MEDICAL DOCTOR (MD)

First Cycle of Medical Studies (FCMS)

Main Language of Instruction:
French ☑ English ○ Arabic ○

Campus Where the Program Is Offered: CSM

OBJECTIVES

This cycle of studies aims to train a future health professional with solid knowledge in: anatomy, physiology, and behavior of the normal human being, as well as in semiology, pathophysiological processes, and the public health system; all in a rich and varied cultural and scientific context, to subsequently embark on clinical, medical, fundamental or applied studies in the various fields of Health.
During this cycle, students will have to master both French and English languages to continue medical studies and be able to easily consult scientific literature, as well as the Arabic language to communicate easily with Lebanese and Arab patients, with health professionals, and with public authorities.

PROGRAM LEARNING OUTCOMES (COMPETENCIES)

- Medical Expert: Provide patient-centered medical care within the limits of one's competence.
- Communicator: Communicate effectively with patients, families, care providers, and others.
- Collaborator: Collaborate with the institutional healthcare team and other stakeholders (national, NGOs, etc.) to ensure optimal patient care.
- Manager: Participate in the management of healthcare institutions and the efficiency of the Lebanese healthcare system.
- Scholar: Engage in continuous reflective learning, and the creation, dissemination, and application of medical knowledge.
- Health Promoter: Promote the health and well-being of patients in Lebanon and the region.
- Professional: Commit to society by practicing one's profession according to Lebanese law, self-regulation, and professional ethics.

PROGRAM REQUIREMENTS

180 credits: Required Courses (148 credits), Institution's Elective Courses (23 credits), Open Elective Courses (9 credits), and USJ General Education Program (28 credits required for the FCMS, may be part of the above categories).

Fundamental Courses (171 Cr.)

Required Courses (148 Cr.)
Introduction to Systematic General Human Anatomy (I) (1 Cr.); Introduction to Systematic General Human Anatomy (II) (2 Cr.); General Physiology (3 Cr.); Introduction to Histology (2 Cr.); Cellular Biology (2 Cr.); Reproductive Biology (1 Cr.); General Chemistry (3 Cr.); Biomedical Physics (1 Cr.); Intensive Anatomy 1: Abdomen and Pelvis (1 Cr.); Structural Biochemistry (4 Cr.); Introduction to Human Embryology (2 Cr.); Molecular Biology (2 Cr.); Biophysics (3 Cr.); Organic Chemistry (3 Cr.); Metabolic Biochemistry (2 Cr.); Hematopoietic System of the Healthy Human Being (2 Cr.); Endocrine System of the Healthy Human Being (2 Cr.); Nutrition and Metabolism of the Healthy Human Being (2 Cr.); Digestive System of the Healthy Human Being (2 Cr.); Mindfulness (1 Cr.); Nursing Internship for Medical Students (2 Cr.); Histology Laboratory Works (1 Cr.); Intensive Anatomy 2: Neck and Chest (2 Cr.); Intensive Anatomy 3: Face and Sense Organs (1 Cr.); Cardiovascular System of the Healthy Human Being (2 Cr.); Respiratory System of the Healthy Human Being (2 Cr.); Skin and Sensory Organs of the Healthy Human Being (2 Cr.); Nervous System of the Healthy Human Being (4 Cr.); Musculoskeletal System of the Healthy Human Being (4 Cr.); Image Formation in Radiology (1 Cr.); Urology and Nephrology System of the Healthy Human Being (2 Cr.); Genital and Reproductive System of the Healthy Human Being (2 Cr.); Fundamental Immunology (3 Cr.); Introduction

to Pharmacology (3 Cr.); Pathophysiology of the Infectious Process (1 Cr.); Pathophysiology of Inflammatory Process (1 Cr.); Pathophysiology of Neoplastic Process (3 Cr.); Pathophysiology of the Nervous System (2 Cr.); Pathophysiology of Homeostasis Disorders (2 Cr.); Medical Bacteriology (3 Cr.); Medical Parasitology and Mycology (2 Cr.); Radiological Anatomy (2 Cr.); Anatomy Laboratory Works (1 Cr.); Clinical Examination of the Healthy Human Being (1 Cr.); Anatomo-pathology Laboratory WorksII (2 Cr.); Physiology of Aging (3 Cr.); Pathophysiology of Hemodynamic Disorders (1 Cr.); Introduction to Medical Law (1 Cr.); Artificial Intelligence (1 Cr.); Heredity in Disease Processes (2 Cr.); Medical Virology (2 Cr.); General Semiology (2 Cr.); Semiology of the Thorax (2 Cr.); Semiology of the Head and Limbs (2 Cr.); Semiology of the Abdomen and Pelvis (2 Cr.); Fundamental Immunopathology (1 Cr.); Pathophysiology of Metabolic and Endocrine Disorders (3 Cr.); Pathophysiology of Malformative Processes (1 Cr.); Mental Health (2 Cr.); Introduction to Health Communication-I (1 Cr.); Introduction to Health Communication – II (1 Cr.); Emotions and Expressions in Medicine: A Theatrical Approach (2 Cr.); Anamnesis (1 Cr.); Biomedical Statistics (I) (1 Cr.); Biomedical Statistics (II) (1 Cr.); USJ Values in Daily Life (2 Cr.); Physical Exam of the Healthy Human Being I (1 Cr.); Physical Exam of the Healthy Human Being II (1 Cr.); Basic Life Support (1 Cr.); Directed Works in Physiology (2 Cr.); Pathophysiology of Biomechanical Disorders (1 Cr.); Evidence-Based Medicine (2 Cr.); Basics of Epidemiology (2 Cr.); Introduction to Health Systems Management (1 Cr.); English for Specific Purposes: Health Studies (4 Cr.); Human Rights and Civic Education (2 Cr.); Sociology and Health (2 Cr.); Fundamental Psychology (1 Cr.); Expression Techniques in Arabic (2 Cr.).

Institution's Elective Courses (23 Cr.), to be chosen from the list below:
Clinical Biochemistry II (2 Cr.); Sexual Disorders of the Human Being (2 Cr.); Nutrition and Homeostasis and Metabolic Disorders (2 Cr.); Multithematic Approach to the Eye and Vision (1 Cr.); Botanical and Ecology Laboratory Works (1 Cr.); Carbohydrates in the Medical Field (1 Cr.); Introduction to Biomathematics (2 Cr.); Civilization and Heritage (1 Cr.); Introduction to the Phoenician Language (1 Cr.); Developmental Psychology: from Intrauterine Life to Preadolescence (2 Cr.); Medical Psychology I (2 Cr.); Basic Survival Gestures (1 Cr.); Better Learning in the 21st Century (2 Cr.); Introduction to Oncogenetics (1 Cr.); Formation of the Lesion in Radiology (1 Cr.); Theater and Communication (2 Cr.); Normal Pregnancy (1 Cr.); Physiology of Sport and Exercise (2 Cr.); Elements of Neurobiology and Psychophysiology (1 Cr.); Nutrition According to the Different Life Cycles (2 Cr.); Introduction to the Biomechanics of Movement (1 Cr.); Elements of Botany: Application to Nutrition (1 Cr.); Physical Optics (1 Cr.); Medical Imaging Technology (1 Cr.); Biomedical Database Methodology (2 Cr.); Tobaccology (2 Cr.); Introduction to the Anthropology of Health (2 Cr.); Advanced Statistics (2 Cr.); Civic Engagement and Volunteering: Solidarity Action (2 Cr.); Lebanese Society: Families, Political Parties and Religious Communities (2 Cr.); Introduction to Professional Communication (2 Cr.).

Open Elective Courses (9 Cr.)

USJ General Education Program (28 credits required for FCMS, 37 credits offered t hroughout t he entire curriculum)

Code	Course Name	Credits
	ENGLISH OR OTHER LANGUAGE	**4**
002HE01L7	English for Specific Purposes: Health Studies	4
	ARABIC	**4**
	Arabic Language and Culture	**2**
002TEEXL1	Expression Techniques in Arabic	2
	Other Courses Taught in Arabic	**2**
002HC01L1	Introduction to Health Communication -I	1
002HC02L2	Introduction to Health Communication - II	1
	HUMANITIES	**8**
064VALEL1	USJ Values in Daily Life	2
	Ethics	**2**
002ETHIM3	Bioethics (Required for DCEM)	1

002DENOM2	Deontology (Required for DCEM)	1
	Civic Engagement and Citizenship	**2**
002HECBL1	Civic Engagement and Volunteering: Solidarity Action	2
	Other Humanities Course	**2**
002HY01L1	Fundamental Psychology	1
	SOCIAL SCIENCES	**7**
	Professional Integration and/or Entrepreneurship	**2**
002HS01L1	Sociology and Health	2
	Other Social Sciences Courses	**5**
002HS20L2	Lebanese Society: Families, Political Parties and Religious Communities	2
002SG01L6	Introduction to Health Systems Management	1
002HA11L5	Introduction to the Anthropology of Health	2
	COMMUNICATION TECHNIQUES	**8**
002HA04L1	Emotions and Expressions in Medicine: A Theatrical Approach	2
002FS17L3	Introduction to Professional Communication	2
002PS00L6	Anamnesis	1
002HA22L2	Theater and Communication	2
002TCMSMTC	Communication Skills Seminar	1
	QUANTITATIVE TECHNIQUES	**6**
002SS01L1	Biomedical Statistics (I)	1
002SS02L3	Biomedical Statistics (II)	1
002SE01L5	Basics of Epidemiology	2
002SR02L5	Evidence - based Medicine	2

