Ministry of Higher Education and Scientific Research
Scientific Supervision and Scientific Evaluation Apparatus
Directorate of Quality Assurance and Academic Accreditation
Accreditation Department

Academic Program and Course Description Guide

2025

Introduction:

The educational program is a well-planned set of courses that include procedures and experiences arranged in the form of an academic syllabus. Its main goal is to improve and build graduates' skills so they are ready for the job market. The program is reviewed and evaluated every year through internal or external audit procedures and programs like the External Examiner Program.

The academic program description is a short summary of the main features of the program and its courses. It shows what skills students are working to develop based on the program's goals. This description is very important because it is the main part of getting the program accredited, and it is written by the teaching staff together under the supervision of scientific committees in the scientific departments.

This guide, in its second version, includes a description of the academic program after updating the subjects and paragraphs of the previous guide in light of the updates and developments of the educational system in Iraq, which included the description of the academic program in its traditional form (annual, quarterly), as well as the adoption of the academic program description circulated according to the letter of the Department of Studies T 3/2906 on 3/5/2023 regarding the programs that adopt the Bologna Process as the basis for their work.

In this regard, we can only emphasize the importance of writing an academic programs and course description to ensure the proper functioning of the educational process.

Concepts and terminology:

Academic Program Description: The academic program description provides a brief summary of its vision, mission and objectives, including an accurate description of the targeted learning outcomes according to specific learning strategies.

Course Description: Provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the students to achieve, proving whether they have made the most of the available learning opportunities. It is derived from the program description.

Program Vision: An ambitious picture for the future of the academic program to be sophisticated, inspiring, stimulating, realistic and applicable.

Program Mission: Briefly outlines the objectives and activities necessary to achieve them and defines the program's development paths and directions.

Program Objectives: They are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

Curriculum Structure: All courses / subjects included in the academic program according to the approved learning system (quarterly, annual, Bologna Process) whether it is a requirement (ministry, university, college and scientific department) with the number of credit hours.

Learning Outcomes: A compatible set of knowledge, skills and values acquired by students after the successful completion of the academic program and must determine the learning outcomes of each course in a way that achieves the objectives of the program.

Teaching and learning strategies: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extra-curricular activities to achieve the learning outcomes of the program.

Academic Program Description Form

University Name: Al Nahrain university.

Faculty/Institute: College Medicine

Scientific Department: Medicine

Academic or Professional Program Name: Bachelor of Medicine and Surgery

Final Certificate Name: Bachelor of Medicine and Surgery

Academic System: Semester system

Description Preparation Date: May 2025

File Completion Date: June 2025

Signature:

Head of Department Name:

Prof.Dr.Anees K. Nile
College Of Medicine - Dean
Al-Nahrain University

Date:

Signature:

Scientific Associate Name:
Asst. Prof. Ammar Mosa Jawad

Date:

The file is checked by:

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Date:

Signature:

Prof. Ali M. Hasan

Dr. Sabreen. S. S. Al-Anei

Approval of the Dean

Prof.Dr.Anees K. Nile
College Of Medicine - Dean
Al-Nahrain University

1. Program Vision

Leadership and excellence locally, regionally, and globally.

2. Program Mission

To pioneer in medical education through distinguished academic performance by offering a comprehensive, systems-based curriculum; fostering innovation, professionalism, and lifelong learning; and contributing to the advancement of healthcare and scientific knowledge at both national and international levels.

3. Program Objectives

The College of Medicine aims to achieve the following objectives:

1. Implement a comprehensive systems-based curriculum to ensure the attainment of the college's intended learning outcomes.
2. Continuously develop and enhance academic programs in alignment with global medical education standards.
3. Improve educational, training, leadership, and managerial competencies of faculty members and administrative staff.
4. Promote scientific research and strengthen the research capabilities of both faculty and students.
5. Enhance engagement with the community through active participation, coordination, and integration of academic and service initiatives.
6. Establish academic and cultural collaborations with regional and international universities, and build strong ties with global professional societies.

4. **Program Accreditation**
Yes, In April 2024, the College of Medicine at Al-Nahrain University obtained international accreditation by receiving accreditation from the Accreditation and Quality Assurance Commission for Higher Education Institutions (AQACHEI) in Jordan, which is recognized by the World Federation for Medical Education (WFME). Previously, in 2022, the college had received conditional accreditation from the National Council for Accreditation of Medical Colleges in Iraq (NCAMC). in 2025 the college get the CERTIFICATE OF FULL ACCREDATION of Medical colleges in IRAQ .

5. **Other external influences**
Ministry of Higher Education and Scientific Research – Iraq

6. **Program Structure**			
No.	Credit type	Allocated credit	Percent
1.	Ministry requirement	13	5%
2.	Basic science	104	40%
3.	Clinical science	143.5	55%

* This can include notes whether the course is basic or optional.

7. Program Description

1st year										
1st Semester						2nd Semester				
Subjects		Code	Hours/week		Credits	Subjects	Code	Hours/week		Credits
			Theory	Practical				Theory	Practical	
1	Medical Biology	ANTBio-11	3	3	4.5	Human Anatomy	ANTAnt-12	3	6	6
2	Medical chemistry	CHMMed-11	3	3	4.5	Medical Biology	ANTBio-12	2	3	3.5
3	Medical Physics	PHYPhs-11	2	3	3.5	Biochemistry	CMRCmr-12	2	3	3.5
4	Physiology	PHYPhy-11	1	-	1	Physiology	PHYPhy-12	1	-	1
5	Computer Science	CMRCmr-11	1	2	2	Medical Physics	PHYPhs-12	2	3	3.5
6	Medical terminology	MEDTer-11	1	-	1	Computer Science	CMRCmr-12	1	2	2
7	Human Rights & Democracy	HUMDem-11	2	-	2	Medical Terminology	MEDTer-12	1	-	1
8	Foundation of medicine	FOUNme-11	2	-	2	Early Clinical Exposure	ECESrg-12	2	2	3
Total			15	11	20.5	Total		14	19	23.5

2nd year										
1st Semester						2nd Semester				
Subjects		Code	Hours/week		Credits	Subjects	Code	Hours/week		Credits
			Theory	Practical				Theory	Practical	
1	Human Anatomy	ANTAnt-21	3	6	6	Physiology	PHYPhy-22	4	3	5.5
2	Physiology	PHYPhy-21	4	3	5.5	Human Anatomy	ANTAnt-22	3	6	6
3	Biochemistry	CHMBio-21	3	3	4.5	Clinical chemistry	CHMBio-22	2	3	3.5
4	Histology	ANTHis-21	2	2	3	Histology	ANTHis-22	2	2	3
5	Embryology	ANTEmb-21	1	2	2	Embryology	ANTEmb-22	1	2	2
6	The crimes of the Baath regime in Iraq	CRIBaa-21	2	-	2	Molecular Biology	CHMMol-22	1	2	2
Total			15	16	23	Total		13	18	22

