

# **DIVISION OF SPECIAL PROGRAMS**

## **OFFICERS OF THE DIVISION**

|                   |   |
|-------------------|---|
| Salem, Elie       | President of the University                                 |
| Bashour, Tali'    | Honorary Vice President for Medical Affairs in the US       |
| Karam, Nadim      | Vice President for Health Affairs and Community Development |
| Nahas, George     | Vice President for Planning and Educational Relations       |
| Najjar, Michel    | Vice President for Development and Public Affairs           |
| Moubayed, Walid   | Dean of Admissions and Registration                         |
| Nakat (EL), Hanna | Director  |
| Ayoub, Olga       | Librarian   |

## **COORDINATORS**

|                   |  |
|-------------------|--|
| Abdo, Julie       | Administrative Assistant, Freshman Advisor                 |
| Fadel, Christina  | Continuing Education Program (CEP)                         |
| Khoury, Carmen    | Freshman Advisor, Souk Al Gharb Campus                     |
| Murr (EL), Doris  | Service Experience: Education through Doing Program (SEED) |
| Nakat (EL), Hanna | Freshman and Special Orientation Program (SOP)             |
| Nseir, Micheline  | Freshman Advisor, Ashrafieh Campus                         |

## **DIVISION MEMBERS**

|                  |  |
|------------------|--|
| Chebl, Amal      | M..S, Mathematics<br>Lebanese University, Lebanon  |
| Haidar, Howayda  | M.A., Sociology<br>Lebanese University, Lebanon  |
| Hamieh, Soumaya  | Ph.D., Organic, Mineral and Industrial Chemistry<br>University of Poitiers, France   |
| Hmouda, Bassem   | Ph.D., Physics, Collision of particles<br>Lorraine University, France  |
| Issa, Carmen     | M.S., Computer Science in Data Base Management Systems<br>University of Balamand, Lebanon  |
| Jaalouk, Lina    | M.S., Health Promotion Management<br>Marymount University, USA   |
| Kassab, Rima     | Ph.D., Organic Chemistry<br>Université Claude-Bernard, France  |
| Kfoury, Adib     | Ph.D., Atmospheric Chemistry<br>Université du Littoral Cote d'Opale, France  |
| Khoury, Yvonne   | MBA, Business Administrative,<br>University of Balamand, Lebanon   |
| Kobrossi, Samer  | MBA, Business Administrative,<br>Bently University, USA  |
| Koussa Ziad      | M.A., Christian and Islamic Studies,<br>University of Balamand, Lebanon  |
| Makhlouf, Alia   | M.S., Nutrition and Dietetics<br>American University of Beirut   |
| Murr (EL), Doris | Ph.D., Chemistry Applied to the Environment,<br>University of Balamand, Lebanon,<br>Université du Littoral, Cote d'Opale, France |

|                    |   |
|--------------------|---|
| Nahal, Ibrahim     | M.S., Electronics and Telecommunications Engineering<br>Bucharest Romania                     |
| Najjar, Hanna      | M.A., Musicology<br>University of Saint Esprit, Kaslik  |
| Nakat (EL), Edward | M.S., Mathematics<br>University of New South Wales, Sydney, Australia                         |
| Nasr, Zeina        | Ph.D., Biochemistry<br>McGill University Montreal, Quebec Canada                              |
| Obeid, Moustapha   | DES, Painting and Drawing<br>Lebanese University, Lebanon                                     |
| Obeid, Pierre      | Ph.D., Chemistry<br>University of Patras, Greece  |
| Rastikian, Karabet | Ph.D., Chemical Engineering<br>Université de Technologie de Compiègne, France                 |
| Rubeiz, Imad       | M.A., Educational Psychology<br>American University of Beirut                                 |
| Salem, Fawzi       | BS, Civil Engineering<br>Lamar, Texas, U.S  |
| Shammas, Abdallah  | Ph.D., Soil and Water Chemistry (Agro-Environmental)<br>University of Wisconsin, Madison, US. |
| Turkieh, Sami      | M.S., Physics<br>Lebanese University, Lebanon   |
| Ward, Therese      | MA, Psychology,<br>Lebanese University, Lebanon   |
| Yammine, Paolo     | Ph.D., Organic Chemistry<br>University of Paris XIII, France                                  |
| Yazbeck, Naiim     | MS, Mathematics,<br>Lebanese University, Lebanon  |

## **AIMS**

The Division of Special Programs aims to:

- I.** Enable potential students to meet the admission requirements of the University through programs that provide intensive English study and remedial work in other subject matter areas.
- II.** Provide opportunities for further education.
- III.** Link the University with the community, by combining academic study with practical service work to the community.

## **PROGRAMS OF STUDY**

- 1.** Freshman Program
- 2.** Special Orientation Program (SOP)
- 3.** Service Experience: Education through Doing (SEED)
- 4.** Continuing Education Program (CEP)

# **1. FRESHMAN PROGRAM**

## **1.1 Requirements for Admission to the Freshman Class**

All applicants to the Freshman Class must hold a Secondary School Certificate based on twelve (12) years of schooling starting with Grade One awarded by an institute recognized by the University of Balamand, UOB, and the Lebanese Ministry of Education. All applicants to the Freshman Class are required to take/pass the TOEFL (or equivalent) and SAT. Scores may be sent directly to UOB by specifying the Institution code assigned to the University of Balamand: **2960**, on the registration form.

Prior to registration at UOB, All Applicants to the Freshman Class must obtain, a “PERMISSION” from the Lebanese Ministry of Education (LMOE), allowing them to pursue their higher education in a Foreign (non-Lebanese) Program. In this regard, the (LMOE) requests Lebanese Applicants to provide evidence of having lived and studied outside Lebanon for at least two years. Lebanese, holders of a foreign passport, are not required to provide such evidence. ***Applicants are advised to begin the process of securing this “permission” at least two months prior to the time set for registration at the University.***

Lebanese Applicants are also requested to take both the SAT Reasoning (Previously SAT I ) Test and the SAT Subject Tests (Previously SAT II) . The SAT exam includes three tests:

- Mathematical Reasoning
- Verbal Reasoning
- Writing

The Lebanese Law specifies that the SAT Subject Tests must be taken as follows:

### ***For Freshman Sciences:***

- Mathematics II C – Obligatory.
- Two out of the three following tests: Biology, Chemistry, and Physics.