SUGGESTED STUDY PLAN

Semester 1

Code	Course Name	Credits
002BA01L8	Introduction to Systematic General Human Anatomy (I)	1
002FB02L1	Reproductive Biology	1
002BH01L1	Introduction to Histology	2
002BF01L7	General Physiology	3
002FB01L9	Cellular Biology	2
002FC03L3	General Chemistry	3
002FP04L1	Biomedical Physics	1
002HS01L1	Sociology and Health	2
002HY01L1	Fundamental Psychology	1
002HA04L1	Emotions and Expressions in Medicine: A Theatrical Approach	2
002BLS1L1	Basic Life Support	1
045TEEXL1	Expression Techniques in Arabic	2
002BX08L3	Nursing Internship for Medical Students	2
	Institution's elective courses and open elective courses	7
	Total	**30**

Semester 2

Code	Course Name	Credits
002BA02L8	Introduction to Systematic General Human Anatomy (II)	2
002BC01L1	Structural Biochemistry	4
002BE01L1	Introduction to Human Embryology	2
002BM01L1	Molecular Biology	2
002BP04L2	Biophysics	3
002FC05L1	Organic Chemistry	3
002SS01L1	Biomedical Statistics (I)	1
064VALEL1	USJ Values in Daily Life	2
	Institution's elective courses and open elective courses	11
	Total	**30**

Semester 3

Code	Course Name	Credits
002BC03L3	Metabolic Biochemistry	2
002ANI1L3	Intensive Anatomy 1: Abdomen and Pelvis	1
002BI01L4	Hematopoietic System of the Healthy Human Being	2
002BI02L3	Endocrine System of the Healthy Human Being	2
002BI03L4	Nutrition and Metabolism of the Healthy Human Being	2
002BI05L4	Digestive System of the Healthy Human Being	2
002BI07L3	Urology and Nephrology System of the Healthy Human Being	2
002BU01L4	Fundamental Immunology	3
002BI08D4	Genital and Reproductive System of the Healthy Human Being	2
002PC01L3	Introduction to Pharmacology	3
002HT02L4	Mindfulness	1
002BX00L3	Physical Exam of the Healthy Human Being I	1
002HC01L1	Introduction to Health Communication -I	1
002SS02L4	Biomedical Statistics (II)	1
	Institution's elective courses and open elective courses	5
	Total	**30**

Semester 4

Code	Course Name	Credits
002BH09L5	Histology Laboratory Works	1
002ANI2L4	Intensive Anatomy 2 : Neck and Chest	2
002ANI3L4	Intensive Anatomy 3: Face and Sense Organs	1
002BI04L5	Cardiovascular System of the Healthy Human Being	2
002BI06L3	Respiratory System of the Healthy Human Being	2
002BI09L4	Skin and Sensory Organs of the Healthy Human Being	2
002BX01L5	Nervous System of the Healthy Human Being	4

002BX02L4	Musculoskeletal System of the Healthy Human Being	4
002HL01L2	Human Rights and Civic Education	2
002PR01L4	Image Formation in Radiology	1
002AI01L2AI	Artificial Intelligence	1
002BX06L4	Physical Exam of the Healthy Human Being II	1
002HC02L2	Introduction to Health Communication -II	1
	Institution's elective courses and open elective courses	6
	Total	**30**

Semester 5

Code	Course Name	Credits
002PF02L6	Pathophysiology of the Infectious Process	1
002PF03L5	Pathophysiology of Inflammatory Process	1
002PF04L5	Pathophysiology of Neoplastic Process	3
002PF06L6	Pathophysiology of the Nervous System	2
002PF08L6	Pathophysiology of Homeostasis Disorders	2
002PM01L6	Medical Bacteriology	3
002PM03L6	Medical Parasitology and Mycology	2
002PR02L5	Radiological Anatomy	2
002SE01L5	Basics of Epidemiology	2
002SR02L5	Evidence-based Medicine	2
002BX09L5	Clinical Examination of the Healthy Human Being	1
002PX02L5	Pathophysiology of Biomechanical Disorders	1
	Institution's elective courses and open elective courses	3
	Total	**25**

Semester 6

Code	Course Name	Credits
002BA09L4	Anatomy Laboratory Works	1
002BF08L5	Directed Works in Physiology	2
002PA02L6	Anatomo-pathology Laboratory Works II	2
002PF05L5	Physiology of Aging	3
002PF07L5	Pathophysiology of Hemodynamic Disorders	1
002DML4L2	Introduction to Medical Law	1
002PG01L6	Heredity in Disease Processes	2
002PM02L6	Medical Virology	2
002PS01L6	General Semiology	2
002PS02L6	Semiology of the Thorax	2
002PS03L6	Semiology of the Head and Limbs	2
002PS04L6	Semiology of the Abdomen and Pelvis	2
002PU01L5	Fundamental Immunopathology	1

002PX01L6	Pathophysiology of Metabolic and Endocrine Disorders	3
002PX03L5	Pathophysiology of Malformative Processes	1
002PX08L6	Mental Health	2
002SG01L6	Introduction to Health Systems Management	1
002PS00L6	Anamnesis	1
002HE01L7	English for Specific Purposes: Health Studies	4
	Total	**35**

COURSE DESCRIPTION

002BA01L8 Introduction to Systematic General Human Anatomy (I) 1 Cr.

002BA02L8 Introduction to Systematic General Human Anatomy (II) 2 Cr.

This course equips medical students with a foundational knowledge of the structure and organization of the major human body systems. It emphasizes anatomical terminology, spatial relationships, and the clinical relevance of key structures, providing a basis for understanding normal function and pathological conditions.

002ANI1L3 Intensive Anatomy 1: Abdomen and Pelvis 1 Cr.

This course covers the study of Anatomy, focusing on the descriptive general anatomy of the digestive, vascular, and urinary systems.
It addresses the abdominopelvic cavity, including its general organization, the embryogenesis of the peritoneum, and key structures such as the diaphragm, posterior abdominal wall, and lateral pelvic walls.
Students will study the urinary system, large prevertebral vessels, anterolateral abdominal wall, liver and portal system, duodeno-pancreas, stomach and spleen, small intestine and mesentery, colon, rectum, and the female and male genital systems.

002ANI2L4 Intensive Anatomy 2: Neck and Chest 2 Cr.

This course covers descriptive general anatomy of the respiratory, endocrine, and musculoskeletal systems, focusing on bones and joints.
It addresses the thoracic cavity and cervical region, including their general organization, the mediastinum, and the embryogenesis of the heart.
Students will study the external and internal morphology of the heart, its vascularization and intrinsic innervation, the tracheobronchial tree, pulmonary pedicle, lung morphology, and key regions of the neck, including the visceral, sternocleidomastoid, and supraclavicular areas.

002ANI3L4 Intensive Anatomy 3: Face and Sense Organs 1 Cr.

This course continues descriptive general anatomy of the musculoskeletal system, focusing on the muscular system, and introduces the nervous system and sensory apparatus.
It covers the sense organs, including the general organization of the neurocranium and splanchnocranium.
Students will study the anterior base of the skull (olfactory nerve and nasal cavities), middle base (cavernous sinus, motor nerves of the eye, V1 and orbital cavity, V2 and pterygopalatine region, V3 and pre-stylian region), and posterior base (facial nerve and facial muscles, vestibulocochlear nerve and inner ear, glossopharyngeal, spinal, and vagus nerves in the retrostylar region, and the hypoglossal nerve).

002FB02L1 Reproductive Biology 1 Cr.

This course examines the various modes of reproduction in living beings. It enables students to understand sexual and asexual reproduction in living organisms, with a focus on animals, and introduces embryology, especially in mammals.

002BH01L1 Introduction to Histology 2 Cr.

This course explains the techniques used to prepare tissue sections and introduces virtual slide observation. Students will learn the basic elements of different tissues.

002BF01L7 General Physiology 3 Cr.

This course, taught from the first semester of the first year of the FCMS, integrates the major functions of the body and pharmacology. It develops students' knowledge of the fundamental principles of maintaining the internal balance of the human body, and trains them to apply these principles through integrative thinking.

002FB01L9 Cellular Biology 2 Cr.

This course enables students to recognize the characteristics of cells and understand cell division, differentiation, communication, and the organization of cells into organelles and compartments. Students will assess the functions of organelles and their interdependence to ensure cell and organism homeostasis.

002FC03L3 General Chemistry 3 Cr.

This course enables students to understand the structure of atoms and their architecture, and to deduce the structure and spatial orientation of simple molecules to understand how molecules can react with each other. This course also covers chemical reactions from a kinetic and thermodynamic point of view, applied to the medical field. Students will address chemical equilibria through two types: acid-base equilibria and redox equilibria, while considering their applications in the medical field.

002FP04L1 Biomedical Physics 1 Cr.

This course provides the foundation for understanding and advancing in Biophysics, a core subject in medical studies. It includes medical applications and practical exercises illustrating concepts in electricity, mechanics, and geometrical optics.
By the end of the course, students will understand the electrical, mechanical, and optical phenomena relevant to their studies and research, interpret membrane potential, compression, bending, shearing, and torsion phenomena, assess their magnitudes, acquire basic knowledge of astigmatism and eye accommodation, learn correction methods, and effectively use the optical microscope.

002HS01L1 Sociology and Health 2 Cr.