3rd year											
1st Semester						2nd Semester					
	Subjects	Code	Hours/week		Credits	Subjects	Code	Hours/week		Credits
			Theory	Clinical				Theory	Clinical	
1	Internal Medicine & PBL	MEDInt-31	4	2	5	Internal Medicine & PBL	MEDInt-32	4	2	5
2	Pathology	PATPat-31	4	Practical 3	5.5	Surgery & PBL	SRGGen-32	3	2	4
3	Pharmacology	PHRPhr-31	3	2	4	Pathology	PATPat-32	3	Practical 3	4.5
4	Immunity	MICImm-31	2	2	3	Pharmacology	PHRPhr-32	3	2	4
5	Bacteriology & Mycology	MICBac-31	2	2	3	Virology	MICVir-32	2	2	3
6						Parasitology	MICPar-32	2	2	3
7						Family & Community Medicine	COMCom-32	2	2	3
Total			15	11	20.5	Total		19	15	26.5

4th year										
1st Semester						2nd Semester				
	Subjects	Code	Hours/week		Credits	Subjects	code	Hours/week		Credits
			Theory	Practical				Theory	Practical	
1	Family & Community Medicine	COMCom-41	3	3	4.5	Family & Community Medicine	COMCom-42	2	3	3.5
2	Forensic medicine	PATFom-41	2	3	3.5	Forensic medicine	PATFom-42	2	3	3.5
3	Gastroenterology	SRGGit-41	3	-	3	Urology	SRGUro-42	2	-	2
4	Gynecology & obstetrics	GYNGyn-41	2	-	2	Endocrinology	MEDEnd-42	2	-	2
5	Pediatrics	PEDPed-41	2	-	2	Hematology	MEDHem-42	2	-	2
6	Respiratory	MEDRes-41	2	-	2	Gynecology & obstetrics	GYNGyn-42	1	-	1
7	Cardiology	MEDCar-41	2	-	2	Pediatrics	PEDPed-42	1	-	1
8						Behavioral sciences	MEDBsc-42	1	-	1
Total			16	6	19	Total		13	6	16

5th year										
1st Semester						2nd Semester				
Subjects		Code	Hours/week		Credits	Subjects	Code	Hours/week		Credits
			Theory	Practical				Theory	Practical	
1	Orthopedic	SRGOrt-51	3	-	3	Neurology	MEDNeu-52	2	-	2
2	Dermatology	MEDDer-51	2	-	2	Radiology	SRGRad-52	2	-	2
3	ENT	SRGEnt-51	2	-	2	Ophthalmology	SRGOpt-52	2	-	2
4	Gynecology & obstetrics	GYNGyn-51	2	-	2	Surgical Emergency	SRGSub-52	2	-	2
5	Psychiatry	MEDPsc-51	2	-	2	Pediatrics	PEDPed-52	1	-	1
6	Pediatrics	PEDPed-51	1	-	1	Rheumatology	MEDRhe-52	1	-	1
7	Medical Ethics	PATMet-51	1	-	1	Gynecology & obstetrics	GYNGyn-52	1	-	1
Total			13	-	13	Total		11	-	11

6^{th} year							
Subjects		Code	Hours/course				Credits
			Daily	No. of weeks	No. day/week	Total Hours	
1	Surgery	SRGSrg-6C	6	14	5	42	14
2	Medicine	MEDMed-6C	6	12	5	360	12
3	Obstetrics and Gynecology	GYNGyn-6C	6	10	5	300	10
4	Pediatrics	PEDPed-6C	6	10	5	300	10
Total						1380	46

8. Expected learning outcomes of the program	
Knowledge	
Learning Outcomes A1 A2 A3 A4	• Preparing a foundation in fundamental medical and scientific backgrounds. • Equipping graduates with knowledge of behavior, psychological, ethical, community medicine, and promoting health care sciences. • Preparing graduates to effectively retrieve and apply medical information. • Instructing graduates on scientific methods for research
Skills	
B1 B2 B3 B4 B5	• Preparing graduates with clinical and research skills. • Developing skills in emergency and ambulatory care. • Having a communication skills. • Instilling skills in data handling, documentation, and maintaining confidentiality. • Cultivating lifelong learning, teaching, teamwork, and collaboration skills. • Equipping graduates with research skills .
Ethics	
Learning Outcomes C1 C2 C3 C4 C5 C6	• Instilling the ethics of medical practice. • Promoting respect for patients and communities. • Emphasizing commitment to confidentiality and privacy. • Encouraging lifelong learning and self-improvement. • Cultivating a collaborative spirit and leadership skills. • Inculcating devotion to patient care and ethical decision making

9. Teaching and Learning Strategies
Teaching and learning
Lecture
PBL
Practical sessions
Clinical sessions
Simulation Sessions

10. Evaluation methods

Evaluation Methods

The assessment methods in the MBChB program at the College of Medicine – Al-Nahrain University are carefully designed to measure the extent to which students achieve the intended learning outcomes (ILOs) across cognitive, psychomotor, and affective domains.

A variety of assessment tools are implemented to ensure comprehensive and fair evaluation of students' performance throughout the academic years.

1. Theoretical Assessment:

Students' knowledge is evaluated using different written examination formats, including:

- Multiple Choice Questions (MCQs)
- Short Answer Questions (SAQs)
- Essay Questions
- Structured Long Questions

2. Practical Assessment:

Students' practical skills are assessed through:

- Objective Structured Practical Examinations (OSPE)
- Laboratory skill assessments
- Practical demonstrations

3. Clinical Assessment:

Clinical competence is evaluated using a combination of:

- Objective Structured Clinical Examinations (OSCE)
- Long and Short Clinical Cases
- Bedside teaching assessments

4. Continuous Assessment:

Continuous evaluation is conducted throughout the academic year and includes:

- Quizzes
- Assignments and reports
- Case presentations
- Seminars
- Logbook evaluation

5. Professionalism and Attendance:

Students' professional behavior and commitment are assessed through:

- Professional attitude and ethical conduct
- Communication skills
- Attendance records in lectures, practical sessions, and clinical rotations

6. Final Comprehensive Examinations:

At the end of each academic phase and before graduation, students undergo comprehensive examinations (theoretical and clinical) to ensure they meet graduation requirements.

11.	12. Faculty					
	Faculty Members					
Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
Professor	63	63			●	
Assistant Professor	73	73			●	
Lecturer	55	55			●	
Assistant Lecturer	28	28			●	

Professional Development

Mentoring new faculty members

"Professional Development" in the Al-Nahrain refers to a comprehensive set of activities aimed at enhancing the educational and professional competencies of the academic staff at Al-Nahrain College of Medicine. This includes:

• Organizing workshops, training courses, and Continuing Medical Education (CME/CPD) programs to advance faculty teaching and research skills.

• Involvement of international experts from prestigious universities like Stanford University and the Royal College of Physicians and Surgeons of Canada to participate in training and academic development.

• The Medical Education and Curriculum Development Unit plays a key role in providing training sessions and online modules on assessment tools, active learning strategies, and teaching methods.