### ***For Freshman Arts:***

- Mathematics I C – Obligatory.
- Any two SAT Subject Tests.

Applicants must obtain a minimum total score of 2750 (Freshman Sciences) or 2600 (Freshman Arts) points for the SAT and the SAT Subject Tests. SAT must be taken ***prior to admission to the Freshman Class***. SAT Subject Tests may be taken either before admission to the Freshman Class or while studying the Freshman Class. Note that no freshman student is promoted to the sophomore year unless he satisfies, in addition to the program course requirements, the minimum total score of both SAT and SAT Subject Tests. It is the responsibility of the applicant to register for, and take, the required SAT and SAT Subject Tests. For more details on the dates and the locations of these tests, contact the Testing Center nearest to you. In Lebanon, applicants may contact **AMIDEAST** offices in Beirut.

Applications will only be studied for admission to the freshman class if a minimum total score of 1260 is secured for SAT, in which a minimum score of 500 is required for Mathematical reasoning and a minimum score of 380 is required for the Writing section.

### **1.1.1 Probation or Special Admission To Freshman**

- A student who scored between 1100 and 1250 on SAT, by the time of the submission of the application, may

still apply to the Freshman class. Such student may be accepted Under Probation for one semester only. During this semester, the student will be given a maximum of 9 credits (or 3 courses) of freshman courses. By the end of this semester, the student is anticipated to secure the SAT admission criteria.

- A student who is admitted with ENGL 003 or below may be accepted as Special Freshman. The UOB rules for ENGL 001, ENGL 002 and ENGL 003 are respected within the Special Freshman Admission.

## **1.2 Number of Credits and Type of Subjects offered during the Freshman Class**

Applicants, admitted to the Freshman Class, should confer with their advisors to ensure that the number of credits and the types of subjects taken during their Freshman Year are in compliance with the requirements of the Lebanese Ministry of Education. These requirements are as follows:

|                                |  |
|--------------------------------|--|
| Total number of credits        | minimum of 30 credits                          |
| Humanities and social sciences | 09 credits                                     |
| Mathematics + Natural sciences | 06 credits with minimum of 3credits in natural |

Upon the successful completion of the Freshman Class, students are asked to obtain the ***Freshman Class equivalence to the Lebanese Baccalaureate*** from the Lebanese Ministry of Education. After acquiring the “Official Equivalence Certificate”, students will be promoted to the Sophomore Class at UOB. Freshman students do not have to sit for the UOB Entrance Exams. However, they will be judged on the basis of their Freshman Year record and their scores on the SAT and SAT Subject Tests. Applicants may try to improve one or both of their SAT /SAT Subject Tests scores by re-taking the tests.

## **1.3 Freshman Subjects and Courses**

The courses in the Freshman Program, as offered by the University of Balamand, are selected in such a way to prepare the students for the Major of their choice and to allow them to obtain the Lebanese High School Equivalency from the Ministry of Education. Accordingly, the courses selected include the subjects recognized by the Lebanese Ministry of Education and are categorized as follows:

### **1.3.1 Humanities**

History, Languages, Literature, Philosophy

### **1.3.2 Social Sciences**

Psychology, Sociology, Anthropology, Economics, Geography, Public Administration, Business Administration, Political Sciences, Management

### **1.3.3 Natural Sciences**

Biology, Chemistry, Physics, Geology, Astronomy, Nutrition

### **1.3.4 Mathematics**

Mathematics

### **1.3.5 Arts (a maximum of three credits)**

Plastic Arts, Music, Acting/Theater

### **1.3.6 Electives**

General Elective courses.

## **1.4 Academic Rules and Regulations**

The Freshman Program, a minimum of 30 credit curriculum, is anticipated to be covered within two semesters.

Students may require a third semester to finish the freshman course requirements. In this case, during this third semester, students with a maximum of 5 cr. of freshman courses left, are allowed to take courses from the sophomore year of the undergraduate Program of choice.

Freshman students who have exceeded the three semester limit will not be given the permission to take any higher level courses. Students are anticipated to finish Freshman requirements by the end of this semester.

#### **1.4.1 Fulfillment of Freshman requirements**

To fulfill the Freshman requirements, a student must present the following documents to the Lebanese Ministry of Education:

1-A Secondary School Certificate (section 1.1)

2-A Permission to pursue higher education in the Foreign Program (section 1.1)

3-A total SAT and SAT Subject tests of 2750 for Freshman Sciences

4-A total SAT and SAT Subject tests of 2600 for Freshman Arts

5-Minimum of 500 for Mathematical reasoning

6-Minimum of 380 in Writing and any subject test chosen.

7-A transcript showing that the student has successfully passed a minimum of 30 credits of Freshman courses chosen according to the rules set by the Lebanese Ministry of Education.

#### **1.4.2 Promotion to the Sophomore Year**

Once the Freshman requirements are fulfilled, a student may be promoted to the sophomore year. Although 60% is the passing grade per course, a student will not be promoted to the sophomore year, in any major/faculty, at UOB unless a Cumulative General Average (CGAvg) of 70% or above is achieved. Such student may receive the equivalence to the Lebanese Baccalaureate, nevertheless, at UOB, the student will remain freshman for one extra semester only and will be allowed a maximum of 12 credits; a maximum of 6 of which may be chosen from the new intended major.

#### **1.4.3 Academic Probations**

##### **1.4.3.1 Academic Probation**

-A Freshman student, with regular acceptance, is placed under academic probation if he/she fails to achieve a minimum cumulative general average (CGAvg) of 70% by the end of the second semester.

-A Freshman student, accepted under-probation, will be evaluated for probational status by the end of the first semester.

##### **1.4.3.2 Continued Probation**

-A Freshman student is placed under continued probation if he/she achieves a SAvg of 70% or above, but failed to achieve a minimum CGAvg of 70%.

