM SPORTS: BASKET-BALL **3.0: 3 cr. E/F**

This course introduces basic skills and techniques such as shooting, passing, dribbling, footwork, rebounding, defense, and executing individual offensive and defensive play. Rules and regulations are also discussed.

PHED 212 TEAM SPORTS: FOOTBALL **3 . 0 : 3 c r. E/F**

This course introduces basic skills and techniques such as dribbling, passing, striking, and executing defensive and offensive play. Students also develop stamina, agility, balance and coordination. Rules and regulations are also discussed.

PHED 213 TEAM SPORTS: HANDBALL **3.0: 3 cr. E/F**

This course introduces basic skills and techniques such as passing, throwing, catching and dribbling. Emphasis is on spatial and temporal coordination, weak side development, and execution of defensive and offensive plays. Rules, regulations, safety, and principles of strategy are also discussed.

PHED 220 GYMNASTICS I **3.0:3 cr.E/F**

Inspired by acrobatic movements, this course teaches individuals how to use their body in an efficient and economic manner. It consists of a series of complex movements that integrate the use of the center of gravity, balance, flexibility, orientation in space, and the muscular forces of corporal segments. An analysis of the methodology of teaching gymnastics is also covered.

PHED 221 GYMNASTICS II **3.0: 3 cr. E/F**

This course constitutes an introduction to events on apparatus such as parallel bars, uneven bars, beam, and the mini-trampoline. The elements previously taught are used to further develop skills and integrate complex movements.
Pre-requisite: PHED 220.

PHED 222 RHYTHMIC GYMNASTICS **3.0: 3 cr. E/F**

This course is an activity that enhances the development of physical conditioning, especially motor capacity. The particularity of Rhythmic Gymnastics is the synchronization of music, movement and the use of apparatus. The various techniques of manipulating and handling the five types of apparatus (ribbon, hoop, rope, ball and clubs) used in this event are taught.

PHED 230 ATHLETICS I: RUNNING EVENTS **3.0: 3 cr. E/F**

This course introduces the basic techniques of the running events (sprints, hurdles, relays and long distance). It consists of theoretical and practical lessons with a focus on the basics of teaching and coaching strategies.

PHED 231 ATHLETICS II: JUMPING EVENTS **3.0: 3 cr. E/F**

This course introduces the basic techniques of the jumping events (high jump, long jump, and triple jump). It consists of theoretical and practical lessons with a focus on the basics of teaching and coaching strategies. Pre-requisite: PHED 230

PHED 232 ATHLETICS III: THROWING EVENTS **3.0: 3 cr. E/F**

This course introduces the basic techniques of the throwing events (shot putting, javelin and discus throwing). It consists of theoretical and practical lessons with a focus on the basics of teaching and coaching strategies.

PHED 240 SWIMMING: ALTERNATED SWIMMING **3.0: 3 cr. E/F**

This course covers fundamental principles such as floats, kicks, front crawl, rhythmic breathing, elementary back stroke and safety

skills. In addition to discussing the physiological and biomechanical concepts of swimming, students undergo extensive training in order to achieve a high level of performance.

PHED 241 SWIMMING: SIMULTANEOUS SWIMMING 3.0: 3 cr. E/F

This course is an extension of skills from PHED 240, it introduces basic techniques of breaststroke, butterfly stroke and sidestroke with some emphasis on performance. Topics include skill development, technique evaluation, and years round fitness development, as well as physiological and biomechanical concepts of swimming.
Pre-requisite: PHED 240

PHED 242 ADVANCED SWIMMING 3.0: 3 cr. E/F

The purpose of this course is to improve the students' performance in the four swimming styles (crawl, back stroke, sidestroke and butterfly) that have been taught. It focuses on general and specific techniques of starting, turning and rescuing. Students also acquire theoretical and practical concepts in first aid emergency procedures and the different techniques of rescue maneuvers.
Pre-requisites: PHED 240 and 241

PHED 243 PERSONAL TRAINING: SCUBA DIVING 3.0: 3 cr. E/F

The course consists of 30 hours of practical and theoretical training. After introducing the equipment, students must complete six dives (3 pool dives and 3 sea dives). Students obtain an internationally accredited diving license upon completion the course.

PHED 246 PARTICULAR TRAINING: SURFING 3.0: 3 cr. E/F

The course consists of 30 hours of practical and theoretical training. After introducing the equipment (port, rig, boom, clew, etc.), students acquire basic skills in the navigation techniques of surfing under different weather conditions, including taking off from water, surfing, and changing direction.

PHED 247 PARTICULAR TRAINING: SEA KAYAK FOR BEGINNERS 3.0: 3 cr. E/F

The course consists of 30 hours of practical and theoretical training. After being introduced to the equipment (bow, stern, and deck), students acquire basic skills such as proper paddling and rowing techniques, as well as using paddles to perform maneuvers. The course also trains students in reading weather conditions.

PHED 248 SWIMMING FOR BEGINNERS 3.0: 3 cr. E/F

This course is offered to students who have deficiencies in swimming. It teaches aquatic adaptation and basic swimming.

PHED 250 GENERAL PHYSIOLOGY AND NEUROBIOLOGY 3.0: 3 cr. E/F

The objective of this course is to master the knowledge that forms the basis of physiology and physical activities. It constitutes the study of the functions of the body (cardiovascular system, respiratory system, and central nervous system, etc.) during exercise. In addition, the course deals with the neurological basics of human movement and motor learning.
Pre-requisite: ENGL 102 or FREN 102

PHED 251 ANATOMY AND BIOMECHANICS OF THE LOCOMOTOR SYSTEM 3.0: 3 cr. E/F

This course deals with the anatomy of the skeleton, muscles and different types of joints in the human body. Students have to be able to identify the muscular groups used in different movements and to analyze these exercises in terms of joint mobility and range of motion.
Co-requisite: ENGL 102 or FREN 102

PHED 252 BIOENERGETICS OF SPORTS 3.0: 3 cr. E/F

This course discusses concepts such as aerobic and anaerobic energetic pathways, principles of recovery, maximal oxygen consumption (VO2 max) and their role in various physical and sports activities. The body's adaptation to training, caloric expense and thermoregulation of physical activity are also discussed.

Pre-requisite: PHED 250

PHED 253 BIOMECHANICS OF SPORTS 3.0: 3 cr. E/F

This course focuses on the mechanical forces of the human body to determine capabilities and limitations in terms of strength, range of motion, and other related variables. It deals with the different laws that govern movement of the human body including inertia, momentum, acceleration, lever systems, center of gravity, and action and reaction forces.
Co-requisite: ENGL 102 or FREN 102

PHED 254 SPORTS PATHOLOGY 3.0: 3 cr. E/F

The primary goal of this course is to provide students with the necessary tools for prevention, recognition, assessment, primary management, disposition and rehabilitation of sports related injuries and illnesses. It prepares students to recognize life-threatening injuries and provide on-site primary care, but it also defines the responsibilities and limits of the physical education instructor in providing care in all health issues concerning the athlete.
Pre-requisite: ENGL 102 or FREN 102

PHED 255 SPORTS AND HEALTH 3.0: 3 cr. E/F

This course discusses the relation between sports and certain diseases such as Diabetes, Obesity, and Cancer. It also deals with

nutritional and weight control strategies. Doping and substance-abuse are also discussed.
Pre-requisite: ENGL 102 or FREN 102

PHED 261 TABLE-TENNIS **3.0: 3cr. E/F**

This course introduces basic skills and techniques of table tennis. Students learn strategies and practice forehand, backhand, serve, smash, and footwork. The theory of angles, and notions of defense and attack strategies are also included, as well as the history and rules of the game.

PHED 262 TENNIS **3.0: 3 cr. E/F**

This course is a general introduction to the rules, techniques (grip, forehand, backhand, serve and volley) and skills (lifting, spins and smash, etc.) of tennis. It also covers net play and court strategy.

PHED 263 BADMINTON **3.0: 3 cr. E/F**

This course introduces the basic skills and techniques of badminton. Students learn rules and strategies and practice grip, strokes, footwork, and court coverage. The course also covers theoretical and practical concepts related to the development of fundamental badminton skill techniques and game strategies.

PHED 270 MARTIAL ARTS **3.0: 3 cr. E/F**

In this course, students are introduced to the different styles of martial arts such as Judo, Karate and Kung Fu. This course also highlights the physical requirements of each style.

PHED 272 AEROBICS AND FITNESS **3 . 0 : 3 c r. E/F**

Aerobic sports activities such as "Taibo", "step", "aerobics dance", and "spinning" are widely spread among clubs and fitness centers in Lebanon. In this course, students will be trained to teach these activities while adapting them to different populations and to all sports levels. In addition, students will acquire the basic knowledge in the means and methods of training physical qualities (power, endurance, speed, and flexibility).

PHED 273 TEACHING PHYSICAL EDUCATION **3.0: 3 cr. E/F**

This course provides students with the essential information needed to understand the practice of physical education so that they can make full use of the teaching methodologies they have acquired. Students are expected to adapt their teaching strategies according to the levels of the primary, elementary, and secondary classes.

PHED 280 PERSONAL TRAINING: MOUNTAINEERING AND CLIMBING **3.0: 3 cr. E/F**

This course consists of 30 hours of practical and theoretical training in specific locations. It also includes the study of the geologic layers, archeological sites, expeditions, climbing and learning specific climbing techniques.

PHED 282 PERSONAL TRAINING: ALPINE SKIING **3.0: 3 cr. E/F**

This course consists of 5 days of training in the Lebanese mountains. It includes an introduction to the equipment and its development as well as initiation into specific techniques.

B. PROGRAM OF TEACHING DIPLOMA IN PHYSICAL EDUCATION (TD)

This program consists of 24 credits. Students must complete the following courses: 18 credits from the courses below and 6 credits from the specialized courses depending on the specialty:

EDUC216	Educational Assessment	3.0: 3 cr
EDUC 217	General Didactics	3.0: 3 cr
EDUC 253	Instructional Computer applications in Education	3.0: 3 cr
EDUC 275	Classroom Management	3.0: 3 cr
PSYC 214	Adolescent Development	3.0: 3 cr
PRAC 222	Practice of Teaching at the Intermediate and Secondary Level	3.0: 3 cr
	Specialty Course 1	3.0: 3 cr
	Specialty Course 2	3.0: 3 cr

COURSE DESCRIPTIONS

EDUC 292 TEACHING PHYSICAL EDUCATION AT INTERMEDIATE LEVEL – I **3.0: 3 cr. E/F**

This course is divided into two parts. The first part serves as a general introduction to the history, rules, and technical evolution of team sports. It offers pedagogic and didactic preparation for teaching individual techniques, exercise planning, and teamwork. The course also discusses the role of motor ability and specific psychological development in learning various moves in team sports. The second part discusses various methods of teaching and training swimming, enabling individuals to adapt their teaching strategies according to the physical and technical needs of their students. Particular forms of training cycles and programs based on different levels (beginners, young students, adults or professional athletes) are also covered.

EDUC 293 TEACHING PHYSICAL EDUCATION AT INTERMEDIATE LEVEL – II 3.0: 3 cr. E/F

This course is divided into two parts. The first part discusses the process of teaching and training in Track and Field, enabling individuals to tailor their teaching strategy according to the physical and technical needs of their students. The course also covers particular forms of training cycles and programs based on different levels (beginners, young students, adults or professional athletes). The second part serves as a general introduction to the history, rules, technical evolution and modern development of gymnastics. It offers educational and didactic preparation in teaching basic techniques, specific motor development and development of physical qualities (power, speed and endurance). The course also discusses the complex relation between teaching methodology and age, development of specific psychological qualities, and artistic creativity.