In summary, professional development in this context goes beyond simple training—it represents a structured and ongoing process of academic enhancement, continuous evaluation, international collaboration, and the implementation of global best practices to elevate the educational quality and performance of medical faculty

13. Acceptance Criterion

Central admissions according to the ministry regulations

14. **The most important sources of information about the program**
1. College Website – Includes curriculum, lectures, announcements. 2. Curriculum and Medical Education Units – Provide updates and evaluations. 3. Student and Faculty Surveys – Gather feedback for improvement. 4. Accreditation and Scientific Committees – Monitor and document program quality. 5. Stakeholder Feedback – From Ministry of Health, hospitals, alumni, and students.

15. Program Development Plan
1.Curriculum Revision: Reduce theory, enhance integration, and increase early clinical exposure. 2. Scientific Collaboration: Activate local and international partnerships in education and research. 3. Assessment Improvement: Update exams and align with learning outcomes. 4. Quality Assurance: Conduct regular surveys and use feedback for improvement. 5. Student Well-being: Enhance healthcare, education, and accommodation services. 6. Documentation: Improve data recording and reporting processes.

Program Skills Outline															
				Required program Learning outcomes											
Year/ Level	Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
1st year	FOUNme-11	Foundations of Medicine	Basic	√	√	√	√	√	√			√	√		
1st year	PHYPhy-11	Body fluid	Basic	√	√	√	√	√	√	√		√	√	√	
	PHYPhy-12	blood	Basic	√	√	√	√	√	√	√		√	√	√	
1st year	ANT-ant12	Anatomy of the upper and lower limbs	Basic	√	√	√		√	√						
1st year	EngLang	Theoretical English: Medical & Health Humanities	Basic												
1st year	EngLang	Practical English	Basic												
1st year	ANTBio12	Medical Biology	Basic	√	√	√		√	√						
1st year	ANTBio12	Medical Biology	Basic	√	√	√		√	√						
				√	√	√		√	√						
1st year	ANT-ant12	Anatomy of the upper and lower limbs	Basic	√	√	√		√	√						
2nd year	ANTAnt21	Human Anatomy	Basic	√	√	√	√			√	√	√	√		√
2nd year	ANTAnt22	Human Anatomy	Basic	√	√	√	√			√	√	√	√		√
2nd year	ANAT-His22	Histology	Basic	√	√	√	√			√	√	√	√		√
2nd year	ANTAnt21	Human Anatomy	Basic	√	√	√	√			√	√	√	√		√
2nd year	ANTAnt22	Human Anatomy	Basic	√	√	√	√			√	√	√	√		√
2nd year	ANTEmb-21	Embryology	Basic												
2nd year	PHYPhy-21	physiology	Basic	√	√	√	√	√	√	√		√	√	√	
	PHYPhy-22	physiology	Basic	√	√	√	√	√	√	√		√	√	√	
2nd year	ANAT-His21	Histology	Basic	√	√	√	√			√	√	√	√		√
				√	√	√	√								

3rd year	SRGGen-32	surgery	Basic	√	√	√	√	√	√	√		√	√		
3rd year	SRGSrg-3C	Surgery/ clinical	Basic	√	√	√	√	√	√	√		√	√	√	
3rd year	PATPat-31	General pathology	Basic	√		√					√				√
3rd year	PHRphr31	Pharmacology 1st Semester	Basic	√	√	√	√	√	√	√	√	√	√	√	√
3rd year	PHRphr31	Pharmacology 1st Semester	Basic	√	√	√	√	√	√	√	√	√	√	√	√
	PHRphr32	Pharmacology 2st Semester	Basic	√	√	√	√	√	√	√	√	√	√	√	√
4th year		Urology	Basic	√	√	√	√	√	√	√		√	√		
4th year	SRGSrg-4C	Clinical surgery	Basic	√	√	√	√	√	√	√		√	√		
4th year	SRGit-41	GIT	Basic	√	√	√	√	√	√	√		√	√		
4th year	GYNGy-41	1st semester	Basic	√	√	√	√	√	√	√	√	√	√	√	√
4th year	GYNGy-42	2ed semester	Basic	√	√	√	√	√	√	√	√	√	√	√	√
4th year	COM Com-42	Family and community medicine	Basic	√	√	√	√			√	√			√	
4th year	COM Com-41	Family and community medicine	Basic	√	√	√	√			√	√			√	
4th year	COM Com-42	Family and community medicine	Basic	√	√	√	√			√	√			√	
4th year	PEDped-41		Basic	√	√	√	√	√	√	√	√	√	√	√	√
	PEDped-42		Basic	√	√	√	√	√	√	√	√	√	√	√	√
4th clinical	GYNGy-4C		Basic	√	√	√	√	√	√	√	√	√	√	√	√
4th clinical	PEDped-4C		Basic	√	√	√	√	√	√	√	√	√	√	√	√
4th year	GYNGy-41	1st semester	Basic	√	√	√	√	√	√	√	√	√	√	√	√
4th year	MEDBsc-42	2nd semester	Basic	√	√	√	√	√	√	√		√	√	√	√
4th year/	MEDEnd 42 Endocrinol ogy and diabetes	2ND seme ster	Basic	√	√	√	√	√	√	√	√	√	√	√	√
4th year /	MEDHem-42	Clinical Hematology	Basic	√	√	√	√	√	√	√	√	√	√	√	√

4th year/	MEDMed-4C	General Medicine clinical	Basic	√	√	√	√	√	√	√		√	√	√	√
5th year	SRGRad-52	Radiology	Basic	√	√	√	√	√	√	√		√	√		
5th year	SRGRad-5C	Radiology	Basic	√	√	√	√	√	√	√		√	√		
5th year	SRGOpt-5C	Clinical ophthalmology	Basic	√	√	√	√	√	√	√		√	√		
5th year	SRGOPT-52	ophthalmology	Basic	√	√	√	√	√	√	√		√	√		
5th year	SRGEnT-51	ENT	Basic	√	√	√	√	√	√						
5th year	SRGEnT-5C	Clinical ENT	Basic						√	√	√	√	√	√	√
5th year	SRGOrt-5C	Clinical orthopedic	Basic	√	√	√	√	√	√	√		√	√		
5th year		Orthopedics	Basic	√	√	√	√	√	√	√		√	√		
5th year	SRGEme-5C	Clinical emergency	Basic	√	√	√	√	√	√	√		√	√		
5th year	SRGSrg-6C	Surgical emergency	Basic	√	√	√	√	√	√	√		√	√		
5th year	MEDR esp-41	Respirat ory	Basic	√	√	√	√	√	√	√		√	√	√	√
5th year		Clinical medicine	Basic	√	√	√	√	√	√	√	√	√	√	√	√
5th year	MEDP sc-51	Psychiatry theory	Basic	√	√	√	√	√	√	√		√	√	√	√
5th year	GYNGy-51	1st semester	Basic	√	√	√	√	√	√	√	√	√	√	√	√
	GYNGy-52	2ed semester	Basic	√	√	√	√	√	√	√	√	√	√	√	√
5th year	PEDped-51		Basic	√	√	√	√	√	√	√	√	√	√	√	√
	PEDped-52		Basic	√	√	√	√	√	√	√	√	√	√	√	√
6th year	GYNGy-6C		Basic	√	√	√	√	√	√	√	√	√	√	√	√
6th clinical	PEDped-6C		Basic	√	√	√	√	√	√	√	√	√	√	√	√
6th year	SRGSrg-6C	Clinical surgery and its branches	Basic	√	√	√	√	√	√	√	√	√	√	√	√

