

COLLEGE OF MEDICINE

Officers

Ahmed Bateha; Acting Dean
Rania H. Abdel-Rahman, Vice Dean of Academic & Students Affairs
Qutaiba O. Ababneh, Head of Basic Sciences Department

Professors

Ahmed Bateha , Developmental and Molecular Genetics
Rania H. Abdel-Rahman, Forensic Medicine & Clinical Toxicology

Associate Professors

Qutaiba O. Ababneh, Biochemistry
Mohamed M. Sonbol, Anatomy and Embryology
Hassan Abdel-Latif, Physiology
Ahmed M. Abd-Eldayem, Pharmacology
Dr. Rasha Mokhtar, Pathology

Assistant Professors

Omaima K. Docmac, Anatomy and Embryology
Musaab Alkhatib, Organic Chemistry
Fahad Albalawi, Molecular Medicine and Medical Immunology

Lecturer

Ms. Sarah Alamri, Medical Laboratory

Employees

Mr. Reda Ramadan , Lab technician, Anatomy lab

College Overview

The College has the responsibility to educate and train physicians to provide the people of Saudi Arabia with quality, comprehensive medical care in their communities

The mission of the Fahd Bin Sultan University emphasizes the delivering of high-quality educational programs through distinguished faculty and administrative staff and modern educational and research facilities in an environment conducive for innovation and advancement of knowledge to inspire students' continuous learning, develop their skills, explore their potentials, and instill in them a sense of leadership while preserving a strong commitment to the highest ethical standards.

The mission of the medical college emphasizes excellence in innovative Medical education, and

ethical research and quality healthcare delivery.

Vision

To be a premier medical college in medical education, healthcare and ethical research.

Mission

The College of Medicine is dedicated to graduating competent physicians who are committed to ethical practice, continuous development, providing excellent healthcare and conducting innovative basic and clinical research.

Values

Excellence, Creativity, Honesty, Integrity, Transparency, Attitude, Accountability, Social responsibility, Empathy, and Teamwork.

Goals/Objectives

The College of Medicine is dedicated to realizing the following goals and objectives:

1. Provide students with a solid foundation in basic medical sciences.
2. Provide students with and clinical skills and competencies.
3. Enhance students' proficiency in both content and procedural knowledge.
4. Develop and improve students' communicative competencies, cognitive abilities, and social skills.
5. Build a capacity for conducting applied health research relevant to the community needs.
6. Instill a commitment to serve the community and treat patients with respect and compassion.
7. Instill a commitment to lifelong learning and the principles of ethical and professional conduct in students.
8. Prepare students for graduate studies in their specialized fields.

Career Opportunities

The College is committed to providing it's students with meaningful, up- to-date skills and knowledge that will allow them to pursue successful careers and make deep impacts both within the Tabuk province, and across the Kingdom of Saudi Arabia. With these objectives in mind, the college program has been designed around fostering contemporary best practices and skills in line with the job opportunities in the highly demanding public and private health sector within Tabuk and the Kingdom of Saudi Arabia.

Academic Programs

The College of Medicine currently in its first year and offers one program: Bachelor of Medicine and Bachelor of Surgery. The college will consist of several departments for basic science and for each of the major clinical specialization.

Admission Requirements

The College of Medicine invites students with a sound academic record, good personal character, strong interest to serve their communities and eagerness to serve as professionals in the medical field.

Applicants must satisfy the following eligibility requirements:

- Fulfill University admission requirements.
- Hold a Saudi High School Certificate Science Section (or its Equivalent), with a General and Science Grade Point Averages as specified and announced annually by the University Council.
- Passed the National Skills Exam.
- Pass General Aptitude test.
- Satisfies the weighted average requirement set by the university council for the National Skills Exam, General Aptitude test and high school grade
- Hold a good conduct certificate.
- Present a “No-Objection” letter from the employer, if applicable.
- Should not have been dismissed from any academic institution for disciplinary reasons.
- Pass a physical fitness check-up.
- Satisfy any additional admission requirements of the applied to college and program.

The College accepts candidates on a competitive basis as seats are limited. Criteria for selection is primarily based on achievements in the National Skills Exam, General Aptitude test, and High School grades. Secondary criteria for selection include: English proficiency, IT competencies, and issuing year of High School Certificates.

BACHELOR OF MEDICINE AND BACHELOR OF SURGERY (MBBS) PROGRAM

The program is an applied science that integrates theoretical and practical education and has very important roles in:

- Serving as a Medical Education Resource Center to related health professions and to the community and organizations involved in health care delivery.
- Promoting Continuing Professional Development to maintain and improve competency of all professionals engaged in health care delivery.

By combining teaching, health care, research and community service, the program enhances the university's mission of offering quality education for students, conducting scientific research and serving the local community.

Vision

To be a leading undergraduate medical program recognized for its ability to graduate competent and professional physicians.

Mission

The mission of the MBBS program is to educate, train and motivate medical students to be lifelong and reflective learners, skillful and proficient physicians who are conscious of their social responsibilities and competent in a broad range of diagnostic, communication and organizational skills; and who will hold themselves to the highest professional and ethical standards in order to provide exemplary medical care and conduct innovative scientific research.

Program Objectives

1. Graduate lifelong learners
2. Graduate reflective learners
3. Graduate skillful learners
4. Graduate Professional physicians

Program Outcomes

Successful graduates of this program are expected to:

- PO 1 demonstrate understanding and application of Islamic ethics and values;
- PO 2 be knowledgeable, skilled, reflective, critical thinker and compassionate;
- PO 3 be innovative in their approach to problems solving;
- PO 4 be skilled at accessing, appraising and applying the best available evidence to their everyday practice;
- PO 5 demonstrate awareness of the social, ethical, economic and environmental context of health and illness and psychological wellbeing, and delivery of care;
- PO 6 be committed to the health of populations as well as individuals;
- PO 7 be concerned with issues of equity, quality and humanity in health care and who advocate for the disadvantaged and dispossessed;
- PO 8 maintain high standards throughout their professional life by a commitment to life-long learning and teaching;

- PO 9 have the skill to address the key questions relevant to the community and to medicine;
- PO 10 be capable of leadership and are comfortable working as a team member;
- PO 11 uphold the community's trust and expectations of the role of a doctor;
- PO 12 be advocate for health by practicing preventive medicine and health promotion;
- PO 13 recognize the essential role of research in underpinning medical practice;
- PO 14 provide exemplary primary, secondary and tertiary health care and other related community health services.

Learning Outcomes

1.0 Knowledge

- 1.1 The legal requirements and protocols in clinical practice relating to the doctor-patient relationship, obtaining patient consent and maintaining confidentiality.
- 1.2 The ethical principles of the medical profession.
- 1.3 The structure of the medical interview, the key elements in a patient history and the basic elements of the patient case record.
- 1.4 The basic math, biology, chemistry sciences required for medical education.
- 1.5 Normal anatomy, histology, physiology, development and aging as integrated disciplines that provide a basis for understanding disease.
- 1.6 Mechanisms of drug action, pharmacokinetics, pharmacodynamics and therapeutics.
- 1.7 The genetic, biochemical, microbiologic, immunologic, physiologic, environmental and pathologic mechanisms underlying disease states and their treatment.
- 1.8 Neuroscience, nerve impulses and reflexes, cell- to-cell communication, and the molecular basis of cancer.
- 1.9 The psychological aspects of illness.
- 1.10 The clinical, laboratory, radiologic and pathologic manifestations of diseases.
- 1.11 Health maintenance, disease prevention, and the principles of epidemics and public health as they relate to the practice of medicine.
- 1.12 The structure and function of the health care system and how it affects the delivery of care.
- 1.13 The basic epidemiologic methods and statistical principles that underlie evidence-based medicine.
- 1.14 The influence of culture, race and ethnicity on the perception of illness and its treatment.

2.0 Cognitive Skills

- 2.1 Conduct a structured patient centered interview; elicit a structured, comprehensive, direct and logical medical history.
- 2.2 Identify, access, interpret and apply scientific literature.
- 2.4 Perform a careful, accurate, complete and directed physical examination.
- 2.5 Competently perform common technical procedures.
- 2.6 Reason deductively to solve clinical problems, including those in which information is incomplete or ambiguous.
- 2.7 Select and interpret results of appropriate and evidence-informed diagnostic tests based on differential diagnosis.

- 2.8 Correctly diagnose common illnesses based upon historical, physical examination and laboratory data.
- 2.9 Recognize and incorporate into clinical decision making the important psychosocial determinants contributing to poor health.
- 2.10 Construct and execute a therapeutic plan.
- 2.11 Recognize and respond appropriately to medical situations including emergencies and that are immediately life threatening.

