

**FACULTY OF MEDICINE &  
MEDICAL SCIENCES**

**ST. GEORGE FACULTY OF  
POSTGRADUATE MEDICAL  
EDUCATION**

# **FACULTY LIST**

## **OFFICERS OF THE FACULTY**

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
Nassar, Camille	Dean
Moubayed, Walid	Dean of Admissions and Registration
Ayoub, Olga	Librarian

## **FACULTY STAFF**

Abdallah, Chirine	Secretary
Al-Ammar, Monzer Grace	Secretary
Chaar, Madi Micheline	Executive Secretary
Copti, Razzouk Majd	Executive Secretary
Daher, Marie Claude	Academic Assistant
Farah, George	Administrative Assistant
Makary, Sally	Secretary

## **FACULTY MEMBERS**

### **DEPARTMENT OF BIOMEDICAL SCIENCES**

#### **Dr. Maha KHACHAB– Chairperson**

BAHR Georges	Professor of Immunology and Virology
ECHTAY Karim	Professor of Biochemistry
DAOUD Ziad	Professor of Clinical Microbiology
NASSAR Camille	Professor of Physiology
ZAHED Laila	Professor of Cytogenetics
KHACHAB Maha	Associate Professor of Neuroscience and Physiology
HAWI Jihad	Assistant Professor of Anatomy
KANAAN Amjad	Assistant Professor of Physiology
OJAIMI (AL) Maud	Assistant Professor of Pediatrics and Pharmacology
NABBOUT Ghassan	Assistant Professor of Surgery and Anatomy
DOUEIHY Youssef	Lecturer- General Surgery- Anatomy
HALABI Jamil	Lecturer – General Surgery – Anatomy
NEHME Ziad	Instructor – Medical Engineering
OSMAN Samira	Research Assistant

### **UNIVERSITY HEALTH CENTER**

#### **Dr. Antoun SALEM- Coordinator**

JURAYJ Wafaa	Internal Medicine (Infectious Diseases)
NASSIF SALEH Doris	Family Medicine
OJAIMI (AL) Maud	Pediatrics
RAZZOUK Jibrayil	Family Medicine
SALEM Antoun	Internal Medicine (Gastroenterology)

**DEPARTMENT OF MEDICINE**  
**Dr. Georges JUVELIKIAN-Chairman**

AFIF Claude	Professor of Clinical Medicine (Infectious Diseases)
AKAR Joseph	Professor of Clinical Medicine (Cardiology)
BAHOUS Joudy	Professor of Clinical Medicine (Pulmonary Medicine)
CHAMSEDDINE Nabil	Professor of Clinical Medicine (Hematology / Oncology)
KARAM Nadim	Professor of Health Sciences & Family Medicine
WAKED Mirna	Professor of Clinical Medicine (Pulmonary Medicine)
AOUN Jean Paul	Clinical Professor of Medicine (Gastroenterology)
NASR Edgar	Clinical Professor of Medicine (Nephrology)
LAMEIRE Norbert	Adjunct Professor of Medicine (Nephrology)
ABI RACHED MEGARBANE Hala	Associate Professor of Clinical Dermatology
AMMOURY Alfred	Associate Professor of Clinical Dermatology
AZAR Eid	Associate Professor of Clinical Medicine (Infectious Diseases)
BASSIL Nazem	Associate Professor of Clinical Family Medicine
CHIDIAC WEHBE Rita Maria	Associate Professor of Clinical Medicine (Endocrinology)
CHOUAIRI Salah	Associate Professor of Family Medicine (Cardiology)
FARHAT Said	Associate Professor of Clinical Medicine (Gastroenterology)
JABBOUR Rosette	Associate Professor of Clinical Medicine (Neurology)
JUVELEKIAN Georges	Associate Professor of Clinical Medicine (Pulmonary Medicine)
SAAD (EL) DEBAHY Nada	Associate Professor of Clinical Dermatology
SAID Rabih	Associate Professor of Clinical Medicine (Hematology / Oncology)
AOUAD Antoine	Clinical Associate Professor of Medicine (Neurology)
DIB Hisham	Clinical Associate Professor of Medicine (Cardiology)
KARAM EL KEHDY Paula	Clinical Associate Professor of Dermatology
SAAD Antoine	Clinical Associate Professor of Medicine (Infectious Diseases)
ABBOUD Johny	Assistant Professor of Clinical Medicine (Cardiology)
ABOU JAOUDE Fadi	Assistant Professor of Clinical Medicine (Cardiology)
ABOU SALBI Michel	Assistant Professor of Clinical Family Medicine
AZAR Lama	Assistant Professor of Clinical Medicine (Rheumatology)
BEDRAN Khalil	Assistant Professor of Clinical Medicine (Gastroenterology)
BOU KHALIL-FARHAT Roula	Assistant Professor of Clinical Medicine (Endocrinology)
CHAHROURI Joseph	Assistant Professor of Clinical Medicine (Rheumatology)
CHARBEL Paul	Assistant Professor of Clinical Medicine (Cardiology)
CORTAS Georges	Assistant Professor of Clinical Medicine (Gastroenterology)
GHARIB Nader	Assistant Professor of Clinical Medicine (Cardiology)
GHOLAM Dany	Assistant Professor of Clinical Medicine (Hematology/ Oncology)
HABRE Maya	Assistant Professor of Clinical Medicine (Dermatology)
HABER Roger	Assistant Professor of Clinical Medicine (Dermatology)
JOUBRAN-FARES Najat	Assistant Professor of Clinical Medicine (Nephrology)
JABBOUR Gide	Assistant Professor of Clinical Medicine (Gastroenterology)

KARAM Sabine	Assistant Professor of Clinical Medicine (Neurology)
KHOURY Mounir	Assistant Professor of Clinical Medicine (Neurology)
KHOURY Nabil	Assistant Professor of Clinical Medicine (Pulmonary Medicine)
KHOURY (EL) Salem	Assistant Professor of Clinical Medicine (Gastroenterology)
KOBROSSY Bassim	Assistant Professor of Clinical Medicine (Hematology / Oncology)
MAALOUF Assaad	Assistant Professor of Clinical Medicine (Cardiology)
MAALOUF Diane	Assistant Professor of Clinical Medicine (Dermatology)
MAALOUF Nancy	Assistant Professor of Clinical Medicine (Neurology)
MAKDESSI Joseph	Assistant Professor of Clinical Medicine (Hematology / Oncology)
MOURAD-AJAKA Aline	Assistant Professor of Clinical Medicine (Neurology)
SAWAN Carla	Assistant Professor of Clinical Medicine (Endocrinology)
STEPHAN Elias	Assistant Professor of Clinical Family Medicine
WANSA Nader	Assistant Professor of Clinical Medicine (Cardiology)
AZAR Nabil	Adjunct Assistant Professor of Medicine (Neurology)
HAJJ (EL) Mirna	Clinical Assistant Professor of Medicine (Hematology / Oncology)
RASSAM Paul	Clinical Assistant Professor of Medicine (Gastroenterology)
TOUMA Dany	Clinical Assistant Professor of Medicine (Gastroenterology)
WAKIM Saria	Clinical Assistant Professor of Medicine (Endocrinology)
ATALLAH Paola	Lecturer of Clinical Medicine (Endocrinology)
DERIAN Jean	Lecturer of Clinical Medicine (Allergology)
ASFAR Elias	Clinical Lecturer of Medicine (Allergology)
HITTI Michel	Clinical Lecturer of Medicine (Rheumatology)
ABOU RIZK Fadi	Instructor of Clinical Medicine (Pulmonary Medicine)
CHALLITA Antoine	Instructor of Clinical Family Medicine
GERGES Zeina	Instructor of Clinical Family Medicine
HABIB Pierrette	Instructor of Clinical Medicine (Cardiology)
ABOU JAOUDE Walid	Clinical Instructor of Medicine (Nephrology)
HALLAK Mona	Clinical Instructor of Medicine (Gastroenterology)
RAHI (EL) Sami	Clinical Instructor of Medicine (Neurology)
SAYED (EL) Ali	Clinical Instructor of Medicine (Cardiology)
SFEIR Mireille	Clinical Instructor of Medicine (Pulmonary Medicine)
KAADI Noura	Clinical Associate
REBEIZ Celine	Clinical Associate
BRAX Hneine	Clinical Associate

**DEPARTMENT OF SURGERY**  
**Dr. Michel JABBOUR-Chairman**

ABOU KHALIL Bassam	Professor of Clinical Surgery (Cardiothoracic Surgery)
RASSI (EL) Ziad	Professor of Clinical Surgery (General Surgery)
ABOU JAOUDE Maroun	Clinical Professor of Surgery (General Surgery)
DAHER Michel	Clinical Professor of Surgery (General Surgery)
DAOU Robert	Clinical Professor of Surgery (General Surgery)
NACHANAKAIN Antoine	Clinical Professor of Surgery (Neurosurgery)