EDUC 294 TEACHING PHYSICAL EDUCATION AT INTERMEDIATE LEVEL – III 3.0: 3 cr. E/F

This course offers students the opportunity to acquire specific evaluation methods that are directly related to physical education. These techniques help individuals improve their teaching strategies in two ways: first, by monitoring the progress of the motor and physical qualities of their students, and second, by using statistical information for research purposes.

ELECTIVE COURSES OFFERED

PHED 214 MOVEMENT, PLAY AND HEALTH 3.0:3 cr. E/F

This practical course is designed to provide students with the basic skills needed to give psychomotor activities in the elementary school. The course will focus on specific psychomotor exercises for children aged 3 to 10 years. These exercises use corporal schemas, action verbs, laterality, spatial structure, temporal orientation, and equilibrium. Other combined exercises which use correlation between music and movement with a defined rhythm will also be taught.

PHED216 Introduction to Sports Management 3.0:3cr. E/F/A

This course introduces students to the foundations of sports management and the wide range of careers within the sports industry. Topics include leadership, marketing, event planning, and organizational operations. Real-world examples will be elaborated to illustrate how management principles apply across various professional sports settings.

PHED 276 ORGANIZATION OF LEBANESE SPORTS 3.0: 3 cr. A

This course deals with different sports organizations in Lebanon and aims to acquaint students with the structural system of the Lebanese sports and the hierarchy of its different organizations from the ministry to the clubs.

PHED 277 LEARNING AND MOTOR CONTROL 3.0: 3 cr. A

This course offers a general introduction to the peripheral and central nervous system and to the sensory-motor system, its modes of collecting and treating information, taking decisions, reacting, comparing and memorizing data. Different stages of learning will be discussed along with the short and long term processes of mastering and transferring data.

PHED 278 DIDACTIC AND PEDAGOGY OF TRAINING 3.0: 3 cr. A

The course deals with a general introduction of motor learning approaches, such as the behaviorist, cognitive, ecological and structural approach necessary to the development from learning to training. It also deals with the didactical and pedagogical tools necessary for excelling in the specialty of the trainer.

PHED 279 PHYSICAL CONDITIONING IN SPORTS TRAINING 3.0: 3 cr. A

This theoretical course provides students with methods and techniques aiming for a general and specific improvement of the physical qualities that are needed for physical performance. It also discusses the process of integrating the trainer into the sports clubs.

PHED 283 COACHING:TRAINER-TRAINEE RELATIONSHIP 3.0: 3 cr. A

This course brings relative knowledge to the psychological preparation of athletes, stress management, mental preparation for the competition and the management of failure and success. It also aims for the development of intergroup relational qualities among trainers and athletes, and among athletes and clubs.

PHED 284 NEW TECHNOLOGIES AND SPORTS 3.0: 3 cr. A

This course introduces students to the new available technologies and their use in sports. It allows them to master the use of various assessment materials such as: photoelectric cells, accelerometers, and Optojump, as well as different software for tracking and evaluating the athlete's performance.

PHED 285 MEASUREMENT AND ASSESSMENT IN PHYSICAL EDUCATION 3.0: 3 cr. E/F

This course offers students the opportunity to acquire specific evaluation methods that are directly related to physical education. These techniques help individuals improve their teaching strategies in two ways: first, by monitoring the progress of the motor and physical qualities of their students and second, by using statistical information for research purposes.

PHED 286 SPORTS HISTORY AND OLYMPIC MOVEMENT 3.0: 3 cr. A
This course is based on the historical evolution of physical practices and the Olympic games. It attempts to retrace the most significant events starting from their origin up till the present.

PHED 287 PHYSIOLOGY AND BIOENERGETICS OF SPORTS 3.0: 3 cr. A
The course discusses concepts such as aerobic and anaerobic energetic pathways, principles of recovery, maximal oxygen consumption (VO2 max) and their role in various physical and sports activities. The body's adaptation to training, caloric expenditure, and thermoregulation during physical activity are also discussed**.**

PHED 288 FIRST AID AND PREVENTION OF OLYMPIC INJURIES 3.0: 3 cr. A
The primary goal of this course is to provide students with the necessary tools for prevention, recognition, assessment, primary management, disposition and rehabilitation of sports related injuries and illnesses. It prepares students to recognize life-threatening injuries and provide on-site primary care, but it also defines the responsibilities and restraints of the physical education instructor.

PHED 289 ANATOMY AND BIOMECHANICS OF THE LOCOMOTOR SYSTEM 3.0: 3 cr. A
This course has two objectives: the first is concerned with the anatomy of the skeleton, muscles, and the different types of joints in the human body. Students must be able to identify the muscular groups used in different movements and to analyze these exercises in terms of joint mobility and range of motion. The second objective is to bring knowledge concerning biomechanics applied to joints (general organizational structure of bones and joints). The course also attempts to improve performance by analyzing body motion and exercises in terms of the laws and principles that govern the human body.

PHED 290 NUTRITION AND DOPING 3.0: 3 cr. A
This course offers a summary of the basic knowledge of nutrition and biochemistry. The complex relation between nutrition and physical activity is also discussed. It deals with subjects such as the structure and function of macro and micro nutrients, pharmacological, chemical, and nutritional methods that enhance performance and training outcomes, as well as identifying and preventing the complications that are associated with different nutritional diets.

PHED 291 PHYSICAL EXERCISES UNDER EXTREME CONDITIONS 3.0: 3 cr. A
This course permits students to understand how the human body reacts, adapts, and performs under extreme conditions such as hot, cold, hyperbaric, hypobaric, and microgravity environments.

PHED 292 EVALUATION OF PHYSICAL QUALITIES OF ATHLETES 3.0: 3 cr. A
This course consists of theoretical and practical sessions. It introduces assessment protocols and techniques in physiology. Training is provided in laboratory-based skills and in the administration and interpretation of measurements such as maximal oxygen consumption (VO2max) and optimal power. Students will learn new techniques in assessing the different physical qualities.

PHED 293 SPORTS TRAINING OF SPECIALIZATION I 3.0: 3 cr. A
This course is a general introduction to specific sports as well as knowledge linked to rules of sports activity. It deals with the organization of the Lebanese institutions, as well as the regional and international organizations, which administer and arrange competitions. The student is expected to master the processes of preparing and coordinating competitions at all levels.

PHED 294 SPORTS TRAINING OF SPECIALIZATION II 3.0: 3 cr. A
This course allows students to master the motor abilities of the specialty and the specific parameters that lead to a better performance. Students are expected to acquire the specific training techniques required to prepare, organize, and administer training sessions.

PHED 295 SPORTS TRAINING OF SPECIALIZATION III 3.0: 3 cr. A
This course provides students with the necessary tools to improve and develop performance in the activity of choice at a higher level. Students will acquire the abilities required for training at professional, national and international levels in the sports activity of choice.

PHED 296 SPORTS TRAINING OF SPECIALIZATION IV 3.0: 3 cr. A
This course seeks to impart knowledge about the specific physical requirements of a given sports activity, as well as tailoring training programs to fulfill the specific needs of the competitors. Concepts such as individualization, progressivity, regularity and periodicity of physical conditioning are discussed in terms of the age and gender of those doing training.

PHED 297 SPORTS TRAINING OF SPECIALIZATION V 3.0: 3 cr. A
This course imparts a study of the technical and tactical abilities and strategies in the sports activity chosen by the student. It includes team management during competition, adaptation in light of the opponent's strategy, and analyzing a game plan.

PHED 298 PRACTICUM: PRACTICAL TRAINING I 3.0: 3 cr. A
The practical training consists of a minimum of 200 hours. Students are obliged to fill various positions at a club allowing them to confront, discover and interact with the socio-economic sports environment.

PHED 299 PRACTICUM: PRACTICAL TRAINING II **3.0: 3 cr. A**

The practical training consists of a minimum of 200 hours. Students are obliged to take up a position of responsibility in a socio-economic sports environment in order to prepare professional projects**.**

Regarding the course descriptions for CSPR, CSPR-Equivalent, ENGL, EDUC and PSYC courses, refer to the corresponding Department.

4.22 DEPARTMENT OF PHYSICS

Chair of Department: Tony Tannous, PhD, tony.tannous@balamand.edu.lb

The Faculty of Arts & Sciences at the University of Balamand offers both an undergraduate major and a minor in Physics. The B.Sc. in Physics covers the broad fundamentals necessary for graduate study in Physics and many related fields. The minor in Physics offers the basic courses that provide a firm background to accommodate the needs of interested students.

Program Objectives

1. Provide students with a broad, sound and extensive knowledge of the fundamental concepts of Physics
2. Gain an insight into physical phenomena and processes
3. Develop an understanding of the power of Physics to deal with problems related to technology and the environment
4. Qualitatively analyze and provide solutions to problems
5. Prepare students for teaching and/or research positions in colleges, universities, laboratories and research centers
6. Help students attain their full academic potential by encouraging them to be critically receptive to new ideas

Program Learning Outcomes

1. A thorough knowledge of the basic fields of physics, including mechanics, optics, relativity, electricity and magnetism, classical and quantum mechanics
2. A thorough knowledge of mathematics to facilitate the manipulation and description of physical problems
3. The ability to use this knowledge to assess and solve real physics problems
4. Develop efficient analytical thinking skills
5. Use basic laboratory data analysis techniques to represent data graphically and to assess it statistically by treating errors and uncertainties
6. Apply scientific and technical knowledge and skills to other disciplines and areas of study

Major in Physics:

Students must successfully complete a minimum of 91 credits of required courses provided that they satisfy the standards set by the University of Balamand and the Faculty of Sciences. Students must complete the following:

Total Credits of BS program in Physics *91 cr*

1	***University Requirements***				***19 cr***
	1.1	English	6 cr		
	1.2	CSPR	6 cr		
	1.3	CSPR equivalent	6 cr		
	1.4	LISP 200	1 cr		
2	***Department Requirements***				***60 cr***
	2.1	*Courses from the Major*	*(minimum 40%, i. e., 36 credits)*		
	2.1.1	*Major Courses*	*(minimum 40%, i. e., 36 credits)*	*36 cr*	
		PHYS 201	Instrumentation Laboratory	1 cr	
		PHYS 211	Fundamentals of Physics I	3 cr	
		PHYS 212	Fundamentals of Physics I Laboratory	1 cr	
		PHYS 213	Fundamentals of Physics II	3 cr	
		PHYS 214	Fundamentals of Physics II Laboratory	1 cr	
		PHYS 221	Classical Mechanics	3 cr	
		PHYS 223	Quantum Physics	3 cr	
		PHYS 231	Thermodynamics	3 cr	
		PHYS 233	Thermal and Statistical Physics	3 cr	
		PHYS 241	Electricity and Magnetism	3 cr	
		PHYS 243	Circuit Analysis I	3 cr	
		PHYS 245	Modern Optics	3 cr	
		PHYS 261	Special Relativity	3 cr	
		PHYS 283	Nuclear Physics	3 cr	
	2.1.2	*Electives within the Department*		*00 cr*	
	2.2	*General Education (service) Courses*		*24 cr*	
		CHEM 202	Basic Chemistry	3 cr	
		CHEM 222	Analytical Chemistry I	3 cr	
		CSIS 200	Introduction to Computers and Programming	3 cr	
		MATH 200	Calculus I	3 cr	
		MATH 202	Calculus II	3 cr	
		MATH 211	Linear Algebra I	3 cr	
		MATH 270	Differential Equations	3 cr	

One course from the list below 3 cr

ARAB 201	*Arabic Expression III*	*3 cr*
CSIS 273	*Personal Computation Computing for Applied Sciences*	*3 cr* *
EVSC 201	*Environmental Sciences: Creating a Sustainable Future*	*3 cr*
MATH 290	*History of Mathematics*	*3 cr*

3 Free Electives ***12 cr***

* Recommended for pre-medicine students.