3 Interpersonal Skills & Responsibility

- 3.1 Maintain an appropriate standard of behavior including demeanor, appearance and meeting commitments.
- 3.2 Adhere to and uphold the professional, legal, ethical principles in all interactions.
- 3.3 Employ and exemplify altruism, accountability, excellence, duty, service, honor, integrity, and respect for others into all aspects of their professional lives.
- 3.4 Exhibit compassionate treatment and respect of patients dignity, confidentiality and autonomy.
- 3.5 Demonstrate sensitivity and responsiveness to culture, age, gender, religion, and disabilities of patients, patients' families, faculty, residents, other health care professionals, and peers.
- 3.6 Build therapeutic relationships with patients and demonstrate commitment to the well-being and needs.
- 3.7 Demonstrate social responsibility and a commitment to promote the health and well-being of the communities they serve.
- 3.8 Utilize the principles of cost-effective patient and community care.
- 3.9 Demonstrate commitment to excellence and ongoing professional development.
- 3.10 Demonstrate commitment to lifelong learning and an appreciation for the role of science and research in medical advances.
- 3.11 Recognize and exhibit respect for the roles of other health care professionals.
- 3.12 Work effectively with the other members of the health care team and exhibit willingness to lead when leadership is required.
- 3.13 Accept criticism and to understand the limitations of one's own knowledge and skills.
- 3.14 Manage workload, risks, uncertainty and stress.

4.0 Communication, Information Technology, Numerical

- 4.1 Communicate effectively with patients, families, colleagues and other health care professionals.
- 4.2 Maintain accurate, comprehensive, legible and up-to-date medical record documentation.
- 4.3 Employ information technology effectively for patient care.
- 4.4 Demonstrate basic skills in accessing research materials from personal, print and electronic sources and provide structured and effective case presentations.
- 4.5 Demonstrate the ability to deliver and prioritize concise and accurate summaries of patient assessments and management plans to all members of the health care team.
- 4.6 Demonstrate respect for cultural and ethnic backgrounds of patients and their families and other members of the health care team.

5.0 Psychomotor

- 5.1 Perform hygienic hand washing and injecting (intramuscular and subcutaneous).
- 5.2 Measure, monitor and determine vital signs in patients.

Program Policies, Rules and Guidelines

The following are the Policies and Guidelines for granting a Bachelor's degree in the Doctor of Medicine Issued by the University Council in accordance with the system of granting scientific degrees and certificates at Fahd Bin Sultan University and implemented from the date of issuance.

These Policies and Guidelines are particular to and are applicable only to the MBBS program, and apply to all enrolled students in the MBBS program. They have priority and override the general policies, rule and guidelines of all other college and programs.

Article 1

This set of guidelines is known as the Protocol for the awarding of a Bachelor's degree in the specialized field of Medicine and Surgery. It shall be implemented as of the University Council's decision date.

Article 2

The stipulations outlined herein shall pertain to regularly enrolled students seeking to obtain a Bachelor's degree within the specialized domain of Medicine and Surgery.

Academic Curriculum

Article 3

The University Council sanctions the academic curriculum leading to a Bachelor's Degree in the specialty of Doctor of Medicine and Surgery, along with any modifications recommended by the Faculty of Medicine Council and the Curriculum Review Committee.

Article 4

- A) The academic curriculum shall adhere to an annual system across all academic years leading to a Bachelor's Degree in the field of Doctor of Medicine, encompassing mandatory courses specified within the curriculum.
- B) Each course in the academic curriculum shall be allocated a predetermined number of credit hours specified in the curriculum.
- C) A distinct number shall be assigned to each course within the curriculum.
- D) Details such as credit hours, lecture frequency, laboratory sessions, practical training hours, and clinical rotations shall be outlined for each course in the academic curriculum, with assessments conducted on a semester or annual basis.

Article 5

- A) The minimum credit hours required for the Bachelor's Degree in Doctor of Medicine and Surgery program is set at 250 credit hours.
- B) The distribution of credit hours for the Doctor of Medicine and Surgery program is as follows:

Nature of Requirements	Number of Mandatory Credit Hours	Number of Elective Credit Hours	Total
University requirements	33	3	36
Basic science requirements	13	0	13
College Requirements	197	4	201
Total	243	7	250

Article 6

A) The study plan for the Bachelor's Degree in Doctor of Medicine mandates the completion of university requirements, totaling 36 credit hours.

1. Mandatory requirements: 33 credit hours distributed as follows:

Course Code	Course Name	Credits	Pre-Requisite
ENGL 115	English for Medicine I	4	
ENGL116	English for Health Care Professions I	3	
CSC 131	Computer Skills	3	
MED 101	Biostatistics	3	
MED 102	Contemporary Medical Topics	1	
ENGL 117	English for Medicine II	3	ENG 115
ENGL118	English for Health Care Professions II	3	ENGL116
LRSK 142	Communication Skills	3	
PHED 152	Health & Physical Education	1	
SOCS 151	An Introduction to the Islamic Culture	3	SOCS 151
SOCS 152	Faith and Ethic	3	SOCS 152
SOCS 351	The Economic, Political and Social System of Islam	3	SOCS 351
	Total credits	33	

2. Elective requirements: 3 credit hours of the student's choice from the following courses:

Course Code	Course Name	Credits
ACCT 110	Financial Accounting	3
ASTR 150	Introduction to Astronomy	3
CSC 210	Computer Skills for Social Sciences	3
CIT 101	Future Technologies	3
CHEM 150	Chemistry and Society	3
MNGT 110	Principles of Management	3
FREN 101	Basic French I	3
SOCS 203	History of the Kingdom of Saudi Arabia	3
SOCS 202	World Civilization	3

B) Compulsory Medical school requirements:

1. Mandatory medical school prerequisites: Requirements of the College of Sciences and Humanities include earning 13 approved credit hours.

Course Code	Course Name	Contact Hours		Credit Hours
		Practical	Theoretical	
BIO 103	General Biology	-	3	3
MED 291	Medical Physics	-	3	3
BIO 107	General Biology (Practical)	3	-	1
CHEM 103	General Chemistry	-	3	3
CHEM 107	Organic Chemistry	-	3	3
	Total	3	12	13

The Faculty of Medicine outlines specific requirements totaling 198 credit hours, which students must complete in accordance with the designated sequence and numbers specified in the study plan. The plan also clarifies the nature of each course, whether it involves theoretical instruction, practical learning, or clinical training.

2. Faculty of Medicine Requirements: 201 credit hours

Pre-clerkship Compulsory Courses (86 credit hours)

Course Code	Course Name	Credit Hours	Weekly hours	
			Lectures	Practical
MED 173	Medical Terminology	2	2	0
MED 114	Cell Biology & Tissues	3	2	2
MED 115	Anatomy and Embryology	7	5	6
MED 132	Physiology	3	3	0
MED 202	Biochemistry	3	3	0
MED 284	Health administration informatics, economics and population care	3	3	0
MED 222	Medical Genetics	3	3	0
MED 231	Pathology	3	2	3
MED 232	Immunology	3	3	0
MED 251	Pharmacology	3	3	0
MED 265	Microbiology	3	2	3
MED 282	Neurosciences	6	5	3
MED 305	Haemopoietic & Lymphatic system	6	4	6
MED 310	Musculo-skeletal system	6	4	6
MED 311	Gastro-intestinal system	6	4	6
MED 321	Endocrine system	4	3	3
MED 352	Urinary and reproductive systems	8	6	6
MED 353	Respiratory system	6	4	6
MED 364	Cardio-vascular system	6	4	6
MED 370	Professionalism, ethics, and legal medicine	2	2	0
	Total	86	67	56

Clerkship Compulsory Courses (111 Credit Hours)

Course Code	Course Name	Credit Hours	No. of
			weeks
MED 411	Medical Communications & Clinical skills	5	5
MED 415	Clinical Psychology	3	3
MED 416	Forensic medicine	2	2
MED 417	Dermatology	2	2
MED 418	Anaesthesia & ICU	4	4
MED 419	Diagnostic Radiology	2	2
MED 420	General Surgery I	8	8
MED 422	Internal Medicine I	8	8
MED 430	Community medicine and research project	8	8
MED 507	Paediatrics I	8	8
MED 510	Obstetrics & Gynaecology I	8	8
MED 530	Family Medicine	4	4
MED 540	Psychiatry	4	4
MED 550	Ear, Nose & Throat	2	2
MED 553	Orthopaedics	2	2
MED 555	Neurology & Neurosurgery	3	3
MED 560	Ophthalmology	2	2
MED 610	General Surgery II	8	8
MED 620	Internal Medicine II	8	8
MED 630	Paediatrics II	8	8
MED 640	Obstetrics & Gynaecology II	8	8

Course Code	Course Name	Credit Hours	No. of weeks
MED 650	Emergency Medicine	4	4
	Total	111	111

3. Medical school elective requirements:

Clerkship Elective Courses:

Students within the Faculty of Medicine have the opportunity to fulfil their elective requirement by selecting courses offered by the clinical sciences department or from other esteemed teaching hospitals, both locally and internationally. Students are required to choose a total of 4 credit hours (equivalent to 4 weeks) from the curated list of courses presented below.