ASSAF George	Associate Professor of Clinical Surgery (Urology)
CHIKHANY Ghassan	Associate Professor of Clinical Surgery (Vascular Surgery)
GHAZAL Georges	Associate Professor of Clinical Surgery (Urology)
HAGE Paul	Associate Professor of Clinical Surgery (Neurosurgery)
HAJJ Imad	Associate Professor of Clinical Surgery (General Surgery)
JABBOUR Michel	Associate Professor of Clinical Surgery (Urology)
KHOURY (EL) Mansour	Associate Professor of Clinical Surgery (General Surgery)
KREIDY Raghid	Associate Professor of Clinical Surgery (Vascular Surgery)
DIAB Nabil	Clinical Associate Professor of Surgery (Pediatric Surgery)
ZEIDAN Smart	Clinical Associate Professor of Surgery (Pediatric Surgery)
ABDELNOUR Amir	Senior Lecturer of Clinical Surgery (General Surgery)
HOJEILI Souheil	Clinical Senior Lecturer of Surgery (Plastic Surgery)
FEGHALY (EL) Michel	Assistant Professor of Clinical Surgery (Vascular Surgery)
GHANTOUS Imad	Assistant Professor of Clinical Surgery (Urology)
IBRAHIM Ibrahim	Assistant Professor of Clinical Surgery (Neurosurgery)
KHOURY (EL) Fouad	Assistant Professor of Clinical Surgery (Urology)
ZANKOUL Fuad	Assistant Professor of Clinical Surgery (Cardiothoracic Surgery)
BAAKLINI Gerges	Assistant Professor of Clinical Surgery (Vascular Surgery)
ABDELHAK Elie	Clinical Assistant Professor of Surgery (Plastic Surgery)
ABI GHANEM Moussa	Clinical Assistant Professor of Surgery (Cardiothoracic Surgery)
ALAYWAN Moussa	Clinical Assistant Professor of Surgery (Neurosurgery)
MALEK Alexandre	Clinical Assistant Professor of Surgery (General Surgery)
MATTA Reva	Clinical Assistant Professor of Surgery (Pediatric Surgery)
MEDAWAR Charbel	Clinical Assistant Professor of Surgery (Plastic Surgery)
NOHRA Joe	Clinical Assistant Professor of Surgery (Urology)
YOUSSEF Pierre	Clinical Assistant Professor of Surgery (Cardiothoracic Surgery)
HACHACHE (EL) Khalil	Clinical Lecturer of Surgery (General Surgery)
HAJJAR Nicolas	Clinical Lecturer of Surgery (General Surgery)
ABI NAKHOUL Fadi	Clinical Instructor of Surgery (Plastic Surgery)
ARBID Bahaa	Clinical Instructor of Surgery (Plastic Surgery)
LAWAND DAOU Souhaïla	Clinical Instructor of Surgery (Plastic Surgery)

## **DEPARTMENT OF OPHTHALMOLOGY**

**Dr. Elias WARRAK– Chairman**

KHOURY Ghassan	Clinical Associate Professor of Ophthalmology
WARRAK Elias	Clinical Associate Professor of Ophthalmology
FAKHOURY Omar	Clinical Associate Professor of Ophthalmology
FARAH Samir	Clinical Assistant Professor of Ophthalmology
MAALOUF Fadi	Clinical Assistant Professor of Ophthalmology
NASR Youssef	Clinical Assistant Professor of Ophthalmology
SALIBA DAHER Lina	Clinical Lecturer of Ophthalmology
ALAM (EL) Dany	Clinical Instructor of Ophthalmology

## **DEPARTMENT OF ORTHOPEDIC SURGERY**

**Dr. Alexandre NEHME – Chairman**

WEHBE Joseph	Professor of Clinical Orthopedic Surgery
MOUCHARAFIEH Ramzi	Clinical Professor of Orthopedic Surgery
HADDAD Fady	Associate Professor of Clinical Orthopedic Surgery
NEHME Alexandre	Associate Professor of Clinical Orthopedic Surgery
RASSI (EL) Georges	Associate Professor of Clinical Orthopedic Surgery
CORTBAOUI Chawki	Senior Lecturer of Clinical Orthopedic Surgery
DAOU Elie	Assistant Professor of Clinical Orthopedic Surgery
JABBOUR Fouad	Assistant Professor of Clinical Orthopedic Surgery
MELKI Roger	Clinical Assistant Professor of Orthopedic Surgery
TANNOUS Ziad	Clinical Assistant Professor of Orthopedic Surgery
HIJJAWI Ayman	Clinical Assistant Professor of Orthopedic Surgery
HABIB Assaad	Clinical Lecturer of Orthopedic Surgery
HADDAD (EL) Ibrahim	Clinical Instructor of Orthopedic Surgery
RIACHI Marc	Clinical Instructor of Orthopedic Surgery

## **DEPARTMENT OF OTORHINOLARYNGOLOGY HEAD AND NECK SURGERY**

**Dr. Jihad KHOURY – Chairman**

TOHME Souheil	Clinical Professor of Otorhinolaryngology-Head & Neck Surgery
CHAMI Gabriel	Associate Professor of Clinical Otorhinolaryngology-Head & Neck Surgery
FATA (EL) Fouad	Associate Professor of Clinical Otorhinolaryngology-Head & Neck Surgery
JAKLIS Antoine	Associate Professor of Clinical Otorhinolaryngology-Head & Neck Surgery
KHOURY Jihad	Associate Professor of Clinical Otorhinolaryngology-Head & Neck Surgery
FAKHOURY Raja	Assistant Professor of Clinical Otorhinolaryngology-Head & Neck Surgery
HAWAT (AL) Anthony	Assistant Professor of Clinical Otorhinolaryngology-Head & Neck Surgery
KARDOUS Raffle	Clinical Lecturer of Clinical Otorhinolaryngology-Head & Neck Surgery
SNAIFER Patrick	Instructor of Clinical Otorhinolaryngology-Head & Neck Surgery
ADHAMI Maya	Clinical Instructor of Otorhinolaryngology-Head & Neck Surgery

## **DEPARTMENT OF OBSTETRICS AND GYNECOLOGY**

**Dr. Rana SKAF SFEIR – Chairperson**

KEHDY (EL) Georges	Associate Professor of Clinical Obstetrics and Gynecology
ARIDA Bahige	Senior Lecturer of Clinical Obstetrics and Gynecology
GHANEM Joseph	Clinical Senior Lecturer of Obstetrics and Gynecology
ANASTASIADES Elie	Assistant Professor of Clinical Obstetrics and Gynecology

CHAMMAS Mary  
HAJAL (EL) Elias  
HAJAL (EL) Nadim  
SKAF-SFEIR Rana  
SNAIFER Elie  
ROUHANA FEGHALY Joe  
KHALIFE Joe  
NOHRA Charles  
PAPAS Ralph

Assistant Professor of Clinical Obstetrics and Gynecology  
Assistant Professor of Clinical Obstetrics and Gynecology  
Assistant Professor of Clinical Obstetrics and Gynecology  
Assistant Professor of Clinical Obstetrics and Gynecology  
Assistant Professor of Clinical Obstetrics and Gynecology  
Instructor of Clinical Obstetrics and Gynecology  
Clinical Instructor of Obstetrics and Gynecology  
Clinical Instructor of Obstetrics and Gynecology  
Clinical Instructor of Obstetrics and Gynecology

## **DEPARTMENT OF ANESTHESIOLOGY**

**Dr. Wissam THOME – A/Chairman**

SFEIR Samia  
JALBOUT Nadim  
HOBEIKA Samia  
DARWICH Rola  
KAFROUNI Hazem  
MANSOUR Nabil  
TOHME Wissam  
AROUSTAMIAN Silva  
FADEL Ziad  
KAWKABANI Nadine  
KARAVETIAN Boghos  
HAJJ (EL) Viviane  
TABBAL Jean Elie  
MAROUN Walid  
SFEIR Roupheal

Associate Professor of Clinical Anesthesiology  
Clinical Associate Professor of Anesthesiology  
Clinical Senior Lecturer of Anesthesiology  
Assistant Professor of Clinical Anesthesiology  
Assistant Professor of Clinical Anesthesiology  
Assistant Professor of Clinical Anesthesiology  
Assistant Professor of Clinical Anesthesiology  
Clinical Assistant Professor of Anesthesiology  
Clinical Assistant Professor of Anesthesiology  
Clinical Assistant Professor of Anesthesiology  
Clinical Assistant Professor of Anesthesiology  
Clinical Lecturer of Anesthesiology  
Instructor of Clinical Anesthesiology  
Instructor of Clinical Anesthesiology  
Instructor of Clinical Anesthesiology  
Clinical Instructor of Anesthesiology

## **DEPARTMENT OF PSYCHIATRY & PSYCHOLOGY**

**Dr. John FAYYAD – Chairman**

KARAM Elie  
AKISKAL Hagop  
FAYYAD John  
NASSER KARAM Aimée  
KARAM Georges  
CASSIR HADDAD Youmna  
CORDAHI TABET Caroline

Professor of Clinical Psychiatry  
Adjunct Professor of Psychiatry  
Associate Professor of Clinical Psychiatry  
Associate Professor of Clinical Psychology  
Assistant Professor of Clinical Psychiatry  
Instructor of Clinical Psychology  
Instructor of Clinical Psychology

## **DEPARTMENT OF PEDIATRICS**

**Dr. Elie ARAMOUNI – Chairman**

ABOU CHARAF Charaf  
CHAKAR RABAY Hilda  
HADDAD Joseph  
SACY Robert  
YAZIGI JAMES Aïda  
ARAMOUNI Elie  
BAZ Zeina

Professor of Clinical Pediatrics  
Professor of Clinical Pediatrics  
Professor of Clinical Pediatrics  
Professor of Clinical Pediatrics  
Clinical Professor of Pediatrics  
Associate Professor of Clinical Pediatrics  
Associate Professor of Clinical Pediatrics

GHABRIL Ramy	Associate Professor of Clinical Pediatrics
HAGE Pierre	Associate Professor of Clinical Pediatrics
HAMOD (AL) Dany	Associate Professor of Clinical Pediatrics
HMAIMESS Ghassan	Associate Professor of Clinical Pediatrics
KAMEL Raymond	Associate Professor of Clinical Pediatrics
NASSIF Yolla	Associate Professor of Clinical Pediatrics
FARAH Roula	Clinical Associate Professor of Pediatrics
RAJAB NAJA Mariam	Clinical Associate Professor of Pediatrics
SAHYOUN Samira	Clinical Associate Professor of Pediatrics
ABOU JAOUDE Pauline	Assistant Professor of Clinical Pediatrics
CHOUKAIR Mary	Assistant Professor of Clinical Pediatrics
KHOURY (EL) Dany	Assistant Professor of Clinical Pediatrics
MANSOUR Hicham	Assistant Professor of Clinical Pediatrics
MATTA Judy	Assistant Professor of Clinical Pediatrics
FAYAD Wissam	Assistant Professor of Clinical Pediatrics
MOUAWAD Pierre	Assistant Professor of Clinical Pediatrics
AZZI Antonio	Clinical Assistant Professor of Pediatrics
NOUN Peter	Clinical Assistant Professor of Pediatrics
SAYAD Alain	Clinical Assistant Professor of Pediatrics
SOKHN Maroun	Clinical Assistant Professor of Pediatrics
BECHARA Elie	Instructor of Clinical Pediatrics
KARAM Simon K.	Clinical Instructor of Pediatrics