Minor in Physics:

The Faculty of Arts and Sciences offers a Minor in Physics for students who successfully complete a minimum of 15 credits of Physics courses as follows:

Course Code	Course Title	Credit
PHYS 201 (1)	Instrumentation Laboratory	1
PHYS 211	Fundamentals of Physics I	3
PHYS 212	Fundamentals of Physics I Laboratory	1
PHYS 213	Fundamentals of Physics II	3
PHYS 214	Fundamentals of Physics II Laboratory	1

In addition to 2 courses offered by the Physics Department or their equivalent courses.

BACHELOR'S DEGREE

SEMESTER1

Course Code	Course Title	Credit
CSIS 200	Introduction to Computers & Programming	3
ENGL 203	English Communications Skills III	3
MATH 200	Calculus I	3
MATH 211	Linear Algebra I	3
PHYS 211	Fundamentals of Physics I	3
PHYS 212	Fundamentals of Physics I Laboratory	1
Total		**16**

SEMESTER 2

Course Code	Course Title	Credit
CHEM202	Basic Chemistry	3
ENGL 204	English Communications Skills IV	3
MATH 202	Calculus II	3
PHYS 201(1)	Instrumentation Laboratory	1
PHYS 213	Fundamentals of Physics II	3
PHYS 214	Fundamentals of Physics II Laboratory	1
LISP 200	Library Use & Research Methods	1
Total		**15**

SEMESTER 3

Course Code	Course Title	Credit
CHEM 222	Analytical Chemistry I	3
CSPR I		3
MATH 270	Differential Equations	3
PHYS 221	Classical Mechanics	3
PHYS 241(3)	Electricity and Magnetism	3
Total		**15**

SEMESTER 4

Course Code	Course Title	Credit
CSPR II		3

PHYS 223	Quantum Physics	3
PHYS 231[2]	Thermodynamics	3
PHYS 243[4]	Circuit Analysis I	3
	Elective	3
Total		**15**

SEMESTER 5

Course Code	Course Title	Credit
CSPR III		3
PHYS 233	Thermal & Statistical Physics	3
PHYS 261	Introduction to Special Relativity	3
	Elective (2)	6
Total		**15**

Course Code	Course Title	Credit
CSPR IV		3
PHYS 245	Modern Optics	3
PHYS 283	Nuclear Physics	3
	Electives (2)	6
Total		**15**

Total credits **91**

List of Electives

A- Within the Physics Department:

Course Code	Course Title	Credit
PHYS 235	Fluid Mechanics	3
PHYS 247	Photonics and Nonlinear Optics	3
PHYS 251	Introduction to Biophysics	3
PHYS 253	Introduction to Nanoscience	3
PHYS 263	Introduction to General Relativity	3
PHYS 271	Introduction to Solid State Physics	3
PHYS 281	Atomic and Molecular Physics	3
PHYS 285	Introduction to Particle Physics	3
PHYS 291	Computational Physics	3

B- From outside the Physics Department

i) *Remaining Premedical courses:*

Course Code	Course Title	Credit
BIOL 201	General Biology I	3
BIOL 202	General Biology Laboratory I	1
BIOL 203	General Biology II	3
BIOL 204	General Biology Laboratory II	1
CHEM 203	Basic Chemistry Laboratory	1
CHEM 242	Organic Chemistry I	3
CHEM 244	Organic Chemistry II	3
CHEM 245	Organic Chemistry Laboratory I	1

ii) *Many courses from various other Departments at UOB*

(1) PHYS 201- Instrumentation Laboratory is equivalent to ELEN 201
(2) PHYS 231- Thermodynamics is equivalent to MECH 232
(3) PHYS 241- Electricity and Magnetism is equivalent to ELEN 223
(4) PHYS 243- Circuit Analysis is equivalent to ELEN 221

COURSE DESCRIPTIONS

All PHYS courses require at least ENGL 101 as co-requisite.

PHYS 201 INSTRUMENTATION LABORATORY (Equivalent to ELEN 201) 0.3: 1 cr. E

This laboratory provides an introduction on the use of multi-meters, oscilloscopes, function generators, power supplies and other instrumentation. Applications include solenoids, resistors, capacitors, periodic signals analysis, balanced bridge circuit, RC, RL and RLC circuits.

PHYS 205 PHYSICS FOR TECHNOLOGY MAJORS 3.0: 3cr. E/F

This course is an introduction to the fundamental principles of physics. It can be divided into two areas: - Classical Mechanics, concerning the motion of objects in one and two dimensions, the laws of motion and Newton's laws of motion. - Electromagnetism, concerning electricity, magnetism and electromagnetic fields. With this course, students will be able to calculate electric and magnetic fields and deduce the generated forces and energies. We attempt to motivate the student through practical examples that demonstrate the role of mechanics and electromagnetism in engineering. (Major specific, non-transferrable, non-premedical course)

Pre-requisite: PHYS 100 or PHYS 102 or PHYS 106

PHYS 207 PHYSICS FOR SMART AGRICULTURE 3.3: 3 cr. E

This course is an introduction to applications of physics principles into the smart agriculture field. The course consists of three modules. Basic electricity: electrostatics, current and resistance, DC current circuit, magnetic field, AC current circuit, an introduction about electronic components and the Arduino board; Basics of Mechanics: forces, laws of motion and Newton's laws of motion, work and energy; Waves, fluids, and thermodynamics. With this course, students will be able to express and calculate all the physical parameters that are used in the smart agricultural field. Students will have the applied hands-on experience through practical examples and laboratories that demonstrate the role of physics in agricultural engineering. (This is a non-major and non-transferable course, non-premedical course).

Pre-requisite: PHYS 100 or PHYS 102 or PHYS 106

PHYS 211 FUNDAMENTALS OF PHYSICS I 3.0: 3 cr. E

The course introduces some of the basic fundamentals of physics, including: kinematics of a particle, relative motion analysis, Newton's laws of motion, work, energy, center of mass, linear impulse and momentum, collision, torque, equilibrium, elasticity, gravity, properties of fluids, simple harmonic motion, transverse and longitudinal waves, resonance, sound waves, Doppler effect, thermal expansion, first and second laws of thermodynamics, entropy.

Pre-requisites: PHYS 100, PHYS 102 and MATH 113

PHYS 212 FUNDAMENTALS OF PHYSICS I LABORATORY 0.3: 1 cr. E

This laboratory introduces students to the types of basic apparatus used in physics. Experiments are designed to demonstrate the meaning and applications of the physical concepts included in the "Fundamental of Physics I" course.

Co-requisite: PHYS 211

PHYS 213 FUNDAMENTALS OF PHYSICS II 3.0: 3 cr. E

The course introduces some of the basic fundamentals of physics, including: electric charge, Coulomb's law, electrostatic force, electric field, electric potential, Gauss' Law, capacitors, capacitance, electric current, resistance, Ohm's law, power, emf, internal resistance, magnetic field, magnetic force, magnetic materials, alternating current, rms voltage and current, polarization, reflection, refraction, mirrors, thin lenses, interference, diffraction, photoelectric effect, blackbody radiation, hydrogen atom, fluorescence, atomic and mass numbers, isotopes, alpha, beta and gamma decays, nuclear fission, nuclear fusion.

Pre-requisites: PHYS 100, PHYS 102 and MATH 113

PHYS 214 FUNDAMENTALS OF PHYSICS II LABORATORY 0.3: 1 cr. E

This laboratory introduces students to the types of basic apparatus used in physics. Experiments are designed to demonstrate the meaning and applications of the physical concepts included in the "Fundamental of Physics II" course.

Co-requisite: PHYS 213

PHYS 221 CLASSICAL MECHANICS 3.0: 3 cr. E

This course deals with the fundamental principles of Classical Mechanics. It treats particle dynamics, the motion of systems of particles, rigid body motion, moving coordinate systems. Lagrange's equations, Hamilton's equations and small oscillations.

Pre-requisites: PHYS 211 and MATH 202

PHYS 223 QUANTUM PHYSICS 3.0: 3 cr. E

The course describes the development of quantum physics; waves in classical physics, wave-packets, uncertainty principle, wave functions, operators, expectation values of dynamical observables; Schrödinger equation with application to one-dimensional problems, the hydrogen atom, electrons pin, periodic table; selected topics in perturbation theory, scattering theory.

Pre-requisites: MATH 202 and MATH 270

PHYS 231 THERMODYNAMICS (Equivalent to MECH 232) **3.0: 3 cr. E**

This is an introductory course which aims at providing students with theoretical background and the practical knowledge necessary to perform classical scientific and engineering analysis of basic open and closed thermodynamic systems.

PHYS 233 THERMAL AND STATISTICAL PHYSICS **3.0: 3 cr. E**

The laws of thermodynamics, elementary probability theory, kinetics theory of gases and Brownian motion, equilibrium, statistical mechanics of ideal systems: statistical origins of heat, temperature, entropy and equilibrium between phases.
Pre-requisite: PHYS 231

PHYS 235 FLUID MECHANICS **3.0: 3 cr. E**

The course introduces some of the basic fundamentals of fluid mechanics, including: pressure distribution; hydrostatic forces on surfaces; buoyancy; Reynolds transport theorem, conservation of mass, linear momentum equation, Bernoulli and energy equations; differential relations for fluid flow; fluid acceleration field, mass conservation, linear momentum and energy equations; stream function; vorticity and irrotationality; frictionless irrotational flows, principle of dimensional homogeneity, Pi theorem, non-dimensionalization of the basic equations; modelling and its pitfalls; viscous flow in ducts; Reynolds number regimes, head loss, friction factor, minor or local losses in pipe systems.

PHYS 241 ELECTRICITY AND MAGNETISM (Equivalent to ELEN 223) **3.0: 3 cr. E**

The course introduces some of the fundamentals of Electricity and Magnetism, including: Law of Coulomb, Electric Field, Charge Distribution, Line Charge, Streamlines, Electric Flux Density, Gauss' Law, Divergence, Maxwell's First Equation, Energy and Potential, Potential Gradient, Dipole, Energy Density , Conductors, Semiconductors, Dielectric Materials, Capacitance, Poisson's and Laplace's Equations, Biot-Savart Law, Ampere's Circuital Law, Stokes' Theorem, Magnetic Forces, Magnetic Materials, Permeability, Inductance, Faraday's Law.

Pre-requisites: MATH 200 and MATH 211

PHYS 243 CIRCUIT ANALYSIS I (Equivalent to ELEN 221) **3.0: 3 cr. E**

The course introduces some of the fundamentals of Circuit Analysis, including: Current, Voltage, Conductors, Insulators, Semiconductors, Ammeters, Voltmeters, Resistance, Superconductors, Conductance, Ohmmeters, Thermistors, Photoconductive Cell, Ohm's Law, Power, Energy, Kirchhoff's Voltage Law, Kirchhoff's Current Law, Series-Parallel Networks, Mesh Analysis, Nodal Analysis, Thévenin's Theorem, Norton's Theorem, Millman's Theorem, Reciprocity Theorem, Capacitance, Dielectric Strength, Capacitors In Series And Parallel, Energy, Magnetic Fields, Flux Density, Permeability, Hysteresis, Ampère's Circuital Law, Faraday's Law, Lenz's Law, R-L-C Circuits.
Pre-requisites: MATH 200 and MATH 211

PHYS 245 MODERN OPTICS **3.0: 3 cr. E**

This course covers the fundamental principles of modern physical optics and contemporary optical systems. Topics include propagation of light, polarization, coherence, interference, diffraction, Fourier optics, absorption, scattering, dispersion, and image quality analysis.
Pre-requisite: MATH 202

PHYS 247 PHOTONICS AND NONLINEAR OPTICS **3.0: 3 cr. E**

The first part of the course discusses the fundamentals and applications of photonics. The theory of guided wave optics is covered, including optical modes and their dispersion in rectangular and circular waveguides. Optical wave interaction with isotropic and anisotropic media is addressed. The second part deals with the fundamentals and applications of the nonlinear interaction of radiation with matter. Its goal is to give the student a working knowledge of nonlinear effects, nonlinear materials and the applications of nonlinear optics in various technologies.
Pre-requisite: PHYS 245

PHYS 251 INTRODUCTION TO BIOPHYSICS **3.0: 3 cr. E**

The course introduces some of the basic fundamentals of biophysics, including: heat and free energy, cell physiology, molecules and their sizes, probability in biophysics, ideal gas law, Brownian motion, diffusion and friction, Reynolds number, entropy, Boltzmann distribution, pressure and flow, chemical potential and reactions, elasticity, enzymes and molecular machines and nerve impulses.