This course complements the training of future doctors by grounding medical practice in its socio-cultural environment.

002HY01L1 Fundamental Psychology 1 Cr.

This course introduces psychology and its practical applications, especially in the health field, presenting its main theories and approaches to optimize medical practice by emphasizing the human dimension of the doctor-patient relationship. By the end of this course, students will become familiar with the concepts of normality and pathology, stress reactions, different personality types, and the main approaches in clinical psychology, enabling them to view the patient as a whole and adopt a more humane approach to care.

002BC01L1 Structural Biochemistry 4 Cr.

This course covers the structure and chemical functions of the monomeric units that form biological macromolecules such as proteins, carbohydrates, lipids, and nucleotides. Students will learn about enzymatic structure, kinetics, inhibition, thermodynamics, and mode of action.

002BE01L1 Introduction to Human Embryology 2 Cr.

This course develops students' ability to integrate the various mechanisms of embryonic development. It examines the successive transformations of the egg, from fertilization to childbirth, including the embryonic and fetal stages. Students will study the formation of the embryo with all its clinical implications, explain the etiology of congenital malformations, and identify possible preventive measures.

002BM01L1 Molecular Biology 2 Cr.

This course provides students with dual expertise in molecular biology and genetic manipulation techniques. It covers the basic concepts of the central dogma of molecular biology in prokaryotes and eukaryotes: from DNA to protein. Students will explore nucleic acids—DNA and RNA—from their structure and genetic code to their function and regulation, to understand and analyze cutting-edge molecular data.

002BP04L2 Biophysics 3 Cr.

This course helps students to understand how biomedical radiation interacts within the human body. It also enables them to understand how various types of radiological images (X-rays, CT scans, MRI, ultrasound, scintigraphy) are formed and what the principle of radiotherapy is.

002FC05L1 Organic Chemistry 3 Cr.

This course introduces the fundamental concepts of structure, nomenclature, stereochemistry, and reaction mechanisms to provide students with mastery of the corresponding terminology. It also integrates these concepts to explain organic chemistry reaction mechanisms and their application in the biomedical and pharmaceutical fields. Students will learn to name molecules , master the rules of stereochemistry and its impact on biological properties, understand molecular reactivity and deduce reaction mechanisms, apply methodologies, and use their knowledge in practical situations

045TEEXL1 Expression Techniques in Arabic 2 Cr.

This course, taught from the first semester of the first year, introduces students to the foundations of correct expression (both orally and in writing). It focuses on a set of stylistic techniques, including linking tools and semantic markers, punctuation, and writing methods for reports, minutes, letters, or articles.

002BC03L3 Metabolic Biochemistry 2 Cr.

This course enables students to understand the major metabolic pathways responsible for synthesizing energy molecules like ATP. Students will learn the metabolic pathways responsible for the degradation and synthesis of biological macromolecules such as carbohydrates, lipids, proteins, and nucleic acids.

002BI01L4 Hematopoietic System of the Healthy Human Being 2 Cr.

This course explains the morphology and normal functioning of the hematopoietic system. The student should be able to describe, explain, and present: the histology of the hematopoietic system; hematological cytology; hematopoiesis; the natural history of a red blood cell; the structure of a red blood cell; the structure, ontogenesis, and functioning of hemoglobin; iron metabolism; red blood cell metabolism; the role of a white blood cell with its characteristics; primary hemostasis with all its components; secondary hemostasis with the interaction of coagulation factors; formulating research questions; inhibiting and limiting factors of coagulation; the physiological role of the spleen; blood groupings and their immunological impact.

002BI02L3 Endocrine System of the Healthy Human Being 2 Cr.

This course describes the hormones, the endocrine glands of the body, and their importance in maintaining homeostasis. Students will be able to describe and explain: 1. The concept of ligand-receptor and feedback loops; 2. The thyroid gland; 3. The testes; 4. The ovaries; 5. The catecholamines; 6. Steroidogenesis; 7. Glucocorticoids; 8. Mineralocorticoids; 9. The anterior pituitary gland.

002BI03L4 Nutrition and Metabolism of the Healthy Human Being 2 Cr.

This course explains the main mechanisms regulating metabolic processes. By the end of this course, students will understand the relationships of the endocrine pancreas and energy processes, identify the factors regulating calcium homeostasis and the role of different effector tissues, know the mechanisms of amino acid degradation and the elimination of toxic oxidation products, understand the synthesis, transport, and metabolism of lipids, learn the regulation of water metabolism, and understand the basic elements of the body's energy control and the nervous and endocrine factors regulating weight.

002BI05L4 Digestive System of the Healthy Human Being 2 Cr.

This course explains the normal morphology and functioning of the digestive system. It covers: The embryology of the different organs of the digestive tract; The anatomy of the digestive tract; The histology of the different organs of the digestive tract; The physiology of the digestive tract.

002BI07L3 Urology and Nephrology System of The Healthy Human Being 2 Cr.

This course enables students to understand, apply, and analyze the structure and function of the kidneys and urinary tract in humans. It focuses on functional anatomy, the physiological mechanisms of urine formation and elimination, and the role of the renal system in maintaining homeostasis.
By the end of the course, students will be able to:

- Describe renal vascularization, histology, and embryology.
- Explain glomerular filtration mechanisms and their regulation.
- Define renal clearance.
- Explain tubular mechanisms and their regulation, including sodium, potassium, calcium, water, phosphates, magnesium, bicarbonates, glucose, and citrates.
- Explain kidney function in pH regulation.
- Describe renal hormonal functions such as erythropoietin and renin.
- Explain hormonal regulation of kidney function, including the sympathetic system, aldosterone, and the renin–angiotensin system.
- Explain the physiology and nervous regulation of urination.

002BU01L4 Fundamental Immunology 3 Cr.

This course enables students to identify the different components of the immune system, including its cells and organs, and to understand the basic concepts of the humoral and cellular immune responses.
Students will study clonal selection in the bone marrow and thymus (tolerance) and explore the final immune response in secondary lymphoid organs through antigen presentation, the HLA system, the cytokine network, and cellular cooperation with their corresponding molecular signals.

002BI08D4 Genital and Reproductive System of the Healthy Human Being 2 Cr.

This course provides foundational knowledge of the normal human reproductive system to prepare students for advanced studies in gynecology and obstetrics.
Students will:

- Describe the anatomical elements of the human reproductive system.
- Identify the principles of anatomy, embryology, and histology of the male and female genital organs.
- Understand the main physiological functions of the male and female reproductive systems during the sexual act.
- Explain the physiological changes that occur during pregnancy.

002PC01L3 Introduction to Pharmacology 3 Cr.

This course, offered from the first semester of the second year, provides future practitioners with the rational pharmacological bases of drug therapy. It focuses on acquiring essential knowledge about the main classes of medicines and developing pharmacological reasoning, including pharmacodynamics, pharmacokinetics, and pharmacovigilance.

002BH09L5 Histology Laboratory Works 1 Cr.

This course aims to reinforce and complement the theoretical knowledge acquired in Histology.
Students will develop practical skills in recognizing simple and contextualized images of human tissues and learn to analyze and interpret histological images and slides based on the concepts studied in lectures.

002BI04L5 Cardiovascular System of the Healthy Human Being 2 Cr.

This course enables students to understand, apply, and analyze the structure and function of the heart and blood vessels in humans. It focuses on functional anatomy, the physiological mechanisms of the heart, and the physiology of blood vessels, emphasizing their role in maintaining the body's overall homeostasis.

002BI06L3 Respiratory System of the Healthy Human Being 2 Cr.

This course enables students to understand, apply, and analyze the structure and function of the human respiratory system. It focuses on functional anatomy, the physiological processes of ventilation, perfusion, and gas exchange, and the application and analysis of paraclinical examinations of the respiratory system.

002BI09L4 Skin and Sensory Organs of the Healthy Human Being 2 Cr.

By the end of this course, students will be able to: Recognize the different compartments of the ear (external ear, middle ear, inner ear); Recognize the contribution of each compartment of the ear to the hearing mechanism.

002BX01L5 Nervous System of the Healthy Human Being 4 Cr.

This course provides the essential foundations of embryology, anatomy, histology, physiology, and biochemistry of the central nervous system. The anatomy of the spine and peripheral nervous system is studied in parallel with osteology and the musculoskeletal system during the same period.

002BX02L4 Musculoskeletal System of the Healthy Human Being 4 Cr.

This course teaches students the basics of the organization and normal functioning of the osteoarticular system. It prepares them to better understand the pathophysiology of rheumatological, orthopedic and traumatological pathologies and subsequently their treatment.

002HL01L2 Human Rights and Civic Education 2 Cr.

This course enables non-law students to become familiar with the institutional and normative frameworks that organize social life and safeguard freedoms and human rights. It serves as an introduction to law, providing general knowledge of legal structures, institutions, procedures, principles, and rules. Students will learn to participate actively in civic life, contribute to societal development, and assume their civic responsibilities while protecting their rights and freedoms.

002PR01L4 Image Formation in Radiology 1 Cr.

This course builds on the prerequisite of biophysics to explain how radiological images are formed across different modalities. It enables students to understand normal radiological anatomy, recognize the presentation of various pathological processes, and later identify specific pathologies.

002BX08L3 Nursing Internship for Medical Students 2 Cr.

This internship introduces students to hospital hygiene principles and the techniques of patient care and monitoring in a hospital setting. It helps them understand the nurse's role in patient care and become familiar with the patient's medical file. During this internship, students will assist in and provide various types of care to hospitalized patients.