##### **1.4.3.3 Strict Probation**

-A Freshman student is placed under strict probation if he/she fails to achieve a minimum SAvg of 70% and a minimum CGAvg of 70%.

-A student under strict probation can take a maximum of 12 credits of repeated Freshman courses only.

-A student who fails to remove a strict probation will be dropped out of the Freshman class.

#### **1.4.4 Removal of Academic Probations**

A student under any of the above types of probation will reach a clear status if he/she achieves a CGAvg of 70% or above.

## **COURSE DESCRIPTIONS**

### **ARTH 101 HISTORY OF THE ARTS**

**3.0: 3 cr. E**

A cultural course that deals broadly with all the arts in a historical and geographical context - A general knowledge course, a new and daring approach to history useful to any cultured person.

Pre-requisite: ENGL 101.

### **ASTR 100 INTRODUCTION TO ASTRONOMY**

**3.0: 3 cr. E**

A general science course designed to educate students about the modern views of the origin and evolution of the universe. It describes the solar and extra-solar systems, the planets, moons, constellations, and major celestial objects. It highlights the vastness of the universe and the wonder of its parts. As a result of taking this course, students will gain appreciation for the beauty of the universe and for its Creator.

### **ASTR 111 BIRTH AND AGE OF STARS**

**3.0: 3 cr. E**

An applied science course designed to educate students about the universe. Ancient civilizations wandered about stars and used their imagination and came up with fiction stories. In this course, students will be introduced into scientific notion about how stars are born from collapsing clouds of gas and dust, and about the processes of stellar evolution by which a star undergoes a sequence of radical changes during its lifetime.

### **ASTR 112 GALAXY AND EXPANSION OF THE UNIVERSE**

**3.0:3cr.E**

An applied science course designed to educate students about the universe. Students will be introduced to concepts and paradoxes of a non-static but expanding universe; that the great groupings of stars that were seen through telescopes are not part of our own galaxy but belong to distant galaxies; that almost all galaxies are flying away from the Galaxy we are in, Milky Way; and that the velocity of recession was proportional to the distance from us. The accelerating universe is the observation that the universe appears to be expanding at an increasing rate.

### **BIOL 101 INTRODUCTION TO BIOLOGY I**

**3.0: 3 cr. E**

This course is an introduction to the basic concepts of Genetics and Evolution, for students undertaking the Freshman Program.

### **BIOL 102 INTRODUCTION TO BIOLOGY LABORATORY I**

**3.0: 1 cr. E**

A set of experiments that introduces students to the world of Biology, including use of the microscope, introduction to DNA isolation and manipulation, and the safe use of biology laboratory equipment.

### **BIOL 103 INTRODUCTION TO BIOLOGY II**

**3.0: 3 cr. E**

This course compliments BIOL 101 and introduces the students to the basic concepts of Immunology and Metabolism.

Pre-requisite: BIOL 101.

### **BIOL 104 INTRODUCTION TO BIOLOGY LABORATORY II**

**0.3: 1 cr. E**

A set of experiments that introduces students to metabolism, including anatomy of the nervous systems, neurophysiology, testing for glycaemia, blood cells, blood typing, and an introduction to immunological techniques.

Pre-requisite: BIOL 102.

### **BIOL 111 INTRODUCTION TO MARINE BIOLOGY**

**3.0: 3 cr. E**

This course will be an opportunity for participants to learn basic concepts of marine biology. It provides an



introduction to marine organisms and ecosystems and thus a framework for further study of marine biology. The main topics covered are: the marine environment; the types and variety of marine organisms; major ecological categories of marine organisms: invertebrates, fishes, reptiles, birds and mammals; marine productivity and fisheries; marine pollution and conservation

### **BUSN 101 FRESHMAN BUSINESS**

**3.0: 3 cr. E**

This is a survey of the major fields in Business Administration. Topics covered include a brief overview of management, marketing, finance, accounting and data processing.

### **BUSN 111 INTRODUCTION TO MANAGEMENT**

**3.0: 3 cr. E**

This course provides the student with the basic principles of organizational management theory applicable to all types of business organizations. This includes the main functions of management namely planning, organizing, leading and controlling. This course also examines the processes of management including environmental analysis, motivational theory, managing by objectives, decision making, problem solving, and performance measurement.

### **CHEM 100 INTRODUCTION TO CHEMISTRY I**

**3.0: 3 cr. E**

Basic Chemistry Level I for Freshman students in the Scientific section. An elective for Freshman students in the Literary section. Accordingly, the course covers the following topics: Atomic theory of matter, types of reactions, concepts of acids and bases, molecular and ionic equations, oxidation-reduction reactions, calculations with chemical formulas and equations, stoichiometry, empirical gas laws, the ideal gas law, introduction to quantum chemistry.

### **CHEM 101 INTRODUCTION TO CHEMISTRY LABORATORY I**

**0.3: 1 cr. E**

The aim of this course is to introduce and familiarize Freshman students with the laboratory environment. Students will learn how to safely handle chemical reagents, glassware and basic apparatus by carrying out basic and preliminary experiments.

Co-requisite: CHEM 100.

### **CHEM 102 INTRODUCTION TO CHEMISTRY II**

**3.0: 3 cr. E**

Basic Chemistry Level II for Freshman students in the Scientific section. Accordingly, the course covers the following topics: types of chemical bonds, electro negativity and polarity, rate of a chemical reaction, half life, chemical equilibrium, Le-Chatelier's principle, Equilibrium in aqueous solutions (acids, bases, buffer), solubility, introduction to organic chemistry: hydrocarbons, hybridization, alkenes and cycloalkanes, alkenes, alkynes, aromatic hydrocarbons, reactions of hydrocarbons, organic compounds containing oxygen, Reaction of oxygen containing organic compounds, organic compounds containing nitrogen, and organic polymers.

Pre-Requisite: CHEM 100.

### **CHEM 103 INTRODUCTION TO CHEMISTRY LABORATORY II**

**0.3: 1 cr. E**

In this laboratory course, Freshman students will carry out experiments such as precipitation, electrical conductivity of solutions, acid-base titration, melting point determination, distillation, etc.