#### **DEPARTMENT OF MEDICAL IMAGING**

**Dr. Raja ASHOU – Chairman**

ACHRAM Mitri	Professor of Clinical Medical Imaging
CHAMSEDDINE Abbas	Clinical Professor of Medical Imaging
ASHOU Raja	Associate Professor of Medical Imaging
CHEMALI Rami	Associate Professor of Medical Imaging
ADEM Carmen	Assistant Professor of Medical Imaging
ZOUENIN Nicholas	Clinical Assistant Professor of Medical Imaging
FAYAD Emilie	Instructor of Medical Imaging
ABI GHOSN Jean	Clinical Instructor of Medical Imaging

#### **DEPARTMENT OF PATHOLOGY**

**Dr. Fatima GHANDOUR – Chairman**

MANSOUR Amira	Professor of Pathology
ABDUL KARIM Fadi	Adjunct Professor of Pathology
GHANDOUR HAJJ Fatima	Associate Professor of Pathology
MEGUERIAN BEDOYAN Zarouhie	Assistant Professor of Pathology
CHOUAIRY Camil	Assistant Professor of Pathology
SAWAN Bassem	Assistant Professor of Pathology
ARNAOUT Micheal	Clinical Associate in Pathology



**DEPARTMENT OF LABORATORY MEDICINE**

**Dr. Noha HAKIME – Chairperson**

IRANI-HAKIME Noha  
SAMAHAN Hanady

Professor of Clinical Laboratory Medicine  
Associate Professor of Clinical Laboratory  
Medicine

NAOUFAL Rania

Assistant Professor of Clinical Laboratory  
Medicine

**EMERGENCY MEDICINE**

**Dr. Pierre KHALIFE – Coordinator**

KHALIFEH Pierre

Assistant Professor of Clinical Emergency  
Medicine

ACHKAR (EL) Rony

Instructor of Clinical Emergency Medicine

DAOU Ibrahim

Instructor of Clinical Emergency Medicine

**COMMUNITY HEALTH CLINIC**

**Dr. Antoine CHALLITA – Coordinator**

KLEIMEH Nelly

Clinical Associate

SAHYOUN Francois

Clinical Associate

# **FACULTY OF MEDICINE & MEDICAL SCIENCES**

## **MEDICAL PROGRAM**

Medical education at the University of Balamand begins with the first two years at the main campus of the University located on the Hill of Balamand overlooking the coastal area of Al-Kurah, Northern Lebanon. The four-year MD program is completed with two years of clinical training at St. George Hospital University Medical Center (founded 1878) in Achrafieh – Beirut; one of Lebanon’s leading tertiary care medical centers.

The four years of education and clinical patient-oriented training form an integrated modular continuum that emphasizes an analytical inquisitive process of learning based on active hands-on acquisition of knowledge and skills through closely supervised and tutored teamwork. This allows students to expand their knowledge in basic as well as applied medical sciences and build professional character, skills and problem solving abilities. All are essential as foundations for postgraduate training and leadership in providing quality health care.

Institutional affiliations with leading centers of excellence in Europe and North America facilitate transfer of knowledge and extensive academic and professional exposure of students and faculty. Moreover; such affiliations allow interested students – especially those with a dual nationality- to study in other facilities and medical centers.

## **CURRICULUM**

Academic goals and objectives are approached and achieved through a modular integrated curriculum that advocates:

1. Character building resulting in responsible behavior, professionalism, ethics, advanced internal accountability, perpetual lifelong learning, advocacy, commitment to human rights, and proactive community involvements.
2. Dynamic integration of basic and clinical medical and health sciences with actual clinical training and emphasis on the integral relationship between basic medical sciences and social sciences in building intellectual and professional capacity for problem solving skills.
3. Early exposure to the fields of medical practice.
4. A learning perspective and approach that emphasizes the importance of team dynamics and spirit and the value of distance learning and appropriate use of interactive electronic resources.
5. Emphasis on the value of sciences, research and excellence with particular concentration on the multidisciplinary perspective of medicine and health and the fundamental leadership role of the physician in team dynamics.
6. Providing students with the means to find value and reward in doing the same with peers, team members, patients, family members and the community at large.
7. Building problem solving and fact-finding capacity with particular emphasis on evidence as an integral and fundamental component of decision-making.
8. Taking advantage of the information revolution and learning successful innovative approaches to medical education.

# **ADMISSIONS**

Candidates are selected on the basis of academic record and personal characteristics as evaluated by the Admissions Committee chaired by the Dean. Attributes of importance include:

## **1. Academic Record**

- A. Bachelor's degree or the equivalence of 3 years of higher educational studies in a recognized institution.
- B. Completion of premedical requirements as follows:
  - 1. Biology/ Zoology/ Embryology/ Genetics with a laboratory component. 8 credits- minimum of 2 courses
  - 2. Chemistry (General- Organic- Inorganic) with laboratory components. 12 credits- minimum of 3 courses
  - 3. Physics/ Basic Electronics with laboratory components 6 credits- minimum of 2 courses
  - 4. Cultural Studies. At least 6 credits
  - 5. Academic Performance
- D. Medical College Admission Test (MCAT) scores
- E. English Language Competency
- F. Computer Literacy

The Faculty is ready to offer in cooperation with the Faculty of Sciences, an intensive remedial program oriented towards preparing students from different majors. Within the same context, students of the pre-med program can major into either Biology or Chemistry if they wish to change after their Junior year.

## **2. Personal characteristics**

- A. Communication capabilities, ability and potential to function as a team player.
- B. Character, extracurricular interests, diversity of experience and extent of involvement in community based activities.
- C. Achievements in research projects and/or medically related topics.
- D. Understanding of the profession of medicine and interest in a career within the context of this profession.

## **3. Admissions process**

The admissions process includes:

- 1. Evaluation of a completed application to the Faculty.
- 2. Evaluation of all required documentation including:
  - a. Official academic transcripts.
  - b. MCAT scores.
  - c. Three reference letters.
- 3. A personal interview

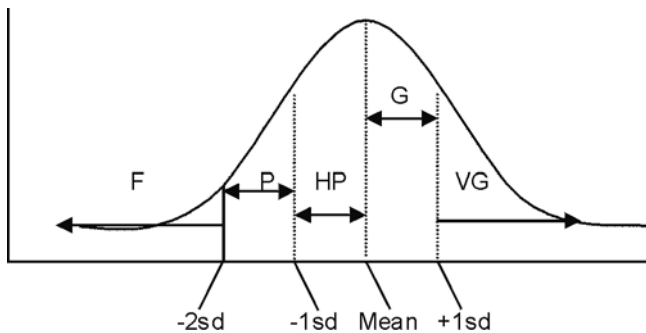
Applicants are ranked by the Admissions Committee in a transparent and structured manner and are advised in writing of the result of the process.

# **ACADEMIC REGULATIONS**

## **A. GRADING SYSTEM**

There will be six levels of grades given: Honors, Very Good, Good, High Pass, Pass and Fail.

- H = Top 10% grades of the class
- VG = Very Good ( $VG > \text{Mean} + 1sd$ )
- G = Good ( $\text{Mean} < G < \text{Mean} + 1sd$ )
- HP = High Pass ( $\text{Mean} - 1sd < HP < \text{Mean}$ )
- P = Pass ( $\text{Mean} - 2sd < P < \text{Mean} - 1sd$ )
- F = Fail ( $F < \text{Mean} - 2sd$ )



## **B. ATTENDANCE**

Students are required to attend all classes, laboratories, clerkships, examinations and any other assigned work. Credit is not given for incomplete work or for work not performed. Students absent for illness or any other valid reason are required to make-up for the missed work. The Director of the course or the Department concerned assigns remedial work for work not performed. Make-up examinations are graded by Pass or Fail.

## **C. PROMOTIONS**

Students who pass all the courses or clerkships will be promoted to the next higher class. However, a student with a grade of Pass in all courses or clerkships but is deemed not ready for promotion may be asked by the Academic Committee to pass a make-up examination in a designated course or repeat the year.

## **D. DEFICIENCIES**

A student in Medicine I or Medicine II classes who fails less than 12 credits may be asked to do remedial work and pass make-up examinations in the designated course(s) or repeat the year. A student who fails a make-up examination will be asked to repeat the year. A student in Medicine I or Medicine II classes who fails more than 12 credits may be asked either to repeat the year or to withdraw from the Faculty.

A student in Medicine III or Medicine IV classes who fails a clinical clerkship may be asked to do remedial work and pass a make-up exam or repeat the clerkship.

A student who fails more than one clerkship may be asked either to repeat the year or withdraw from the Faculty.

## **E. INCOMPLETE GRADES**

Incomplete grade denotes that a grade has not been determined for a course or clerkship because the student has not completed the assigned work due to extenuating circumstances (e.g. illness, death in the family, accident, etc...). Before a student can be granted an incomplete grade the extenuating circumstances must be validated by the Dean's Office. The incomplete grade will be replaced with a grade upon completion of all course material. The Director of the course determines the deadline for completion of the course requirements provided that it will not exceed one month after the final examination of the course. If the material requested is not completed by the designated deadline, the incomplete grade will be converted to Fail.

## **F. DECELERATION PROGRAM**

This curriculum program is designed for students who encounter serious academic difficulty as demonstrated by their performance in the assigned examinations at an early stage in Medicine I. Such students may request to join the decelerated program. If the request is approved they will be given the opportunity to spread out their first year load over two years. A decelerated first year curriculum is structured so that the student will complete it in no more than two years. Deficiencies in the decelerated program are treated according to the Faculty general rules, however students who are unable to complete the decelerated program will be asked to withdraw from the Faculty.