Course Code	Course Name	Credit Hours	No. of weeks
MED 611	General Surgery	4	4
MED 650	Public Health	4	4
MED 651	Occupational Medicine	4	4
MED 621	General Medicine	4	4
MED 631	Paediatrics	4	4
MED 652	Epidemiology	4	4
MED 653	Research Project	4	4
MED 641	Obstetrics & Gynaecology	4	4
MED 654	Family Medicine	4	4
MED 622	Psychiatry	4	4
MED 612	Ear, Nose, and Throat	4	4
MED 613	Orthopaedics	4	4
MED 615	Ophthalmology	4	4
MED 624	Dermatology	4	4
MED 625	Diagnostic Radiology	4	4
MED 626	Forensic Medicine and Toxicology	4	4
MED 616	Urology	4	4
MED 627	Pathology & Laboratory Medicine	4	4

Duration of Study and Academic Load

Article 7:

- A) The period of study required to obtain a Bachelor's degree in the field of Medicine is six academic years, in addition to a year for training. The study plan details the courses provided in each academic year.
- B) The maximum study duration to earn a Bachelor's degree in Medicine is nine academic years for students enrolled in the program.
- C) In accordance with paragraph B of this article, students are not permitted to spend more than two academic years in any of the first five years or exceed three years in the sixth year.
- D) Each academic year in the initial three years includes two academic semesters, each lasting 16 weeks, encompassing exams, along with an eight-week summer semester, including exams.
- E) The clinical year is defined concerning consecutive clinical years, based on a schedule approved by the college council at the start of each academic year.

- F) Students are restricted from enrolling in a scientific course more than once at the same level. Failure to adhere to this rule deems their registration and grade for that course null and void.
- G) A student cannot progress to the fourth-year level unless they have fulfilled all obligatory and elective university requirements totalling 36 credits. Exceptions may be granted in warranted cases by the college.
- H) The university council may grant a student an additional academic year to complete the requirements for the degree beyond the stipulated maximum period, provided that this extra year facilitates their graduation.
- I) It is not permissible for students to register for or study a course that they have been exempted from for any reason.
- J) Students are required to strictly adhere to registering for courses as outlined in the study plan. Failure to comply results in the nullification of their registration and grade for that course. Registering for courses outside the study plan is prohibited.

Attendance Requirement

Article 8

- A) The student is required to maintain attendance in all courses in which they are enrolled, and the course instructor is responsible for recording absences in the course's electronic attendance system regularly within ten days of the absence. The percentage of absence referred to in the following paragraphs of this article is calculated based on face-to-face lectures for courses taught in person, or through blended learning methods, with attendance being synchronous for courses taught online. The student is electronically notified regularly.
- B) If a student is absent for more than 25% of the total scheduled hours for the course, regardless of the reason for the absence, they are prohibited from taking all subsequent examinations in that course and are assigned the code DN "Deprived Due to Absence." The points earned in this course factor into the student's grade average for that year. The student is allowed to take **A Resit Exam** (for scientific courses only) after coordinating with the relevant department to compensate for the clinical training missed during the fifth and sixth years and compensating fully (100%) for the clinical training during the sixth year. The dean of the college has the authority to grant the student permission to exceed the absence limit of 25% of the total scheduled hours for the course due to an unavoidable excuse, provided the total absences do not exceed 30% in any case.
- C) In cases where a student exceeds a 25% absence with an acceptable excuse, the College of Medicine considers them withdrawn from the academic year (without fee charges) starting from the semester of absence. The dean of the College of Medicine informs the student in writing or electronically before the final exams start, and their studies are considered deferred for that year.
- D) Withdrawing from registered courses is not permissible for the student in any academic semester, including the summer semester.
- E) If a student is absent from practical training for a period not exceeding 25% of the training duration, and the absence is due to a valid excuse or illness accepted by the dean of the college, the dean may allow the student to make up for the missed training period if it does not affect the technical training. Practical training does not include work in hospitals and clinics supervised by faculty members.
- F) A medical excuse certificate issued by the university health centre or student clinic, or governmental hospitals, is required for a medical excuse. The student must submit this certificate to the dean of the college offering the course within two weeks of the student's absence, or within one week in urgent cases.

- G) Course instructors, department heads, and deans of colleges offering the courses are responsible for implementing the attendance regulations.

Exams Scores and Point Averages

Article 9

- A) The quarterly or annual grades, the final exam grade, and the final grade due shall be calculated to the nearest whole number, and the final grade due shall be out of one hundred, then the final grade shall be converted into a code and its equivalent points electronically according to the table in Article 11.A of these instructions.
- B) The general framework for exams and grading is as follows:
1. The final grade for each course is the sum of the final exam marks and the semester work marks, with some courses potentially resulting in a pass or fail according to the study plan.
 2. The final exam for each course is held once, either at the end of the semester or the end of the year, depending on the course's nature. The exam is written or computerized, covering the course content, and may incorporate an oral or practical component, or reports with a specific weighting.
 3. The quarterly or annual course work includes:
 - i. Oral exams, reports, research (partially or fully), or clinical requirements.
 - ii. Quarterly or annual exams are announced to students at least one week before, with answers discussed with students' post-correction. Written exam papers or results should be returned within one week after the exam.
 - iii. Evaluations of discipline, behaviour, and attendance within mechanisms announced to students by the first week of the course.
 4. If a student misses the semester or annual exam, they must provide a compelling or satisfactory excuse to the department head or course coordinator. The decision on approving the excuse is made within 48 hours, with a makeup exam scheduled within a maximum of 72 hours if the excuse is accepted, otherwise, a zero grade will be assigned.
 5. Students grades posting process:
 - i. Instructors must enter and publish semester grades to students by the 13th week of the first and second semesters, and by the end of the 7th week of the summer semester.
 - ii. The course instructor must approve semester work grades by the end of the 15th week.
 - iii. The dean of the concerned college has the authority to decertify semester work until the final exams end.
 - iv. All mark-related activities are documented from upload to approval on the Student Information System (SIS), with the dean having viewing authority.
 - v. Any subsequent marking after the semester ends is modified through the marking adjustment process.
 6. If a student fails to meet course requirements or is absent from the final exam without a valid excuse, they receive an "incomplete" grade for the course. An exam schedule is set for these courses to be held within the first two weeks of the following semester, or in the case of the summer semester, before the start of the next academic year.
 7. If a student is absent from the makeup exam, they receive a zero, which affects their final course grade.

8. A student with an "incomplete" grade cannot defer their studies unless the grade is resolved within the specified period. Otherwise, the student's semester work grade is recorded by the admission and registration unit.

C) The general framework for exams and their schedules for students is as follows:

1. Theoretical and practical courses:
 - i. Semester work accounts for 60%, consisting of two midterm exams (30 marks each), and the final exam accounts for 40%.
 - ii. Practical courses: The department council specifies how marks are allocated for practical courses before the start of the semester.
2. Courses in the third year: 60% allocated for the theoretical component, and 30% for the practical and clinical part, with 5% for research and entrepreneurial activities, and 5% for evaluations of discipline, behaviour, and attendance.
3. Courses in the fourth and fifth years, excluding the courses MED 430 Community Medicine and Research Project in the fourth year and MED 530 Family Medicine in the fifth year, distribute the final grades for each course as follows:
 - i. 15% for teacher evaluation of the course during clinical training, including assessments of discipline, behaviour, attendance, research projects, and entrepreneurial activities.
 - ii. 40% for the clinical exam conducted after the completion of the clinical training period for the course, with the department council setting the exam date. The examination methods may include long and short case studies, oral examinations, Objective Structured Clinical Examination (OSCE), or simulation-based exams.
 - iii. 45% for the written or computer-based exam held once at the end of the academic year for all students after completing the clinical training, as determined by the college council at the beginning of each academic year.
4. Courses in the sixth year distribute the final grades as follows:
 - i. 50% for semester work, allocated as:
 - 20% for teacher evaluation during clinical training, including assessments of discipline, behaviour, attendance, research projects, and entrepreneurial activities.
 - 30% for the clinical exam.
 - ii. 50% for the final exam, distributed as:
 - 40% for the written or computer-based exam.
 - 10% for the oral exam.

The College of Medicine Council sets exam schedules at the beginning of each academic year.

D) Examination procedures and regulations, including preparation, conduct, evaluation, analysis, and treatment of exam results, are governed by specific rules issued by the College of Medicine Council.

Article 10

- A) At the beginning of each academic semester, the course instructor informs their students about the method of assessing student achievement.
- B) The course instructor corrects the final exam of their course, reviews the grades, enters them into the electronic system, and approves them within a maximum period of 48 hours from the date of the final exam. These grades are then reviewed and approved by the Department Council (or the

Dean for organ system courses) and the College Council within 24 hours, including holidays. The college retains a hard copy of the approved results for the students.