Co-requisite: CHEM 102.

### **CHEM 110 INTRODUCTION TO FOOD CHEMISTRY AND NUTRITION**

**3.0: 3 cr. E**

An introductory course for the exploration of the structure, properties, and chemical composition of food systems and the changes they undergo during processing and under storage. Basic food chemistry provides the student with knowledge of the three primary food constituents: carbohydrates, lipids and proteins and some of the main reactions between them. The Caloric concept of different food components is also discussed.

**CHEM 150 INTRODUCTION TO THE SCIENCE OF COSMETICS****3.0: 3 cr. E**

This is an enjoyable course for all students regardless of their educational formation or background. Cosmetics and toiletries are products of our every day life, ranging from the use of toothpastes, hair gels, deodorants, facial soaps, shampoos, hair conditioners and many others. Understanding how these products are made and how they work will enable you to decide which product to buy and which serves simply as a commercial tool. The student will also become familiar with basic perfume manufacturing process.

At the end of the course, each pupil will “manufacture” his/her own product they chose. The list includes shampoos, shaving creams, toothpastes, hand creams etc...

**CHIN 111 INTRODUCTION TO CHINESE****3.0: 3 cr. Chn**

This course offers an introduction to Chinese language and culture for students with no or little previous experience. The purpose of this course is for students to speak, read and write Chinese at a basic level

**CSIS 100 BASIC COMPUTER APPLICATIONS****2.4: 2 cr. E**

The course is intended to help the students master a number of software packages used in problem solving and daily operations in their different fields. The applications covered are mainly: word processing, spreadsheets, internet and presentations. The course employs a combination of lecture-based delivery of material and experimental hands-on problem solving workshops.

**CSIS 111 INTRODUCTION TO INTERNET AND SOFTWARE****3.0: 3 cr. E**

The course provides a broad introduction to the World-Wide Web and Internet-related software. Topics covered include: the protocols of the web, tools and technologies to creatively participate in basic web development, the impact of the WWW and Internet on issues of personal privacy and computer system security. The course emphasizes several essential skills including critical thinking and ethical reasoning regarding the issues of personal privacy and computer security in the WWW environment.

**CSIS 112 INTRODUCTION TO ALGORITHMS****3.0: 3 cr. E**

This course gives students an introduction to the design and analysis of effective Algorithms. It provides students with an understanding of computing in solving problems. Students will learn the fundamental of logic programming to analyze and design real problems. The course emphasizes on the analysis, design, and construction of Algorithms and Unified Modeling Language (UML) diagrams. Topics covered include: elementary programming, documentation, correctness, control structures, iterations, and functions.

**CSIS 113 APPLIED COMPUTING****3.0: 3 cr. E**

This course provides students with good knowledge of several computing technologies. It is intended to introduce students to the mostly-used software packages in computing. It provides students with a wide acquisition of different areas under the field of computer science. Topics covered include: personal productivity tools, data analysis software, tools and technologies for basic web development, World-Wide Web and Internet-related software.

**ECON 101 FRESHMAN ECONOMICS****3.0: 3 cr. E**

A broad introduction to the field of economics and its principles, both at the micro and macro levels. Topics covered include supply and demand and utility under different market conditions, national income, public finance and international deals.

**ECON 111 Freshman Economics II****3.0 : 3 cr. E**

This course is a broad introduction to the basics of Macroeconomics issues. Topics covered include national

output, economic growth, business cycles, unemployment, inflation, aggregate demand and aggregate supply, fiscal policy, and monetary policy.

**ENGL 101 ENGLISH COMMUNICATION SKILLS I** **5.0: 5 cr. E**

English 101 focuses primarily on the underlying skill of grammar as a basic means to produce error-free sentence writing. Students are exposed not only to traditional sentence patterns but also to outlining and paragraph writing. Training is also given in reading and oral communication.

Pre-requisite: ENGL 003 or TOEFL score 197 or above and EEE below 70.

**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 also introduced.

Pre-requisite: ENGL 101 or TOEFL score between 570 and 597; SAT score of 440-489.

**It is recommended that LISP 200 be a co-requisite**

**ENGL 150 INTRODUCTION TO LITERATURE** **3.0: 3 cr. E**

The aim of the course is to introduce students to the basic literary terms and elements. The course is intended to make students more comfortable with literary terminology used across the spectrum of English courses. The course also equips students with the tools that enable them to understand and appreciate literary works.

**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.

**FHSC 101 SKILLS FOR A HEALTHIER LIFE** **3.0: 3 cr. E**

This course introduces students to basic knowledge about health and healthy lifestyle choices which support their “Well -being”. It examines the interdependence between health, lifestyle and social environment and provides students with practical life skills and techniques that could lead to positive changes in health behaviors and environment . Students are encouraged to apply knowledge and skills to personal and real -life situations.

**FNAT 101 BASIC DRAWING I** **3.0: 3 cr. E**

Meant to be an introductory approach not only to hand skills, but mostly to ways and means of analysis and to dealing with proper understanding of sight. Teaching the eye to be intelligent. Corollary to this are the hand skills.

**FNAT 111 APPRECIATION OF FINE ARTS** **3.0: 3 cr. E**

This course is an introduction to the Arts: such as (but not limited to) Music, Visual, Architecture, Theatre, Dance, and Cinematic. This course focuses on the study and appreciation of the fine and performing arts and the ways in which they reflect the values of civilizations. These different concepts will be explored through hands-on experimentation and/or viewing videos and pictures, discussions, reading and writing assignments.

**FNAT 112 INTRODUCTION TO PAINTING** **3.0: 3 cr. E**

This course introduces painting through color for materials and techniques. Color mixing, composition, ideas and concepts, themes, experimentation with painting materials, and problem solving are addressed.

**FREN 111 INTRO. À LA LANGUE FRANÇAISE****3.0: 3 cr. F**

L'étudiant apprend dans ce cours à faire une manipulation du contexte immédiat de l'expérience quotidienne en français de parler et d'écrire: identifier, décrire et caractériser les personnes, objets, lieux et événements, donner des informations et des instructions, émettre des commandes simples et des demandes.