002PF02L6 Pathophysiology of the Infectious Process 1 Cr.

This course, offered from the first semester of the third year, develops students' knowledge on the fundamental principles of anti-infectious defenses, sepsis and septic shock, antibacterial, antiviral and antiparasitic immunity, innate and adaptive immunity. It also covers the pathophysiological mechanisms of infection, the interactions between the host and pathogens, and the different types of infections.

002PF03L5 Pathophysiology of Inflammatory Process 1 Cr.

This course introduces the definition, causes, and general progression of the inflammatory reaction.
Students will learn to define specific types of inflammation and recognize the evolution of inflammatory processes.

002PF04L5 Pathophysiology of Neoplastic Process 3 Cr.

This course explores the neoplastic process leading to the development of benign and malignant tumors.
It covers carcinogenesis, tumor proliferation and growth, dissemination, biological and clinical manifestations, and

the principles of diagnostic and therapeutic interventions. It also examines the relationship between neoplastic processes and other diseases, as well as their impact on public health.

002PF06L6 Pathophysiology of the Nervous System 2 Cr.

This course introduces students to the clinical manifestations of nervous system disorders and their correlation with dysfunctions in anatomical and functional systems.
By the end of the course, students will be able to:
- Recognize and define nervous system disorders.
- Analyze and differentiate between various disorders of the nervous system.
- Correlate nervous system disorders with the dysfunction of specific anatomical and functional systems.

002PF08L6 Pathophysiology of Homeostasis Disorders 2 Cr.

This course, offered from the second semester of the third year, integrates clinical sciences in particular nephrology, anesthesia and intensive care. It aims to develop knowledge on fluid compartment disorders and encourage the use of this knowledge in an integrative manner in the management of various pathologies.

002PM01L6 Medical Bacteriology 3 Cr.

This course forms a fundamental part of medical training. It helps students develop two key competencies: acquiring knowledge about bacteria of medical importance and adopting an appropriate approach for diagnosing and treating the bacterial infections most commonly encountered in medical practice.

002PM03L6 Medical Parasitology and Mycology 2 Cr.

This course focuses on the diagnosis of parasitic and fungal diseases. It trains students to use epidemiological, clinical, and paraclinical elements to develop diagnostic strategies. Students will learn to differentiate cosmopolitan diseases from tropical ones and will be prepared for international exams and competitions (USMLE, etc.).

002PR02L5 Radiological Anatomy 2 Cr.

This course covers the normal anatomy in radiography, ultrasound and Doppler, CT, MRI and scintigraphy.

002SE01L5 Basics of Epidemiology 2 Cr.

This course covers the fundamental principles of epidemiology. It includes the concept of causality, measures of disease frequency, risk estimation, measures of effect and association, the concept of interaction, the conduct of epidemiological studies (cohort studies, case-control studies, cross-sectional studies, validity, precision), evaluation of screening programs, and the role of biases and confounding factors in epidemiological studies.

002SR02L5 Evidence-based Medicine 2 Cr.

This course introduces the principles of Evidence-Based Medicine (EBM), an approach that guides clinical decision-making by integrating the best scientific evidence, clinical expertise, and patient consultation. Students will learn to apply this method to select the most appropriate options for patient care.

002BA09L4 Anatomy Laboratory Works 1 Cr.

Practical work on cadaveric specimens.

002BX09L5 Clinical Examination of the Healthy Human Being 1 Cr.

This course focuses on developing medical clinical skills through both knowledge and practice. It covers the clinical examination of the healthy human body, including all organs. Students will participate in and apply the practical methods of clinical examination and will understand the importance of the clinical approach and professional attitudes toward patients.

002PA02L6 Anatomo-pathology Laboratory Works II 2 Cr.

These practical works illustrate, through virtual slides of pathological anatomy placed in their clinical context, the tissue alterations observed during hemodynamic disorders, endocrine and metabolic disorders, biomechanical disorders, and nutritional and hemostasis disorders.

002PF05L5 Physiology of Aging 3 Cr.

This course involves studying, on the one hand, general concepts on the aging process, including developmental, morphological, and physiological aspects, as well as specific courses on frailty and successful aging, and on the other hand, studying the impact of aging on different organs or systems.

002PF07L5 Pathophysiology of Hemodynamic Disorders 1 Cr.

This course focuses on understanding, applying, and analyzing the state of shock and its evaluation methods. Students will learn to understand the state of shock, apply and analyze its paraclinical examinations, and determine its different etiologies.

002AI01L2AI Artificial Intelligence 1 Cr.

This course, given to 2nd-year medical students, explores the fundamentals of AI, covering key concepts, practical tools, ethical use, and medical applications. Students will participate in practical exercises, AI tool applications, technology monitoring projects, and ethical debates. The final sessions, led by medical experts, offer an in-depth overview of clinical applications and professional implications of AI.

002DML4L2 Introduction to Medical Law 1 Cr.

This theoretical and practical course introduces medical law and basic legal, medical, social, and cultural awareness that doctors must know and apply in their profession.

002PG01L6 Heredity in Disease Processes 2 Cr.

This course in medical and clinical genetics presents an overview of the field, from genetic counseling to multifactorial diseases, and from prenatal medicine to oncology. It includes the identification of genetic disorders, their molecular causes as well as the pathophysiological mechanisms, potential treatments (preventive, curative, and/or palliative), the study of their transmission, and the associated family genetic counseling, including recurrence risks and the measures implemented to avoid them. Topics include examples of congenital malformations and prenatal diagnosis, monogenic disorders, oncogenetics, and cancer predisposition syndromes. In this course, fundamental concepts are illustrated by examples from the perspective of genetic counseling activities and associated ethical considerations. Students will be able to differentiate between cytogenetics and molecular biology, between genetic and chromosomal anomalies, and between germline and acquired anomalies. This course also helps students understand the specifics of genetic counseling.

002PM02L6 Medical Virology 2 Cr.

This course, offered in the first semester of the third year, plays a key role in integrating immunology and infectious processes. It develops knowledge of the fundamental principles of virology, including virus structure and pathophysiology, and the diagnostic aspects of viral infections, with limited emphasis on antiviral treatments. Students will gain a clear understanding of viral infections to effectively manage situations in which their patients face viral risks or infections.

002PS01L6 General Semiology 2 Cr.

By the end of this course, students should be able to analyze: Fatigue; Weight loss; Lymphadenopathy; Sweating; Fever; Clinical manifestations of cancer; Basic dermatological lesions.

002PS02L6 Semiology of the Thorax 2 Cr.

This course covers: Clinical examination of cardiac patients; Normal ECG; Principles of echocardiography; Normal coronary angiography; Introduction to respiratory semiology; Study of symptoms and physical signs related to

pulmonary and respiratory problems; Study of paraclinical signs (imaging) related to pulmonary and respiratory problems; Study of paraclinical signs (respiratory function) related to pulmonary and respiratory problems; Grouping of symptoms and signs into syndromes; Shock state.

002PS03L6 Semiology of the Head and Limbs 2 Cr.

This course covers: Semiology of the eye; Severity signs in psychoses; Suicide risk; Syncope; Vertigo and pseudo-vertigo; Consciousness disorders; Medullary and radicular compressions; Intracranial hypertension; Mechanical and inflammatory joint pain; Non-articular teno-muscular pain; Lower back pain - Cervical pain; Lower limb edema; Trophic disorders of the lower limbs; Semiology of fractures.

002PS04L6 Semiology of the Abdomen and Pelvis 2 Cr.

This course covers: GE and hepatology explorations; Ascites; Hepato-GE syndromes; Portal hypertension and hepato-cellular failure; Jaundice; Nausea and vomiting; Abdominal pain; Renal colic (ID+ Ortho); Urinary disorders; Hematuria (ID+ Nephrologist); Scrotal pain; Pelvic pain; Monitoring a normal pregnancy; Menometrorrhagia.

002PU01L5 Fundamental Immunopathology 1 Cr.

This course involves understanding certain aspects of the immune response that are: excessive (hypersensitivity and inflammation); deficient (immune deficiencies); or against oneself (autoimmunity).

002PX01L6 Pathophysiology of Metabolic and Endocrine Disorders 3 Cr.

This course examines the pathophysiology of endocrine disorders, including weight regulation disorders, disorders of the endocrine glands (pituitary, thyroid, adrenal, gonads), and metabolic disorders involving glucose, lipids, phosphocalcium, and uric acid. Lectures are supported by clinical case studies. This course serves as a link between physiology and pathology.

002PX03L5 Pathophysiology of Malformative Processes 1 Cr.

By the end of the course, students should be able to: Define the embryological bases of malformations; Know the classifications of malformative processes; Distinguish environmental etiologies of malformations; Differentiate genetic causes of malformations; Determine prevention possibilities for malformations; Know congenital anomalies occurring during childbirth.

002PX08L6 Mental Health 2 Cr.

By the end of this course, students will be able to recognize severe symptoms of mental pathology from childhood to adulthood and outline recommended interventions.

002SG01L6 Introduction to Health Systems Management 1 Cr.

This course, offered from the first semester of the third year, explains the Lebanese health system compared to other international systems, as well as activity sectors in community medicine and public health. Additionally, it aims to familiarize students with quality audit procedures and crisis management.

002HE01L7 English for Specific Purposes: Health Studies 4 Cr.