PHYS 253 INTRODUCTION TO NANOSCIENCE **3.0: 3 cr. E**

This course will give students an introduction to nanoscience, which is a rapidly growing field in our society. The synthesis of nanomaterials, the tools used to characterize these materials, such as Electron Microscopy (SEM/ TEM), Atomic Force Microscopy (AFM), Scanning Tunneling Microscopy (STM) and UV-Vis spectroscopy, and societal impacts of nanomaterials/technology (such as ethical, legal and environmental implications) will be covered. Students will select a nanomaterial of interest and also do a term paper and presentation.

PHYS 261 INTRODUCTION TO SPECIAL RELATIVITY **3.0: 3 cr. E**

The course introduces some of the fundamentals of Special Relativity, including: spacetime, inertial frame, observer, measuring particle speed, the principle of relativity, simultaneity, Lorentz contraction of length, invariance of the interval, twin paradox, worldline, stretch factor, causality, light cone, conservation of momenergy and its consequences, energy without mass: photon, spacetime curvature, black hole.

PHYS 263 INTRODUCTION TO GENERAL RELATIVITY **3.0: 3 cr. E**

The course introduces some of the fundamentals of General Relativity, including: Lorentz Transformations, Tensors, Maxwell's Equations, Energy and Momentum, Manifold, Causality, Tensor Densities, Geodesics, Expanding Universe, Riemann Tensor, Killing Vectors, Einstein's Equation, Cosmological Constant, Geodesics of Schwarzschild, Singularities, Stars and Black Holes, Gauge Transformations, Gravitational Waves, Friedmann Equation, Redshifts, Gravitational Lensing, Inflation, Unruh Effect, Hawking Effect.

Pre-requisite: PHYS 261

PHYS 271 INTRODUCTION TO SOLID STATE PHYSICS **3.0: 3 cr. E**

The course describes the basic theories of the properties of solids including electronic band structure of crystals, electrical conduction, optical properties, magnetism and superconductivity, crystal structure; lattice vibrations; thermal properties of solids; transport and other non-equilibrium phenomena in uniform and non-uniform materials. Prerequisite: PHYS 223, 233 and 241.

PHYS 281 ATOMIC AND MOLECULAR PHYSICS **3.0: 3 cr. E**

The course introduces some of the basic fundamentals of atomic and molecular physics, including: Black body radiation, the photoelectric effect, atomic spectra, Schrodinger equation, energy levels, eigenfunctions, Einstein coefficients, Zeeman effect, Stark effect, Lamb shift, two-electron atoms, interaction with magnetic fields, molecular structure, nuclear spin, Born approximation, scattering, ionization and magnetic resonance.

Pre-requisite: PHYS 223

PHYS 283 NUCLEAR PHYSICS **3.0: 3 cr. E**

The course introduces some of the fundamentals of Nuclear Physics, including: Quantum Mechanics, Angular Momentum, Parity, Nuclear Radius, Abundance of Nuclides, Nuclear Binding Energy, Nuclear Force, Shell Model, Radioactive Decay Law, Counters, Detectors, Energy Measurements, Nuclear Lifetimes, Alpha Decay, Spectroscopy, Beta Decay, Fermi Theory, Forbidden Decays, Neutrino Physics, Gamma Decay, Nuclear Resonance Fluorescence, Neutron Sources, Nuclear Fission, Reactors, Nuclear Fusion, Solar Fusion.

Prerequisite: PHYS 223

PHYS 285 INTRODUCTION TO PARTICLE PHYSICS **3.0: 3 cr. E**

The course introduces some of the fundamentals of Particle Physics, including: Leptons, Quark, Hadrons, Lorentz Transformations, Particle Probability, the Fock Operators, Maxwell Equations, Field Energy and Momentum, Boson Fields, Fermion Fields, Collisions and Decays, Parity, CPT Theorem, Mesons, Baryons, Gauge Field, Quantum Chromodynamics, Abelian Symmetry, Electroweak Interaction, Feynman Rules, CP Violation, Neutrinos, Effective Mass, Muon and Tau Lepton Decays, Gluon.

Pre-requisite: PHYS 223

PHYS 291 COMPUTATIONAL PHYSICS **3.0: 3 cr. E**

The course is an introduction to computationally based problem solving in physics, emphasis on understanding and applying various numerical algorithms to different types of physics problems. Topics will include chaos in mechanical systems, fractal structures, molecular dynamics and the properties of simple fluids, Monte Carlo methods, and time-dependent as well as time-independent problems in quantum mechanics.

Pre-requisite: CSIS 200

Regarding the course descriptions for CHEM, CSPR, CSPR-Equivalent, CSIS, ENGL and MATH courses, refer to the corresponding Department.

4.23 DEPARTMENT OF POLITICAL SCIENCE AND INTERNATIONAL AFFAIRS (PSIA)

Chair of Department: Ziad El Koussa Ph.D., ziad.elkoussa@balamand.edu.lb

Language of Instruction: English.

The Department of Political Science and International Affairs offers the following degrees:

1. Bachelor of Arts (BA) in Political Science and International Affairs
2. Minor in Political Science and International Affairs by completing a minimum of 15 credits in Political Science courses.

The general objectives of the department are:

- Enabling students to gain comprehensive and critical understanding of politics, based on a solid methodological and theoretical background.
- Providing students with adequate skills to comprehend concepts, address issues, and use techniques that deal with various topics, including political analysis, negotiations and conflict resolution, national and local governments, public administration, citizenship, political participation, democracy, development, elections, Mediterranean politics, and international relations.
- Preparing students to work professionally in both private and public sectors. The Foreign Service, research facilities, and to persue graduate studies.

BACHELOR OF ARTS IN POLITICAL SCIENCE AND INTERNATIONAL AFFAIRS

A Bachelor Degree in Political Science and International Affairs provides graduates with opportunities to work in local government, various ministries and departments of national government, the foreign service, and administrative and public relations posts in the private sector (like banks and service-based companies).

Graduates may also find opportunities to work in journalism, local and international non-governmental organizations (NGOs), international companies, regional and international organizations (like the Arab League and the United Nations), research centers, and publishing houses.

A Bachelor degree also permits students to pursue graduate studies, which allows them to teach and conduct research at an advanced level.

PROGRAM OF STUDY AND REGULATIONS

I- THE BACHELOR OF ARTS PROGRAM

To qualify for a BA in PSIA, the student must complete a total of 91 credits, distributed as follows:

Total Credits within a BS program 91 cr

1	***University Requirements***			***19 cr***
	1.1	English	6 cr	
	1.2	CSPR	6 cr	
	1.3	*CSPR equivalent*	*6 cr*	
	1.4	*LISP 200*	*1 cr*	
2	***Department Requirements***			***57 cr***
	2.1	*Courses from the Major*	*(minimum 40%, i. e., 36 credits)*	
	2.1.1	*Major Courses*	*36 cr*	
	2.1.1.1	*Core courses*	*18 cr*	
	PSIA 201	Introduction to Political Science	3 cr	
	PSIA 202	Introduction to International Relations	3 cr	
	PSIA 209	Introduction to International law	3 cr	
	PSIA 211	Introduction to Comparative Politics	3 cr	
	PSIA 212	Introduction to Political Theory	3 cr	
	PSIA 214	Introduction to Public Administration	3 cr	
	2.1.1.2	*Foundational courses in Global Politics and International Affairs*	*12 cr*	
	Students are requested to choose four of the courses from the list below:			
	PSIA 222	Regional and International Organizations	3 cr	
	PSIA 216	Comparative Politics of Major Powers	3 cr	
	PSIA 219	Politics of Development and Social Change in Global South	3 cr	
	PSIA 235	Foreign Policy of Major Powers	3 cr	

PSIA 232	International Politics in an Age of Globalization	3 cr
PSIA 217	Negotiation Skills and Conflict Resolution	3 cr
PSIA 233	Human Rights in World Politics	3 cr
PSIA 250	Topics in Political Science	3 cr
PSIA 226	Political Ideologies	3 cr
PSIA 221	Lebanese Politics	3 cr
PSIA 224	Comparative Politics of the Middle East	3 cr
PSIA 236	The Arab World and Europe; Confrontation and Cooperation	3 cr
PSIA 228	International Politics of the Middle East	3 cr
PSIA 237	The European Union and the Challenge of Unification	3 cr

2.1.1.3 courses from the Public Policy Pool *06 cr*

Students are requested to choose two of the courses from the list below:

PSIA 215	Citizenship and Democracy	3 cr
PSIA 227	Party Systems, Elections, and Public Opinion	3 cr
PSIA 255	Civic Engagement and Community Service	3 cr
PSIA 253	Media and Society/MCOM 227	3 cr
PSIA 254	Society and Gender	3 cr
PSIA 256	Social Movements and Change	3 cr
PSIA 257	Social Work PSIA 260 Social Inequalities and Conflict	3 cr
PSIA 259	The Politics of Ethnicity, Race and Sect	3 cr
PSIA 251	Introduction to Sociology	3 cr
PSIA 252	Political Sociology	3 cr
PSIA 261	Social Foundations of Behavior (Topics in Sociology)	3 cr

2.1.2. Electives requested by the Department *15 cr*

2.1.2.1 Economics/ Management *09 cr*

Students are requested to choose three of the courses from the list below:

ECON 201	Survey of Economics	3 cr
ECON 211	Microeconomics Theory	3 cr
ECON 212	Macroeconomics Theory	3 cr
ECON 227	International Economics	3 cr
ECON 292	Economic Indicators	3 cr
ECON 293	History of Economic Thought	3 cr
ECON 296	Economy of the Middle East	3 cr
ECON 297	Economic Development	3 cr
BUSN 222	International Business	3 cr
MGMT 220	Principles of Management	3 cr
MGMT 295	Essentials of Project Management	3 cr
MGMT 294	Management of Small & Medium Enterprises	3 cr
FINE 230	Financial Markets & Institutions	3 cr

2.1.2.2 Humanities *06 cr*

Students are requested to choose two of the courses from the list below or any CSPR course:

PHIL 201	Introduction to Philosophy	3 cr
PHIL 202	History of Ancient Philosophy	3 cr
PHIL 206	Political Philosophy	3 cr
PHIL 205	The continental Rationalists	3 cr
PHIL 208	Contemporary Arab thought & Ideology	3 cr
PHIL 215	Post-colonial thought	3 cr
HIST 230	History of the Arab-Israeli Conflict I	3 cr
HIST 257	History of the Arab-Israeli Conflict II	3 cr
HIST 240	History of Europe I	3 cr
HIST 241	History of Europe II	3 cr
HIST 243	East-West relations in the Middle Ages	3 cr
HIST 252	History of the Ottoman Near East	3 cr
HIST 253	History of Modern Lebanon	3 cr
HIST 258	History of the Contemporary Arab world	3 cr

2.2 General Education (service) Courses *06 cr*

ARAB201	Arabic Expression III	3 cr
One course from the list below:		3 cr
ASTR 201	*Fundamentals of Astronomy*	*3 cr*
CSIS 283	*Applied Digital Skills for Humanities*	*3 cr*
EVSC 201	*Introduction to Environmental Sciences*	*3 cr*
GEOL 201	*Fundamentals of Geology,*	*3 cr*

3	*Free Electives*	*15 cr*

Rules for Students Majoring in Political Science and International Affairs:

The passing grade in PSIA 201, 202, 209, 211, 212 and 214 is 70%. A student may not repeat any of these mandatory courses more than once to achieve a grade of 70%.