- **Please tick the boxes corresponding to the individual program learning outcomes under evaluation.**

Surgery

Course Description Form

1. Course Name:
Foundations of Medicine
2. Course Code:
FOUNDme-11
3. Semester / Year:
First Semester / First year students
4. Description Preparation Date:
2025
5. Available Attendance Forms:
Yes
6. Number of Credit Hours (Total) / Number of Units (Total)
30 /2
7. Course administrator's name (mention all, if more than one name)
Name: Assit.Prof.Dr. Ahmed Abdulrazzaq Abbood P Email: ahmedabdulrezak@nahrainuniv.edu.iq
8. Course Objectives

Course Objectives	To prepare students for the rigorous nature of medical education.... To bridge the gap for students who may not have a strong background in biology or chemistry…… To familiarize students with the medical profession and challenges……
9. Teaching and Learning Strategies	
Strategy	Formal lectures with large group teaching. Hospital and Labs tours

10. Course Structure					
Week	**Hours**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
1	2	Student orientation to the course.	Introduction and Course description.	Formal Lecture	
2	2	Basic knowledge Basic knowledge	Introduction to Anatomy in medical Practice.	Formal Lecture	HOME Assignment report
3	2	Basic knowledge	Introduction to Physiology in Medical Practice.	Formal Lecture	HOME Assignment report
4	2	Basic knowledge	Introduction to Biochemistry in Medical Practice.	Formal Lecture	HOME Assignment report
5	2	Basic knowledge	Introduction to Pathology in Medical Practice.	Formal Lecture	HOME Assignment report
6	2	Basic knowledge Basic knowledge	Introduction to Microbiology in in Medical Practice.	Formal Lecture	HOME Assignment report
7	2	How to communicate with the	Introduction to Pharmacology in	Formal Lecture	HOME Assignment report
8	2	patients,	in Medical Practice.	Formal Lecture	HOME Assignment report
9	2	How to solve clinical problems,	Introduction to Social Health care. Basic communication	Formal Lecture	HOME Assignment report

10	2	How to cooperate with the staff and colleagues,	skill in Medical Practice.	Formal Lecture	HOME Assignment report
11	2	How to respect patient privacy and deal with	Critical thinking and problem-solving.	Formal Lecture	HOME Assignment report
12	2	unconscious patients in a legal way.	Teamwork and collaboration.	Formal Lecture	HOME Assignment report
			Medical ethics and patient care		

11. Course Evaluation	
Report and assignments 30% Final MCQ Witten exam 70 %	
12. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	**College and participating Departments Certified Various Textbooks.**
Main references (sources)	**College and participating Departments Certified Various Textbooks**
Recommended books and references (scientific journals, reports…)	**College and participating Departments books and references.**
Electronic References, Websites	

Course Description Form

1. Course Name:
principles of surgery
2. Course Code:
SRGGen-32
3. Semester / Year:
2nd semester, 3ed year
4. Description Preparation Date:
22/1/2025
5. Available Attendance Forms:
physical attendance
6. Number of Credit Hours (Total) / Number of Units (Total)
14/1
7. Course administrator's name (mention all, if more than one name)
Name: Ali Saad Abdulraheem Email: ali.s.alobaidi@nahrainuniv.edu.iq
8. Course Objectives

Course Objectives	1. **Understand and apply the basic principles** of asepsis, wound healing, hemostasis, surgical infections, and fluid and electrolyte balance. 2. **Demonstrate knowledge** of preoperative and postoperative patient care, including risk assessment and management of surgical complications. 3. **Identify and describe** common surgical conditions and the rationale for their management. 4. **Perform essential surgical skills** in a simulated environment, such as suturing, knot tying, and basic procedural techniques. 5. **Interpret clinical data** relevant to surgical decision-making, including imaging and laboratory investigations. 6. **Collaborate effectively** within a multidisciplinary team and exhibit professional conduct, ethical reasoning, and patient-centered care. 7. **Recognize indications** for referral to surgical specialties and understand the role of surgery within the broader healthcare system.

9. Teaching and Learning Strategies

Strategy	1. **Didactic Lectures** o Provide core knowledge of surgical principles, pathophysiology, and standard management approaches. o Focused, interactive sessions with clinical relevance emphasized. 2. **Skills Laboratories / Simulation Training** o Hands-on sessions to practice suturing, knot-tying, surgical handwashing, instrument handling, and basic procedural skills in a controlled environment. o Use of mannequins, task trainers, and virtual simulators. 3. **Small Group Tutorials / Problem-Based Learning (PBL)** o Foster collaborative learning and deep exploration of surgical topics. o Focus on student-led inquiry and faculty facilitation. 4. **Clinical Rotations / Bedside Teaching** o Direct exposure to surgical patients under supervision. o Involves patient assessment, assisting in procedures, ward rounds, and operating room observation. 5. **Reflective Practice & Portfolios** o Students reflect on clinical experiences, receive feedback, and document their skill development and learning progress.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	1		Metabolic response to trauma	Lecture	Classroom discussion and question
2	1		Shock,Hemostasis and Blood Transfusion	Lecture	Classroom discussion and question
3	1		Cyst, Ulcer and Sinus	Lecture	Classroom discussion and question
4	1		fluid Acid Base Balance and Electrolytes	Lecture	Classroom discussion and question
5	1		Fluid AcidBase Balance and Electrolytes	Lecture	Classroom discussion and question
6	1		Nutrition in Surgery	Lecture	Classroom discussion and question
7	1		Arterial, Venous and Lymphatic Disease	Lecture	Classroom discussion and question
8	1		Diabetic foot	Lecture	Classroom discussion and question
9	1		Umbilicus and abdominal wall	Lecture	Classroom discussion and question
10	1		Hernia	Lecture	Classroom discussion and question

11	1		Tumors	Lecture	Classroom discussion and question
12	1		Surgical Site Infection, wound Healing and Antibiotics	Lecture	Classroom discussion and question
13	1		Surgical Site Infection, wound Healing and Antibiotics	Lecture	Classroom discussion and question

11. Course Evaluation

Evaluation methods include the following:
Quizzes: 3 out of 100 (multiple quizzes are performed and the average is taken)
Problem based learning PBL 2 out of 100
Mid-semester exam: 25 out of 100
Clinical assessment 10 out of 100
Final semester exam: 60 out of 100