This course introduces students to key aspects of medical English terminology related to the cardiovascular, gastrointestinal, and immune systems. It provides the terminology needed to perform effectively in today's healthcare settings. Areas and skills covered include taking medical histories, interacting with patients and families, and managing urgent cases. Students will define the major manifestations of various diseases and analyze disease terminology through case studies. The course uses factsheets, case reports, and vignettes based on real-life scenarios. Students will also learn to write different types of business documents and express their opinions effectively.

002HC01L1 Introduction to Health Communication -I 1 Cr.

This course offers a holistic understanding of effective communication in healthcare settings. Through theoretical learning and practical applications, students will develop essential skills for successful interactions with patients. The course addresses verbal, non-verbal and digital communication, emphasizing empathy and active listening.

002HC02L2 Introduction to Health Communication - II 1 Cr.

This course offers a holistic understanding of effective communication in healthcare settings. Through theoretical learning and practical applications, students will develop essential skills for successful interactions with patients. The course addresses verbal, non-verbal and digital communication, emphasizing empathy and active listening.

002PS00L6 Anamnesis 1 Cr.

This course develops students' motivation for patient contact, stimulates their clinical reasoning when faced with medical cases, and makes them aware of the importance of effective questioning.

002SS01L1 Biomedical Statistics (I) 1 Cr.

This course contributes to the development of public health data analysis skills, by enabling students to acquire an understanding of fundamental statistical concepts, as well as descriptive and some inferential analysis methods.

002SS02L3 Biomedical Statistics (II) 1 Cr.

This course is an applied extension of SS01 - Biomedical Statistics I and focuses on the use of R software for the manipulation, analysis and interpretation of biomedical data.

064VALEL1 USJ Values in Daily Life 2 Cr.

This course aims to raise students' awareness of the core values of the Saint Joseph University of Beirut (USJ) and to encourage them to apply these values in their personal, interpersonal, and professional lives. It engages them in a critical reflection on how the principles enshrined in the USJ Charter can influence their behavior, actions, and decisions in addressing the challenges of today's world. Students will also develop an understanding of global issues and ethical responsibilities, preparing them to contribute positively to the building of a better society.

002BX00L3 Physical Exam of the Healthy Human Being I 1 Cr.

This course explores the physiological functioning of the healthy human being (systems taught in the first semester) using simulation technologies. It provides students with an in-depth understanding of normal body systems and the tools to simulate and observe their functioning under normal conditions. Students will have the opportunity to work on simulation mannequins and software to recreate realistic clinical scenarios, enabling better preparation for clinical practice.

002BX06L4 Physical Exam of the Healthy Human Being II 1 Cr.

This course explores the physiological functioning of the healthy human being (systems taught in the second semester) using simulation technologies. It provides students with an in-depth understanding of normal body systems and the tools to simulate and observe their functioning under normal conditions. Students will have the opportunity to work on simulation mannequins and software to recreate realistic clinical scenarios, enabling better preparation for clinical practice.

002HA04L1 Emotions and Expressions in Medicine: A Theatrical Approach 2 Cr.

This course is the first step in training students in medical communication. Through an active and artistic pedagogy, students will discover the basics of communication through theatrical techniques, focusing on self-knowledge, expression, intuition, listening and stress management. Theater becomes a tool for cultivating authenticity in the doctor's role as observer, actor and empath.

002HA11L5 Introduction to the Anthropology of Health 2 Cr.

This course explores body awareness and well-being. It addresses how to listen to one's body and understand its physical, psychological, and mental needs. Topics include the positive and negative consequences of aging, the aesthetics of the body and its impact on psychological, physical, and social levels, as well as the relationship between healing and modernity.

002PX02L5 Pathophysiology of Biomechanical Disorders 1 Cr.

This course is an essential part of medical training, particularly for integrating knowledge into clinical practice. It develops understanding of the biomechanical mechanisms of the musculoskeletal system that underlie the clinical and paraclinical symptoms and signs of common diseases.

002BF08L5 Directed Works in Physiology 2 Cr.

This course is an essential part of medical training, particularly for integrating the body's major functions. It aims to develop students' critical analysis and synthesis of acquired knowledge while strengthening their technical skills for oral and poster presentations.

002BLS1L1 Basic Life Support 1 Cr

This course focuses on recognizing cardiac and respiratory emergencies and mastering urgent resuscitation procedures for both adults and children. Students will learn how to identify emergencies promptly and take appropriate action.

002HT02L3 Mindfulness 1 Cr.

This course introduces the discipline and techniques of mindfulness. It aims to help students change automatic habits of consciousness, enhance awareness, and cultivate nonjudgmental observation through activities and training exercises. Mindfulness promotes better management of stress, feelings, and emotions, and fosters greater awareness for a healthier lifestyle and lasting well-being.

002HA22L2 Theater and Communication 2 Cr.

This course aims to develop students' expression and communication skills through theatrical practice, both individually and in groups.

002HECBL1 Civic Engagement and Volunteering: Solidarity Action 2 Cr.

This course raises students' awareness of the importance of civic and community involvement. It aims to develop their ability to actively participate in meaningful volunteer initiatives while providing ethical and practical guidance to help them make a positive contribution to society.

002FS17L3 Introduction to Professional Communication 2 Cr.

This course contributes to personality development by strengthening human relations and career skills. It helps students develop organizational, professional, and social abilities, and learn research methods and communication techniques essential for socio-professional success.

002HS20L2 Lebanese Society: Families, Political Parties and Religious Communities 2 Cr.

This course offers an analysis of contemporary Lebanese society through its structure into families, political tendencies, and religious communities. It is part of a set of subjects designed to broaden the horizons of medical students.

Second Cycle of Medical Studies (SCMS)

Main Language of Instruction:
French ☑ English ○ Arabic ○

Campus Where the Program Is Offered: CSM

OBJECTIVES

This cycle aims to provide future doctors and health professionals with solid theoretical and clinical training in the physiopathology, causality, and distribution of human diseases, enabling them to make accurate diagnoses of prevalent, urgent, serious, exemplary, preventable, or treatable diseases, to apply the principles of their treatment, integrating into this training the disciplines of the Normal Being, research methodology, ethical rules, and a rich and varied human, scientific, and medical culture.

PROGRAM LEARNING OUTCOMES (COMPETENCIES)

- **Medical Expert:** Provide patient-centered medical care within the limits of one's competence.
- **Communicator:** Communicate effectively with patients, families, care providers, and others.
- **Collaborator:** Collaborate with the institutional healthcare team and other stakeholders (national, NGOs, etc.) to ensure optimal patient care.
- **Manager:** Participate in the management of healthcare institutions and the efficiency of the Lebanese healthcare system.
- **Scholar:** Engage in continuous reflective learning, and the creation, dissemination, and application of medical knowledge.
- **Health Promoter:** Promote the health and well-being of patients in Lebanon and the region.
- **Professional:** Commit to society by practicing one's profession according to Lebanese law, self-regulation, and professional ethics.

ADMISSION REQUIREMENTS

Achieving a "program average" of ≥ 70/100 for the 180 FCMS credits within a maximum of eight semesters (four academic years) enables progression to the SCMS.
Regardless of their nationality or faculty of origin, students are eligible for admission to the SCMS if they meet the requirements for transferring from the FCMS to the SCMS (equivalency validation of all subjects as well as the curriculum), provided they achieve a sufficiently high ranking in the FM-USJ entrance exam.

PROGRAM REQUIREMENTS

120 credits: Required courses (116 credits), Institution's elective courses (2 credits), and USJ General Education Program (2 credits required for the SCMS).

USJ General Education Program (2 Cr.)
Deontology (1 Cr.); Bioethics (1 Cr.)

Required courses (116 Cr.)
Urology (5 Cr.)**;** Obstetrics and Gynecology (5 Cr.); Digestive System I (Gastroenterology) (4 Cr.); Digestive System II (Gastrointestinal Surgery) (2 Cr.); Metabolic and Endocrine Pathologies (6 Cr.); Dermatology (5 Cr.); Simulation 1 (1 Cr.); Advanced Theory of Medical Communication (1 Cr.); Nephrology (6 Cr.); Anesthesia-Reanimation (3 Cr.); Pulmonary Medicine (6 Cr.)**;** Cardiovascular Pathology (6 Cr.); Cardiovascular and Thoracic Surgery (4 Cr.); Public Health (1 Cr.); Occupational Medicine (1 Cr.); Radiology Pathology I (1 Cr.); Simulation 2 (1 Cr.); Research Project Design (1 Cr.); Otorhinolaryngology (ENT) (4 Cr.); Ophthalmology (3 Cr.); Musculoskeletal System I (Orthopedics) (4 Cr.); Musculoskeletal System II (Rheumatology) (3 Cr.); Neurology (4 Cr.); Neurosurgery (2 Cr.); Psychiatry (4 Cr.); Plastic Surgery (1 Cr.); Forensic Medicine (1 Cr.); Integrated Practice of Medical Communication (1 Cr.); Simulation 3 (1 Cr.); Hematology (3 Cr.); Medical Oncology (3 Cr.); Geriatrics (3 Cr.); Pediatrics (6 Cr.); Pediatric Surgery (1 Cr.); Infectious Diseases (4 Cr.); Internal Medicine (4 Cr.); Internship in SCMS (2 Cr.); Radiology Pathology II (1 Cr.); Simulation 4 (1 Cr.); Reading and Writing a Scientific Article (1 Cr.)