## **G. READMISSION**

If a student is dropped from the program for academic reasons he/she may apply again after leaving the Faculty for a minimum period of one year. The student will be eligible to enroll in the program if he/she obtains another University degree from an institution of higher learning. The re-admitted student must repeat all the courses or clerkships of the year from which he/she was dropped.

## **H. DISCIPLINARY ACTION**

Any student engaged in any ethical misconduct will be referred to the Dean and University Administrative Committee for action. A student may be dropped from the medical program for professional and/or ethical misconduct. If a student is dropped from the Faculty because of a disciplinary action he/she will not be eligible for re-admission.

## **I. GRADUATION**

Any student who satisfactorily completes the curriculum of the four academic years will be eligible for a Doctor of Medicine degree. The degree will be granted with Honors if the student attains an Honors grade in 50% of the courses and clerkships and does not fail any course or clerkship, and is deemed qualified to carry the M.D. degree with Honors.

## **J. DEAN'S HONOR LIST**

To be placed on the Dean's Honor List at the end of an academic year, a medical student must:

- . Rank in the top 10% of his/her class
- . Have no failing or incomplete grades
- . Have no disciplinary action against him/her
- . Be deemed worthy by the Dean to be placed on the Dean's Honor List

## **K. UNIVERSITY REGULATIONS**

All other procedures and regulations follow the University general policy.

# **COURSE DESCRIPTIONS**

## **MED I COURSES**

### **INTRODUCTION TO CELL STRUCTURE AND FUNCTION (INTC412)**

**2 Credits**

This course provides an introduction to the fundamental principles in cellular development, division and differentiation, and cellular function. This course is also intended to direct the attention of first year medical students to the importance of medical embryology in bridging microscopic anatomy, cellular physiology and clinical science.

### **BLOOD & CARDIOVASCULAR MEDICINE: STRUCTURE & FUNCTION (CARD413)**

**3 Credits**

This course is designed to present an integrated knowledge of the normal cardiovascular system to first year medical students. The course discusses hematopoiesis, blood components, and the main mechanisms of hemostasis and directly correlates the gross anatomy of the heart with the cardiac function and the cardiac muscle excitation and contraction cycles. Histology of the heart and blood vessels and live ultrasonic imaging complement the didactic information given. The course describes as well the development of the heart and vessels during organogenesis and the remodeling of the fetal circulation into the adult pattern, and discusses the principles of hemodynamics in the macro and microcirculation leading to the integrated responses of the cardiovascular system that regulate organ flow, blood pressure, and cardiac output.

The course format includes lectures, laboratory sessions, and discussions and analysis of a series of clinical cases pertaining to selected clinical cardiovascular abnormalities to introduce students to basic pathophysiology and pathology.

### **ENDOCRINE AND REPRODUCTIVE MEDICINE: STRUCTURE & FUNCTION (ENDO413)**

**3 Credits**

This course is designed for first year medical students to develop a thorough knowledge about hormone synthetic pathways and mechanisms of action in order to understand the multifaceted clinical conditions that may arise as a consequence of a developmental anomaly, an abnormal hormonal environment, or an inability to respond to hormonal stimuli. This course also emphasizes the hormonal regulation of the male and female reproductive cellular organization and functions in development and adulthood and describes the gross, functional and radiological anatomy of the male and female reproductive systems in health and disease as well.

The course format includes lectures, laboratory sessions, and a series of selected clinical applications.

### **GASTROINTESTINAL MEDICINE: STRUCTURE & FUNCTION (GAST413)**

**3 Credits**

This course sets the framework for the understanding of the microscopic and gross organization as well as the principal functions of the GI system. The course focuses on the main regulatory mechanisms of GI function and discusses the processes of motility, secretion, digestion and absorption, elimination, and biliary secretion and excretion.

The course format includes lectures, laboratory and imaging sessions, and a series of selected clinical problems to emphasize to first year medical students the significance of basic science in the understanding of clinical applications.

### **THE MUSCULOSKELETAL SYSTEM: STRUCTURE & FUNCTION (MUSK424)**

**4 Credits**

This course provides first year medical students with a detailed knowledge of the development, form, and function of the normal musculoskeletal system. The course describes the microscopic, gross, functional and radiological anatomy of the back and upper and lower limbs as well as the blood, lymphatic, and nerve supply. This course also focuses on skeletal muscle physiology and the mechanisms of neural control of skeletal muscle function. The course format includes lectures, laboratory sessions, and a series of clinical correlations in order for students to develop a functional understanding of bones, tendons, joints, and muscles and their innervation and mechanisms of action in health, injuries, and disease.

**RENAL MEDICINE: STRUCTURE & FUNCTION (RENL412)****2 Credits**

This course provides first year medical students with an integrated knowledge of the basic structure and function of the renal system. The microscopic and gross anatomy is directly correlated with the excretory and homeostatic functions of the urinary system. The mechanisms of urine formation along with the concept of renal clearance and its clinical applications, as well as the role of the kidney in regulating plasma osmolarity, ECF volume, blood pressure, sodium, potassium, and calcium concentrations, and acid/base balance are discussed at length. The sequential embryonic stages of development of the kidney, ureters, and bladder are also presented. This detailed theoretical information is complemented by gross dissection of the pelvis, histologic slides of the urinary system, and imaging sessions. Clinical correlations are incorporated throughout the lectures, including micturition disorders, congenital diseases, acid base and ionic disorders, glomerular diseases, stones, renal failure, as well as a brief of overview of dialysis.

**PULMONARY MEDICINE: STRUCTURE & FUNCTION (PULM412)****2 Credits**

This course emphasizes the anatomy and the homeostatic function of the respiratory system. The microscopic organization and gross and radiological anatomy of the respiratory system set the background for the discussion of the main structures involved in breathing and their interactions in the initiation of inspiration and expiration, the three primary processes of ventilation, diffusion, and perfusion, and the assessment of lung function. This course also focuses on the mechanisms involved in the transport of gases between the lungs and tissue capillaries as well as on the neural and chemical control systems. The course format includes lectures, laboratory sessions, and a series of selected clinical problems to emphasize to first year medical students the significance of the acid-base balance and the clinical problems that may arise in conditions of hypoxia or hyperoxia.

**HEAD & NECK AND BASIC NEUROSCIENCE (HBNB426)****6 Credits**

This course is designed to provide first year medical students with a detailed knowledge of the development, microscopic structure, anatomy, physiology, and imaging of the normal nervous system and the head and neck region. This interdisciplinary course also sets the structural framework for the understanding of gross anatomy principles and anatomic relationships, basic mechanisms in neurophysiology, organization and function of sensory and motor systems, and clinical applications of this information.

The course format includes lectures, laboratory sessions, and case-based problems that reinforce the concepts of gross anatomy and basic neuroscience and allow students to develop analytical thinking in clinical problem solving.

**MEDICAL BIOCHEMISTRY & NUTRITION (BIOC 406)****6 Credits**

The course is designed to incorporate the fundamental aspects of biochemistry in a series of lectures and clinical correlations. The objective of the course is to provide the student with an integrated view of biochemistry. Topics include structures and functions of biomolecules, mechanism of enzyme action, bioenergetics, major pathways and control mechanisms in human metabolism. Additionally, the course introduces principles of nutrition and a brief description of prevention and management of selected diseases with diet.

**MEDICAL GENETICS (MGEN 402)****2 Credits**

The course is designed to introduce the students to the fundamental concepts in human genetics at molecular, cellular, and clinical levels. It details the principles of classical genetics, biochemistry of nucleic acids, control of gene expression, gene therapy, and investigates recent developments in genetic technology.

**IMMUNOLOGY (IMUN 402)****2 Credits**

The course allows medical students to examine the cellular and molecular functions of the immune system. It details the events taking place during the immune response, immune recognition, and immune effector function.

**MEDICAL ETHICS (METH 401)****1 Credit**

The course is designed to introduce the medical student to the ethical principles governing the medical profession such as duties of physicians, patients' rights, informed consent and refusal of treatment, confidentiality, good clinical practice, medical research, organ transplantation, mental disorders and disabilities, and life and death.

**NORMAL HUMAN BEHAVIOR (NPSY 402)****2 Credits**

The course seeks to introduce medical students to the normal and abnormal human development and behaviors. It focuses on the major influences of human behavior, psychological, biological, and cultural factors, to stress their roles in the development and presentation of diseases. It is also designed to introduce students to the roles of neural systems serving human behaviors such as emotions, memory, intellect, perception, addictions, motivation, and reward.

**BIostatISTICS and EPIDEMIOLOGY (EPST 402)****2 Credits**

This course provides an introduction to the basic principles and applications of biostatistics and epidemiology, as they are applied to problems in clinical and public health settings. Topics cover a wide range from simple descriptive statistics and presentation of data, to principles of hypothesis testing, and an introduction to linear and logistic regression and non-parametrical tests. Lectures, problem sets, and computer output are used to develop these and additional concepts. The epidemiology part of this course will introduce students to the principles, methods and research designs used to describe and evaluate the patterns of illness in communities. Furthermore, important epidemiological concepts in evaluation of epidemiological findings such as confounding, effect measure modification, and measures of attribution of disease burden to specific exposures are also presented. Medical students will also have the opportunity to learn techniques to critically evaluate and interpret current medical literature, an essential skill to future success in clinical practice.

**FAMILY MEDICINE/CLINICAL SKILLS I AND PATIENT PHYSICIAN RELATION (CLSK 434)****4 Credits**

The course is designed to allow medical students to begin to understand the concept of a patient, developing effective communication with the patient, physical examination, and humane care of people. This course is designed as a summer rotation at Saint George Hospital University Medical Center.

**MED II COURSES****FOUNDATION OF MEDICINE (FMED504)****4 Credits**

This module explores the basic principles of medical pharmacology and pathology.