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	**1. Textbooks and Reference Materials** • **Core Texts** ○ *Schwartz's Principles of Surgery* ○ *Sabiston Textbook of Surgery* ○ *Current Surgical Diagnosis and Treatment* ○ *Baily & Love's Short Practice of Surgery*
Main references (sources)	○ *Baily & Love's Short Practice of Surgery*
Recommended books and references (scientific journals, reports...)	○ *Baily & Love's Short Practice of Surgery*
Electronic References, Websites	https://teachmesurgery.com

Course Description Form

1.Course Name:
Surgery/Clinical
2.Course Code:
SRGSrg-3C
3.Semester / Year:
2nd semester/ Third year
4.Description Preparation Date:
1/5/2025
5.Available Attendance Forms:
physical Attendance only
6.Number of Credit Hours (Total) / Number of Units (Total) :
20/10
7.Course administrator's name (mention all, if more than one name)
Name: Dr. Mohanad Abdulameer Makttoof Email: mohanad.abdulameer@nahrainuniv.edu.iq
8.Course Objectives
At the end of the surgical courses, the student should be able to: • Discover and define clinical features of surgical conditions common to this country. • Define and discuss the mechanism by which these surgical illnesses occur. • Use of the methods of clinical problem – solving to reach a diagnostic conclusion. • Order appropriate investigations to define and solve problems presented by the clinical situation. • Diagnose and manage surgical emergencies. • Develop attitude of concern and responsibility for patients under his care. Recognize the need for early surgical consultation and maintain a partnership in management with the other members of the medical and paramedical personnel in which he becomes involved.....
9.Teaching and Learning Strategies
Strategy Clinical session in the surgical ward and in college halls with interactive lectures given as power point slide show with questions and discussions during the session time in addition to assignments given and history taking in front of tutors.
Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2		Introduction to history of pain	Case scenario, case discussion	Mini-CEX paper
2	2		History of ulcer, lump, wounds	Case scenario, case discussion	Mini-CEX paper
3	2		History of abdominal wall and inguinal hernia	Case scenario, case discussion	Mini-CEX paper
4	2		History of breast disease-lump, nipple discharge	Case scenario, case discussion	Mini-CEX paper
5	2		History of neck mass- LAP, thyroid	Case scenario, case discussion	Mini-CEX paper
6	2		History of common cardiothoracic problems	Case scenario, case discussion	Mini-CEX paper
7	2		History of renal problem-hematuria, dysuria	Case scenario, case discussion	Mini-CEX paper
8	2		History of upper and lower GIT bleeding	Case scenario, case discussion	Mini-CEX paper
9	2		General Examination	Case scenario, case discussion	
10	2		Assessment	History taking, and Examination	

13. Course Evaluation

- Final exam (100 out of 100)
- Certain assignments (Log book, 3 cases complete history taking and writing by each student), given as bonus grade.

14. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Baily and love's Short Practice of Surgery
Main references (sources)	
Recommended books and references (scientific journals, reports…)	Browse's introduction to symptoms and signs of surgical diseases.
Electronic References, Websites	

Course Description Form

1. Course Name:
GIT
2. Course Code:
SRGit−41
3. Semester / Year:
FIRST semester 4th year
4. Description Preparation Date:
15 April 2025
5. Available Attendance Forms:
Physical attendance
6. Number of Credit Hours (Total) / Number of Units (Total)
3 hours per week for 15 weeks. Total 45 hours
7. Course administrator's name (mention all, if more than one name)
Name: TAQI SAADOON ATIYAH Email: taqi.atyia@nahrainuniv.edu.iq
8. Course Objectives

Course Objectives	**1− Tenable the student to understand the causes and pathogenesis of GASTROINTESINAL & LIV diseases.** **2− To understand the congenital abnormality GASTROINTESINAL & LIVER diseases.** **3− To know the medical and surgical GASTROINTESINAL & LIVER diseases.** **4− To know the different types of investigations (laboratory, radiology, endoscopy, and histopathology).** **5− The best modes of management and follow up.** **6− Prevention and family screen of GASTROINTESINAL & LIVER diseases**

9. Teaching and Learning Strategies

Strategy	**The teaching is based on lecture system. The lectures are given in power point slide format in the halls of the college**

	during the lecture, questions and discussions are encouraged

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	1		Introduction to GIT	Lecture	Classroom discussion and question
2	1		Congenital anomaly of GIT	Lecture	
2	2		Surgical diseases of esophagus	Lecture	Classroom discussion and question
4	4		Medical diseases of stomach	Lecture	
2	2		Surgical diseases of stomach	Lecture	Classroom discussion and question
7	7		Medical diseases of liver	Lecture	
2	2		Surgical diseases of liver	Lecture	Classroom discussion and question
2	2		Gallbladder and biliary diseases	Lecture	
2	2		Medical diseases of small intestine	Lecture	Classroom discussion and question
2	2		Surgical diseases of small intestine	Lecture	
1	1		Pancrease	Lecture	Classroom discussion and question
2	2		Colon	Lecture	
1	1		Appendix	Lecture	Classroom discussion and question
2	2		Perianal diseases	lecture	
			Obesity		Classroom discussion and question
			Oral diseases and tongue		Classroom discussion and question

11. Course Evaluation

Evaluation methods include the following:
Quizzes: 5 out of 100 (multiple quizzes are performed and the average is taken)
Mid-semester exam: 25 out of 100
Final semester exam: 70 out of 100

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Baiely & Love's Short Practice of Surgery Davidson's Principles of Medicine
Main references (sources)	Baiely & Love's Short Practice of Surgery Davidson's Principles of Medicine
Recommended books and references (scientific journals, reports…)	Journals
Electronic References, Websites	None

Course Description Form

1. Course Name:
Urology
2. Course Code:
SERgen−3
3. Semester / Year:
2nd semester, 4th year
4. Description Preparation Date:
21st, Feb. 2024
5. Available Attendance Forms:
physical attendance
6. Number of Credit Hours (Total) / Number of Units (Total)
2/30
7. Course administrator's name (mention all, if more than one name)
Name: Dr. Laith Amer Al-Anbary Email: laithamer3000@nahrainuniv.edu.iq
8. Course Objectives

Course Objectives	**1.**To enable the student to acquire a good level of knowledge of basic and standard fracture cases and to familiarize the student with the more advanced and specific cases found in the more specialized units. **2.** To enable the student to understand the basics of dealing with various trauma cases. **3.**To have a good understanding of emergency cases and how to handle them. **4.** To be able to develop a differential diagnosis for surgical and medical urological diseases, congenital anomalies, and surgically treated pathologies

9. Teaching and Learning Strategies

Strategy	The teaching is based on lecture system. The lectures are given in power point slide format in the halls of the college during the lecture, questions and discussions are encouraged to enhance the learning experience of the student. Assignments are allocated to the students in certain lectures with personalized feed back

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	1		Introduction + imaging	Lecture	Classroom discussion and question