**GEOG 101 ORGANIZATION OF THE WORLD****3.0: 3 cr. E**

The purpose of this course is to introduce students to the new organization of world space. It will focus on the study of the major economical and political powers as well as the relation between North and West (USA/JAPAN, INDIA/CHINA). The course will analyze the new territorial organization and the international communication and information network, the commercial exchange, the formation of economical alliances, unemployment problems, energy and all new geographical challenges.

**GEOG 111 INTRODUCTIONS TO PHYSICAL GEOGRAPHY****3.0: 3 cr. E**

The course addresses major elements of the natural environment earth/sun relationship, land forms, weather and climate, natural vegetation and soils. It introduces the student to types and uses of maps.

**GEOG 100 INTRODUCTION TO GEOLOGY****3.0: 3 cr. E**

An introduction to earth science from a geological and ecological perspective. Provides information about formation of the Earth and Solar System; evolution of the crust, mantle, and core; weathering and soil formation; hydrology and limnology; and protection of earth resources and environmental sustainability.

**GEOG 111 INTRODUCTION TO MARINE GEOLOGY****3.0: 3 cr. E**

An applied science course designed to educate students about Earth interior and the dynamic nature of our planet. Marine geology has strong ties to physical oceanography. It investigates the ocean floor and coastal margins. These are subjects of extreme importance in providing the critical evidence for sea floor spreading and plate tectonics. The deep ocean floor is the last essentially unexplored frontier, and detailed mapping in support of both military and economic (petroleum and metal mining) objectives is essential.

**HIST 101 THE TWENTIETH CENTURY****3.0: 3 cr. E**

This course presents the evolution of the world from the middle of the Nineteenth Century to the present, beginning with the industrial revolution and the triumph of nationalist states in Europe and their impact on cultural and artistic evolution. It analyzes colonialist expansion and imperialist interests and rivalries during this period. The course emphasizes the outcomes of the First and Second World Wars and on the principal events of our contemporary world such as the 1917 Bolshevik Revolution, the 1929 world economic crisis, the cold war and its effects, and decolonization and development of the Third World.

**HIST 111 HISTORY OF THE ROMAN REPUBLIC****3.0: 3 cr. E**

This course offers a political, social, economic and cultural history of Rome from the city's origins to the establishment of the Roman Empire in the Age of Augustus.

**HIST 112 HISTORY OF THE MIDDLE EAST****3.0: 3 cr. E**

This course surveys the history of the Middle East from the rise of Islam to the present. It traces broadly the formation of an Islamic World over a millennium and follows its engagements with modernity, examining closely the shift from the overarching paradigm of the multi-ethnic/multilingual Ottoman Empire to that of the mono ethnic/monolingual modern nation states. This course covers the political history of the region including the experience of British and French colonialism, the rise of nationalist movements, and the Arab-Israeli conflict, and focuses on its social, intellectual, and cultural history.

**MATH 105 FRESHMAN STATISTICS****3.0: 3 cr. E**

Introduction: What is Statistics; Introduction to distribution; Displaying distributions with graphs, categorical variables, drawing histograms, stem and leaf plot, Boxplot; Describing distributions with numbers, measuring center: the Mean and the Median, measuring spread: the Quartiles and the Standard Deviation ; Examining relationships : Scatterplots, Correlation and Regression line.

**MATH 111 INTRODUCTION TO CALCULUS I****3.0: 3 cr. E**

This Freshman Arts course introduces the trigonometric functions, derivative of basic and trigonometric functions, definite and indefinite integrals, the basic ideas of functions (including limits, continuity, variations and symmetry), graphs of polynomial, rational and trigonometric functions, properties, graphs of logarithmic and exponential functions.

**MATH 112 INTRODUCTION TO CALCULUS II****3.1: 3 cr. E**

This Freshman Science course introduces the basic ideas concerning sequences and their limits, algebraic manipulation, substitution integration techniques, the concept of probability, logarithmic and exponential functions.

Pre-requisite: MATH 111 (only for students holding the Lebanese baccalaureate- LH section, or equivalent)

**MATH 113 INTRODUCTION TO CALCULUS III****3.1: 3 cr. E**

The course covers the following topics: Algebraic manipulation, substitution integration techniques, integration by parts, tabular methods, rational and inverse functions, the concept of differential equations (first and second order), basic operations in the set of complex numbers, applications to Demoiivre's and Euler's formulas, solutions to differential and second order complex equations, analytic geometry.

Pre-requisites: MATH 112.

**NUSC 100 INTRODUCTION TO NUTRITION****3.0: 3 cr. E**

This is an introductory course in nutrition, designed for freshman students. the course covers the basic concepts of nutrition, with an emphasis on the different classes of nutrients - carbohydrates , lipids, proteins, fat soluble and water soluble vitamins , major minerals and water. Moreover, the course introduces students to various topics in nutrition such as the nutrient requirements of the human body, the digestive system, eating disorders, energy balance and healthy body weight, physical activity and the body responses, and the relationship between diet and health. Current nutritional controversies will be discussed and evaluated.

**PART 111 APPROACH TO MUSIC UNDERSTANDING****3.0: 3 cr. E**

This is a practical course, students will learn about some instruments, note reading, values, time signatures and rhythm.

**PART 112 MUSIC: FORM OF ART****3.0: 3 cr. E**

This course offers a description of many kind of music with different styles and genres: Classical music, Rock, Hip-Hop, Metal, Opera and Jazz.

**PHIL 101 INTRODUCTION TO PHILOSOPHY I****3.0: 3 cr. E, A or F**

This course is a general introduction to the concepts and approaches of philosophical studies. Topics may include epistemology (the nature and justification of knowledge), metaphysics (the existence of God), ontology (the nature of being), morality and freedom and determinism. Classic, Medieval (Christian and Islamic) and contemporary readings are examined.