The pathology section builds upon understanding the four aspects of the major disease processes: etiology, pathogenesis, clinical significance of the histopathological and molecular findings, and application of the clinically supportive sciences. Current understanding of the pathogenesis and epidemiology of important common and uncommon diseases will be discussed.

Detailed description of significant cell and tissue alterations in disease processes and how they contribute to organ dysfunction and clinical manifestations are emphasized.

In the pharmacology section, clinically applied principles of pharmacodynamics and pharmacokinetics are amply described. The pharmacology of the autonomic nervous system and its clinical applications are also detailed.

**BASIC NEUROLOGY: DISEASES AND TREATMENT (NEUR503)****3 Credits**

This module describes the neurological diseases of the central and peripheral nervous system. Emphasis is given on the symptoms and signs, pathology, pathophysiology, and treatment of these diseases.

Glossary of the different signs and symptoms in neurological disorders together with the correlation between the neurologic clinical manifestations and neuroanatomical location of the lesions will be presented. Pathology of the different neurological disorders will be also introduced. All pathophysiological disorders in neurology with their corresponding treatments will be discussed in addition to the strategies needed for the best therapeutic options in clinical practice.

**PULMONARY MEDICINE: DISEASES & MANAGEMENT STRATEGIES (PULM503)** **3 Credits**

This module addresses the pathologic and pathophysiologic principles that underlie diseases of the upper



and lower respiratory tracts along with their pharmacologic treatments. Pulmonary function tests and other diagnostic tools for pulmonary disease are explained.

**RENAL MEDICINE: PATHOGENESIS AND PHARMACOTHERAPY (NEPH503) 3 Credits**

In this module students will become familiar with renal and bladder disorders along with their pharmacologic treatments. Hypertension and metabolic derangements are addressed with their management. An approach to the patient with renal failure is outlined. Renal dialysis and transplantation are also introduced.

**CARDIOVASCULAR MEDICINE: DISORDERS AND MANAGEMENT MODALITIES (CARD504) 4 Credits**

This module describes the major diseases affecting the cardiovascular system, their etiologies and their clinical manifestations. Cardiac emergencies are highlighted and a clinical approach to their management protocols is outlined. Pharmacotherapies along with behavioral and preventive therapies are widely explored.

**INFECTIOUS DISEASES: PATHOPHYSIOLOGY AND TREATMENT STRATEGIES (INFE502) 2 Credits**

This module deals with complicated, widespread and opportunistic infections. Nosocomial and Head & Neck infections are addressed. The modes of transmission of bacterial, viral and mycobacterial infections along with their clinical syndromes are detailed. Cases about HIV, fever with rash and fever of unknown origin are presented. The pharmacology of antimicrobials is given. Bacterial resistance to antimicrobial agents and strategies to control it are widely discussed. Infection control measures are highly stressed.

**ENDOCRINE AND REPRODUCTIVE MEDICINE: DISORDERS AND THERAPY PROTOCOLS. (ENDO504) 4 Credits**

This module describes the main endocrine and metabolic disorders, emphasizes the strategies to treat them and handles endocrine emergencies. It also describes the pathology of the male and female reproductive systems, the main infections affecting them and the behavioral and pharmacologic treatments.

**GASTROINTESTINAL TRACT DISORDERS AND MANAGEMENT (GAST504) 4 Credits**

In this module, students will learn about all gastrointestinal and adnexal diseases and their treatment strategies. Abdominal emergencies are highlighted and their management protocols outlined. The clinical skills for taking a good history and performing a complete physical exam for this system will be explored. The role of radiology in diagnosing gastrointestinal disorders is detailed.

**HEMATOPOIETIC AND LYMPHORETICULAR DISORDERS & TREATMENT (HEMA503) 3 Credits**

In this module blood system disorders, transfusion medicine and oncologic diseases are detailed. The complications of neutropenia along with lymphadenopathy are widely discussed. Oncologic emergencies and the approach to their management are presented. Strategies for the diagnosis of blood and lymphatic disorders are highlighted. The pharmacotherapy of anemia, chemotherapy, anti-platelets and anti-coagulants are stressed upon.

**SKIN DISORDERS AND TREATMENT (SKIN502) 2 Credits**

This module addresses major skin and soft tissue diseases along with their clinical presentation. Approach to diagnosis and management, and the correlation between skin disorders and internal diseases are detailed.

**MENTAL DISORDERS AND THEIR PHARMACOTHERAPY (PSYD503) 3 Credits**

In this module mental disorders and their management modalities are explained. Ethical and forensic psychiatric issues are emphasized.

**DISEASES OF IMMUNITY AND MUSCULOSKELETAL SYSTEM (IMUS504) 4 Credits**

This module presents the relationship between the connective tissues of the body and the associated immune  
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and inflammatory states. The effects of the immune system in responding to pathogens and injury will be elucidated. The generation of autoimmunity states will be detailed. Bone tumors along with tumor and transplant immunology will be emphasized. The pharmacology section will detail the most important treatments for the common rheumatologic diseases, immunotherapy and immunoprophylaxis. A brief session on the imaging of the musculoskeletal system will be also presented. The clinical skills for taking a good history and performing a complete physical exam for both systems will be explored.

#### **CLINICAL MICROBIOLOGY (CMIC 504)**

**4 Credits**

This module aims at introducing the students to the microbial world from a medical perspective. It provides special emphasis on microbial structure, classification and interaction with the human host. General concepts of bacterial microbiology, virology, mycology and parasitology are presented. Mechanisms of infections and antimicrobial therapy characteristic of each type are also covered.

#### **FAMILY MEDICINE-CLINICAL SKILLS II (CLSK 524)**

**4 Credits**

Clinical Skills II emphasizes the importance of integrating medical knowledge, clinical skills and professional attitude as a prerequisite for appropriate, effective and efficient patient care. In this perspective, the course expands on what was done within the framework of the “Clinical Skills I” course.

In this module, MEDII students will learn how to approach patients in different specialty clinics, maintain professional attitude in patient - physician relationship, apply the ethical standards in clinical care, identify key elements in taking patient history within each specialty, review physical examination skills learned in Clinical skills I and identify abnormal findings on physical examination.

### **MED III COURSES**

#### **CLINICAL CLERKSHIP IN INTERNAL MEDICINE (CCIM 612)**

**12 Weeks**

During the 12 Weeks of clinical clerkship in the hospital, the students acquire the adequate skills for taking a comprehensive history of the patient, perform a complete physical examination, elaborate an adequate differential diagnosis of the medical problems, follow and analyze pertinent laboratory and radiological results, and write a supervised comprehensive progress that will reflect the actual patient status. Throughout their rotations students are required to attend clinical conferences and to prepare and participate in clinical discussions.

#### **CLINICAL CLERKSHIP IN SURGERY (CCSU 612)**

**12 Weeks**

During the 12 Weeks of clinical clerkship in the hospital, the students will be introduced to the basic principles of surgery and rotate in general surgery, in orthopedics, in urology, in cardio thoracic and vascular surgery. They build up their basic knowledge of the common surgical diseases in order to formulate a differential diagnosis, be familiar with the management of surgery patients including surgical emergencies, learn to communicate with patients, acquire the adequate skills for taking a comprehensive history of the patient, participate in the patient workup, learn under supervision the principles of pre-operative preparation, operative management and postoperative care. Throughout their rotations students are required to attend clinical conferences and to prepare and participate in clinical discussions.

#### **CLINICAL CLERKSHIP IN OBSTETRICS AND GYNECOLOGY (CCOG 608)**

**8 Weeks**

During the 8 Weeks of clinical clerkship in the hospital, the students will be introduced to the basic principles of obstetrics and gynecology, acquire the adequate skills for taking a comprehensive history of the patient, perform pelvic examination, diagnosis and management of OBS-GYN problems and follow-up on patients, attend daily seminars, weekly grand rounds and monthly pathology conference. Students meet daily their attending staff, discuss cases and review charts.

#### **CLINICAL CLERKSHIP IN PEDIATRICS (CCPE 608)**

**8 Weeks**

During the 8 Weeks of clinical clerkship in the hospital, the students will be introduced to the basic principles of pediatrics, the care of children including the management of the healthy and sick child, peculiarities of disease

in infancy, childhood and adolescence. The nutrition, growth and development are stressed, as well as the importance of combining preventive with curative medicine. Throughout their rotation students are required to attend clinical conferences and to prepare and participate in clinical discussions.

**CLINICAL CLERKSHIP IN PSYCHIATRY (CCPS 604) (4 Weeks)**

During the 4 Weeks of clinical clerkship, the medical students workup psychiatric patients where they are supervised by an attending psychiatrist, learn how to conduct and document a psychiatric interview including chief complaints, psychiatric history, social history, developmental history and medical history. The student will be able to perform a complete mental status examination of a patient with mental illness, discuss and document differential diagnosis, assess and document whether or not the patient is at risk of injury to himself or others. The rotation includes daily seminars dealing with psychopathology, case presentation and discussions, interview techniques and basic psychotherapy as well as psychopharmacology.

**PREVENTIVE MEDICINE AND HEALTH ADMINISTRATION (PMHA 602) 30 Hours**

This module is intended to expand student understanding of the complexities of the context of clinical practice and orient them towards preventive medicine. It focuses on health promotion and the tools required assessing and improving public health. It also stresses on human rights in Medicine and how to reduce inequalities in health. Topics covered include health systems and administration, planning and policy making in Lebanon; healthcare and public health services; health as a social and human right; the social and cultural determinants of health and the role of physicians in society.

**MEDICAL ETHICS (ADVANCED) (CETH601) 15 Hours**

The course is designed to present to the medical students opinions regarding the ethical principles governing the medical profession such as patients' rights, informed consent, refusal of treatment, confidentiality, and good clinical practice. The areas addressed are medical research, organ transplantation, genetic testing, palliative care and end-of-life issues, ethical dilemmas in the intensive care setting and in the elderly.