1	1		Anatomy and renal Medicine Physiology +investigation	Lecture	Classroom discussion and question
2	1		Urinary tract obstruction	Lecture	Pop-up quizzes and classroom discussion
2	1		VUR	Lecture	Classroom discussions
2	1		Drugs and the kidney	Lecture	Classroom discussion and questions
3	1		UTI	Lecture	Classroom discussion and questions Pop-up quiz
3	1		Urolithiasis part 1	Lecture	Classroom discussion and questions Pop-up quiz
4	1		Urolithiasis part 2	Lecture	Classroom discussion and questions, assignment
4	1		Acute renal failure	Lecture	Classroom discussion and ques assignment
5	1		Chronic renal failure	Lecture	Classroom discussion and questions, assignment
6	1		Nephrotic syndrome	Lecture	Classroom discussion, pop-up quiz
7	1		BPH	Lecture	Classroom discussion, pop-up quiz
7	1		Ca prostate	Lecture	Classroom discussion and questions
8	1		Bladder tumors	Lecture	Classroom discussion and questions
8	1		Benign disorders of the scrotum	Lecture	Classroom discussion and questions
9	1		Neurogenic bladder/ incontinence and nocturnal enuresis	Lecture	Classroom discussion and questions
9	1		Glomerulonephritis	Lecture	Classroom discussion and questions
10	1		Glomerulopathy/ multisystemic diseases	Lecture	Classroom discussion and questions
11	1		Diabetic nephropathy/drugs and the kidney	Lecture	Classroom discussion and questions
11	1		RCC +wilms tumor	Lecture	Classroom discussion and questions

12	1		Testicular tumors	Lecture	Classroom discussion and questions
13	1		Congenital anomalies of the upper urinary tract	Lecture	Classroom discussion and questions
13	1		Congenital anomalies of the lower urinary tract	Lecture	Classroom discussion and questions
14	1		Male infertility +erectile dysfunction	Lecture	Classroom discussion and questions
15	1		Renal transplantation	Lecture	Classroom discussion and questions

11. Course Evaluation

Evaluation methods include the following:
Quizzes: 5 out of 100 (multiple quizzes are performed and the average is taken)
Mid-semester exam: 25 out of 100
Final semester exam: 70 out of 100

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	1. Smith's General Urology 2. Harrison's Principles of Internal Medicine
Main references (sources)	1. Campbell-Walsh Urology 2. Davidson's Principles and Practice of Medicine
Recommended books and references (scientific journals, reports...)	1. Oxford Handbook of Urology 2. Urology_Atlas_Investigation 3. Urogenital_Imaging-PROBLEM ORIENTED APPROACH
Electronic References, Websites	1. AUA official website 2. EAU official website N.B: both for guidelines and update of management

Course Description Form

1. Course Name:
Clinical Surgery
2. Course Code:
SRGSrg-4C
3. Semester / Year:
4th year
4. Description Preparation Date:
1st, May. 2025
5. Available Attendance Forms:
physical attendance
6. Number of Credit Hours (Total) / Number of Units (Total)
8/56
7. Course administrator's name (mention all, if more than one name)
Name: Rawa'a A. Sattar Email: dr.rawaaasattar@nahrainuniv.edu.iq
8. Course Objectives

Course Objective	By the end of the course, students will be able to analyze the symptomatology and clinical signs of common surgical diseases and apply this knowledge to formulate accurate provisional and differential diagnoses based on clinical profiles. **Learning Objective: History Taking and Physical Examination by Region** **Abdomen** **Cognitive (Apply):** Apply knowledge of abdominal anatomy and pathology to guide focused history taking and physical examination for common surgical abdominal conditions. **Psychomotor (Perform):** Demonstrate correct technique in inspection, palpation, percussion, and auscultation of the abdomen. **Affective (Value):** Show attentiveness to patient comfort and communicate clearly during the abdominal examination. **Inguinal Region and Digital Rectal Examination (DRE)** **Cognitive (Understand):** Explain the clinical significance of inguinal swelling and the importance of DRE in evaluating rectal and lower gastrointestinal conditions. **Psychomotor (Perform):** Perform a thorough examination of the inguinal region and digital rectal exam with proper technique and patient preparation. **Affective (Value):** Demonstrate sensitivity and professionalism during intimate examinations, maintaining patient dignity and informed consent. **Breast** **Cognitive (Analyze):** Differentiate between benign and malignant breast conditions based on history and examination findings. **Psychomotor (Perform):** Conduct a systematic breast examination including inspection and palpation, with appropriate positioning and technique.

	Affective (Value): Respect patient privacy and show empathy during breast examination procedures. **Thyroid** **Cognitive (Understand):** Describe the clinical features of common thyroid diseases relevant to surgical management. **Psychomotor (Perform):** Perform a complete thyroid examination, including inspection, palpation for size, consistency, and mobility. **Affective (Value):** Ensure patient comfort and communicate findings effectively during thyroid examination. **Diabetic Foot and Peripheral Pulses** **Cognitive (Apply):** Identify risk factors and clinical signs of diabetic foot complications and peripheral arterial disease. **Psychomotor (Perform):** Perform a diabetic foot assessment, including inspection, palpation, sensory testing, and evaluation of peripheral pulses. **Affective (Value):** Display concern for the long-term implications of diabetic foot disease and educate patients on foot care during the examination. **Learning Objective 3: Professional Attitude** **Affective (Value/Organize):** Consistently demonstrate professionalism, empathy, and ethical behavior during clinical encounters, recognizing the importance of patient-centered care in history taking and physical examination. **Cognitive (Evaluate):** Reflect on and evaluate personal communication skills and professional behavior, identifying areas for improvement in clinical practice.

9. Teaching and Learning Strategies

Strategy	**For Knowledge Acquisition:** **Interactive Lectures & Case-Based Discussion:** Use structured lectures supported by clinical cases to explain relevant anatomy, pathology, and clinical features of surgical diseases. **Small Group Tutorials:** Facilitate peer interaction and deep understanding through group discussion of real or simulated clinical scenarios. **For Skills Development:** **Clinical Skills Labs (Simulation-Based Learning):** Use mannequins, task trainers, or standardized patients to practice physical examination techniques in a safe, controlled environment. **Supervised Clinical examinations:** Allow students to perform history taking and physical exams on real patients under faculty supervision with structured feedback. **Demonstration and Return Demonstration:** Instructors demonstrate examination techniques followed by student practice under observation

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	3		Introduction	Lecture Hospital visit	Classroom discussion and question

1	3		Abdominal examination	Lecture Hospital visit	Classroom discussion and question
1	3		Breast and Axillary examination	Skills lab	Classroom discussion
1	3		Peripheral pulses and diabetic foot	Lecture	Classroom discussions
1	3		Hernia examination and DRE	Skills lab	Classroom discussion and questions
2	6		Thyroid examination	Lecture	Classroom discussion and questions
Final exam at the ends of the seventh week					

11. Course Evaluation

Evaluation methods include the following:
Final exam: 100 out of 100 Divided as follows:
Practical exam: 70%, Theoretical Exam: 30%
Assessment during the course given as a bonus degree over the total