- C) The Dean of the college or their delegate electronically approves the final results for all courses offered at the college immediately after review.
- D) After paying the required fees, students or instructors can request a review of the final exam grade (either in writing or electronically through the grade review system) after calculating the semester averages, with a maximum of 6 weeks from the next semester of the registered course, including the summer semester if the student is enrolled in it. The following procedures must be followed:
1. The Dean forms internal committees to review and correct final exam papers and refers them to the Head of the Department or the Dean for action, with the committee members meeting the following conditions:
 - i. The course instructor is not a member of the committee.
 - ii. The ideal solution provided by the course instructor is approved.
 - iii. The same committee in the department will handle cases where more than one student requests a grade review.
 2. The Head of the Department enters and approves the student's grade (electronically or in writing).
 3. The Head of the Department electronically or in writing approves or rejects the request.
 4. The Dean electronically or in writing approves or rejects the request.
 5. Accepted grade revision requests approved by the Dean are presented to the Higher Committee for Grade Revision for appropriate decision-making.
 6. The student's academic status is adjusted based on the grade revision retroactively.
 7. A student loses the right to request a grade revision if they defer their studies to the semester following the one in which the course to be modified was taken.
- E) All exam papers, reports, and research works are discussed with the student after correction and grading. Final exam papers are kept at the College Dean's office for one academic semester for future reference and then handled by the Dean as needed.

Article 11:

A) Grading System and Codes

Grade	Points	Letter Grade	Grade Interpretation
95-100	5.00	A+	Outstanding
90-94	4.75	A	Excellent
85-89	4.50	B+	Superior
80-84	4.00	B	Very Good
75-79	3.50	C+	Above Average
70-74	3.00	C	Good
65-69	2.50	D+	High Pass
60-64	2.00	D	Pass
Below 60	1.00	F	Fail
AU			Audit
DN			Denied

Grade	Points	Letter Grade	Grade Interpretation
DS			Disciplinary Action
NP			No grade-Pass (Not considered in GPA Calculation)
NF			No grade-Fail (Not considered in GPA Calculation)
IC			Incomplete
IP			In Progress
W			Withdrawn
WF			Withdrawn - Fail
WP			Withdrawn – Pass
T			Transfer

B) General Graduation Grade

The grade stated on the graduation diploma depends on student's GPA at the time of graduation as follows:

GPA	GRADE
At least 4.50	Excellent
At least 3.75 and less than 4.5	Very Good
At least 2.75 and less than 3.75	Good
At least 2.00 and less than 2.75	Pass

- C) The Dean will include the name of any student who achieves an annual average of 4.25 or higher on the college honour list and record it in the student's academic record unless they have been previously dismissed or failed a course. This is applicable as long as the student's academic workload consists of at least 12 credit hours, excluding remedial courses.
1. Annually, the President of the University will release the University Honour List, which will feature the names of students who have earned annual averages exceed 4.75 from those included in the college honour lists.
 2. The top student in the college is determined as the student with the highest overall average among their graduating cohort, with a maximum study period of 6 years considered for this evaluation.

Article 12

The department council appoints one of the course instructors as a coordinator in the case of a course being taught by more than one instructor, in collaboration with the other course instructors and under the supervision of the department head.

The department council appoints one of the course instructors as a coordinator in the case of multiple sections for a course, in collaboration with the other course instructors and under the supervision of the department head.

The department head, course coordinator, or a teacher selected by the department council is responsible for supervising the printing of exam questions after they have been discussed and approved by the department council, as well as overseeing the grading of exam papers and ensuring the proper transfer of results to transcripts and records in the case of courses taught by multiple instructors or multiple sections.

Article 13

- A) The minimum passing grade for each course is D.
- B) The minimum passing grade for annual averages is 2.00 and the minimum passing grade for the overall GPA is 2.00.
- C) The failing grade in a course is F.
- D) The annual or overall GPA is calculated to the nearest two decimal places.
- E) The overall GPA for a student majoring in Medicine and Surgery consists of:
 - 1. 70% for the annual average of each of the first five years equally, by adding the products of each annual average multiplied by 14% and rounding the result to the nearest two decimal places.
 - 2. 30% for the annual average of the sixth year to the nearest two decimal places.

Article 14

The annual GPA for the first year is calculated by multiplying the number of points for each course in the first year's guided plan by its accredited hours and dividing the sum of the resulting products by the total number of accredited hours.

The results of all courses, including mandatory and elective university requirements, studied by the student, and included in the study plan, are taken into account when calculating the annual GPA for the first year upon enrolment in the university after completing studies or upon graduation. The annual GPA for the first three years is calculated if the number of accredited hours is 12 hours or more. If the student retakes any of these courses during their studies, the highest grade for that course is considered.

Article 15

To calculate the annual average for the next five years (from the second year to the sixth year), multiply the points for each course (excluding university requirements) by the credit hours for each course in the academic plan for that year. Then, divide the total sum of these products by the total number of credit hours for that year.

Promotion Requirements

Article 16

To progress from one academic year to the next, a student must meet the following requirements:

- A) Successfully completing all scientific courses studied in that year as outlined in the academic plan.
- B) Attaining an annual GPA of 2.00 or higher, as defined in Articles 13, 14, 15.
- C) The student is only promoted to the next academic year at the end of the current academic year, after passing all scientific courses from previous years.

Article 17

- A) Criteria for first-year students transitioning to the second year:
 - 1. Passing all specified scientific courses, including MED 101, MED 291, BIO 103, BIO 107, CHEM 103, and CHEM 107, and achieving an annual GPA of 2.00 or above.

2. If a student fails one or two scientific courses from the first year as specified in clause A.1 of this article, they may take a **RESIT EXAM** (supplementary exam) for up to two courses before the start of the first semester of the following academic year, as determined by the Dean of the College offering the course.
 3. If a student passes all scientific courses in the first year but obtains a GPA lower than 2.00, they may take a **RESIT EXAM** (supplementary exam) for one or two selected courses before the start of the first semester of the following academic year, with the new grade being recorded as instructed by the Dean of the College offering the course.
 4. Incomplete course exams taught during the summer semester will be held before RESIT EXAMS.
- B) A student is considered to have failed in the first year if they meet one or more of the following conditions:
1. Failing in more than two scientific courses specified in paragraph A.1 of this article.
 2. Failing a course after the **RESIT EXAM**.
 3. Failing to achieve an annual GPA of 2.00 or higher after the RESIT EXAM.
- C) If a student fails in the first year, they are permitted to retake the year once, with the regulations regarding passing, failing, and RESIT EXAM applying to the courses failed and being repeated from the first year.
- D) The following regulations apply to students who fail in the first year:
1. Retaking all failed scientific courses approved for the first year.
 2. Retaking all specified scientific courses in Article 17.A.1 where a grade lower than D was obtained, with the new grade for the repeated course included in the calculation of the annual GPA.

Article 18

- A) Transfer requirements for students in their second, third, fourth, fifth, and sixth years are as follows:
1. Students must successfully pass all approved courses for that year as per the study plan, excluding university requirements, and achieve an annual average of at least 2.00.
 2. In the case of failing one or two scientific courses totaling less than 9 credit hours in the second or third year, students have the opportunity to take a RESIT EXAM for the failed courses before the start of the next semester in the following academic year. The Dean of the College will set the date for the completion exam. If a student fails the RESIT EXAM for any course, they will not progress to the next year and will be considered to have failed that academic year.
 3. In the event that a student fails to pass a course or courses totaling at least 9 credit hours in the fourth or fifth year, they are eligible to take a RESIT EXAM in the failed courses. Should the student fail the RESIT EXAM in any of those courses, they will not be permitted to progress to the following year and will be deemed to have failed that particular year.
 4. If a student does not achieve a passing grade in a course during the sixth year, they are entitled to take A RESIT EXAM after completing the full clinical training in that specific course. Success in the RESIT exam will result in the student being considered to have successfully completed the sixth year. Conversely, failure will lead to the student being classified as having failed in the sixth year.
 5. A student who successfully completes all required courses in the second, third, fourth, fifth, and sixth years but earns an annual GPA below 2.00 is eligible to take a RESIT EXAM in one

or two courses from the second or third year, and in courses totalling at least 9 credit hours from the fourth, fifth, or sixth years (after completing full clinical training in the sixth-year courses selected by the student from that year) before the start of the subsequent academic year, as determined by the college dean. Failure to raise the GPA to 2.00 or above will result in the student not being able to advance to the next year and being deemed to have failed that year. Incomplete exams for courses taken during the summer semester of the second and third years (as outlined in the approved student plan) will be held prior to the RESIT EXAM, with makeup exams conducted before the start of the first semester of the following year, concluding no later than the first week of the semester. RESIT EXAMS grades will be confirmed within one week of the completion period.

6. RESIT EXAMS for the third, fourth, and fifth years will be administered before the official commencement of the subsequent academic year.
7. A student who has an incomplete grade in a scientific course or requires a grade adjustment for a scientific course may apply to take the RESIT EXAM provided they meet the makeup requirements, excluding the particular course in question.

The completion mark must be finalized within a maximum of one week after the completion of the incomplete period in accordance with article 9.B.6 or following the adjustment of the mark.