COURSE DESCRIPTIONS

All PSIA courses require at least ENGL 102 as co-requisite.

CORE COURSES

PSIA 201 INTRODUCTION TO POLITICAL SCIENCE 3.0: 3 cr. E

This course introduces politics in a comprehensive and scientific manner. It addresses concepts and topics like the scientific method, resources and power, state, legitimacy, leadership, political socialization, ideologies, political institutions, democracy, political participation, political systems, global relations, and change.

PSIA 202 INTRODUCTION TO INTERNATIONAL RELATIONS 3.0: 3 cr. E

This course introduces international relations in a broad fashion. It deals with concepts, topics, and cases related to the nature of the international system, the making of foreign policy, North/South relations, security, terrorism, interdependence, cooperation, conflict, diplomacy, international political economy, international law, and international organizations.

PSIA 209 INTRODUCTION TO INTERNATIONAL LAW 3.0: 3 cr. E

This course examines major topics of international law, including different forms of international conventions, treaties, The United Nations charter of human rights, and various international judiciary systems.

PSIA 210 INTRODUCTION TO METHODOLOGY AND RESEARCH 3.0: 3 cr. E

The study of political science necessitates a careful understanding of the scientific method and its required tools. This course explores the foundations of scientific inquiry and surveys the methods, approaches, and models used to satisfy such goals. The main objective of this course is to train students to think scientifically and improve their abilities in conducting sound research.

Pre-requisite: PSIA 201 or PSIA 202.

PSIA 211 INTRODUCTION TO COMPARATIVE POLITICS 3.0: 3 cr. E

This course examines the different systems and ideologies operating in the world today. It tackles state, political and socio-economic structures in a comparative manner and addresses global issues of development and underdevelopment.

Pre-requisite: PSIA 201 or PSIA 202.

PSIA 212 INTRODUCTION TO POLITICAL THEORY 3.0: 3 cr. E

This course surveys the development of political thought from the Greeks to the present time. It deals with ideas and concepts of major political philosophers concerning the state, the scientific process, power, rights and obligations, and citizenship.

Pre-requisite: PSIA 201.

PSIA 214 INTRODUCTION TO PUBLIC ADMINISTRATION 3.0: 3 cr. E

This course explores theories and applications of public administration with an emphasis on Lebanon. It considers relations among different governmental institutions associated with their roles in serving the public good. The course examines concepts and issues related to accountability, transparency, and corruption.

PSIA 221 LEBANESE POLITICS 3.0: 3 cr. E

This course provides a historical and thorough analysis of the Lebanese political system and institutions. It explores the foundations of the state, the political process, and political interaction among various groups in Lebanon.

PSIA 222 REGIONAL AND INTERNATIONAL ORGANIZATIONS 3.0: 3 cr. E

This course analyzes the development, functions, and influence of regional and international organizations. It deals with political and non-governmental organizations as well as transnational corporations.

PSIA 224 COMPARATIVE POLITICS OF THE MIDDLE EAST 3.0: 3 cr. E

This course investigates the historical emergence and development of contemporary Middle Eastern states in a comparative manner. Using a selected number of states from the region, it addresses their socio-economic and political structures as well as the continuous change in their make-up.

PSIA 235 FOREIGN POLITICS OF MAJORS POWERS 3.0: 3 cr. E

This course introduces the students to different theories and practices dictating the way that major powers conduct their policies. It

aims at helping students understand how decisions makers in major powers work out their international objectives and strategies.

PSIA 236 THE ARAB WORLD AND EUROPE, CONFRONTATION AND COOPERATION 3.0: 3 cr. E
This course examines the development of relations between Europe and the Arab World from the period of colonization to the present, exploring the shift in these relations from confrontation to cooperation following the Barcelona declaration .

ELECTIVE COURSES

PSIA 215 CITIZENSHIP AND DEMOCRACY 3.0: 3 cr. E
This course looks into concepts and issues of citizenship, democracy, and democratic systems in states and societies. These include citizen rights and obligations, human rights, the secular state, and civil society.

PSIA 216 COMPARATIVE POLITICS OF MAJOR POWERS 3.0: 3 cr. E
This course studies major powers such as China, the United States of America, Russia, France, the United Kingdom, Japan, India, Germany, and Italy in a comparative manner. It addresses their systems of government as well as their social, political, and economic structures.

PSIA 217 NEGOTIATION SKILLS AND CONFLICT RESOLUTION 3.0: 3 cr. E
This course provides students with skills in the art of negotiating at both the national and international levels. It also investigates conflict and explores methods of preventing and resolving it.

PSIA 218 JUNIOR SEMINAR 3.0: 3 cr. E
This seminar at the junior level examines a major theme in political science and international relations and involves students in the process of choosing a topic for research associated with this theme and using methodological tools in studying it, culminating in a well-researched paper.

PSIA 219 POLITICS OF DEVELOPMENT AND CHANGE IN THE GLOBAL SOUTH 3.0: 3 cr. E
This course introduces different theories and concepts of development and social change. Modernization, dependency, and world-system theories will be examined, as well as concepts and topics such as anti-colonial resistance, nationalism, revolutions, and democratization.

PSIA 226 POLITICAL IDEOLOGIES 3.0: 3 cr. E
This course examines different political ideologies like liberal democracy, conservatism, fascism, nationalism, Marxism, anarchism, feminism, and ecologism. It tackles theories and concepts adopted by these ideologies as well as their impact on the politics of the modern world.

PSIA 227 PARTY SYSTEMS, ELECTIONS, AND PUBLIC OPINION 3.0: 3 cr. E
This course offers a comparative analysis of the functions and structures of different party systems. It also deals with various election models and procedures and provides students with sufficient skills to monitor public opinion.

PSIA 228 INTERNATIONAL POLITICS OF THE MIDDLE EAST 3.0: 3 cr. E
This course examines the emergence and development of Middle Eastern states in an international context, patterns of relations among them, and their impact on global politics. A selected number of states in the region will be used as case studies.

PSIA 232 INTERNATIONAL POLITICS IN AN AGE OF GLOBALIZATION 3.0: 3 cr. E
This course examines the changing structure of world politics following the collapse of the Soviet Union and the emergence of the global phenomena. The course examines the shift in conducting international relations from deterrence policies and alliance building to cooperation and international agreements.

PSIA 233 HUMAN RIGHTS IN WORLD POLITICS 3.0: 3 cr. E
This course examines the history, politics, and law of international human rights protection. The course analyzes the emergence, expansion, and enforcement of international norms concerning national guarantees of human rights.

PSIA 237 THE EUROPEAN UNION AND THE CHALLENGE OF UNIFICATION 3.0: 3 cr. E
The course addresses the rise and development of the European Union, looking for the problems and prospects of this significant project.

PSIA 250 TOPICS IN POLITICAL SCIENCE 3.0: 3 cr. E
This course concentrates on major theoretical and political issues relevant to our societies today.

PSIA 251 INTRODUCTION TO SOCIOLOGY 3.0: 3 cr. E
This course introduces students to the study of social phenomena. The course presents and examines main concepts, approaches, and methods used in the study of societies. It also explores the various dynamics of power and authority that mutually interact

within societies.

PSIA 252 POLITICAL SOCIOLOGY **3.0: 3 cr. E**
This course addresses the interaction between social dynamics, structures, and issues and politics. Topics include power, social divisions, social movements, elites, and change.

PSIA 253 MEDIA AND SOCIETY/MCOM 227 **3.0: 3 cr. E**
This course studies forms of communication, including mass communication, and their interaction with political, cultural, and social issues and processes. It addresses both the more established and new media systems, particularly the social media, in Lebanon and the Arab World.

PSIA 254 SOCIETY AND GENDER **3.0: 3 cr. E**
This course examines the effects of patriarchy on the construction and reconstruction of gender as well as efforts and forms of change made to counter patriarchy and create more equality in societies

PSIA 255 CIvIC ENGAGEMENT AND COMMUNITY SERVICE **3 .0: 3 cr. E**
This course addresses civic engagement and its significant role in facilitating and enacting positive change in societies, including the role in that regard of expanding community service.

PSIA 256 SOCIAL MOVEMENTS AND CHANGE **3.0: 3 cr. E**
This course addresses how through social movements societies initiate and demand change in political and social structures as well as in established cultures and values. This course highlights the processes of resistance, rebellions, and revolutions, particularly including the recent Arab uprisings.

PSIA 257 SOCIAL WORK **3.0: 3 cr. E**
This course examines the concepts and approaches of social work and focuses on the skills ineeded for successful communication, intervention, and assessment in social work cases.

PSIA 258 SOCIAL PROBLEMS IN THE ARAB WORLD **3.0: 3 cr. E**
This course addresses the main theoretical perspectives identified in common social problems in the Arab World within the context of its political, social, and economic make-up and dynamics. Some cases from Arab states will be specifically examined.

PSIA 259 THE POLITICS OF ETHNICITY, RACE AND SECT **3.0: 3 cr. E**
This course looks at how ethnicity, race, and sects are politicized under certain conditions and then play a major role in mobilizing people and restructuring the political process. Somes cases from various states will be addressed as models of such politicization.

PSIA 260 SOCIAL INEQUALITIES AND CONFLICT **3.0: 3 cr. E**
This course explores social inequality from various theoretical perspectives as well as its common outcomes in aggraviting tensions and creating or facilitating conflicts.

PSIA 261 SOCIAL FOUNDATIONS OF BEHAVIOR (TOPICS IN SOCIOLOGY) **3.0: 3 cr. E**
This course addresses the ways social structures and processes influence human behavior and how we construct our attitudes and positions towards several societal issues. This it addresses in theory and practice various relevant topics, including power, status, class, globalization, primordialism, constructivism, poverty, culture, discrimination, inequality, stereotypes, ethnocentrism, conflict, socialization, education, family, religion, age, gender, race, ethnicity, sexual orientation, demography, and politics.
(For MCAT and other students too)

Regarding the course descriptions for ARAB, CSIS, CSPR, CSPR-Equivalent and ENGL courses, refer to the corresponding Department.

4.24 DEPARTMENT OF PSYCHOLOGY

Chair of Department: Noura Khoury Ph.D., noura.khoury@balamand.edu.lb

Language of Instruction: English and French

BACHELOR OF ARTS IN GENERAL PSYCHOLOGY

The Department of Psychology offers the following degree: A minor in general Psychology requires taking 15 credits/5 courses in Psychology.

GENERAL AIMS OF THE DEPARTMENT OF PSYCHOLOGY

The Department of Psychology aims at providing a scholarly and illustrated overview of current theories of personality, learning, behavior, counseling and psychotherapies, within a comparative framework that elucidates their basic concepts, history, variants and applications. It adopts a multidisciplinary approach and brings into play theories from biology, developmental and social psychology, psychoanalysis and positive psychology, in order to explore the dynamics of development, adaptation, well-being and mental health. It prepares students to make their choices with regard to their future practice in psychology. Courses offered by the department incorporate a significant practical element allowing students to build a deeper understanding of the reality of the studied phenomena. All courses are founded on the ethical philosophy of social responsibility and the respect for human rights.