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Hamilton Bailey's: Physical signs in clinical surgery 17th edition
Main references (sources)	Bailey et Love's: short practice of surgery, 28th edition

Course Description Form

1. Course Name:
Radiology
2. Course Code:
SRGRad-52
3. Semester / Year:
2nd semester, 5th year
4. Description Preparation Date:
21st, 5. 2025
5. Available Attendance Forms:
physical attendance
6. Number of Credit Hours (Total) / Number of Units (Total)
2/30
7. Course administrator's name (mention all, if more than one name)
Name: Noor Kathem Nee'ma Al-Waely Email: noor83kadhem@nahrainuniv.edu.iq

• Course Objectives	
Course Objectives	1-To enable the student to gain a good level of knowledge of the basic and standard radiological investigations and to familiarize the student with the more sophisticated and specific investigations that are found in more specialized units 2-To enable the student to choose a meaningful imaging investigation or investigation plan for the clinical problem, and to develop strategies for imaging various clinical conditions. 3-To have a good knowledge of the basic and emergency radiology of day to day surgical and medical cases 4-To develop and strengthen the concept of safety in clinical practice, including the safe interpretation of imaging modalities to make sure not to risk missing life-threatening diagnosis, the safe choice of investigation that does not delay patient management, safe use of radiation in situations where radiation protection is

	paramount (introduction of the principle of ALARA, and safe use of contrast media)

8. Teaching and Learning Strategies

Strategy	The teaching is based on lecture system. The lectures are given in power point slide format in the halls of the college during the lecture, questions and discussions are encouraged to enhance the learning experience of the student. Assignments are allocated to the students in certain lectures with personalized feed back

9. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	1		Introduction	Lecture	Classroom discussion and question
1 and 2	3		Chest imaging	Lecture	Classroom discussion and question
3	2		Cardiac imaging	Lecture	Pop-up quizzes and classroom discussion
4	1		Abdominal emergencies	Lecture	Classroom discussions
4	1		Peritoneal and retroperitoneal diseases	Lecture	Classroom discussion and questions
5	2		Gastrointestinal imaging	Lecture	Classroom discussion and questions Pop-up quiz
6	2		Hepatobiliary system imaging	Lecture	Classroom discussion and questions Pop-up quiz
7	2		Urinary tract imaging	Lecture	Classroom discussion and questions, assignment
8 and 9	3		Bone imaging	Lecture	Classroom discussion a assignment
9 and 10	2		Women imaging	Lecture	Classroom discussion and questions, assignment

10 and 11	2		Spine imaging	Lecture	Classroom discussion, pop-up quiz
11 and 12	2		CNS imaging	Lecture	Classroom discussion, pop-up quiz
12	1		Joint disease radiology	Lecture	Classroom discussion and questions
13	2		Head and neck radiology	Lecture	Classroom discussion and questions
14	2		Angiography	Lecture	Classroom discussion and questions
15	2		Interventional radiology	Lecture	Classroom discussion and questions

10. Course Evaluation

Evaluation methods include the following:
Quizzes: 5 out of 100 (multiple quizzes are performed and the average is taken)
Mid-semester exam: 25 out of 100
Final semester exam: 70 out of 100

11. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Rochal A., diagnostic imaging, 7th edition, 2013
Main references (sources)	Rochal A., diagnostic imaging, 7th edition, 2013
Recommended books and references (scientific journals, reports...)	Michael Y. M. Chen, Basic Radiology, 2nd edition, 2011 Richard F. Daffner, clinical radiology, the essentials, 4th edition, 2014.
Electronic References, Websites	https://radiopaedia.org/

Course Description Form

1. Course Name:	
Radiology	
2. Course Code:	
SRGRad-5C	
3. Semester / Year:	
5th year	
4. Description Preparation Date:	
1st , Jan. 2025	
5. Available Attendance Forms:	
physical attendance	
6. Number of Credit Hours (Total) / Number of Units (Total)	
5/30	
7. Course administrator's name (mention all, if more than one name)	
Name: Noor Kathem Nee'ma Al-Waely Email: noor83kadhem@nahrainuniv.edu.iq	
8. Course Objectives	
Course Objectives	1-To enable the student to gain a good level of knowledge of the basic and standard radiological investigations and to familiarize the student with the more sophisticated and specific investigations that are found in more specialized units 2-To enable the student to choose a meaningful imaging investigation or investigation plan for the clinical problem, and to develop strategies for imaging various clinical conditions. 3-To have a good knowledge of the basic and emergency radiology of day to day surgical and medical cases 4-To develop and strengthen the concept of safety in clinical practice, including the safe interpretation of imaging modalities to make sure not to risk missing life-threatening diagnosis, the safe choice of investigation that does not delay patient management, safe use of radiation in situations where radiation protection is

	paramount (introduction of the principle of ALARA, and safe use of contrast media)

9. Teaching and Learning Strategies

Strategy	The teaching is based on lecture system. The lectures are given in power point slide format in the halls of the college and hospital. During the session, questions and discussions are encouraged to enhance the learning experience of the student. Assignments are allocated to the students in certain lectures with personalized feed back

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	3		Introduction	Lecture Hospital visit	Classroom discussion and question
1	3		Principles of US &MR	Lecture Hospital visit	Classroom discussion and question
1	3		Chest imaging	Lecture	Classroom discussion
1	3		Chest imaging	Lecture	Classroom discussions
1	3		Abdominal emergencies	Lecture	Classroom discussion and questions
2	6		Gastrointestinal imaging	Lecture	Classroom discussion and questions
2	6		Hepatobiliary system imaging	Lecture	Classroom discussion and questions

2	3		Urinary tract imaging	Lecture	Classroom discussion and questions, assignment
3	3		Bone imaging	Lecture	Classroom discussion a assignment
3	3		Women imaging	Lecture	Classroom discussion and questions, assignment
3	3		CNS imaging	Lecture	Classroom discussion,
3	3		Joint disease radiology	Lecture	Classroom discussion

Final exam at the ends of the third week

11. Course Evaluation

Evaluation methods include the following:
Final exam: 100 out of 100
Assessment during the course given as bonus degree

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Rochal A., diagnostic imaging, 7th edition, 2013
Main references (sources)	Rochal A., diagnostic imaging, 7th edition, 2013
Recommended books and references (scientific journals, reports...)	Michael Y. M. Chen, Basic Radiology, 2nd edition, 2011 Richard F. Daffner, clinical radiology, the essentials, 4th edition, 2014.
Electronic References, Websites	https://radiopaedia.org/