## **MED IV COURSES**

**CLINICAL CLERKSHIP IN INTERNAL MEDICINE (CCIM 715) 5 Months**

The Med IV clerkship in Internal Medicine consists of four mandatory rotations of one month each in ICU, CCU, ER, and Wards, in addition to a month of selective clerkship to be chosen from one of the following medical subspecialties: Neurology, Infectious Diseases, Dermatology, Endocrinology, Pediatric Surgery, and Laboratory Medicine (Details of Selective Rotations are found below). In this clerkship students improve their interviewing, communication, and diagnostic skills. They are exposed to patients in intensive care settings and learn how to manage ICU/CCU patients; moreover, they learn rapid assessment and management of life threatening conditions, and they carry the responsibilities of house interns. In the selective rotation, they are exposed to patients from a subspecialty of their choice and face more focused clinical scenarios.

**CLINICAL CLERKSHIP IN SURGERY (CCSU 701) 1 Month**

In the Med IV clerkship in Surgery the students acquire an understanding of fundamental skills of diagnosis and management of patients with surgical illnesses, develop the ability to analyze patients' clinical problems, prioritize patients' investigations and management needs. They develop the ability to collect, synthesize and communicate the details of a patient's history, physical examination, differential diagnosis, progress in the hospital and assume primary responsibility for a set of inpatients which include writing orders, developing management and diagnostic plans and presenting these plans to upper level residents or faculty. Attendance at departmental/divisional grand rounds, morbidity, mortality and other conferences is expected from students. The students spend a month on the surgical ward.

**CLINICAL CLERKSHIP IN ANESTHESIOLOGY (CCAN 712)****2 Weeks**

In this clerkship of two Weeks duration, the MED IV student is expected to acquire the necessary knowledge and skills to perform a pre-operative and post-operative assessment of surgical patients, develop a plan for safe airway and anesthetic management of routine surgical patients, be able to perform direct laryngoscopy and intubation, manage pre-operative fluid prescriptions, be familiar with peripheral and central intravenous catheter placement, and to function appropriately in an operating room setting.

**CLINICAL CLERKSHIP IN OTOLARYNGOLOGY (CCEN 712)****2 Weeks**

This 2 Weeks clerkship is designed to provide the medical student with a clinical experience in ENT diseases and reinforce surgical skills acquired in the MED III surgery clerkship. The student will acquire knowledge and skills in the clinical evaluation of patients presenting with symptoms and/ or diseases of the ENT areas, and in the elaboration of a management plan, whether medical or surgical. Several aspects of the specialty will be covered, including pediatric and cosmetic otolaryngology. In addition, the student will be exposed to the most delicate and technically demanding microsurgeries.

**CLINICAL CLERKSHIP IN OPHTHALMOLOGY (CCOP 712)****2 Weeks**

This two Weeks rotation includes the following:

1. Clinical Introduction to eye pathology.
2. Exposure to surgical procedures.
3. End of rotation seminar-part of resident grand round

Teaching activities will be assigned to different subspecialties of the department as well as comprehensive ophthalmologists.

**CLINICAL CLERKSHIP IN MEDICAL IMAGING (CCRX 701)****2 Weeks**

This fourth year clerkship is designed to provide the medical student with a clinical exposure to General radiology concepts including Ultrasonography, CT and MRI. Medical Students attend the daily conferences of the department.

**ELECTIVE CLERKSHIP (CCCE 703)****3 Months**

It is the offering of various elective & Selective rotations from the different departments (Details of Elective & Selective Rotations are found below), from which the student can select one, two or three clerkships of 1 month duration each. The students are allowed to participate in electives abroad as well provided these electives meet our rules and standards, and provided they bring proof of attendance and evaluations of the respective off-site rotations.

**THE SELECTIVE ROTATIONS ARE:****Infectious Diseases**

This rotation is a 1 month clinical selective clerkship in Infectious Diseases that is intended to provide the fourth year medical student with direct and intense exposure to a wide range of infectious diseases.

**Objectives:**

- Approach to a patient with fever and understanding how specific risk factors (exposure, travel, previous hospitalization...) will help building a differential diagnosis and affect the management plan.
- Understand diagnostic methods in infectious diseases i.e. cultures, serology and molecular (PCR) techniques.
- Exposure to common infections (community and nosocomial) e.g. UTI, respiratory infections, bloodstream infections...
- Be familiar with different antibiotic classes, eliciting differences in spectrum and mode of action, and understanding the risk of emerging resistance.
- Understand the basics of infection control (hand hygiene, isolation precautions).

## **Neurology**

This rotation is a selective clerkship in Neurology that is intended to provide the fourth year medical student with a clinical experience in Neurological diseases and acquire medical knowledge and skills in this field. In addition, the student will be exposed to different paraclinical procedures including brain imaging, neurophysiological tests and lumbar puncture. At the end of the 4 week rotation, the student should be able on elaborating diagnostic strategies and providing management plans needed for the most frequent neurological disorders.

## **Endocrinology**

The purpose of this 4 Weeks selective experience is to provide the student with a thorough exposure to commonly encountered endocrine disorders both in the outpatient and inpatient settings. Students will rotate on wards and will attend clinics.

During the Endocrinology selective, students will see patients presenting with different endocrine problems such as thyroid disease, diabetes, hypocalcemia and hypercalcemia, pituitary tumors, steroid hormone abnormalities, etc. Students are also required to attend departmental activities such as bi-monthly journal clubs and Endocrine noon conferences.

### **Objectives:**

At the end of this rotation the student will:

- Recognize the common endocrine, metabolic and hormonal disorders of patients.
- Learn the basic principles related to the pathogenesis, clinical manifestations, laboratory evaluation and management of commonly encountered endocrine disorders.
- Develop the ability to thoroughly interrogate patients presenting with endocrine problems, analyze data and generate differential diagnoses and treatment plans.

## **Dermatology**

The duration of the selective in Dermatology is 4 Weeks. It introduces the students to the signs and symptoms of common dermatologic diseases and its relation to systemic disease.

### **Objectives:**

*The student should be able to:*

- Understand the signs, symptoms and management of common dermatologic diseases.
- Understand and interpret laboratory tests and diagnostic studies employed in the assessment of dermatologic diseases.

### **Key Responsibilities of the student:**

1. Attend weekly dermatology conferences.
2. Attend daily consult rounds.
3. Do consults under the supervision and guidance of the rotating resident and be present during attending rounds.
4. Attend dermatology clinic.

## **Pediatric Surgery**

The duration of the selective in Pediatric Surgery is 1 month. The goal is to apply the most up-to-date procedures in an appropriate context using solid medical and scientific information. The students will be exposed to complex congenital malformations, advanced surgical conditions, and the most complicated cases in a multidisciplinary fashion using the skills and knowledge of the medical and nursing colleagues.

### **Objectives:**

*At the end of the pediatric surgery clerkship, each student should be able to:*

- Gather and interpret essential and accurate information about the pediatric patient's health status and learn to obtain clinical information from children and parents.
- Obtain relevant information from nurses and hospital departments (e.g., radiology, laboratory, and hospital information systems)
- Learn the principles of preoperative and postoperative management

**Key Responsibilities of the student:**

1. To present clinical information on work rounds clearly and concisely.
2. To work effectively with attending staff, house staff colleagues in surgery and pediatric services, residents, nurses, ancillary personnel, pre-hospital personnel.
3. Attend weekly conferences and attending rounds.
4. Attend clinic sessions

**Clinical Laboratory**

The objective of the clinical laboratory selective/elective is to introduce students to the organization of a clinical laboratory with its different sections and to provide an exposure to laboratory operations. Students are expected to acquire a general understanding on how laboratory requests are processed from sample collection to results reporting and interpretation. They will get an overview of the three phases of laboratory testing: pre-analytical, analytical and post-analytical. They will get acquainted with the different technologies used in the laboratory. They will rotate in the following sections: clinical chemistry, clinical microbiology, clinical hematology, and blood bank unit. In each section, they will focus on the methodology, principles, and interpretation of routine clinical laboratory tests. Students are highly encouraged to follow up on the patients in the medical wards, in order to correlate laboratory results to clinical findings and thus constitute a whole clinical picture. They will also be asked to perform literature reviews and participate in case discussion.

**THE ELECTIVE ROTATIONS ARE:****Nephrology**

The Nephrology elective introduces students to the diagnosis and management of patients with fluid and electrolyte disorders, acute renal failure, and chronic renal failure. The duration of this elective is four Weeks.

**Objectives:*****The student should be able to:***

- Understand the signs, symptoms and management of common renal syndromes including acute kidney injury and chronic renal failure, glomerulonephritis, and nephrotic syndrome.
- Understand and interpret laboratory tests, medical imaging and diagnostic studies employed in the assessment of renal function.
- Understand the diagnosis and management of fluid, electrolyte and acid-base disorders.
- Understand the diagnosis and management of primary and secondary hypertension.

**Key Responsibilities of the student:**

1. Attend weekly nephrology conferences.
2. Attend daily nephrology consult rounds.
3. Do nephrology consults under the supervision and guidance of the nephrology fellow and be present during attending rounds.
4. Attend nephrology clinic.

**Cardiology**

The Cardiology elective introduces students to the diagnosis and management of patients with cardiac diseases. The duration of this elective is four Weeks.

**Objectives:*****The student should be able to:***

- Understand the signs, symptoms and management of common cardiac diseases.
- Understand and interpret laboratory tests, medical imaging and diagnostic studies employed in the assessment of cardiac disease.

**Key responsibilities of the student:**

1. Attend weekly conferences.
2. Attend staff meeting.

3. Rotate under the supervision and guidance of the cardiology fellow and be present on attending rounds.
4. Prepare assignments under the supervision of the fellow and attending physician.

### **Hematology & Medical Oncology**

The Hematology & Medical Oncology elective introduces students to the diagnosis and management of patients with hematological and cancerous diseases. The duration of this elective is four Weeks.

#### **Objectives:**

##### *The student should be able to:*

- Understand the signs, symptoms and management of common hematologic diseases.
- Understand and interpret laboratory tests and diagnostic studies employed in the assessment of hematologic disease.
- Understand the management of patients with different types of cancers and the approach to chemotherapy and its complications.