I- THE BACHELOR OF ARTS PROGRAM

To qualify for a BA in psychology, the student must complete a total of 91 credits, distributed as follows:

Total credits within a BA program **91 cr**

1 University Requirements ***19cr***

1.1	English	6 cr
1.2	CSPR	6 cr
1.3	CSPR equivalent	6 cr
1.4	LISP 200	1 cr

2 Department Requirements ***57 cr***

2.1 Courses from the Major (minimum 40%, i. e., 36 credits) *48 cr*

2.1.1 Major Courses *39 cr*

PSYC 200 Introduction to Psychology	3 cr
PSYC 212 Child Development	3 cr
PSYC 250 Cognitive Psychology	3 cr
PSYC 220 Basic Psychobiology	3 cr
PSYC 222 Neuroscience of Behavior	3 cr
PSYC 226 Foundation of Psychoanalyses	3 cr
PSYC 229 Foundations of Social Psychology	3 cr
PSYC 230 Psychology of the Personality	3 cr
PSYC 235 Theories in Counseling and Psychotherapy	3 cr
PSYC 236 Psychological Research	3 cr
PSYC 243 Tests and Measurements	3 cr
PSYC 247 Child and Adolescent Psychopathology	3 cr
PSYC 249 Adult Psychopathology	3 cr

2.1.2 Electives Within the Department *09 cr*

Students are requested to choose three courses from the list below:

PSYC 254 Psychology of Learning	3 cr
PSYC 216 Psychology of Adult and Elderly	3 cr
PSYC 234 Psychology of Groups	3 cr
PSYC 242 Projective Techniques	3 cr
PSYC 214 Adolescent Development	3 cr
PSYC 251 Applications in Stress Management	3 cr
PSYC 257 Psychomotricity	3 cr
PSYC 258 Topics in Psychology	3 cr
PSYC 271 Families: Adaptation and Non-Adaptation	3 cr
PSYC 272 Schools: Adaptation and Non-Adaptation	3 cr

2.2 General Education (service) Courses *09 cr*

2.2.1	MATH 242	Statistics for Applied Sciences	3 cr
2.2.2	Any course from the list below:		
	ARAB 201	*Arabic Expression III*	*3 cr*
	THEA 262	*Introduction to the Art of Theater*	*3 cr*
	THEA 266	*Acting techniques*	*3 cr*
2.2.3	Any course from the list below:		
	ASTR 201	*Fundamentals of Astronomy*	*3 cr*
	CSIS 283	*Applied Digital Skills for Humanities*	*3 cr*
	EVSC 201	*Introduction to Environmental Sciences*	*3 cr*
	GEOL 201	*Fundamentals of Geology,*	*3 cr*

3 Free Electives ***15 cr***

A passing grade of at least 70 is required for all the core courses (except for PSYC220, 222 and 250 – passing grade 60) and for FREN 201 or ENGL 203.
To obtain the BA degree offered by the Department (core and elective courses), psychology students should have a cumulative average of no less than 70/100

COURSE DESCRIPTIONS

CORE COURSES

PSYC 200 INTRODUCTION TO PSYCHOLOGY **3.0: 3 cr. E**

This introductory course traces the history and evolution of psychology as a science. It provides a broad perspective on psychology that covers the history, methods of research, major theories and contemporary perspectives in psychology. It explores the applications of the knowledge gained from psychological studies in the problems and challenges of today's world. It familiarizes the students with the major concepts associated with each school of psychology. It also exposes the student to the major specialty areas within the profession of psychology.
Pre-requisite: FREN 102/ ENGL 102

PSYC 212 CHILD DEVELOPMENT **3.0: 3 cr. E**

This course introduces the students to the major fields of development of the child from birth to puberty (sensorimotor, cognitive, language, sexual, emotional and social). It explores the interplay of the biological, educational and social factors influencing child development. Students are trained to critically read the works of pioneers in developmental psychology such as Piaget, Vygotsky, Erikson, Freud, Kohlberg, Bowlby, in order to analyze the mechanism of child development. The course includes a practical observational component that will help the students to build his/her understanding of the theories.
Pre-requisite: FREN 102/ ENGL 102

PSYC 220 PSYCHOBIOLOGY **3.0: 3 cr. E**

This course provides an introduction to biological bases of behavior. It studies the basic anatomical, physiological and biochemical processes in the nervous system. It focuses on the sensory systems in order to understand how humans communicate with the external world as well as on the brain mechanisms underlying simple human motor behavior.
Pre-requisite: FREN 102/ ENGL 102

PSYC 222 NEUROSCIENCE OF BEHAVIOR **3.0: 3 cr. E**

The course focuses on the study of the complex brain function involved in different aspects of behavior. It aims to develop an understanding of the neurobiological substratum of different brain functions such as pain, pleasure, memory, language, sleep and some psychiatric disorders.
Pre-requisites: PSYC 220, FREN 102/ ENGL 102

PSYC 226 FOUNDATION OF PSYCHOANALYSIS **3.0: 3 cr. E**

The course is an introduction to Freudian psychoanalytical theory and treatment. It aims to familiarize the student with the unconscious and the structure of the personality. Concepts such as the unconscious, dreams, defense mechanisms, inhibition, will be explored.
Pre-requisite: FREN 102/ ENGL 102

PSYC 229 FOUNDATIONS OF SOCIAL PSYCHOLOGY **3.0: 3 cr. E**

This course introduces students to the vast spectrum of social phenomena that influences how people are, what and how they feel and think, and what they do. It will focus on the continuous inter-structuration among individual and collective realities in understanding personal behavior and everyday life situations. It will introduce students to basic concepts in social psychology (e.g., culture; society; socialization, marginalization and discrimination; social cognition; concept of self; social influence; adaptation). Students will also be introduced to investigatory techniques used in social psychology.
Pre-requisite: FREN 102/ ENGL 102

PSYC 230 PSYCHOLOGY OF THE PERSONALITY 3.0: 3 cr. E

This course is an overview of personality theories. Methodologically, the course will offer a comparative critical analysis of multiple models of personality: psychoanalytical approaches: Freudian and Neo-Freudian approaches; the psychosocial approaches; humanistic approaches; existential approaches; behavioral approaches; descriptive approaches.
Pre-requisite: FREN 102/ ENGL 102

PSYC 235 THEORIES IN COUNSELING AND PSYCHOTHERAPY 3.0: 3 cr. E

This course provides a scholarly and illustrated overview of current psychotherapies and counseling approaches, within a comparative framework that elucidates their basic concepts, history, variants, applications, and how they are practiced. Case examples and teaching videos provide concrete and practical illustrations of how the practitioners of different forms of counseling and psychotherapy use their approach to formulate clinical cases and help patients. The course constitutes a wide-ranging, lucid, and hands-on exposure to 21st- century psychotherapies that include, psychoanalytic, client-centered, rational-emotive, behavioral, cognitive, existential, gestalt, interpersonal, family, contemplative, and positive approaches to treatment as well as integrative psychotherapies and multi-cultural theories of psychotherapy.

Pre-requisites: PSYC200, PSYC212, FREN 102/ ENGL 102

PSYC 236 PSYCHOLOGICAL RESEARCH 3.0: 3 cr. E

This course introduces the students to the principles and basic building blocks of psychological research (research design, measurements, validity and reliability issues, sampling). It explores the major types of psychological research methods (survey research, experimentation, correlational studies, qualitative research, oral history interviewing). It teaches the students how to think and read about research critically.
Pre-requisite: FREN 102/ ENGL 102/PSYC 243

PSYC 243 TESTS AND MEASUREMENTS 3.0: 3 cr. E

This course is an introduction to the principles of assessment techniques in psychology. It provides an overview of cognitive, personality and aptitude tests. It explores the psychometric properties of different tests, the ethical considerations in testing, the place of testing in psychological assessment and examination and the principles of scoring and interpretation of different tests.
Pre-requisites: PSYC 200, 212 and 232, FREN 102/ ENGL 102. Co-requisite: MATH 242

PSYC 247 CHILD AND ADOLESCENT PSYCHOPATHOLOGY 3.0: 3 cr. E

This course is designed as an introductory-level course in child and adolescent abnormal psychology. It discusses multiple definitions of the terms "normal" and "abnormal" and describes the epidemiology, diagnostic criteria, symptoms, course, comorbidities and treatments of major mental disorders usually diagnosed in childhood and adolescence. It explores the biological, psychosocial, and developmental influences affecting child and adolescent psychopathology.
Pre-requisites: PSYC 200, 212 and 220, FREN 102/ ENGL 102

PSYC 249 ADULT PSYCHOPATHOLOGY 3.0: 3 cr. E

This course is designed as an introductory level course in adult abnormal psychology. It describes the epidemiology, diagnostic criteria, symptoms, course, comorbidities and treatments of major mental disorders usually diagnosed in adulthood and the elderly. It explores the biological, psychosocial, and developmental influences affecting adult and elderly psychopathology.

Pre-requisites: PSYC 200, 212 and 220, FREN 102/ ENGL 102

PSYC 250 COGNITIVE PSYCHOLOGY 3.0: 3 cr. E

This course provides a scholarly and illustrated overview of multiple models of cognition: Piaget's Model; Vygotsky model; information processing model; socio-cognitive model. It explores the basic functions of cognition: attention; memory; language; representation formation; decision-making; reasoning. Case examples and teaching videos provide concrete and practical illustrations of how cognition is in transaction with other fields of functioning, i.e., the physical, the affective and the sociocultural fields.
Pre-requisite: FREN 102/ ENGL 102/PSYC220

ELECTIVE COURSES

PSYC 214 ADOLESCENT DEVELOPMENT 3.0: 3 cr. E

This course aims to discuss the major problem related to the development of adolescents. It explores the interplay of the physical, cognitive, and socio-affective fields of functioning of adolescents. It familiarizes the students with the major risks and opportunities influencing adolescent adaptation and mental health. It exposes the students to contemporary research in adolescent development. The course includes a practical observational component that will help the students to build his/her understanding of the theories.
Pre-requisite: FREN 102/ ENGL 102

PSYC 216 PSYCHOLOGY OF ADULTS AND ELDERLY 3.0: 3 cr. E

This course is divided into two parts, evaluating the physical, cognitive, social and emotional development of adulthood and the

elderly. The first section covers the productivity and maintenance established in adulthood and the second section deals with the issues facing the elderly including retirement and disengagement.
Pre-requisite: FREN 102/ ENGL 102

PSYC 234 PSYCHOLOGY OF GROUPS **3.0: 3 cr. E**

This course focuses on the key concepts of group processes and their application in a variety of group settings: decision making processes, group problems and problem solving, leadership, authority, verbal and non-verbal communication in group dynamics. Didactic and experiential techniques are used to explore the stages of group development and functioning and to understand and interpret small group dynamics.
Pre-requisites: PSYC 200, 212, FREN 102/ ENGL 102

PSYC 242 PROJECTIVE TECHNIQUES **3.0: 3 cr. E**

This course introduces the students to the theoretical and methodological foundations of projective techniques. It explores the place of projective techniques in psychological examination and their application in the evaluation of the child, adolescent and adult. The student will be prepared for the practice of the Rorschach, TAT and FAT.
Pre-requisites: PSYC 226, FREN 102/ ENGL 102

PSYC251 APPLICATIONS IN STRESS MANAGEMENT **3.0: 3 cr. E**

This course teaches the fundamentals of stress response and its management, the skills/techniques to prevent and alleviate stress, and the SUCCEED model which promotes the successful implementation of these strategies. Relaxation methods range from elementary techniques (e.g., diaphragmatic breathing) and technology-assisted interventions (e.g., biofeedback) to cognitive-behavioral strategies (e.g., cognitive restructuring) and holistic approaches (e.g., mindfulness) to stress reduction and management. The class includes practical activities and hands-on assignments that culminate in the design and implementation of a personalized stress-management plan. The learning objectives of the course are both conceptual and experiential.