- B) In addition to the stipulations outlined in condition A of this clause, a student shall be deemed to have failed in any academic year ranging from the second to the sixth if:
1. They do not achieve a GPA of 2.00 or higher following the completion examination.
 2. If a student fails a course after the RESIT exam, they will not progress to the next academic year and will be deemed to have failed in that particular year.
- C) If a student fails in the second, third, fourth, or fifth years, they are permitted to retake those years only once, provided they do not exceed the specified maximum limit.
- D) In the event of a student failing in the sixth year, they are allowed to repeat it a maximum of two times, with the same condition regarding the maximum limit.
- E) When a student fails in any of the second, third, fourth, fifth, or sixth years, the following provisions apply:
1. The student must retake all courses designated for that year within the medical school with grades below a 'C'. The new grade points will be factored into the annual average.
 2. Courses in the sciences that have received a grade of 'C' or higher are not allowed to be retaken.
- F) Should a student opt to sit for a RESIT EXAM for specific courses as outlined in section A of this policy, the new grade obtained will be documented in the mark sheet, subject to the following conditions:
1. If the student's pre-completion annual average is below a 2.00, the new grade obtained in the mark sheet will be recorded as long as it does not exceed the average 2:00 for that academic year even his new grade exceeds this average.
 2. If the student's annual average before taking the RESIT EXAM is a 2.00 or higher, the new grade obtained in the mark sheet will be capped at a 'C' for that particular course for the purpose of calculating their final year-end average, even if the grade obtained in the RESIT EXAM surpasses a 'C'.

Article 19

Taking into consideration the provisions of Article 17 of these instructions, if a student repeats any

year of study, only the grades of the new courses will be calculated for them, and they are allowed to retake only the courses in which they did not receive a grade of 'D' or higher from the required courses according to the study plan.

Dismissal from the Medical School

Article 20

- A) The student will be dismissed from the medical school if he/she is:
1. Unable to pass any academic year from the first five years within two academic years.
 2. Unable to pass the sixth year within three academic years.
 3. Unable to complete his/her studies within 9 years.
 4. Fails in any 4 academic years during his/her period of study.
- B) If the student is dismissed from the medical specialization and has been previously dismissed from another specialization at the university, then he/she will be permanently dismissed from the university and will not be allowed to return to it.

Article 21

- A) Deferral of Study
1. Study cannot be deferred for a new student in the college or for a transferring student until at least one full academic year has elapsed since starting their specialization.
 2. Study cannot be deferred for a student with incomplete course grades until those courses have been completed. If not completed, only the course work grades without the final exam marks will be considered by admission and registration office.
 3. If a regular student at the university fails to register for any semester and does not request a study deferral within a maximum of fourteen weeks from the start of either the first or second semester, their study will be deferred for one academic year from that semester. If the deferral period does not exceed two consecutive or separate academic years, and if the student exceeds the deferral period, they will lose their seats at the university. The deferral period may be extended to a maximum of three academic years by decision of the college council.
 4. A transferring or failing student may defer one academic semester if there are no academic courses available in their study plan or guidance for their level. This deferred semester will not be counted against the maximum allowable deferral period as outlined in section A.3.
 5. The deferral period will not count towards the maximum study duration.
 6. An academic year in which a student is dismissed due to disciplinary action will not count toward the maximum study duration or deferral period.
 7. If a regular student fails to register for any semester and does not request a deferral for clinical studies within a maximum of ten weeks from the start of their second semester, they will be considered deferred for one academic year starting from the first semester. If the deferral period does not exceed two consecutive or separate academic years, and if the student exceeds the deferral period, they will lose their spot at the university. The deferral period may be extended to a maximum of three academic years by decision of the college council.
 8. A student from the first three years who has been deferred for one academic year from the second semester and fails the year can cancel their deferral for the following semester based on their results from the first semester. They will then be considered a repeating student for that

year. This semester will not count towards the maximum allowable deferral period as outlined in section A.3.

B) Loss of Seat or Withdrawal:

- 1) A student who has lost their seat may apply for re-enrolment at the university. If accepted back into the same specialization and study plan, they were previously enrolled in, they will retain their complete academic record (grades, GPA, academic standing, etc.). In this case, the duration of their previous study will be included in the maximum study duration.
- 2) The student's academic record cannot be used for the purpose of continuing their studies if they have been away from studies for four years or more.
- 3) If a regular student does not register for the first semester for admission to the college and does not submit a withdrawal request from the university, they are considered to be as objectors from their seat at the university and will have a note by that placed in their record.

C) Withdrawal from the University:

- 1) If a student wishes to withdraw from the university, they must submit a request. In this case, a note stating "withdrawn from the university" will be recorded in their file, and they will lose their seat. If they wish to re-enrol at the university, the provisions of section B.1 of this article will apply.
- 2) A student with incomplete course grades cannot withdraw from the university unless they complete their grades; otherwise, only the course work grades without a final grades will be considered by admission and registration department.

Change of Specialization

Article 22

Procedures for changing specialization for students will be carried out according to the approved and implemented criteria at the university.

Article 23

- A) Clinical training in the fourth, fifth, and sixth years of the medical college will be monitored through daily clinical training records specific to each department of clinical departments. Students will receive their personal training record before starting their clinical training and are required to return it to the department head upon completion of the clinical training period.
- B) Students will be evaluated based on the information recorded in their personal clinical training record and any other required reports.

Requirements for Obtaining a Bachelor's Degree in the Doctor of Medicine

Article 24

A Bachelor's degree in the Doctor of Medicine specialization is awarded upon the completion of the following requirements:

- A) Successful completion of all required courses according to the approved study plan.
- B) Attainment of a cumulative GPA of at least 2.00.
- C) Not exceeding the maximum study duration as stipulated in the regulations.
- D) Enrolment as a regular student in the last three academic years at the university, including the graduation year.

General Provisions

Article 25

- A) The dean of the college assigns an academic advisor from the faculty members to each student in the college.
- B) The dean of the college and the academic advisor are responsible for monitoring the academic progress of the student and verifying their eligibility for graduation, with the advisor informing the student annually.
- C) The student expected to graduate must complete a special form provided by the Dean of the College within a maximum of eight weeks from the start of the sixth year, where the dean and the advisor will verify the eligibility for graduation in coordination with the Admission and Registration Unit.

Article 26

The student must obtain a clearance certificate from the university to complete their graduation procedures.

Article 27

The Bachelor's degree bears the date of eligibility.

Article 28

Graduation documents (official certificate, transcript) for university graduates are issued in both English and Arabic.

Article 29

No student may object for not being aware of these regulations or not being informed through university announcements, notices posted on bulletin boards, the university website, or emails regarding these regulations.

Article 30

The University Council will decide on cases not covered in these regulations or any disputes arising from their implementation.

Article 31

The University President, Registrar, College Deans, Department Heads, and Course Instructors are responsible for implementing these regulations and any new decisions and procedures within their respective domains of responsibility. Department heads are responsible for implementing all decisions of the department's council and committees, while the dean of the college or their delegate is responsible for implementing all decisions of the college council and committees.

Study Plan (250 Credits)

Year I

First Semester (18 Credit Hours)

Course Code	Course Title	Credits	Theory	Practical
ENGL 115	English for Medicine I	4	2	6
ENGL116	English for Health Care Professions I	3	2	4
CSC 131	Computer Skills for Medical Students	3	-	3
MED 101	Biostatistics	3	3	1
MED 102	Contemporary Medical Topics	1	1	-
SOCS 151	An Introduction to the Islamic Culture	3	3	-
PHED 152	Health & Physical Education	1	0	3
	Total	18	11	17

Second Semester (18 Credit Hours)

Course Code	Course Title	Credits	Theory	Practical
MED 291	Medical Physics	3	3	-
ENGL 117	English for Medicine II	3	2	4
ENGL118	English for Health Care Professions II	3	2	4
MED 173	Medical Terminology	2	2	-
BIO 103	Biology	3	3	-
BIO 107	Biology Lab.	1	-	3
CHEM 103	Chemistry	3	3	-
	Total	18	15	11

Summer (9 Credit Hours)

Course Code	Course Title	Credits	Theory	Practical
LRSK 142	Communication Skills	3	3	2
CHEM 107	Organic Chemistry	3	3	-
SOCS 152	Faith and Ethics	3	3	-
	Total	9	9	2

Year II

First Semester (19 Credit Hours)

Course Code	Course Title	Credits	Theory	Practical
MED 114	Cell Biology & Tissues	3	2	2
MED 115	Anatomy and Embryology	7	5	6
MED 132	Physiology	3	3	-
MED 202	Biochemistry	3	3	-
MED 284	Health administration informatics, economics and population care	3	3	-
	Total	19	16	8

Second Semester (18 Credit Hours)

Course Code	Course Title	Credits	Theory	Practical
MED 222	Medical Genetics	3	3	-
SOCS 351	The Economic, Political and Social System of Islam	3	3	-
MED 231	Pathology	3	2	3

MED 232	Immunology	3	3	-
MED 251	Pharmacology	3	3	-
MED 265	Microbiology	3	2	3
	Total	18	16	6