##### *Key responsibilities of the student:*

1. Attend weekly conferences.
2. Attend staff meeting.
3. Rotate under the supervision and guidance of the fellow and be present on attending rounds.
4. Prepare assignments under the supervision of the fellow and attending physician.

### **Pulmonary Medicine**

This rotation is a 1 month elective clinical clerkship in Pulmonary Medicine that is intended to provide the fourth year medical student with direct and intense exposure to a wide range of pulmonary diseases.

The rotation includes the following:

1. Thorough evaluation and proper management of patients admitted to the medical ward.
2. Active participation in academic activities such as didactic lectures, conferences, case presentations and discussions and attending rounds.
3. Hands-on training for procedures done in the division including pulmonary function tests and arterial blood gas interpretation, thoracentesis and bronchoscopies.

### **Family Medicine**

The MED IV Family Medicine Clerkship is a clinical elective rotation tailored for MED 4 students with the goal to give students the opportunity to expand their clinical skills learnt earlier, developing further their clinical management abilities. This 4-week rotation exposes MED 4 students to the comprehensive and longitudinal care of patients with a special emphasis on care of individuals in the context of families and communities in an outpatient setting.

#### **Objectives:**

- To advance the skills of Medical Students in taking a comprehensive history and performing a complete physical exam.
- To develop Medical Students' knowledge of the approach to diagnosis and management of medical problems in an outpatient setting.
- To engage Medical Students in a rational and scientific approach to preventive medicine and clinical decision making.
- To involve Medical Students in the management of a patient medical record in an outpatient setting.
- To demonstrate compassionate behavior, professionalism, and practice a patient-centered care.
- To promote self-education and active learning.

### **Gastroenterology**

This rotation is a 1 month elective clinical clerkship in Gastroenterology that is intended to provide the fourth year medical student with direct and intense exposure to a wide range of gastric diseases.

#### **Objectives:**

- Introduction to intra hospital GI pathology

- Exposure to endoscopy technics with discussion of indication, complication and difficulties of different procedures
- Discussion of different topics during the rounds with physician and the senior residents.
- Every student will have several assignments (topics, procedures, etc.) to complete.

### **Rheumatology**

It is a 1 month elective rotation that includes spending time in the clinic as an observer and participating in performing Rheumatology consultations on the medical/surgical wards.

#### **Objectives:**

- Familiarize the student with the comprehensive rheumatologic approach to the various musculoskeletal and systemic disorders.
- Differentiate systemic inflammatory from non-inflammatory musculoskeletal disorders and become familiar with the diagnostic approach to the various Connective Tissue and Vasculitic disorders.
- Learn the joint examination, from small to large joints; examination of the spine (cervical, lumbar, sacroiliac), and examination of tendons and bursae.
- Become familiar with the procedures performed in rheumatology:arthrocentesis of various joints, intraarticular injections, injections of tendons and bursae.



# **MASTER OF SCIENCE PROGRAM IN BIOMEDICAL SCIENCES**

The Faculty of Medicine and Medical Sciences has started a new graduate program leading to the degree of Master of Science. This program is aimed to develop the students' capacity to conduct scientific research and to prepare them for pursuing doctoral qualifications in Biomedical Sciences. During the 2-year period of this program, students will be offered graduate courses in the fields of Biochemistry, Immunology, Microbiology, Genetics, Physiology, and Molecular Biology. Students will then select, after the first year, a specific field of study and will be integrated into research projects within a defined domain of interest. To qualify for graduation, a student should write a thesis describing the research project and the results obtained. Graduates of the program are introduced to recent sophisticated technologies, and will have acquired the essential skills for conducting independent scientific research. The degree given by the Faculty of Medicine and Medical Sciences opens new venues for those wishing to start work in laboratories or in health-oriented industries, and provides the key to open the door leading to a PhD or MD degree.

## **ADMISSION REQUIREMENTS**

A candidate must:

- Fulfill the regulation of the University and the Faculty concerning postgraduate studies
- Hold a Bachelor Degree in Biology or related sciences with a minimum major average of 80 (from a 100 point scale). Admission under probation can be given to students with a minimum major average of 75
- Pass the Test of English as a Foreign Language (TOEFL) with a minimum of 600 on the paper-based TOEFL, or 100 on the internet based TOEFL

## **GRADUATION**

To qualify for graduation the student must:

- Complete all the requirements for the degree within a maximum period of 4 years from the date of first enrollment
- Complete at least 24 credit hours of courses with a minimum grade average of 80
- Write and defend the thesis successfully (6 credits)

## **FEES AND GRADUATE ASSISTANTSHIPS**

For detailed information about the graduate assistantships, please contact the Graduate Committee at the Faculty of Medicine and Medical Sciences or the Registrar's Office.

## **CURRICULUM**

Accepted students will choose any of the following orientations based on the number of students and the approval of the supervisor.

Required (R) and Elective (E) courses.

### **YEAR I (21 cr)**

BIOM 300 Medical Biochemistry	6 cr
BIOM 301 Quantitative Analysis and Biostatistics	2 cr
BIOM 302 Techniques of Scientific Communications	2 cr
BIOM 303 Antimicrobial Chemotherapy and Resistance	3 cr
BIOM 306 Advanced Biochemistry (Enzymology/Metabolism)	3 cr
BIOM 320 Advanced Medical Immunology	3 cr
BIOM 321 Medical Microbiology	3 cr

BIOM 324 Advanced Topics in Infection and Immunity	3 cr
BIOM 325 Techniques in Immunology	1 cr
BIOM 326 Clinical Microbiology and Infection	6 cr
BIOM 327 Infectious Diseases	2 cr
BIOM 330 Advanced Molecular Biology	3 cr
BIOM 331 Medical Genetics	2 cr
BIOM 332 Advanced Topics in Biochemistry	3 cr
BIOM 333 Techniques in Biochemistry	1 cr
BIOM 336 Advanced topic in Genetics	3 cr
BIOM 337 Techniques in Genetics	1 cr
BIOM 338 Advanced Topics in Cell Biology	3 cr

**Any course from MEDI/MEDII curriculum is equivalent to a graduate course.**

### **YEAR II (9 cr)**

BIOM 335 Research Tutorials in Biomedical Sciences	3 cr
BIOM 399 Thesis	6 cr

## **COURSE DESCRIPTIONS**

### **BIOM 300 MEDICAL BIOCHEMISTRY 6 credits**

The Graduate Medical Biochemistry Course is a lecture and discussion course designed for graduate students majoring in Biomedical Sciences whose educational goals require more extensive exposure to biochemistry. The course gives greater emphasis to the medical and physiological implications of biochemistry and to human metabolism and its regulation than a more traditional introductory biochemistry course. Interspersed throughout the course will be a substantial number of medical cases, relating to the current topics of the main lecture series to demonstrate the relevance of biochemistry to health and disease. The course also includes sessions aimed at discussing review articles or original research publications in selected topics of biochemistry.

Prerequisite: Biochemistry (BC 205) or equivalent

### **BIOM 301 QUANTITATIVE ANALYSIS AND BIostatISTICS 2 credits**

The course provides students, in the field of biological and medical sciences, with the statistical tools and skills necessary to organize and summarize data in a meaningful way and to interpret and analyze data intelligently to reach sound understanding of observed biological phenomena. The course emphasizes computer applications for most of the statistical techniques covered, using SPSS statistical software.

### **BIOM 302 TECHNIQUES OF SCIENTIFIC COMMUNICATIONS 2 credits**

The course provides a graduate-level overview of the techniques used for platform, poster and written scientific presentations. After having successfully completed the course, students will be able to form logical arguments, discuss the mission of making scientific presentations aimed at delivering clear and concise messages, dissect and summarize scientific publications, constructively criticize scientific presentations, and draft a scientific proposal. Approaches and criteria for scientific research will be presented.

### **BIOM 303 ANTIMICROBIAL CHEMOTHERAPY AND RESISTANCE (course with lab component): 3 credits**

In the first section, this course describes the different classes of antimicrobial agents and their mechanisms of action. In the second part, the course classifies and details the mechanisms of resistance manifested by the most important pathogens. Phenotypic and genotypic techniques for the identification of these mechanisms are presented, analyzed, and performed where applicable. A final part dealing with antibiotic consumption and its effect of bacterial resistance is discussed.

**BIOM 306 ADVANCED BIOCHEMISTRY (ENZYMOLGY/METABOLISM) 3 credits**

This course is a lecture and discussion course designed for graduate students whose educational goals require more extensive exposure to biochemistry. This course provides detailed insights into the mechanisms of catalysis of various classes of enzymes including kinetic analysis, catalytic mechanisms, transition state stabilization and regulation of activity, strategies for active site characterization and regulatory properties. Cellular metabolism of carbohydrates, lipids, amino acids and nucleotides will be studied. This course also introduces the graduate students to critical reading of scientific papers. Prerequisites: Principles of Biochemistry (BIOL 251) or equivalent

**BIOM 320 ADVANCED MEDICAL IMMUNOLOGY 3 credits**

The course explores the cellular and humoral components of the immune system, emphasizes the genetic and molecular elements controlling cellular interactions and immune responsiveness, highlights the nature of protective responses to infections and tumors, and provides advanced knowledge of the consequences of abnormal immune regulation or function. The course includes sessions, with student participation, aimed at discussing the state of the art in selected topics on innate immunity and regulatory T cells.