Pre-requisite: FREN 102/ ENGL 102

PSYC 254 PSYCHOLOGY OF LEARNING **3.0: 3 cr. E**

This course introduces students to the vast spectrum of learning theories and its application in the family as well as in the community and school settings. It explores the motivational processes inherent to different learning theories. Methodologically, the course will apply a comparative critical analysis of major learning theories such as behavioral models, gestalt models, socio-cognitive models, information-processing models; constructivist and socio-constructivist models.
Pre-requisite: ENGL 102 or FREN 102

PSYC 257 PSYCHOMOTRICITY **3.0: 3 cr. E**

This course aims to explore the major concepts of psychomotricity (i.e. senses; body schema; laterality; organization in space and time). The course constitutes a hands-on exposure to how psychomotricity can be at the base of knowledge construction and communication. Case examples and teaching videos provide concrete and practical illustrations of how practitioners i.e., educators or psychologists, can use psychomotricity in their educational and re-educational practices.
Pre-requisite: FREN 102/ ENGL 101

PSYC 258 TOPICS IN PSYCHOLOGY **3.0: 3 cr. E**

This course will provide an examination of the history, basic principles, major areas, and selected contemporary topics in psychology, it offers a study of a selected topic in psychology as it relates to another discipline such as politics, sports, music, medical psychology, psycholinguistic, anthropology, ethnology.
Pre-requisite: FREN 102/ ENGL 102

PSYC 271 FAMILIES: ADAPTATION AND INADAPTATION **3.0: 3 cr. E**

This course introduces the student to the sociological and psychological theories that explain family functioning. It studies the interplay of the multiple-risk factors explaining family dysfunctioning. It explores the relations inherent to the family system: couple relations, parent child relationship, sibling relations, parenting. It also studies problems that are specific to family environment: violence in the family, child abuse, incest, "parentification", divorce, adoption. It also overviews strategies of prevention and intervention that target family optimal functioning.

Pre-requisite: FREN 102/ ENGL 102

PSYC 272 SCHOOLS: ADAPTATION AND NON-ADAPTATION **3.0: 3 cr. E**

This course introduces the student to the sociological and psychological theories that explain school functioning. It studies the interplay of the multiple-risk factors explaining school maladjustment. It explores school relationships such as teacher-student relationship, peer relationships, popularity, relationship to the authority. It also studies problems that are specific to school environment such as school failure, behavioral disorders in schools, school phobia, bullying, child abuse. It overviews strategies of prevention and intervention that target school adjustment.
Pre-requisite: FREN 102/ ENGL 102

PSYC 273 COMMUNITIES: ADAPTATION AND INADAPTATION **3.0: 3 cr. E**

This course analyses the social production of social non-adaptation. It adopts a psychosocial approach to study collective phenomena designated as social problems and affecting the development of the person and of the community. These include poverty, unemployment, marginality, immigration, exclusion, discrimination, refugees, marginality and delinquency and drug abuse. It studies these problems in relation to the Lebanese context. It overviews strategies of community interventions that promote coping and resilience in these difficult situations.
Pre-requisite: FREN 102/ ENGL 102

PSYC 274 WAR, ADAPTATION AND RESILIENCE **3.0: 3 cr. E**

This course analyzes war as an extreme situation and its implications on the functioning, adaptation and development of the person. It explores psychosocial phenomena that derive from war such as displacement, refugees, de-schooling and institutionalizing of children. It overviews the intervention strategies that promote coping and resilience in war situations.

Pre-requisite: FREN 102/ ENGL 102

PSYC 275 MENTAL HEALTH IN EMERGENCIES **3.0: 3 cr. E**

This course explores the mental health issues emanating from emergency situations. It studies the problem of "normality" and "pathology" in emergency situations. It describes mental health problems usually related to extreme situations such as PTSD and anxiety. It finally overviews different techniques of social support and interventions used in emergency situations.
Pre-requisite: FREN 102/ ENGL 102

Regarding the course descriptions for CSPR, CSPR-Equivalent and ENGL courses, refer to the corresponding Department.

4.25 Courses In Russian Language

RUSS 201 RUSSIAN LANGUAGE I (R) **3.0: 3 cr. R**

It is a 3-credit course for beginners in the Russian language designed for students who have no previous knowledge of the Russian language. Throughout the course, students will acquaint themselves with basic Russian vocabulary, the fundamentals of Russian phonetics, grammar, spelling and sociocultural knowledge. Emphasis is placed on students' use of Russian in authentic situations of everyday life.

4.26 Courses In Sociology

SOCL 202 SOCIOLOGY **3.0:3 cr.E/F**

This course explores important sociological theories and concepts in the study of society, including those related to socialization, culture and the development of identity, gender, family, health, poverty and stratification, social change and globalisation, deviance, and mass media. Students are encouraged to apply sociological understandings to their own interactions and social contexts.

co-requisite: ENGL 203 or FREN 201.

4.27 Courses In Spanish Language

SPAN 201 SPANISH LANGUAGE I (S) **3.0: 3 cr. S**

This course introduces the student to the Spanish language (Beginners I) in coordination with the Instituto Cervantes.

SPAN 202 SPANISH LANGUAGE II (S) **3.0: 3 cr. S**

This course introduces the student to the Spanish language (Beginners II) in coordination with the Instituto Cervantes.
Pre-requisite: SPAN 201

SPAN 203 SPANISH LANGUAGE III (S) **3.0: 3 cr. S**

This course is designed to enhance the student's proficiency in Spanish Language (intermediate level). Pre-requisite: SPAN 202

SPAN 204 SPANISH LANGUAGE IV (S) **3.0: 3 cr. S**

This course is designed as to enhance the student's proficiency and knowledge of Spanish Language (advanced level).
Pre-requisite: SPAN 203

SPAN 205 SPANISH LANGUAGE V (S) **3.0: 3 cr. S**

This course is designed to enhance student proficiency and knowledge of Spanish language. (Advanced level) At the end of this course students must be able to present the DELE exam. (B2 Level)
Pre-requisite: Span 204

4.28 Courses In Sustainability

SUST 211 ETHICS AT THE INTERSECTION OF SCIENCE, TECHNOLOGY, AND ENVIRONMENT 3.0:3 cr. E/F
This course is designed to provide students from various social and scientific backgrounds with an in-depth understanding of the ethics surrounding science and technology in relation to environmental sustainability. Given that environmental ethics and related issues are of utmost importance to the United Nations, the course content and innovative teaching methods aim to equip students with the necessary skills and knowledge to navigate the complex ethical implications and societal challenges that arise at the intersection of science, technology, and environmental issues. Through a carefully curated curriculum comprising study materials, projects, and discussions, students will explore the intricate relationships between these domains, unravel ethical complexities, and address societal challenges that require thoughtful consideration. By the end of the course, students will have gained valuable insights into real-world scenarios where ethics play a critical role in decision-making processes. Additionally, the course emphasizes inclusive learning, real-world relevance, and collaborative projects, which are all integral to the learning experience.
Co-requiste: ENGL 203 for SUST211E or FREN 201 for SUST211F.

SUST 219 ENGINEERING ETHICS FOR A SUSTAINABLE PROFESSION 3.0:3 cr. E
This course introduces and reinforces the concepts, theories, and practice of engineering ethics and aims at providing basic knowledge of ethics for engineers in different types of work roles. It prepares the engineering students for identifying, taking responsibility for, and finding solutions to potential ethical problems/cases, making applicable ethical engineering presentation, and identify and describe ethical issues during the design process. It provides students with an interactive study of ethical theory and the development of professionalism and helps them think more clearly and deeply about ethical issues of the natures that engineers often face in professional practice, and explore resources, strategies, and options for dealing with such complications. Students review case studies of ethical conflicts in engineering practice. The course also covers engineering codes of ethics and requires students to resolve theoretical situations through the application of ethical codes.
Pre-requistes: ENGL 203, CHEN/CIVE/ELCP/MECH/290 (according to discipline)

SUST221 INTRODUCTION TO SUSTAINABILITY 3.0:3 cr. E/F
This course delves into the historical roots and multiple layers of the meaning of sustainable development. The course serves as an introductory exploration of sustainability, drawing on the latest information concerning economic, social, and environmental issues. It outlines how sustainability is holistically applicable to everyday situations covering aspects such as the population, natural resource use and the global economy as well as social factors such as equity, diversity, human rights, education and health. By the end of this course, students will possess an understanding of the primary challenges and potential solutions for achieving sustainability, aligning with the United Nations' Sustainable Development Goals (SDGs). The culmination of the course involves a multidisciplinary project presentation.
Co-requiste: ENGL 203 for SUST221E or FREN 201 for SUST221F

SUST229 SUSTAINABLE DEVELOPMENT FOR ENGINEERS 3.0:3 cr. E
This course introduces the fundamental and advanced concepts of sustainable development. It transitions students' understanding of the UN Sustainable Development Goals (SDGs) to focus specifically on the critical role of engineers in achieving these SDGs. Students should then be able to resolve problems by adopting sustainability principles, which should in turn reflect on the students' multidisciplinary design ability to ensure a proper sustainable design process to improve and preserve the quality of life for future generations.
Pre-requiste: ENGL 203, CHEN/CIVE/ELCP/MECH/290 (according to discipline)

4.29 Courses In Theater

THEA 260 THEATRICAL REPERTOIRE AND CINEMA **3.0: 3 cr. A**
This course offers a historical overview on the forms and types of plays, also on dramatic writing and methods. Through watching films and plays, it will shed light on the global history of theater from the days of the Greeks till our modern times. This would allow students to build a realistic connection with the theatrical world and provide them with the necessary tools to go from purely observing to analyzing Theatrical Repertoire/Cinema transversely.

THEA 262 INTRODUCTION TO THE ART OF THEATER **3.0: 3 cr. A**
This course is based upon practical work that motivates every student to specify his/her way of personal expression. Studying theater also helps them to gradually comprehend the forms of this expression through improvisation, role playing, facing obstacles and constructing theatrical spaces. Only then wo uld a student be able to discover that the relationship with theater is primarily personal and intimate.

THEA 265 THEATRICAL SCRIPTWRITING **3.0: 3 cr. A**
This course allows the student to specify the elements of theatrical scriptwriting while focusing on the genres of writing and the relation that links theater to other forms of art. It also aims to experiment the different innovative and untraditional types of theatrical expression through a series of workshops which prepare students to write plays.

THEA 266 ACTING TECHNIQUES **3.0: 3 cr. A**
This course studies the principles of theatrical work and its basic techniques that are not limited to theoretical knowledge, but also involve active participation in the primary techniques of acting that include the secrets behind a theatrical composition.

THEA 267 THEATRICAL DIRECTION **3.0: 3 cr. A**
This course deals with certain skills related to theatrical direction through studying the space of the theater and the elements of the play, the structure of a character, dramatic rhythm and its relation to the body and voice.

THEA 268 WORKSHOP TEACHING DRAMA SKILLS **3.0: 3 cr. A**
This course calls for innovation rather than learning. From this perspective, the professor is merely a catalyst. The course deals with several types of skills, individual and group exercises, and methods for teaching, analyzing and improving a theatrical work.

THEA 270 WORKSHOP FOR THEATRICAL DEVELOPMENT **3.0: 3 cr. A**
This course is an integrated workshop that aims to develop the student's capabilities and performance skills. It also aims to study the styles of performance as well as its planning and design for enriching theatrical scripts and non-theatrical texts.