Institution's Elective Courses (2 Cr.), to be chosen from the list below:
Leadership and Personal Development (1 Cr.); Civic Engagement and Volunteering: Projects-NGO (1 Cr.); Physical Medicine and Rehabilitation (1 Cr.)

SUGGESTED STUDY PLAN

Students have the possibility of completing their cycle in 6 semesters if necessary for the validation of the SCMS. They are also required to choose an elective course each year.

Semester 1

Code	Course Name	Credits
002UROLM1	Urology	5
002OBGYM1	Obstetrics and Gynecology	5
002ADG1M1	Digestive System I (Gastroenterology)	4
002ADIIM1	Digestive System II (Gastrointestinal Surgery)	2
002ENDOM1	Metabolic and Endocrine Pathologies	6
002DER5M1	Dermatology	5
002SIM1M1	Simulation 1	1
002TACMM1	Advanced Theory of Medical Communication	1
	Total	**29**

Semester 2

Code	Course Name	Credits
002NEPHM2	Nephrology	6
002ANE3M2	Anesthesia-Reanimation	3
002PNEUM2	Pulmonary Medicine	6
002CDARM2	Cardiovascular Pathology	6
002CHTHM2	Cardiovascular and Thoracic Surgery	4
002GRD1M3	Public Health	1
002MTRAM2	Occupational Medicine	1
002PARAM1	Radiology Pathology I	1
002SIM2M2	Simulation 2	1
002CPR1M2	Research Project Design	1
	Total	**30**

Semester 3

Code	Course Name	Credits
002OTRLM1	Otorhinolaryngology (ENT)	4
002OPHTM1	Ophthalmology	3
002ORT4M1	Musculoskeletal System I (Orthopedics)	4
002ALRHM1	Musculoskeletal System II (Rheumatology)	3
002NEU4M1	Neurology	4
002NECHM1	Neurosurgery	2
002PSYCM1	Psychiatry	4

002CHPLM3	Plastic Surgery	1
002MELEM2	Forensic Medicine	1
002PICMM1	Integrated Practice of Medical Communication	1
002SIM3M3	Simulation 3	1
	Total	**28**

Semester 4

Code	Course Name	Credits
002HEM3M2	Hematology	3
002OCN3M2	Medical Oncology	3
002SYGEM2	Geriatrics	3
002PEDIM4	Pediatrics	6
002CHP1M4	Pediatric Surgery	1
002MAINM4	Infectious Diseases	4
002MAINM2	Internal Medicine	4
002ETHIM3	Bioethics	1
002DENOM2	Deontology	1
002PARAM2	Radiology Pathology II	1
002STGEM2	Internship in SCMS	2
002SIM4M4	Simulation 4	1
002LRASM4	Reading and Writing a Scientific Article	1
	Total	**31**

COURSE DESCRIPTION

002UROLM1 Urology 5 Cr.

By the end of this course, students will be able to:
- Recognize various urological pathologies.
- Detect and prevent complications of different urological pathologies.
- Develop a treatment plan for various urological pathologies.

002OBGYM1 Obstetrics and Gynecology 5 Cr.

By the end of this course, students will be able to monitor a normal pregnancy and become familiar with the most common obstetric and gynecological pathologies, as well as the principles of their management. This course also covers infertility issues.

002ADG1M1 Digestive System I (Gastroenterology) 4 Cr.

By the end of this course, students will be able to:
Demonstrate diagnostic skills to ensure effective management of patients with gastrointestinal, hepatobiliary, or pancreatic pathologies.
Apply relevant information to the clinical practice of hepatogastroenterology for the most appropriate patient management.

002ADIIM1 Digestive System II (Gastrointestinal Surgery) 2 Cr.

This course provides basic knowledge of the surgical treatment of pathologies of the digestive tract, pancreas, liver, biliary ducts, and anal diseases.

002ENDOM1 Metabolic and Endocrine Pathologies 6 Cr.

This course covers the clinical presentations of endocrine diseases, including thyroid, adrenal, gonadal, pituitary, and growth disorders, and metabolic diseases such as diabetes, obesity, lipid metabolism disorders, phosphocalcic metabolism disorders, and osteoporosis. It teaches students to diagnose these pathologies and understand the main therapeutic approaches. Lectures are supported by practical exercises with clinical cases. This course serves as a bridge between physiology/pathophysiology and pathology.

002DER5M1 Dermatology 5 Cr.

By the end of this course, students will be able to recognize, analyze, and manage the various dermatological signs and symptoms encountered during their clinical internships in the doctoral program.

002SIM1M1 Simulation 1 1 Cr.

This course focuses on the Simulation Certificate in Urology, Gynecology-Obstetrics, Digestive System I, and Digestive System II. It teaches students to autonomously and safely apply the theoretical knowledge and technical skills acquired during their training. While objectives may vary slightly depending on the specialty, the course aims to enable students to refine their practical skills before working on real patients.

002TACMM1 Advanced Theory of Medical Communication 1 Cr.

This course aims to provide medical students with an in-depth understanding of the principles of medical communication through theoretical sessions. It introduces core concepts such as patient-centered communication, motivational interviewing techniques, structuring and documenting clinical interviews, as well as skills in sharing healthcare information, oral presentations, the ethical use of social media, and interprofessional communication. These theoretical sessions include lectures, case studies, and interactive discussions, enabling students to build a solid knowledge base they can apply in clinical practice.

002NEPHM2 Nephrology 6 Cr.

By the end of this course, students will be able to:
- Recognize and analyze manifestations compatible with nephropathy.
- Identify renal involvement secondary to other pathologies.
- Understand the consequences of nephropathies on various systems.
- Assess urgent situations in nephrology.

002ANE3M2 Anesthesia-Reanimation 3 Cr.

This course familiarizes students with the pathway of every operated patient and the various stages of pre-, peri-, and post-operative care. It covers the techniques and risks of anesthesia, enabling students to discuss them with patients, and teaches the main perioperative complications and their management principles. Students will gain the knowledge to safely guide and manage surgical patients.

002PNEUM2 Pulmonary Medicine 6 Cr.

This course teaches students to evaluate patients presenting with pulmonary and/or respiratory symptoms, establish a differential diagnosis, determine the appropriate diagnostic approach, and understand the principles of treatment to be instituted. Students will develop the skills to manage respiratory cases effectively.

002CDARM2 Cardiovascular Pathology 6 Cr.

This course trains students to become competent general practitioners capable of diagnosing cardiac diseases and referring patients to a cardiologist when necessary. Students will develop the skills to manage common cardiac conditions and coordinate appropriate care.

002CHTHM2 Cardiovascular and Thoracic Surgery 4 Cr.

By the end of this course, students will be able to:
- Identify the main cardiovascular pathologies, most of which are very common.

- Detect and prevent complications of these various pathologies.
- Adopt the right diagnostic and therapeutic approach.

002GRD1M3 Public Health 1 Cr.

This course complements students' knowledge in specialized epidemiology, health organization and management, demography, and social and preventive health. It also addresses selected public health issues. Students will apply this knowledge to understand and analyze public health challenges.

002MTRAM2 Occupational Medicine 1 Cr.

This course introduces students to the Lebanese legislation regarding occupational medicine and the categories of common occupational diseases.

002PARAM1 Radiology Pathology I 1 Cr.

This course teaches students to understand the appearance of diseases affecting the nervous, urinary, musculoskeletal systems, and thorax across various medical imaging modalities. Lectures take place in the computer lab, and students will learn to interpret imaging findings for clinical application.

002SIM2M2 Simulation 2 1 Cr.

This course focuses on the Simulation Certificate in Nephrology, Anesthesia-Reanimation, Pulmonary Medicine, Cardiovascular Pathology, and Cardiovascular and Thoracic Surgery. It teaches students to autonomously and safely apply the theoretical knowledge and technical skills acquired during their training. While objectives may vary slightly depending on the specialty, the course aims to enable students to refine their practical skills before working on real patients.

002CPR1M2 Research Project Design 1 Cr.

This course aims to teach students how to develop a scientific research project within the context of their medical studies. By the end of this course, students will be able to:
- Conduct a literature review
- Identify quantitative and qualitative studies
- Write a research protocol
- Draft a submission to an ethics committee
- Collect, analyze, and compare data
- Understand the specific characteristics of different types of articles (screening, diagnostic, etiological, therapeutic, prognostic)

002OTRLM1 Otorhinolaryngology (ENT) 4 Cr.

This course covers the most common ENT pathologies, including presentation, diagnosis, and therapeutic options. Students will develop diagnostic algorithms based on the clinical presentation.

002OPHTM1 Ophtalmology 3 Cr.

This course aims to familiarize students with the clinical presentation of various ocular diseases, including refractive errors, corneal diseases, cataracts, glaucoma, strabismus, lacrimal system disorders, optic neuropathies, red eye, retinal detachment, diabetic retinopathy, age-related macular degeneration, ocular manifestations of systemic diseases, and retinal vascular diseases. Students will learn how to diagnose these pathologies and gain an understanding of the main therapeutic approaches.

002ORT4M1 Musculoskeletal System I (Orthopedics) 4 Cr.

By the end of this course, students will be able to:
- Recognize the different traumatic and non-traumatic highly prevalent pathologies of the musculoskeletal system.
- Detect and prevent complications associated with the different traumatic and non-traumatic pathologies of the

musculoskeletal system.
- Develop a therapeutic plan for the different traumatic and non-traumatic pathologies of the musculoskeletal system.