**PHIL 102 INTRODUCTION TO PHILOSOPHY II****3.0: 3 cr. E**

This course offers a survey of modern philosophical development since the Renaissance. The course discusses ethics, morality, truth, epistemology, ontology, metaphysics and science from the perspective of several modern philosophical schools. Philosophical schools may include the Empiricists, Rationalists, Idealists, Materialists, Phenomenologist Existentialists, Logical Analysts, Pragmatists and post-modernists.

Pre-requisites: PHIL 101.

**PHYS 100 INTRODUCTION TO PHYSICS I****3.0: 3 cr. E**

This course will introduce “Freshman Sciences” students to the following concepts in classical mechanics: Physical quantities, standards and units, Vectors and scalars, Velocity and acceleration, Motion in one, two and three dimensions, Newton’s laws, falling bodies, uniform circular motion, Work and energy, power, Kinetic energy theorem, Conservation of total energy, Rectilinear sinusoidal motion, angular sinusoidal motion, Linear and angular momentum collisions, Gravitation.

**PHYS 102 INTRODUCTION TO PHYSICS II****3.1: 3 cr. E**

This course will introduce “Freshman Sciences” students to the following concepts in both electrostatics and electro-magnetism: charges, electrostatic force, electric fields, electric potential and electric potential energy, electric circuit, capacitors, kirchoff’s low, magnetism, magnetic field created by electric currents, Laplac’s force, electro-magnetic induction, and self induction, alternating currents.

Pre-requisites: MATH 112.

**PHYS 110 INTRODUCTION TO PHYSICS III****3.0: 3 cr. E**

This course will introduce students to the following concepts in both classical and modern physics: Newtonian mechanics, fluid mechanics and thermal physics, electricity and magnetism, waves and optics, and atomic and nuclear physics. Knowledge of algebra and basic trigonometry is required for the course. The basic ideas of calculus may be introduced in connection with physical concepts, such as acceleration and work.

**PHYS 111 INTRODUCTION TO PHYSICS LABORATORY I****0.3: 1cr. E**

This laboratory course will include experiments to cover the following topics: error analysis, measurements, position, speed and acceleration, Ballistic pendulum, static and dynamic forces, Atwood’s machine, centripetal force, conservation of mechanical energy, collision, rotational inertia, simple harmonic motion and torsion pendulum .moment of a force, statics, radioactivity

**PHYS 113 INTRODUCTION TO PHYSICS LABORATORY II****0.3: 1cr. E**

This laboratory course will include experiments to cover the following topics: electrostatics, electrification, electric field, Ohm’s law and resistivity, basic oscilloscope operations, Wheatstone bridge, capacitance and dielectric constants, RL and RC circuits, magnetic fields, measurement of magnetic induction fields, RLC series circuits, transformers, and current balance

**PSIA 101 INTRODUCTION TO POLITICAL SCIENCES I****3.0: 3 cr. E**

This course provides the students at the Freshman level with the basic foundation and framework of knowledge about political science: What is political science? Why is it called a science? The answer to these two questions will be provided by exposing students to the different definitions of politics, the different approaches to the study of political science, the different tools of political analysis, and the four major elements of political science: Comparative politics, political ideologies and philosophy, public administration and international relations.

**PSIA 102 INTRODUCTION TO POLITICAL SCIENCES II****3.0: 3 cr. E**

This course provides the students at the Freshman level with careful explanations and analysis of a number of topics in political science, including, but not necessarily limited to, political power, forms and machineries of governments, democracy, the nation, the state, political ideologies, political interaction and global politics.

Pre-Requisite: PSIA 101.

**PSYC 101 INTRODUCTION TO PSYCHOLOGY I****3.0: 3 cr. E, A, or F**

This is an introductory course, which surveys the development of psychology from its inception up to the present, with emphasis on major concepts and schools. Class lectures and discussions are supplemented with a textbook and selected readings.

**PSYC 102 INTRODUCTION TO PSYCHOLOGY II****3.0: 3 cr. E**

This course is a continuation of PY 101 with more concentration on, and exposition of, modern psychological theories and concepts. Special emphasis is placed on the relationship between psychology and the other fields of studies in Arts and Social Sciences. Class lectures and discussions are supplemented with textbook and selected readings.

Pre-Requisite: PSYC 101.

**SOCL 101 INTRODUCTION TO SOCIOLOGY I****3.0: 3 cr. E, A, or F**

This course will involve a comprehensive introduction to the study of sociology. It focuses on identifying, explaining, and interpreting, concepts, principles, patterns and processes of human social relations. This is done by exposing the students to a systematic study of social structures, interactions, and social forces in society. Students registered for this course will first be introduced to the different definitions of sociology, its problems and perspectives. They will be then exposed to themes such as culture, society, socialization, conformity, deviance, gender, social stratification, etc. Upon completion of the requirements of the course, the students will be familiar with a sociological perspective they can apply to their own reality. They will be able to understand the major social forces that shape who they are, what they believe, and how they choose to live their lives.

**SOCL 102 INTRODUCTION TO SOCIOLOGY II****3.0: 3 cr. E**

This course is an introductory overview of sociology. It will start by exposing the students to the existing social institutions such the kingship, the family, the marriage, etc. It will as well study the different social changes taking place in the modern world. In that regard, students registered for this course will be exposed to themes such as globalization of social life, urbanization, revolutions and social movements, etc. Furthermore, they will learn the basic sociological approaches, theories and methods that are used by sociologists. They as well will be exposed to the different theoretical developments that took place in the field of sociology in the last decades. Upon completion of the requirements of this course, students will have a clear understanding of the major sociological orientations. They will be able to apply these orientations to social situations and problems. They will be as well more aware of the relevance of sociology and sociological research to their lives and to their future professions and careers.

Pre-Requisite: SOCL 101.

**SPAN 111 INTRODUCTION TO SPANISH****3.0: 3 cr. S**

This course provides an introduction to Spanish linguistics. The course begins with an exploration of the sound system of Spanish and its theoretical representation. Students learn the discussion with topics in Spanish morphology such as word formation and verbal inflection.

## **2. SPECIAL ORIENTATION PROGRAM (SOP)**

The University of Balamand offers a special orientation program in order to prepare students for acceptance into the appropriate faculties. The program is offered to students who had their secondary education in a language other than English, or lack the required proficiency in the English language. Those students must hold a High School Diploma equivalent to the Lebanese Baccalaureate.