THEA 280 BUILDING A STAGE CHARACTER **3.0: 3 cr. A**
This course aims to develop the student's creative ability in various areas such as theatric analysis and dramatic set-up. Its purpose is to help the student in expressing feelings and creating bodily and mental rythms/projections that are deemed suitable features of the stage character and embodying it.

4.30 DEPARTMENT OF TRANSLATION

Chair of Department: Maria Nasr, Ph.D., maria.nasr@balamand.edu.lb

Languages of instruction: Arabic, French, and English

The objective of the Department of Languages and Translation is to graduate translators who are specialized in various fields of human knowledge with a high proficiency in the three main languages of instruction, in addition to an optional command of a fourth and even a fifth foreign language.

The curriculum provides the translation student with the efficient translation techniques and methodology from and into Arabic, French and English in the specialized fields of editorial translation, audio-visual translation (subtitling and dubbing), and interpretation along with the appropriate and comprehensive theoretical background to enhance the translator's skills and professional performance.

The program of study leads to the following degrees:
1. A Bachelor of Arts in Languages and Translation
2. A Specialized Translator Diploma

The Bachelor of Arts in Languages and Translation:

To be eligible for a B.A. in Languages and Translation, the student must complete a total of 91 credits which are allocated as follows:

Plan Of Study

Total credits within a BA program					**91 cr**
1	***University Requirements***				***19 cr***
1.1	English203/204 equivalent		6 cr		
1.2	CSPR courses		6 cr		
1.3	CSPR equivalent courses or CSPR		6 cr		
1.4	LISP 200		1 cr		
2	***Department Requirements***				***57 cr***
2.1	*Courses from the Major*	*(minimum 40%, i. e., 36 credits)*		*42 cr*	
2.1.1	*Major Courses (11 courses)*		*33 cr*		
	TRAN 210 General Translation F/A		3 cr		
	TRAN 230 General Translation E/A		3 cr		
	TRAN 202 General Translation A/F		3 cr		
	TRAN 240 General Translation A/E		3 cr		
	TRAN 296 Audiovisual Translation		3 cr		
	TRAN 217 Linguistics for Translators		3 cr		
	TRAN 218 Introduction to Translation Studies		3 cr		
	TRAN 222 Contemporary Events		3 cr		
	TRAN 262 Translation Revision & Editing F		3 cr		
	TRAN 264 Translation Revision & Editing E		3 cr		
	TRAN 255 Scientific Translation		3 cr		
2.1.2	*Electives Within the Department*		*09 cr*		
Students are requested to choose three courses from the list below:					
	TRAN 256 Legal Translation		3 cr		
	TRAN 257 Economic Translation		3 cr		
	TRAN 205 Advanced General Translation F/A		3 cr		
	TRAN 206 Advanced General Translation E/A		3 cr		
	TRAN 212 Literary Translation F/A		3 cr		
	TRAN 214 Literary Translation E/A		3 cr		
2.2	*General Education (service) Courses*			*15 cr*	
	ARAB 201 Arabic Expression III		3 cr		
	ARAB 202 Equivalent		3 cr		
	FREN 201 Techniques de Expression I		3 cr		
	FREN 202 or Equivalent		3 cr		
	One course from the list below:		3 cr		
	ASTR 201	*Fundamentals of Astronomy*	*3 cr*		
	CSIS 283	*Applied Digital Skills for Humanities*	*3 cr*		
	EVSC 201	*Introduction to Environmental Sciences*	*3 cr*		
	GEOL 201	*Fundamentals of Geology,*	*3 cr*		
3	***Free Electives***				***15 cr***

A minimum passing grade of 70/100 is required in the following courses: ARAB 201, ENGL 203, and FREN 201.

COURSE DESCRIPTIONS

CORE COURSES

TRAN 202 GENERAL TRANSLATION (A→F) 3.0: 3 cr. A/F

This course trains students to translate from Arabic into French using the interpretative method. The course material covers a wide range of journalistic texts (newspaper articles, advertisements, reports, essays, reviews and editorials) which place students in real communication situations.

Co-requisites: ARAB 201 and FREN 201.

TRAN 210 GENERAL TRANSLATION (F→A) 3.0: 3 cr. A/F

This course trains students to translate from French into Arabic using the interpretative method. The course material covers a wide range of journalistic texts (newspaper articles, advertisements, reports, essays, reviews, and editorials) which expose students to real communication situations.

Co-requisites: FREN 102 and ARAB 201

TRAN 217 LINGUISTICS FOR TRANSLATORS 3.0: 3 cr. E/F

This course provides students with a theoretical understanding of the following topics: a) Linguistic methodology (observation, description and explanation); b) Phonetic alphabet; c) Verbal communication (speech act and interpretation); d) Vocabulary structure (word formation and compounding); e) Morphological units; f) Syntactic relations; g) Semantic units; h) Pragmatic meaning; and i) Text analysis.

Pre-requisites: FREN 201 and ARAB 201

TRAN 218 INTRODUCTION TO TRANSLATION STUDIES 3.0: 3 cr. E/F/A

This course is a survey of major theories and concepts in the field of translation studies providing translation students with theappropriatetheoreticalbackground, principlesandmethodsinordertoenhancetheirpracticalperformance.

Pre-requisites: FREN 201 and ARAB 201

TRAN 222 CONTEMPORARY EVENTS 3.0: 3 cr . E/F/A

This course will give students a historical and contemporary look at issues of great importance on the national and international scale. It aims at familiarizing them with the current issues that are frequent in newspapers, television news, and other popular media and will also shed some light on the controversies that divide population in the Arab World and around the globe. It aims at making students more aware and informed of things happening around them and subsequently become more media literate

TRAN 230 GENERAL TRANSLATION (E→A) 3.0: 3 cr. E/A

This course trains students to translate from English into Arabic using the interpretative method. The course material covers a wide range of journalistic texts (newspaper articles, advertisements, reports, essays, reviews, and editorials) which expose students to real communication situations.

Pre-requisites: ARAB 201 and ENGL 102

TRAN 240 GENERAL TRANSLATION (A→E) 3.0: 3 cr. E/A

This course trains students to translate from Arabic into English using the interpretative method. The course material covers a wide range of journalistic texts (newspaper articles, advertisements, reports, essays, reviews and editorials) which place the students in real communication situations.

Co-requisites: ARAB 201 and ENGL 203

TRAN 255 SCIENTIFIC TRANSLATION FRENCH / ENGLISH – ARABIC 3.0: 3 cr. E/F/A

This course will teach students how to translate texts from various scientific domains.
Students will have to learn how to deal with technical and terminological difficulties that are usually common in specialised texts ie: medical, computer and technologies, etc…
This course will also focus on the importance of thematical research and on documentation in order to understand the specialized concepts and apprehend the meaning of the term in its right context.

Pre-requisites: ARAB 201, ENGL 203 and FREN 201

TRAN 262 TRANSLATION AND EDITING / FRENCH 3.0: 3 cr. F

This Course will teach students how to apply strategies in translating texts of various types, with a particular attention on literary texts. The translation will be used as a means of linguistic analysis. The aim is to teach students basic translation techniques of preserving the meaning, but also the criteria for assessing any type of translation.

It will teach students how to apply the rules of discourse and rhetoric in editing various kind of written material. The working languages will be Arabic and French.

Pre-requisites: ARAB 201 and FREN 201

TRAN 264 TRANSLATION AND EDITING / ENGLISH **3.0: 3 cr. E**

This Course will teach students how to apply strategies in translating texts of various types, with a particular attention on literary texts. The translation will be used as a means of linguistic analysis. The aim is to teach students basic translation techniques of preserving the meaning, but also the criteria for assessing any type of translation

It will teach students how to apply the rules of discourse and rhetoric in editing various kind of written material. The working languages will be Arabic and English.

Pre-requisites: ARAB 201 and ENGL 203

TRAN 296 AUDIO-VISUAL TRANSLATION **3.0: 3 cr. E/F/A**

This course provides students, in the Subtitling Lab, with the appropriate state-of-the-art training in subtitling from French and English into Arabic, and explores the techniques and specificity of audio-visual translation. The training material covers movies, news bulletins, series, sitcoms, and documentaries.

Pre-requisites: ARAB 201, ENGL 203 and FREN 201

ELECTIVES WITHIN THE DEPARTMENT

TRAN 205 ADVANCED GENERAL TRANSLATION **3.0: 3 cr. F/A**

This course enhances the student's translating skills and techniques from French into Arabic. The course material covers non-journalistic texts (letters, speeches) as well as a variety of texts in the field of humanities.

Pre-requisites: ARAB 201, FREN 201 and TRAN 210

TRAN 206 ADVANCED GENERAL TRANSLATION **3.0: 3 cr. E/A**

This course enhances the student's translating skills and techniques from English into Arabic. The course material covers non-journalistic texts (letters, speeches) as well as a variety of texts in the field of humanities.

Pre-requisites: ARAB 201, ENGL 203 and TRAN 230

TRAN 212 LITERARY TRANSLATION (F→A) **3.0: 3 cr. F/A**

This course introduces the students to literary translation from French into Arabic. The training covers the following literary genres: poetry, short story, and novel.

Pre-requisites: ARAB 201 and FREN 201

TRAN 214 LITERARY TRANSLATION (E→A) **3.0: 3 cr. E/A**

This course introduces the student to literary translation from English into Arabic. The training covers the following literary genres: poetry, short story, and novel.

Pre-requisites : ARAB 201 and ENGL 203

TRAN 256 LEGAL TRANSLATION (F/E→A) **3.0: 3 cr. E/F/A**

In this course, the students acquire translation techniques of legal texts dealing with basic civil and contract law, business law, (companies, partnerships and corporations), contracts and agreements, and court orders. The student learns not to rely on specialized dictionaries but to develop a tailor-made personal lexicon to present and future needs and practices. Throughout the course, the student is encouraged to search for the accurate contextual meaning of legal terms.

Pre-requisites: ARAB 201, ENGL 203 and FREN 201

TRAN 257 ECONOMIC TRANSLATION (F/E→A) **3.0: 3 cr. E/F/A**

In this course, the student is trained to translate economic texts ranging from newspaper articles to more specialized publications. The student learns to analyze economic discourse and to convey it in the target language using the appropriate terminology and discourse. The student is also trained to carry out terminological research on specific topics in the field of economics.

Pre-requisites: ARAB 201, ENGL 203 and FREN 201

THE DEPARTMENT OFFERS THE THREE FOLLOWING MINORS

English-Arabic: TRAN 206, 214, 230, 240, 264.
French-Arabic: TRAN 202, 205, 210. 212, 262.
A Minor in Spanish Language: SPAN 201, 202, 203, 204, 205.

Regarding the course descriptions for ARAB, CSPR, CSPR-Equivalent, ENGL and FREN courses, refer to the corresponding Department.

4.31 UNIVERSITY COURSES

LISP 200 INFORMATION SkILLS AND SEARCH TECHNIQUES (for non-majors only) 1.1: 1 cr. E/A/F

This course teaches the fundamentals of library use, information skills and search in addition, it focuses on the uses of the different library resources and their use.
This course is free of charge. co-requisite: ENGL 102

ARCL 201 AN INTRODUCTION TO LEBANESE AND NEAR-EASTERN ARCHAEOLOGY 3.0: 3 cr. E

The course is designed as an introduction to the fascinating past of the Near-East in general and Lebanon in particular through the lens of archaeology. It explores the archaeological remains that have been found on famous sites and lesser known ones covering a period spanning from Prehistory to the Ottoman period. The presented material includes the monuments themselves as well as a wide array of excavated artefacts which provide an insight into the lives of our ancestors and of ancient civilizations. This course will also introduce students to the basic components of archaeological methods.
ENGL203 is a co-requisite.