Summer (9 Credit Hours)

Course Code	Course Title	Credits	Theory	Practical
MED 282	Neurosciences	6	5	3
XXX	Elective Humanity Course	3	3	-
	Total	9	8	3

Year III

First Semester (18 Credit Hours)

Course Code	Course Title	Credits	Theory	Practical
MED 305	Haemopoietic & Lymphatic System	6	4	6
MED 310	Musculo-Skeletal System	6	4	6
MED 311	Gastro-Intestinal System	6	4	6
	Total	18	16	6

Second Semester (18 Credit Hours)

Course Code	Course Title	Credits	Theory	Practical
MED 321	Endocrine system	4	3	3
MED 352	Urinary and reproductive systems	8	6	6
MED 353	Respiratory system	6	4	6
	Total	18	13	15

Summer Semester (8 Credit Hours)

Course Code	Course Title	Credits	Theory	Practical
MED 364	Cardio-vascular system	6	4	6
MED 370	Professionalism, ethics and legal medicine	2	2	-
	Total	8	6	6

Year IV

First Semester (18 Credit Hours)

Course Code	Course Title	Credits	Clerhship (Weeks)
MED 411	Medical Communications & Clinical skills	5	5
MED 415	Clinical Psychology	3	3
MED 416	Forensic medicine	2	2
MED 417	Dermatology	2	2
MED 418	Anesthesia & ICU	4	4
MED 419	Diagnostic Radiology	2	2
	Total	18	18

Second Semester (16 Credit Hours)

Course Code	Course Title	Credits	Clerhship (Weeks)
MED 420	General Surgery I	8	8
MED 422	Internal Medicine I	8	8

	Total	16	16
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Summer Semester (8 Credit Hours)

Course Code	Course Title	Credits	Clerhship (Weeks)
MED 430	Community medicine and research project	8	8
	Total	8	8

Year V

First Semester (16 Credit Hours)

Course Code	Course Title	Credits	Clerhship (Weeks)
MED 507	Pediatrics I	8	8
MED 510	Obstetrics & Gynecology I	8	8
	Total	16	16

Second Semester (17 Credit Hours)

Course Code	Course Title	Credits	Clerhship (Weeks)
MED 530	Family Medicine	4	4
MED 540	Psychiatry	4	4
MED 550	Ear, Nose & Throat	2	2
MED 553	Orthopedics	2	2
MED 555	Neurology & Neurosurgery	3	3
MED 560	Ophthalmology	2	2
	Total	17	17

Summer Semester (8 Credit Hours)

Course Code	Course Title	Credits	Clerhship (weeks)
MED 610	General Surgery II	8	8
	Total Credits	8	8

Year VI

First Semester (16 Credit Hours)

Course Code	Course Title	Credits	Clerhship (Weeks)
MED 620	Internal Medicine II	8	8
MED 630	Pediatrics II	8	8
	Total	16	16

Second Semester (16 Credit Hours)

Course Code	Course Title	Credits	Clerhship (Weeks)
MED 640	Obstetrics & Gynecology II	8	8
MED 650	Emergency Medicine	4	4
MED XXX	Elective	4	4
	Total	16	16

Course Description

BIO 103 Biology

3 Credits (3 Lect. & 0 Lab)

The course focuses on the molecular and cellular aspects of life, providing a basis for future courses in biology. The course will investigate the molecular building blocks of life, cellular structure, metabolism, Mendelian genetics of inherited traits, the molecular basis of inheritance and the physiological systems of the human body.

BIO 107 Biology Practical

1 Credit (0 Lect. & 3 Lab)

Co-requisites: BIO 103 Biology

The lab introduces students to techniques necessary to understand cell structure and function and the enzyme action, histology of organs, how to use microscope and other techniques. The lab also introduces the students to mitosis and meiosis and some aspects of human genetics. The lab includes experiments to illustrate chemical and physical characteristics of macromolecules, the structure and composition of plant and animal cells. Respiration, division, and genetics. Study of plant and animal tissues. Discussion and comparing frog's anatomy to human anatomy.

CHEM 103 Chemistry

3 Credits (3 Lect. & 0 Lab)

Pre-requisites: MED 101 Biostatistics

The course focuses the attention on different aspects of Chemistry. It starts with discussing Chemistry: The Study of Change, then Mass Relationships in Chemical Reactions, Reactions in Aqueous Solutions and Gases. In the second part of the course, the periodic table and different types of bonding and interactions, Periodic Relationships among the Elements, Chemical Bonding, and the Physical Properties of Solutions are intensively discussed. Finally, Acids & Bases and Acid-Base Equilibria and their properties are well defined, explained and studied.

CHEM 107 Organic Chemistry

3 Credits (3 Lect. & 0 Lab)

Pre-requisites: CHEM 103 Chemistry

This course deals primarily with the basic principles of organic chemistry in order to understand the structures and reactivity of organic molecules. This course also deals mainly with the constitution and properties of the different classes of organic compounds, with considerable attention to stereochemistry, reaction mechanisms, synthetic organic chemistry and surveys the chemistry of functionalized organic compounds emphasizing mechanisms and multi-step syntheses. Emphasis will be on substitution and elimination reactions, the chemistry of hydrocarbons, alkyl halides, alcohols, carbonyl compounds, and amines.

MED 101 Biostatistics

3 Credits (3 Lect. & 1 Lab)

The course focuses on descriptive and inferential statistics as applied to medical practice. The course starts with descriptive measures and probability concepts and application. The students are trained to draw statistical inferences by two main methods these are: Estimation and Hypothesis testing. Chi-square variants are discussed with relevant clinical examples. Statistical design of experiments is dealt with concentrating on ANOVA and regression analysis. Students are trained to use computer software as Excel and SPSS in solving assigned exercises. The students are provided with necessary software at the beginning of the course to be used during the course in solving practical exercises and in data analysis.

MED 102 Contemporary Medical Topics 1 Credit (1Lect. & 0 Lab)

The course devoted to the study of recent advances in medicine including; regenerative medicine with emphasis on stem cells and their applications in medicine, cloning and therapeutic cloning, assisted reproductive technology as well as gene editing. In addition, the course covers any new discovery in medicine.

MED 114 Cell Biology and Tissues 3 Credits (2 Lect. & 2 Lab)

Pre-requisites: BIO 103 Biology

This course provides fundamental basic knowledge of histology and cell biology. The course provide students with basic knowledge of different aspects of cellular and tissue parts (membrane, cytoskeleton, matrix).It explores the histology and properties of the basic human tissues (Epithelium, connective tissue, Muscle and nervous tissues).

MED 115 Anatomy & Embryology 7 Credits (3 Lect. & 6 Lab)

Pre-requisites: BIO 103 Biology

This is an introductory course in gross anatomy, which provides medical students with knowledge of the anatomy of human body. Lecture presentation begins with an introduction of anatomical terminology and an overview of cellular processes and tissue classification. Students then learn the gross and microscopic anatomy of the following systems: integumentary, skeletal, muscular, nervous, circulatory, respiratory, digestive, urinary, and reproductive. The course also provides an overview of the very early development of human starting from gametogenesis going through the different embryonic stages. This course covers major birth defects in relation to human embryology. The laboratory component of the course generally parallels and reinforces lecture concepts through the use of models, histological slides, skeletal materials and cadaver demonstration.

MED 132 Physiology 3 Credits (3 Lect. & 0 Lab)

Pre-requisites: BIO 103 Biology

This introductory physiology course introduces basics concepts in physiology of human body. The course familiarizes students with basic definitions and principles related to physiology. The course emphasizes the concept of internal environment and homeostasis and the concept of feedback in a biological system. It also helps students to understand body fluid and cellular physiology including membrane ionic basis of excitability, molecular mechanism and mechanics of contraction. The course gives an overview on the physiology and functions of nervous system, cardiovascular system, respiratory system, digestive and renal systems and the endocrine system. It prepare student to understand future disease process and pathophysiology.

MED 173 Medical Terminology 2 Credits (2 Lect. & 0 Lab)

Co-requisites: ENGL 116 English Language for Medical Students II

The study of the principles of medical word building to help the student develop the extensive medical vocabulary used in health care occupations. Students receive a thorough grounding in basic medical terminology through a study of root words, prefixes and suffixes. The study focuses on correct pronunciation, spelling and use of medical terms of body systems. For each body system, broad coverage of anatomy, physiology, pathology, diseases, diagnostic procedures, treatment procedures, and pharmacology terminology is provided. The course emphasizes both terms built from Latin and Greek word parts, and modern English terms, to assist students to develop a full working word part vocabulary they can use to interpret new terms.

MED 202 Biochemistry **3 Credits (3 Lect. & 0 Lab)**

Pre-requisites: BIO 104 Biology, CHEM 107 Organic Chemistry

This course deals with structure and properties of biomolecules, such as amino acids, proteins, carbohydrates, lipids, and nucleic acids. The focus of this course will be on the relationship between protein structure and its biological function, generation and storage of metabolic energy, main metabolic pathways and their key steps. In addition, the role of phospholipids in determining the properties of biological membranes and their function will be discussed. The principal objective of the course is for students to acquire knowledge and understanding of current concepts in the subject of the course and to develop critical thinking skills.