**Usually students have a period of one year to finish this program.**

### **2.1 ADMISSIONS AND REGISTRATION**

- Applicants must submit an application form to the Office of Admissions and Registration.
- Applicants should sit for a placement test to evaluate their English Language Proficiency, in addition to the TOEFL test (Institutional or International).
- Applicants will sit for a placement test in the Arabic Language.

**For information on placement tests, refer to the Office of Admissions and Registration.**

### **2.2 CURRICULUM**

SOP students have to take a number of courses depending on the selected major, in addition to the English Language requirements.

#### **(a) Engineering Majors:**

MATH 002 & PHYS 001

#### **(b) Science Majors:**

i- Computer Science:

MATH 002

ii- Mathematics:

MATH 002

iii- Physics:

MATH 002 & PHYS 001.

iv- Basic Sciences Program, Faculty of Health Sciences and any Pre-Medicine Program:

MATH 002, and two of: PHYS 001, CHEM 001 or BIOL 001.

#### **(c) Business and Management Majors:**

SOP Math- Arts (MATH 001)

#### **(d) ALBA Majors**

MATH 002

## **COURSE DESCRIPTIONS**

### **BIOL 001 SOP BIOLOGY**

**3.0: 0 cr. E**

This course covers the organization of life, cell structure, cell division, classification, and energy transfer through living organisms.

### **CHEM 001 SOP CHEMISTRY**

**3.0: 0 cr. E**

This is Basic Chemistry course. It covers the following topics: Atomic Theory, Stoichiometry, Oxidation & Reduction, Ideal Gas Laws, Quantum Chemistry, Chemical Equilibrium and an introduction to Organic Chemistry.



**MATH 001 SOP MATH- ARTS****3.0: 0 cr. E**

Equalities and Inequalities: Equation of a Straight Line. Notions about Limits. Derivatives: Rules, Applications. Function of Second and Third degree: Asymptotes, Rational Functions, Graphical Interpretation, Equation of Tangent, Element of Symmetry. Notion about Logarithm, Exponential and. Simple Integrals.

**MATH 002 SOP MATH-SCIENCE****3.0: 0 cr. E**

Derivative: Definition, Formulas and Applications. Indefinite and Definite Integrals: Properties, Applications. Logarithmic and Exponential Functions: Properties, Graph, Applications. Differential Equations: Linear First Order and Second Order, General problems.

**MATH 005 REMEDIAL CALCULUS****3.0: 0 cr. E**

The course introduces students to the following topics in basic calculus: Equations, inequations, absolute value, remarkable identities, factorization, binomial formulas, trigonometry (basic formulas, transformation formulas, trigonometric equations and graphs), notion about limit and study of the indeterminate form, derivatives, anti-derivative, indefinite and definite integrals.

**PHYS 001 SOP PHYSICS****3.0: 0 cr. E**

This course covers the basic concepts of mechanics within the context of the Newtonian theory, kinematics motion of a particle, dynamics, work and energy conservation, momentum conservation, circular motion, mechanical system in rational equilibrium, angular momentum conservation and direct alternating currents.

**PHYS 005 REMEDIAL PHYSICS****3.0: 3 cr. E**

The course introduces students to the following topics in basic physics: position, displacement, velocity and acceleration of a mobile, forces involved in a problem, Newton's second Law, energy: kinetic and potential, work and conservation of mechanical energy, electric charge and electrostatic force and field, electric current, resistors, generators and receivers, magnetic field and induced electric current.

**2.3 COMPLETION OF PROGRAM**

Upon successful completion of the course, the student may enter a full-time university program or be re-admitted into another SOP program.

**3. SERVICE EXPERIENCE: EDUCATION THROUGH DOING (SEED)****3.1 MISSION STATEMENT**

Service-learning is a proactive approach to education that combines students' work in the classroom with community service activities directly related to the subject matter of the course. SEED strives to prepare students for their future roles in their respective societies in at least two ways. First, students acquire practical experience of what they learn as theory in the classroom. Second, by volunteering themselves for community service, they can practice and develop the skills and concepts essential for good citizenship. The ultimate combination of these two factors will produce not only better prepared professionals, but also citizens who are a) conscientious of their obligations towards their community, and b) committed to the preservation and building of a strong community.

**3.2 PROGRAM DESCRIPTION**

The University of Balamand (UOB) has a community service program built on the philosophy of service learning, a pedagogical method that unites classroom theory with practical work in the community. This Service Experience: Education through Doing (SEED) program constitutes of one credit bearing courses offered at the undergraduate level. Each course is free of charge to all students who wish to engage in community service

and gain a meaningful experience from it. The SEED student, a regular BS/BA UOB student, can register a maximum number of three SEED courses [1] - one per semester - adding up to three-free-credits, an equivalent to a regular free elective course (if acceptable within the curriculum of the Department that the student belongs to). The SEED course requests each student to undergo forty hours (40) of community service for each course he/she registers, thereby making available to the wider community the University's numerous resources.

SEED courses provide students with opportunities to use newly-acquired skills and knowledge in real-life situations in their own communities. The SEED program provides structured time for students to think, talk, or write about what they did and saw during the actual service activity. The SEED program promotes citizenship and volunteerism in its students, a fundamental component of the University's mission.

SEED students meet real community needs by taking part in projects proposed by UOB community partners [2] and that is coordinated in partnership with the university. Assessment is based on the evaluation of the community partners to the quality of work and time that the student has provided to the community on the one hand. On the other hand, the students need to submit a report to the SEED office at UOB by the end of the semester. The report is a reflection piece of about 3-4 pages in which the SEED students write about the functions they played, the learning they experienced, the service they provided, the skills they gained and also give their opinions about recommendations for improvement.

Students may join the SEED program for the following reasons:

- Provide community service: in this respect the student must have the skills (qualified) for the requested project. Such skills need to be assessed by the community partner and the university.
- Learn a new skill to apply it for community service: in this respect the community partner has to provide the proper training prior to commencing work on the project.