002ALRHM1 Musculoskeletal System II (Rheumatology) 3 Cr.

This course provides students with information and learning tools for common medical conditions of the musculoskeletal system.

002NEU4M1 Neurology 4 Cr.

This course covers the neuromuscular system pathologies, their manifestations, and the diagnostic principles.

002NECHM1 Neurosurgery 2 Cr.

By the end of this course, students will be able to:
1- Understand physiopathology, diagnose, and know the principles of treatment for spinal cord compression.
2- Recognize subarachnoid hemorrhage and understand its treatment principles.
3- Recognize and diagnose malformative pathologies.
4- Understand the physiopathology, diagnose, and know the principles of treatment for radicular pain and cauda equina syndrome.
5- Understand the physiopathology, diagnose, and know the principles of treatment for head trauma.
6- Understand the physiopathology, diagnose, and know the principles of treatment for intracranial hypertension.
7- Recognize and diagnose the main cranial tumors in adults and children.

002PSYCM1 Psychiatry 4 Cr.

This course covers the main mental illnesses in adults, children, adolescents, and the elderly.

002CHPLM3 Plastic Surgery 1 Cr.

This course covers certain skin pathologies, pathologies of the oral cavity, and pathologies of the face, as well as their treatment modalities.

002MELEM2 Forensic Medicine 1 Cr.

By the end of this course, students will be able to:
Establish a death certificate and a medicolegal certificate.
Classify a death and determine its cause.
Understand procedures for the following:
1. Removal of a corpse
2. An autopsy
3. A requisition
4. A request for expertise and testimony in court
   - Recognize injuries and their causes
   - Understand the principles of forensic expertise
   - Handle pathologies with a medicolegal framework

002PICMM1 Integrated Practice of Medical Communication 1 Cr.

This course is designed to develop advanced medical communication skills in medical students through hands-on activities in a simulation center. Students will learn to apply communication techniques in simulated clinical situations, practicing patient value recognition, motivational interviewing, clinical documentation, health information sharing, oral presentation, ethical use of social media, and interprofessional communication. These practical sessions provide students with immediate and constructive feedback, thereby strengthening their ability to communicate effectively and professionally in real-world contexts.

002SIM3M3 Simulation 3 1 Cr.

This course focuses on the Simulation Certificate in Otorhinolaryngology (ENT), Ophthalmology, Musculoskeletal System I (Orthopedics), Musculoskeletal System II (Rheumatology), Neurology, Neurosurgery, and Psychiatry. It teaches students to autonomously and safely apply the theoretical knowledge and technical skills acquired during their training. While objectives may vary slightly depending on the specialty, the course aims to enable students to refine their practical skills before working on real patients.

002HEM3M2 Hematology 3 Cr.

This course covers malignant hemopathies and benign hematological disorders.

002OCN3M2 Medical Oncology 3 Cr.

This course covers the diagnostic management of cancer in general and particularly the most common neoplasms.

002SYGEM2 Geriatrics 3 Cr.

This course teaches students about geriatric pathologies encountered by all physicians treating adult patients. It covers the characteristics of pathological aging, the specific aspects of diseases in the elderly, and the analysis of multi-morbidity to prioritize actions. Students will learn to evaluate the benefit/risk ratio of medical decisions while considering the whole person, their environment, and their expectations.

002PEDIM4 Pediatrics 6 Cr.

This course explains the essential elements that a general practitioner needs to incorporate regarding the health and management of both healthy and sick children.

002CHP1M4 Pediatric Surgery 1 Cr.

This course covers the basic knowledge of the surgical treatment required for visceral, thoracic, and urological pediatric surgery. This includes embryology, anatomy, physiopathology, semiology, and diagnostic tools of common pathologies in pediatric surgery.

002MAINM4 Infectious Diseases 4 Cr.

This course covers the pathologies of viral, bacterial, and parasitic infections, their manifestations, and their diagnostic methods.

002MAINM2 Internal Medicine 4 Cr.

This course covers the main systemic diseases, their manifestations, and their diagnostic modalities.

002ETHIM3 Bioethics 1 Cr.

The course contributes to the development of the ability to reflect on medical decision-making and the practice of medicine.

002DENOM2 Deontology 1 Cr.

This course teaches students that the practice of medicine is a civic act within the legal framework of the Rule of Law. It also introduces essential legal concepts that support responsible clinical decision-making.

002PARAM2 Radiology Pathology II 1 Cr.

This course covers the appearance of diseases affecting the cardiovascular, ENT (Ear, Nose, and Throat), and digestive systems, as well as diseases specific to women and children. Lectures take place in the computer lab.

002STGEM2 Internship in SCMS 2 Cr.

This course introduces students to clinical rotations at the Simulation Center and Hospital.

002SIM4M4 Simulation 4 1 Cr.

This course focuses on the Simulation Certificate in Oncology and Pediatrics. It teaches students to autonomously and safely apply the theoretical knowledge and technical skills acquired during their training. While objectives may vary slightly depending on the specialty, the course aims to enable students to refine their practical skills before working on real patients.

002LRASM4 Reading and Writing a Scientific Article 1 Cr.

This course explains how to critically read and analyze scientific articles, as well as how to write scientific findings in the form of a research article.

002LEDPM1 Leadership and Personal Development 1 Cr.

This course aims to enhance students' leadership and personal development skills. Students will explore key themes such as personal values, congruence, emotional intelligence, growth mindset, and well-being. Through a holistic approach, the course provides practical tools to help students become effective leaders in their medical practice.

002ENCBM1 Civic Engagement and Volunteering: Projects-NGO 1 Cr.

This course raises students' awareness of the importance of civic and community involvement. It aims to develop their skills for actively participating in meaningful volunteer initiatives, offering ethical and practical guidance to make a positive contribution to society.

002IREHM2 Physical Medicine and Rehabilitation 1 Cr.

This course introduces the field of physical medicine and rehabilitation. It covers the core principles of rehabilitation through its complementary disciplines: physiotherapy, speech therapy, psychomotor therapy, and occupational therapy. Special emphasis is placed on the multidisciplinary approach to care.

Third Cycle of Medical Studies (TCMS)

Main Language of Instruction:
French ☑ English ○ Arabic ○

Campus Where the Program Is Offered: *Hôtel-Dieu de France* (HDF) University Medical Center

OBJECTIVES

This cycle aims to provide future doctors with solid theoretical and clinical training to diagnose prevalent, urgent, serious, exemplary, preventable, or treatable illnesses based on the main reasons for consultation. It teaches them to treat conditions outside a specialist's remit, manage cases requiring referral, and participate in community medicine teams. Students will learn to suggest effective preventive actions, educate the public, intervene from a health and economic perspective, collaborate with other health professionals, manage their practice effectively, and contribute to the smooth functioning of healthcare structures. Medical graduates will also be trained to continue acquiring new medical knowledge and skills, engage in research, and use French, English, and Arabic to write scientific medical texts and deliver oral presentations.

PROGRAM LEARNING OUTCOMES (COMPETENCIES)

- **Medical Expert:** Provide patient-centered medical care within the limits of one's competence.
- **Communicator:** Communicate effectively with patients, families, care providers, and others.
- **Collaborator:** Collaborate with the institutional healthcare team and other stakeholders (national, NGOs, etc.) to ensure optimal patient care.
- **Manager:** Participate in the management of healthcare institutions and the efficiency of the Lebanese healthcare system.
- **Scholar:** Engage in continuous reflective learning, and the creation, dissemination, and application of medical knowledge.
- **Health Promoter:** Promote the health and well-being of patients in Lebanon and the region.
- **Professional:** Commit to society by practicing one's profession according to Lebanese law, self-regulation, and professional ethics.

ADMISSION REQUIREMENTS

Achieving a "program average" of ≥ 70/100 in the 120 credits of the SCMS within a maximum of six regular semesters (three academic years) enables progression to the TCMS.
Regardless of their nationality or faculty of origin, students are eligible for admission to the TCMS if they meet the requirements for transferring from the FCMS to the SCMS and from the SCMS to the TCMS (validation by equivalence of all subjects as well as the curriculum), provided they they achieve a sufficiently high ranking in the FM-USJ entrance exam.

CONDITIONS FOR SUCCESSFUL COMPLETION

Completion of all TCMS subjects
TCMS1: Internship, OSCE, Certificate in Clinical Therapeutic Synthesis - CCTS
TCMS2: Internship, OSCE, Written examination, Final thesis)

PROGRAM REQUIREMENTS

120 credits: Required courses (119 credits), and USJ General Education Program (1 credit required for the TCMS).

USJ General Education Program (1 Cr.)
Communication Skills Seminar (1 Cr.)

Required courses (119 Cr.)
Clinical Reasoning Course ARC (T1) (3 Cr.); Initiation to Clinical Internship Seminars (3 Cr.); Initiation to Clinical

Internship Seminars: Simulation (2 Cr.); Internship (T1) (8 Cr.); Internship (T1): Simulation (1 Cr.); Certificate in Clinical and Therapeutic Synthesis (1) (12 Cr.); Medical Professional Competencies (1) (9 Cr.); Internship (T2) (8 Cr.); Internship (T2): Simulation (1 Cr.); Certificate in Clinical and Therapeutic Synthesis (2) (12 Cr.); Clinical Reasoning Course ARC (T2) (2 Cr.); Clinical Case Conferences (2 Cr.); Geriatrics Seminar (1 Cr.); Palliative Care Seminar (1 Cr.); Anesthesia-Intensive Care Seminar (1 Cr.); Legal Liabilities of Physicians (1 Cr.); Medical Professional Competencies (2) (6 Cr.); Internship (T3) (15 Cr.); Internship (T3): Simulation (1 Cr.); Clinical Research Thesis (6 Cr.); Medical Professional Competencies (3) (6 Cr.); Internship (T4) (8 Cr.); Internship (T4): Simulation (1 Cr.); Certificate in Clinical and Therapeutic Synthesis (3) (9 Cr.).