**BIOM 321 MEDICAL MICROBIOLOGY 4 credits**

The course describes the microbial world from a medical perspective. It details bacterial pathogenesis, genetics, treatment, and resistance. The course presents sizeable information on human viruses, viral replication strategies, viral diseases, and treatment. Concise components of the course include parasitic and fungal infection of humans. An advanced element of the course will focus on novel generations of anti- microbial drugs, and on alternative strategies in the management of infections with drug-resistant microbes or in subjects with immune deficiencies

**BIOM 324 ADVANCED TOPICS IN INFECTION AND IMMUNITY 3 credits**

The course targets intracellular microbial infections with the aim of elaborating on the immunopathogenesis and the immune evasion strategies developed by these microbes. The bacteria to be discussed include Mycobacteria, Listeria, Brucella, Chlamydia and Legionella. The selected protozoa are Leishmania, Plasmodium, Toxoplasma and Trypanosoma whereas retroviruses, hepatoviruses, and herpesviruses will constitute the 3 viral families to be studied. The host-microbe interactions will be a primary component of this course, and students would be required to prepare and present term papers on selected topics. Pre-requisites: BIOM 320 and BIOM 321 or equivalent graduate courses.

**BIOM 325 TECHNIQUES IN IMMUNOLOGY 1 credit**

The course is aimed to introduce the students to the commonly used immunological techniques including enzyme linked immunosorbent assays, radioimmunoassay, cell activation and cytokine measurement, flow cytometry, and lymphocyte proliferation assays.

**BIOM 326 CLINICAL MICROBIOLOGY AND INFECTION 6 credits**

This course aims at introducing the students to the microbial world from a medical and clinical perspective. The course covers a selection of the most clinically important bacteria detailing the major bacterial pathogens of humans. The course also covers important area in virology, mycology, and parasitology. The course includes two credits of laboratory advanced techniques in microbiology.

**BIOM 327 INFECTIOUS DISEASES 2 credits**

This course deals with the infectious diseases from a diagnostic and clinical perspective. It offers an advanced knowledge of bacterial, fungal, viral, and parasitic infections from bedside to bench top. The material of the course is arranged by organ system and provides transition for clinical considerations. The course includes lectures and case discussions through which the student will be expected to acquire an in-depth knowledge in the field of clinical and diagnostic microbiology and infectious diseases.

**BIOM 330 ADVANCED MOLECULAR BIOLOGY****3 credits**

The course is aimed to provide students with advanced knowledge in (1) understanding biochemical processes fundamental to gene structure and function: DNA replication, transcription, translation, and regulation of gene expression; (2) exploring the techniques and applications recombinant DNA research, and the value of this technology in elucidating the mechanisms of complex genetic control. The course is based on advanced lectures as well as on critical reading and discussion of review articles or original research publications in selected topics of molecular biology.

Pre-requisite: BIOL 285 (Molecular Biology) or equivalent undergraduate course.

**BIOM 331 MEDICAL GENETICS****2 credits**

The Medical Genetics Course provides the fundamental concepts of human medical genetics in didactic and small group presentations. This course explores the fundamental concepts in human genetics at the molecular, cellular and clinical levels. It details the principles of classical genetics, biochemistry of nucleic acids, control of gene expression, gene therapy, and investigates recent developments in genetic technology. Students will acquire advanced knowledge of (1) structure and function of genes and the general organization of the human genome; (2) genes and diseases; (3) causes and general pathology of chromosomal abnormalities; (4) the basic genetic foundation upon which treatments might be available.

Pre-requisite: BIOL 283 (Genetics) or equivalent undergraduate course.

**BIOM 332 ADVANCED TOPICS IN BIOCHEMISTRY****3 credits**

The objective of the course is to highlight various aspects of mitochondrial function and visualize the central role that mitochondrial dysfunction plays in many diseases. The course consists of a series of lectures reviews combined with discussions and presentations by students. Topics presented will cover mitochondrial homeostasis, including mitochondrial DNA, oxidative stress, calcium signaling, apoptosis, aging and energy metabolism.

Pre-requisite: BIOM 300 or equivalent graduate course.

**BIOM 333 TECHNIQUES IN BIOCHEMISTRY****1 credit**

The course is aimed to introduce the students to fundamentals of biochemical methodology: buffers, spectrophotometry, gel electrophoresis, chromatography, protein determination and purification.

**BIOM 335 RESEARCH TUTORIALS IN BIOMEDICAL SCIENCES****3 Credits**

The course focuses on the areas pertinent to research conducted by faculty members in the field of Biomedical Sciences.

**BIOM 336 ADVANCED TOPICS IN GENETICS****3 credits**

The advanced topics in Genetics course is designed to introduce the students to the different types of genetic testing and their uses. Each of the major subspecialties will be addressed: cytogenetics, molecular genetics, biochemical genetics, clinical genetics, and genetic counseling.

Pre-requisite: BIOM 331 or equivalent graduate course.

**BIOM 337 TECHNIQUES IN GENETICS****1 credits**

The course is aimed to introduce the students to the commonly used Genetics techniques including karyotyping, conventional cytogenetic analysis, fluorescence in situ hybridization (FISH), Southern Hybridization and single gel electrophoresis (Comet) assays.

**BIOM 338 ADVANCED TOPICS IN CELL BIOLOGY****3 credits**

This course offers an advanced, in depth analysis of selected topics in cell biology. Students who successfully complete this course will develop insight into the complexities of cell structure and function, the molecular events that mediate cellular processes, their dynamic properties in living cells and how this contributes to the functioning of the whole organism and its development. The course format will include student-led discussion

sessions both providing an overview of a topic as well as focusing on important papers in cell biology. Students will be evaluated on their presentations and participation.

### **BIOM 399 THESIS**

**6credits**

A 6 credits hour course in which students conduct original research under staff supervision. The projects center around topics related to physiology, immunology-microbiology, biochemistry and genetics. The Core Laboratory Facility at UOB aims to provide an environment and a facility for research in many diverse biomedical fields. The core provides an infrastructure for research applications in cell and animal model system. The major component of the facility is a Molecular and Cellular Biology which includes Molecular Biology, Protein Chemistry, Flow Cytometry, Bioenergetics and Cell Culture facilities. A core facility in physiological research is also available and is equipped with radioactive isotope detection technologies. After completion of their experimental work, students are expected to write a thesis, and to pass an oral examination by defending their work in front of an independent committee of professors with expertise in the respective research domain of each thesis.

**FOR APPLICATIONS**

**University of Balamand**

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Email: [admissions@balamand.edu.lb](mailto:admissions@balamand.edu.lb)

**FOR ADDITIONAL INFORMATION**

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# ST. GEORGE FACULTY OF POSTGRADUATE MEDICAL EDUCATION

The Faculty of Postgraduate Medical Education is committed to provide high standard postgraduate medical education. Its objective is to provide excellence in patient care, clinical research, and medical education.

The Faculty provides a scholarly environment in which both teaching staff and residents can participate in a well-structured postgraduate curriculum, in research activities, and in on-going medical education. The residency-training program promotes interaction among all involved: healthcare providers, patients, and families.

Its medical staff is comprised of qualified and competent individuals who provide inpatient hospital care, and contribute to the instruction of house staff, interns, and residents.

The training program offers residents the opportunity for personal, clinical, and professional growth under the supervision and guidance of the teaching faculty and administration. The program ensures that house staff provides safe, effective, and high quality patient care with increased responsibility at each postgraduate level. The following programs of specialty are available:

## PROGRAMS OF POSTGRADUATE MEDICAL EDUCATION

RESIDENCY PROGRAM	FELLOWSHIP PROGRAM
Anesthesiology	Cardiology
Dermatology	Endocrinology
Family Medicine	Gastroenterology
Internal Medicine	Hematology and Medical Oncology
Laboratory Medicine	Infectious Diseases
Neurology	Nephrology
Obstetrics and Gynecology	Pulmonary Medicine and Intensive Care Medicine
Ophthalmology	
Orthopedic Surgery	
Otorinolaryngology Head and Neck Surgery	
Pathology	
Pediatrics	
Psychiatry	
Medical Imaging	
Surgery	
*Cardiothoracic Surgery	
*General surgery	
*Neurosurgery	
*Pediatric Surgery	
*Plastic Surgery	
*Urology	
*Vascular Surgery	

***\* Applicants for the fellowship program must have completed three years of Internal Medicine.***

# **1. ADMISSION REQUIREMENTS**

The Admissions Committee compiles a dossier of documents that constitute an application to the Faculty of Postgraduate Medical Education. To complete the dossier, applicants must submit the following to the Dean's Office at St. George Health complex, Beirut, or to the Office of Admissions and Registration at the University of Balamand (Koura).

- Three (3) recent passports – size photographs
- A photocopy of the Identity Card or Passport
- A certified copy of the Baccalaureate II Certificate or its equivalent
- A certified copy of the Medical Diploma and official transcript of records
- A copy of the Medical School Training Program and its description (for graduates of Foreign Medical schools)
- Three letters of recommendation from three different faculty members who worked with the applicant during his/her internship year(s)
- A personal statement (See application)
- Evidence of English Language proficiencies e.g. TOEFL/IELTS
- Evidence of passing the colloquium exam

All Applicants have to sit for a Qualifying Graduate Examination and an interview.

When the required documents listed above are submitted, the Dean's Office will inform applicants of the date and venue of the qualifying graduate examination and required interview. Academic year starts the first of July. Applications are valid only for the academic year and the residency program to which they are being made. Applicants are informed of the Admission Committee's decision on the date announced by the Dean's Office.

## **About The Examination:**

The exam (cannot be taken more than 2 times) also covers the specialties of Internal Medicine, Obstetrics and Gynecology, Pediatrics, Psychiatry, Surgery, and other areas relevant to provision of care under supervision. Some of the test questions describe basic clinical situations and require that you provide the underlying mechanism of the disease and its diagnosis.

It also covers the Basic Sciences (Anatomy, Microbiology, Pathology, etc...). Questions commonly require examinees to apply basic science knowledge to clinical problems.

Applicants who pass the written examination will be interviewed by a special committee.

# **2. RULES AND REGULATIONS**

## **A. Academic Performance**

See University Rules and Regulations

## **B. Grievance Procedure**

Students may appeal against a decision regarding them taken by the Faculty. The appeal must be submitted in writing. A Grievance Committee structured according to the rules and regulations of the University will evaluate the situation.

- Written Warning
- Temporary Suspension
- Dismissal