MED 222 Genetics of Diseases **3 credits (3 Lect. & 0 Lab)**

Pre-requisites: MED 202 Biochemistry

This course is designed to understand the basic principles of molecular genetics and diseases. Emphasis will be given to those principles that have application in medical practice. The structure of DNA and RNA as genetic material, DNA organization and its replication, mutation and repair in both prokaryotes and eukaryotes will be covered. Furthermore, gene expression will also be discussed. Finally, the course will cover some aspects of cancer genetics, cytogenetics and molecular biology techniques, and diagnosis of genetic diseases.

MED 231 Pathology **3 credits (2 Lect. & 3 Lab)**

Pre-requisites: MED 114 Cell Biology and Tissues & MED 115 Anatomy & Embryology

The course allows students to learn basic concept of the various disease processes in the body as well the basic molecular, cellular and reactions to various injurious agents. Cell injury including: adaptations, necrosis & apoptosis. Pathology of Inflammation including causes and manifestations and hemodynamic are also discussed. The course also emphasizes neoplasia including classification, epidemiology, and characteristics of benign and malignant tumors. The major grading and staging systems of neoplasms will be covered in detail. Knowledge of etiology of tumors and its consequences on health are also covered.

MED 232 Immunology **3 credits (3 Lect. & 0 Lab)**

Pre-requisites: MED 115 Cell Biology and Tissues & MED 202 Biochemistry

This introductory course in medical immunology includes a series of lectures stressing basic concepts in immunology. The purpose of the course is to provide a basic knowledge of the immune response and its involvement in health and disease. Topic covered in this course are innate immunity, acquired immune response, cells and organs of the immune system, immunoglobulin structure and genetics, antigen-antibody reactions, the major histocompatibility complex and antigen presentation. This course also explores T cell, B cell and natural killer cells functions. The T cell receptors genetics, structure, selection apoptosis and adhesion molecules, phagocytic cell function are explored. Immune responses to infections, tumors, transplantation autoimmune diseases, allergies, and immune deficiency diseases are also covered.

MED 251 Pharmacology **3 credits (3 Lect. & 0 Lab)**

Pre-requisites: MED 202 Biochemistry

Pharmacology in its broadest sense is the study of chemicals on biologic system. This course is designed to provide the medical student with basic knowledge in pharmacology. In this course emphasis is placed on drug groups and prototypes drugs. A brief introduction on the basic principles of pharmacokinetics and pharmacodynamics are discussed in relation to different drug groups. Mechanism of action and drug adjustment according to drug metabolism are also emphasized.

MED 265 Microbiology**3 credits (2 Lect. & 3 Lab)***Pre-requisites: MED 202 Biochemistry*

This introductory course covers basic principles of bacteriology, virology, mycology, immunology and parasitology. It also covers basic concepts of infection control in hospitals, sterilization and disinfection, diagnosis of infectious diseases including specimen collection for the clinical microbiology laboratory and epidemiology. The laboratory part covers basic techniques in microbiology.

MED 282 Neuroscience**6 credits (5 Lect. & 3 Lab)***Pre-requisites: MED 232 Immunology, MED 251 Pharmacology & MED 265 Microbiology*

The course is divided into two parts. The first part of the course integrates the basic sciences into a study of neuroscience and behavior in both health and disease states. Each of the basic science topics is incorporated into an integrated body of knowledge covering neuroanatomy, neurophysiology, neurological correlation, microbiology, neuropharmacology, neuropathology, human behavior and biochemistry. It provides basic knowledge and understanding of the structure, function of the nervous system, biochemical basis of human behavior, as well as the pathological basis of neurological and mental disorders. Fundamental principles of anatomy, physiology, pharmacology, pathology, microbiology and human behavior will be applied to pathological situations to distinguish the clinical basis for central nervous system disorders.

The second part of the course emphasizes anatomy, physiology, pharmacology, microbiology and pathology of the peripheral nervous system including peripheral nerves, nerve plexuses and peripheral nerve branches cranial nerves and special senses. To enhance integration of basic and clinical sciences as well as and self-directed learning, common clinical disorders related to this system are also explored using case based small group discussions and seminars.

MED 284 Health Administration Informatics, Economics and Population Care**3 Credits (3 Lect. & 0 Lab)**

This course explores health administration informatics as well as current trends for health care delivery and economy. The course provides an overview of the management of data and information resources critical to effective and efficient healthcare delivery such as insuring accurate and complete data; ensuring quality of data; analyzing data for decision support, research, public policy, and the protection of patient privacy and security. The course also address population care issues including caregiving responsibilities, long-term diseases, disabilities, and addiction. Cultural and social norms, and local factors that affects the delivery of health services as well as economic challenges in health care system are addressed. Economic principles used to analyze the behavior of patients, healthcare providers, health insurers and policymakers will also be discussed.

MED 291 Medical Physics**3 credits (3 Lect. & 0 Lab)***Pre-requisites: MED 101 Biostatistics*

This course introduces fundamental concepts in mechanical physics to medical students, covering Newton's laws, elasticity, temperature scales, and fluid mechanics. It delves into practical applications, including the measurement of blood pressure and the comprehension of fluid behaviors. The study then advances to encompass sound waves, principles of light and geometric optics, exploring mirrors and lenses. The course connects these topics with applications such as aberrations, the human eye, and imaging techniques. In the broader context of physical phenomena, students investigate radioactivity, half-life, and ionizing radiation, gaining practical insights into their interaction with matter and applications in medicine.

MED 305 Hematopoietic and Lymphoid System 6 Credit (4 Lect. & 6 Lab)

Pre-requisites: MED 231 Pathology, MED232 Immunology & MED 265 Microbiology

This integrated multidisciplinary module gives a comprehensive coverage of anatomy and physiology, and pathology of the hematopoietic and lymphatic system. The basic classification of anemia's, leukemia's and bleeding disorder and other common hematological diseases and their relevant diagnostic methods and natural history are discussed. All relevant pharmacological, biochemical, microbiological, and public health aspects are handled in relation to specific diseases. Teaching methods include lectures, labs, seminars, and small group discussion of clinically oriented problems to enhance self-directed learning.

MED 310 Musculoskeletal and Integumentary Systems 6 Credit (4 Lect. & 6 Lab)

Pre-requisites: MED 231 Pathology, MED232 Immunology & MED 265 Microbiology

This course is an interdisciplinary integrated module of musculoskeletal system. Basic sciences of anatomy, biochemistry microbiology, pathology, pharmacology, and physiology of the musculoskeletal system are correlated with clinical disorder of this system. The goal of this integrated course is to provide the medical student with comprehensive knowledge about bones, joints muscles, tendons, ligaments, skin and associated soft tissues related to clinical manifestations of diseases. The teaching methods include lecture labs as well as seminars and small group discussions of clinical oriented problems to enhance self-directed learning.

MED 311 Gastro-Intestinal Tract (GIT) System 6 Credit (4 Lect. & 6 Lab)

Pre-requisites: MED 231 Pathology, MED232 Immunology & MED 265 Microbiology

Interdisciplinary integrative course which explores fundamental concepts of biochemistry, anatomy, histology, physiology, nutrition and public health problems, pathology, pharmacology, and microbiology as they relate to issues and common diseases of Gastrointestinal and Hepatobiliary system. Pharmacology and therapeutic management of common GI problems are also explored. Teaching methods include lectures and labs. The lectures cover all the aspects of gastrointestinal system. The practical part of the course gives emphasize the anatomy of GIT and pathology of GIT. In addition, small group discussions of common clinical problems are part of the teaching strategy of this module to enhance integration of basic sciences and clinical knowledge and students' self-directed learning.

MED 321 Endocrine System (E.S.) 4 Credit (3 Lect. & 3 Lab)

Pre-requisites: MED 231 Pathology, MED232 Immunology & MED 265 Microbiology

This interdisciplinary integrated course of endocrine system gives comprehensive coverage of anatomy, microbiology, pathology, pharmacology, physiology and biochemistry. The course materials are correlated with clinical aspect of clinical endocrine disorders. Essential background for understanding of clinical medicine related to endocrine regulation and homeostasis are emphasized. The teaching methods include lectures, labs as well as seminars and small group discussions of clinical oriented problems to enhance self-directed learning.