SUGGESTED STUDY PLAN

Semester 1

Code	Course Name	Credits
TCMARC1	Clinical Reasoning Course ARC (T1)	3
TCMSMSC	Initiation to Clinical Internship Seminars	3
TCMSMSS	Initiation to Clinical Internship Seminars: Simulation	2
TCMSMTC	Communication Skills Seminar	1
TCMSTI1	Internship (T1)	8
TCMSTS1	Internship (T1): Simulation	1
TCMCSC1	Certificate in Clinical and Therapeutic Synthesis (1)	12
	Total	**30**

Semester 2

Code	Course Name	Credits
TCMCPM1	Medical Professional Competencies (1)	9
TCMSTI2	Internship (T2)	8
TCMSTS2	Internship (T2): Simulation	1
TCMCSC2	Certificate in Clinical and Therapeutic Synthesis (2)	12
	Total	**30**

Semester 3

Code	Course Name	Credits
TCMARC2	Clinical Reasoning Course ARC (T2)	2
TCMCCCS	Clinical Case Conferences	2
TCMSMGR	Geriatrics Seminar	1
TCMSMSP	Palliative Care Seminar	1
TCMSMAR	Anesthesia-Intensive Care Seminar	1
TCMSMRJ	Legal Liabilities of Physicians	1
TCMCPM2	Medical Professional Competencies (2)	6
TCMSTI3	Internship (T3)	15
TCMSTS3	Internship (T3): Simulation	1
	Total	**30**

Semester 4

Code	Course Name	Credits
TCMTDRC	Clinical Research Thesis	6
TCMCPM3	Medical Professional Competencies (3)	6
TCMSTI4	Internship (T4)	8
TCMSTS4	Internship (T4): Simulation	1
TCMCSC3	Certificate in Clinical and Therapeutic Synthesis (3)	9
	Total	**30**

COURSE DESCRIPTION

TCMARC1 Clinical Reasoning Course ARC (T1) 3 Cr.

This course develops students' clinical reasoning, enhancing their ability to devise solutions, and diagnostic and therapeutic approaches. It teaches the major principles and mechanisms underlying medical practice, including professional acts, attitudes, and behaviors. Students will learn to recognize medical and surgical pathologies and master their therapeutic management.

TCMSMSC Initiation to Clinical Internship Seminars 3 Cr.

This course consists of the following:
- Seminar 1: Master the critical assessment of literature.
- Seminar 2: Recognize the most common reasons for emergency calls.
- Seminar 3: Know the general principles of hospital hygiene and improve the quality of care.

TCMSMSS Initiation to Clinical Internship Seminars: Simulation 2 Cr.

This course consists of the following:
- Seminar 1: Mastery of common technical procedures: arterial blood gas, nasogastric tube insertion, urinary catheterization, etc.
- Seminar 2: Conduct the urgent interventions of cardiorespiratory arrest.

002TCMSMTC Communication Skills Seminar 1 Cr.

This course teaches students common strategies for effective communication in medical practice. It emphasizes the importance of clear and empathetic interactions and the application of communication principles in patient care. Students will learn to identify patient needs and complaints, build rapport, and demonstrate empathy in their clinical practice.

TCMSTI1 Internship (T1) 8 Cr.

This internship exposes students to various medical specialties to help them make informed career choices.

TCMSTS1 Internship (T1) : Simulation 1 Cr.

This internship enables students to autonomously and safely apply the theoretical knowledge acquired in the first cycle of medical studies (FCMS) and the technical skills gained in the second cycle (SCMS). While objectives may vary slightly depending on the specialty, the course aims to allow students to refine their skills in practice before working with real patients.

TCMCSC1 Certificate in Clinical and Therapeutic Synthesis (1) 12 Cr.

This course helps students understand the physiopathological mechanisms of various medical and surgical pathologies. It also trains them to develop differential diagnoses and comprehensive therapeutic management plans for each condition.

TCMCPM1	**Medical Professional Competencies (1)**	**9 Cr.**

This course trains future doctors to communicate effectively with patients, families, and care providers, intervene from health and economic perspectives, and collaborate closely with other health professionals. It also prepares them to manage their practice efficiently and contribute positively to the smooth functioning of healthcare institutions. Students will be trained to promote health, serve society, and practice medicine in accordance with Lebanese law, self-regulation, and professional ethics.

TCMSTI2	**Internship (T2)**	**8 Cr.**

This internship exposes students to various medical specialties to help them make informed career choices.

TCMSTS2	**Internship (T2): Simulation**	**1 Cr.**

This internship enables students to autonomously and safely apply the theoretical knowledge acquired in the first cycle of medical studies (FCMS) and the technical skills gained in the second cycle (SCMS). While objectives may vary slightly depending on the specialty, the course aims to allow students to refine their skills in practice before working with real patients.

TCMCSC2	**Certificate in Clinical and Therapeutic Synthesis (2)**	**12 Cr.**

This course helps students understand the physiopathological mechanisms of various medical and surgical pathologies. It also trains them to develop differential diagnoses and comprehensive therapeutic management plans for each condition.

TCMARC2	**Clinical Reasoning Course ARC (T2)**	**2 Cr.**

This course develops students' clinical reasoning, enhancing their ability to devise solutions, and diagnostic and therapeutic approaches. It teaches the major principles and mechanisms underlying medical practice, including professional acts, attitudes, and behaviors. Students will learn to recognize medical and surgical pathologies and master their therapeutic management.

TCMCCCS	**Clinical Case Conferences**	**2 Cr.**

This course prepares students for qualifying exams: CEPD and USMLE.

TCMSMGR	**Geriatrics Seminar**	**1 Cr.**

This course enables students to apply standardized gerontological assessment in clinical practice, detect swallowing disorders, delirium, and malnutrition in elderly people, recognize their causes and complications, provide appropriate management, and apply principles of rehabilitation in the presence of swallowing disorders.

TCMSMSP	**Palliative Care Seminar**	**1 Cr.**

This course teaches students to detect, evaluate, and manage physical and psychological pain in patients receiving palliative care. It also addresses ethical reflections when facing incurable diseases and the recognition of indications for end-of-life sedation.

TCMSMAR	**Anesthesia-Intensive Care Seminar**	**1 Cr.**

This course enables students to:

- Recognize a patient in shock.
- Learn the pharmacology of vasopressors.
- Learn the pharmacology of filling products.

TCMSMRJ **Legal Liabilities of Physicians** **1 Cr.**

This course enables students to:
- Define legal terms.
- Determine and explain the different constituent elements of medical liability: mistakes, damages or injuries, and links.
- Analyze different categories of liability based on examples.
- Deepen awareness of medical liability.
- Propose practical solutions to resolve legal problems.

TCMCPM2 **Medical Professional Competencies (2)** **6 Cr.**

This course trains future doctors to communicate effectively with patients, families, and care providers, intervene from health and economic perspectives, and collaborate closely with other health professionals. It also prepares them to manage their practice efficiently and contribute positively to the smooth functioning of healthcare institutions. Students will be trained to promote health, serve society, and practice medicine in accordance with Lebanese law, self-regulation, and professional ethics.

TCMSTI3 **Internship (T3)** **15 Cr.**

This internship exposes students to various medical specialties to help them make informed career choices.

TCMSTS3 **Internship (T3): Simulation** **1 Cr.**

This internship enables students to autonomously and safely apply the theoretical knowledge acquired in the first cycle of medical studies (FCMS) and the technical skills gained in the second cycle (SCMS). While objectives may vary slightly depending on the specialty, the course aims to allow students to refine their skills in practice before working with real patients.

TCMTDRC **Clinical Research Thesis** **6 Cr.**

This course enables students to conduct a literature review, write a research protocol, collect, and analyze data, and interpret and discuss the results considering the literature data.

TCMCPM3 **Medical Professional Competencies (3)** **6 Cr.**

This course trains future doctors to communicate effectively with patients, families, and care providers, intervene from health and economic perspectives, and collaborate closely with other health professionals. It also prepares them to manage their practice efficiently and contribute positively to the smooth functioning of healthcare institutions. Students will be trained to promote health, serve society, and practice medicine in accordance with Lebanese law, self-regulation, and professional ethics.

TCMSTI4 **Internship (T4)** **8 Cr.**

This internship exposes students to various medical specialties to help them make informed career choices.

TCMSTS4 **Internship (T4): Simulation** **1 Cr.**

This internship enables students to autonomously and safely apply the theoretical knowledge acquired in the first cycle of medical studies (FCMS) and the technical skills gained in the second cycle (SCMS). While objectives may vary slightly depending on the specialty, the course aims to allow students to refine their skills in practice before working with real patients.

TCMCSC3 **Certificate in Clinical and Therapeutic Synthesis (3)** **9 Cr.**

This course helps students understand the physiopathological mechanisms of various medical and surgical pathologies. It also trains them to develop differential diagnoses and comprehensive therapeutic management plans for each condition.