*1-For exceptional cases, such as graduation, a student may register for two SEED courses per semester.*

*2-Community partners include NGOs, municipalities, foundations, not-for-profit firms, UOB programs/offices/centers/laboratories etc, which are involved in community services.*

## **COURSES DESCRIPTIONS**

### **SEED 201 THE SOCIAL SERVICE EXPERIENCE**

**0.4: 1 cr. E**

Students enrolled in this course will take part in projects (research, surveys, statistics, volunteer work, field study, training, etc) that deal with social issues such as: poverty, child labor laws, unprivileged children, the elderly, disabled people and their rights, the rights of women, raising awareness (social, civic, health, public health and safety), etc.

### **SEED 202 THE EDUCATION SERVICE EXPERIENCE**

**0.4: 1 cr. E**

Students enrolled in this course will take part in projects (research, surveys, statistics, volunteer work, field study, training, etc) that deal with education and continuing education issues. Such issues deal with illiteracy, providing a support system in schools for students not doing well, building up professional and personal skills, tutoring, assisting and mentoring students with special needs (requires professionally qualified volunteers), etc.

### **SEED 203 THE ENVIRONMENT SERVICE EXPERIENCE**

**0.4: 1 cr. E**

Students enrolled in this course will take part in projects (research, surveys, statistics, volunteer work, field study, training, etc) that deal with environmental issues such as: pollution, renewable energy, recycling, reforestation, sewage and solid waste treatment, and raising awareness (environmental, pollution exposure risk assessment, health, public health and safety), etc.

## **SEED 204 THE COMMUNITY SERVICE EXPERIENCE**

**0.4: 1 cr. E**

Students enrolled in this course will take part in projects (research, surveys, statistics, volunteer work, field study, training, etc) that deal with community service in its general terminology. This involves collaboration with foundations, municipalities, charity organizations, and not-for-profit firms.

## **4. THE CONTINUING EDUCATION PROGRAM (CEP)**

The Continuing Education Program works in cooperation with the academic units of the University to plan, coordinate, facilitate and provide administrative support for delivering both credit and non-credit offerings to various sectors of the community based on their needs.

The Continuing Education Program is divided into two segments:

- (a) The first segment includes those members of the community who enrol in regular university courses to upgrade their knowledge and skills in areas related to their specialisations or in areas of interest to them. Students enrolled in regular university courses may attain a grade for the courses on the basis of the evaluation criteria explicitly stated in the course syllabus provided by the instructor at the beginning of the course or may choose to attend the courses without sitting for the exams upon which they are granted a certificate of completion.
- (b) The second segment includes those members of the community who enrol in courses that have been tailored to meet specific educational and professional needs. These courses may be in the form of short courses, workshops and seminars designed to facilitate the continued development of the enrolled person. Students enrolled in these courses or workshops will receive certificates of completion or attendance.

### **4.1 ADMISSIONS AND REGISTRATION**

#### **4.1.1 Registration Procedures**

- The candidate must first make an appointment with the CEP academic advisor to discuss the requirements. The academic advisor will advise the candidate of all University regulations and procedures.
- The candidate must then fill in an application form and submit it to the Office of Admissions and Registration before the deadline. The Office of Admissions and Registration then forwards the application to the Director of Special Programs for his consideration and decision.
- The Director of CEP, after consultations with the appropriate Faculty informs the candidate in writing of the decision and the requirements to be met.
- Upon receipt of the admission letter, the candidate must either sit for an English placement test if required or directly register for the requested and approved courses with the CEP advisor. The candidate is then responsible for finalizing registration through the Office of Admissions and Registration.

#### **4.1.2 Important Remarks**

- Usually no placement tests are necessary for enrolment in CEP course. The required placement tests, if any, will be stated in the admission letter received by the applicant from the Office of Admissions and Registration.

### **4.2 CURRICULUM**

#### **4.2.1 Regular Courses**

These courses are regular university courses that may be taken by non-traditional university students. Students within this category pay the full cost of the course, may attain a grade and will receive a certificate for satisfactory completion of the course. The course may also count towards a future quest of the relevant degree.

#### **4.2.2 CEP “AUDIT” Courses**

These courses are regular university courses that may be taken by non-traditional university students. “Audit” students may enroll in “regular” classes and they pay half the cost of the course. “Audit” students will not undergo testing or assessment and will only receive a certificate of completion of the course. The course does not count towards a future quest of the relevant degree, but is rather taken for professional development purposes.

#### **4.2.3 CEP Seminars & “Short 24-hour” courses**

Students within this category request for courses, to cover specific educational and professional needs, which are not found within a “regular” university course. Attendees will receive certificates of attendance upon completion of the course. These courses are not equivalent to any of the “regular” courses and does not count towards a future quest of the relevant degree. Such courses include: Languages, Computer, Art, etc.

#### **4.2.4 CEP Tutorial “Intensive Language” course**

Intensive language courses are designed for students who want to learn a new language: Arabic, English, French, etc. Intensive language courses cover topics such as: text and translation, reading and conversation, grammar, dictation, listening, and composition. Depending on the level of students and their need as assessed by the instructor, students may register in one of the two courses:

An 8-credit course (120 hrs of instruction)

A 5-credit course (75 hrs of instruction)

A none-credited course (40 hrs of instruction).

Based on the nature of the courses, both courses are offered as tutorial with a maximum of 3 students in class. Accordingly, the schedule for each of the two courses is set following consultation with the instructor and the students.

#### **4.2.5 CEP “Admission Tests” preparatory courses**

In general, the CEP program is offering SAT Classroom Preparatory courses.

The SAT (Scholastic Aptitude Test or Scholastic Assessment Test) is a standardized examination that most high school students take before applying for a University (at both the Freshman and the Sophomore years). The CEP program offers the SAT preparatory course to cover 28 hours of English and 16 hours of Mathematics. The course focuses on providing the students with the information and the skills needed to approach the examination. The course is normally opened for second and third secondary school students.

#### **CEP “Vocational” courses**

Drawing, Cooking, Accessory Design, Clay Modeling.....