MED 352 Renal, Urinary and Reproductive Systems 8 Credit (6 Lect. & 6 Lab)

Pre-requisites: MED 231 Pathology, MED232 Immunology & MED 265 Microbiology

This course is a multidisciplinary integrated course deals with the gross morphology, vasculature, lymphatic drainage and innervation of different organs forming renal, urinary and reproductive systems. The course deals with the gross morphology, vasculature, lymphatic drainage and innervation of different organs forming renal, urinary and reproductive systems. Various functions, normal development and congenital anomalies of these systems will be covered. In addition, normal and

offers them an overview of clinical psychiatry. Psychiatry has as its allied disciplines sociology and psychology. Behavioral science includes behavioral biology, including biochemical, physiological and pharmacological correlates of behavior; individual behavior including emotions, life cycle, motivation, personality and its psychopathology; and interpersonal and social behavior. Most lecturers are clinicians. It is, therefore, to be expected that the material covered in this course will be clinically relevant. In view of the limited time available, not every topic can be covered. Although some lecturers distribute lecture notes, others may not. You are welcome to take notes in classes. The course is organized into many sections that cover the human health behavior from the biological, psychological and social perspectives.

MED 416 Forensic Medicine

2 Credits: 2 weeks clerkship

Pre-requisites: Completion of all system courses

This course introduces students to forensic terminology with emphasis on the understanding of the underlying pathology of traumatic and sudden, unexpected deaths encountered. The course deals with medico-legal investigation of death and injury due to natural causes, accidents, and violence. It covers analysis/investigation of transportation injuries, of homicides, suicides due to various causes, and sexual crimes and methods for identification and guidelines for quality control assurance.

MED 417 Dermatology

2 Credits: 2 weeks clerkship

Pre-requisites: Completion of all system courses

This is a 2-weeks full time rotation in Dermatology. During this course, medical students are introduced to general Dermatology with emphasis on performing dermatological history and examination using dermatological descriptive terms. In addition, students are exposed to various clinical cases during clinics at hospital and dermatology clinics. Common topics are also emphasized on by seminar discussions done on daily basis during the rotation.

MED 418 Anesthesia and Intensive Care

4 Credits: 4 weeks clerkship

Pre-requisites: Completion of all system courses

This 4-week course is offered to the fourth year medical students. During this clinical rotation students will spend their morning hours in the operating theater learning basic principles of anesthesia including airway management, fluid management, induction and maintenance of anesthesia, patient's monitoring, and recovery. Students will be given daily seminars that cover important aspects of anesthesia and intensive care.

MED 419 Diagnostic Radiology

2 Credits: 2 weeks clerkship

Pre-requisites: Completion of all system courses

This clinical rotation in radiology is offered to fourth year medical students. The goal of this course is to present a basic introduction of the common radiological exams procedures and techniques as well as familiarize medical students with indications and contraindications of different radiological exams. The course also emphasizes basic radiological anatomy and train medical students to identify and diagnosis common and emergency pathological conditions using different radiological modalities.

MED 420 General Surgery I

8 Credits: 8 weeks clerkship

Pre-requisites: Completion of all system courses

The eight-week surgical rotation is an intense clinical experience that introduces students to the basic principles of surgery. Students rotate on the Surgical Teams at various hospitals that are affiliated to the medical school in the university. Six weeks of general surgery and two-week blocks of surgical subspecialties make up the rotation. During the rotations, students learn pre-, peri-, and post-operative

evaluation and management of surgical diseases. Time is spent on the wards, in outpatient clinics, and in the operating room.

MED 422 Internal Medicine I

8 Credits: 8 weeks clerkship

Pre-requisites: Completion of all system courses

This course introduces general internal medicine principles to the 4th year medical students where students will have exposure to many common medical conditions. It is a shared course among the faculty members of the department and administered at affiliated hospitals. During the rotations, students expand their knowledge of adult health and wellness, preventative, primary, secondary and tertiary care for cardiovascular system diseases, renal and urinary tract systems diseases, respiratory system disorder, endocrine and metabolism, gastroenterology, hematology, rheumatology and infectious diseases. They learn about the treatment of acute and chronic medical conditions and gain the ability to apply this knowledge in the clinical setting.

MED 430 Community Medicine and Research Project

8 Credits: 8 weeks clerkship

Pre-requisites: Completion of all system courses

The course is divided into two equal parts, each for 4 weeks during the summer semester of the fourth year. The first part is the case study part during which simulated case studies are presented to students for discussion and comments. The second 4 weeks are devoted to field practice in community medicine. Field practice demonstration areas are based in selected health centers in and around Tabuk. Students practice data collection, data analysis and data presentation in the form of tables and figures. The report that each individual student submits follows the "standard" protocol of research writing.

MED 507 Pediatrics I

8 Credits: 8 weeks clerkship

Pre-requisites: Completion of all system courses

This course gives medical students competences relevant to medical history taking of common pediatric disorders. Skills related to performing physical examination on infant, children and decedents are also emphasized. Principle of preventive medicine such as vaccination and nutrition are covered in this course. During the 8 weeks rotation, students are directly supervised by clinical instructors on the common pediatric diseases. This course also covers normal developmental and disorders related to behavioral aspects of children at different age group.

MED 510 Obstetrics and Gynecology I

8 Credits: 8 weeks clerkship

Pre-requisites: Completion of all system courses

This 8-week course provides the students with the basic knowledge of common obstetric and gynecology diseases. It also focuses on providing the students with the basic skills of history taking and skills of conducting relevant physical examinations. At the end of this course students are expected to generate appropriate assessment of common obstetrics and gynecology disease presentations including generating differential diagnosis and able to utilize laboratory and imaging facilities to reach appropriate diagnosis. Management of common disorders is discussed. Preventive medicine related to health during pregnancy and birth control is also emphasized.

MED 530 Family Medicine and Primary Health Care

4 Credits: 4 weeks clerkship

Pre-requisites: Completion of all system courses

Medical students spend this 4 week family medicine rotation in university health center and other affiliated primary health care centers in Irbid area. Students during this rotation are exposed to different health problems commonly seen in these primary health care centers. Their role includes communication with patients, physical examination and active participation in management plan.

consults, outpatient clinics and interactive seminars.

MED 610 General Surgery II

8 Credits: 8 weeks clerkship

Pre-requisites: MED 412 General Surgery I

An eight-week General Surgery rotation is a clinical experience that introduces students to basic principles of surgery and related problems. Its curriculum is defined by learning objectives and encompasses inpatient-hospital and outpatient-office experiences. During the clerkship, students evaluate and follow patients. 6 weeks of general surgery and two-week blocks of surgical subspecialties (Urology and Neurosurgery) make up the rotation. Functioning as members of the patient-care team, the team pre- and post-operative evaluation and management, and visiting the operating theaters to see some surgical procedures. Daily rounds and faculty/preceptor interactions give students the opportunity to discuss patient problems in detail. Faculty members provide students with regular feedback, advice, and direction. Throughout the course, students will be involved in the daily morning report, clinical rounds, outpatient clinics and interactive seminars.

MED 620 Internal Medicine II

8 Credits: 8 weeks clerkship

Pre-requisites: MED 422 Internal Medicine I

This is a general internal medicine for final year medical students during which will advance their skills in the field of internal medicine. Students are expected to cover core medical problems through daily bed side teaching rounds and attending specialty outpatient clinics. Throughout the course students will have interactive seminars that cover a wide variety of common and important medical problems. Throughout the course, students will be involved in the daily morning report, clinical rounds, outpatient clinics, interactive seminars, and department teaching activities.

MED 630 Pediatrics II

8 Credits: 8 weeks clerkship

Pre-requisites: MED 507 Pediatrics I

This is an eight weeks rotation for 5th year medical students. During the rotation, students are exposed to different settings through rotating with different sub specialist in hospitals. This includes both in patients and out patients encounters. This rotation is to emphasize active student's involvement of students in patient care and allow them to follow their own patients with continuity. Students are also encouraged to act at the level of interns in preparation for graduation requirement. Throughout the course, students will be involved in the daily morning report, clinical rounds, outpatient clinics and interactive seminars.

MED 640 Obstetrics and Gynecology II

8 Credits: 8 weeks clerkship

Pre-requisites: MED 510 Obstetrics and Gynecology I

This course is intended to expand on the knowledge acquired in the fifth year, with emphasis on the practical aspects of obstetrics and gynecology. During the rotation, students are exposed to different settings through rotating with different sub specialist in hospitals. During this course, students are expected to learn more about diagnosis and management of common obstetric and gynecology diseases and to deal with common emergency situation in this field. Throughout the course, students will be involved in the daily morning report, clinical rounds, outpatient clinics and interactive seminars.

MED 650 Emergency Medicine

4 Credits: 4 weeks clerkship

Pre-requisites: MED 510 Obstetrics and Gynecology I

This course is a four-week rotation in an affiliated hospital emergency room designed to further develop the concepts of diagnosis and management acquired during the pre-clinical course-work and

to develop decision-making and cognitive skills related to patient care in an emergency room. This course will also provide the student a chance to develop additional clinical psychomotor skills by performing routine basic procedures in a supervised setting. In addition, this course may include experiences such as surgical assistance, labor and delivery, hospital staff and committee meetings, hospital emergency room calls, community and public health functions. Students are encouraged to observe, evaluate, and participate in the discussions and medical care of patients, at the discretion and under the immediate supervision of an assigned physician through the combined coordination and direction of the on-site supervising physician and the course coordinator.