Course Description Form

1. Course Name:
Clinical Ophthalmology
2. Course Code:
SRGOpt−5C
3. Semester / Year:
Annual (1^{st} and 2^{nd}) semesters, 5^{th} year
4. Description Preparation Date:
may, 2025
5. Available Attendance Forms:
Physical attendance
6. Number of Credit Hours (Total) / Number of Units (Total)
45 hours, 1.5 units
7. Course administrator's name (mention all, if more than one name)
Name: Zeena Adnan Abd Email: zeenaadnan@nahrainuniv.edu.iq
8. Course Objectives
Course Objectives **1−to introduce students to the clinical ophthalmology world and start active contact with patients** **2−to enable the student to be familiar with ophthalmic instruments and tools** **3−to enable students to be familiar with common ses cases visiting the ophthalmology outpatient clinic** **4−to build up the clinical skills of history taking** **And Examination of common ophthalmic cases** **5−to help students in formulating a step by step approach to reach a diagnosis, and to initiate treatment plans**

9. Teaching and Learning Strategies

Strategy	**It is a small group teaching and learning is based on** **slide presentation of cases with active discussion and participation of students** **2-direct clinical exposure of students to patients in the outpatient clinic** **To build up experience in history taking, examination and management of patients**

10. Course Structure: repeated three weeks course:

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	15		1-applied anatomy of the eye and its adnexia 2-Eye lid diseases 3-conjunctival disease 4-refractive errors objective and and subjective refract ion 5-intraocular pressure measurement and it Its correlation With corneal thick ness and gluacom	Slide presentation And visiting the outpatient clinic Performing history taking and examination of patients	Discussion and active participation of students with ith direct questions and examination of of patients
2	15		1-slit lamp examination 2-glaucoma open and closed angle 3-visual field test 4-optical coherence testing (OCT) 5-steps of squint examination	Slide presentation And visiting the outpatient clinic Performing history taking and examination of patients	discussion and active participation of students with direct question examination of patients

3	15		1-cataract and Lens disorders 2-corneal diseases 3-orbital diseases 4-examination of Cranial nerves 5-direct and Indirect Ophthalmoscopy 6-retinal diseases And examination	Slide presentation And visiting the outpatient clinic Performing history taking and examination of patients	Final examination By slides with case scenario And short assay questions

11. Course Evaluation

Evaluation methods include the following:
20 out of 100 degrees: daily assessment of students active participation during the clinical sessions
80 out of 100 degrees: examination with slide presentations including case scenario and short assay questions

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Kanski Clinical Ophthalmology Brad Bowling Eighth edition
Main references (sources)	American Academy of Ophthalmology Basic and Clinical Science Course 2022-- 2023
Recommended books and references (scientific journals, reports…)	
Electronic References, Websites	

Course Description Form

1. Course Name:
Ophthalmology
2. Course Code:
SRGOPT−52
3. Semester / Year: 2nd semester, 5th year
2nd semester, 5th year
4. Description Preparation Date:
April 17, 2025
5. Available Attendance Forms:
Physical attendance
6. Number of Credit Hours (Total) / Number of Units (Total)
2 / 24
7. Course administrator's name (mention all, if more than one name)
Name: Ahmed Majeed Rasheed Email: amj1970a@nahrainuniv.edu.iq
8. Course Objectives

Course Objectives	**1−to enable the student to acquire knowledge of the pathophysiology of the common important diseases of the eye** **2−To enable the student to know the symptoms and signs of the common eye diseases and to appreciate the presentation of them.** **3−To enable the student to be familiar with the diagnostic tools used to reach the diagnosis** **4−To help the student formulate a safe treatment plan** **5−To have good knowledge of the emergency eye conditions and how to deal 6− with them** **7−To have knowledge of the groups of drugs used in ophthalmology**

9. Teaching and Learning Strategies	
Strategy	The teaching is based on the lecture system which are given power point slides, with interaction with the students.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2		1. refracrive errors 2. Eye lid diseases	lecture	Classroom discussion
2	2		1. Conjunctiva 2. Basic concepts of squint	lecture	Classroom discussion
3	2		1. cornea 1 2. Lacrimal diseases	lecture	Pop-up quizzes
4	2		1. lens disorders 2. Types of squint	lecture	Classroom discussion
5	2		1. cornea 2 2. Ocular tumors	lecture	Classroom discussion and quizzes
6	2		1.orbit 1 2.uveitis	lecture	Classroom discussion
7	2		1-glaucoma 1 2-Orbit 2	lecture	Classroom discussion and quizzes

8	2		1-ocular trauma 2-Glaucoma 2	lecture	Classroom discussion and homework assignment
9	2		1-laser in ophthalmology 2-Retinal diseases 1	lecture	quizzes
10	2		1-Papilledema 2-Retinal diseases 2	lecture	Classroom discussions and quizzes
11	2		1-optic nerve diseases 2-Retinal detachment	lecture	Classroom discussion and quizzes
12	1		1-cranial nerve lesions	lecture	Classroom discussion and homework assignment

11. Course Evaluation

Evaluation methods include the following:
Quizzes 2 out of 100 degrees
Homework tasks 2 out of 100
Mid term exam 26 out of 100
Final exam 70 degrees

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Kanski Clinical Ophthalmology Brad Bowling Eighth edition
Main references (sources)	American Academy of Ophthalmology Basic and Clinical Science Course 2022-- 2023

Recommended books and references (scientific journals, reports…)	
Electronic References, Websites	

Course Description Form

1. Course Name:
ENT
2. Course Code:
SRGEnt-51
3. Semester / Year:
1st Semester / 5th year
4. Description Preparation Date:
September 2025
5. Available Attendance Forms:
Physical
6. Number of Credit Hours (Total) / Number of Units (Total):
30/ 1.5
7. Course administrator's name (mention all, if more than one name)
1. Asst. prof Jaafar M. Kadhim (FICMS- ENT) 2. Lecturer Samah Abbas Hammadi (CAB -ORL & HNS) 3. Lecturer Osama Salim Hasan (FICMS- ENT) Email: 1. j_m_k65@nahrainuniv.edu.iq 2. sam82abbas@nahrainuniv.edu.iq 3. usama_salim2010@nahrainuniv.edu.iq
8. Course Objectives

Course Objective	At the end of the course the learners will be able to: 1. Recognize, and manage emergency, and common conditions in ENT. 2. Recognize conditions requiring referral for an expert after stabilizing the condition. 3. Stimulate interest in the major disciplines and subspecialities of otolaryngology. 4. Stimulate interest in academic research in the field of otolaryngology.

9. Teaching and Learning Strategies	
Strategy	Active learning/ instruction/ problem solving

10. Course Structure					
Evaluation method	Learning method	Unit or subject name	Required Learning Outcomes	Hours	Week
Strategic questioning	Lecture/ Reading course material	Nasal trauma/ epistaxis	1. Recall of etiology, presentation, risk factors and complications. 2. Recognize the critical steps in management.	2	1
Reviewing assignments strategic questioning.	Lecture/ Reading course material/ assignment	Anatomy of physiology pharynx/larynx	1. Correlate anatomy with pathology. 2. Predict examination findings according to anatomical site of involvement.	2	2
Quiz	Traditional lecture/ Reading course material	Otalgia (otitis externa/ AOM)	1. Recall causes of diseases. 2. Predict clinical features, complications 3. Discuss management outlines	2	3
Strategic questioning	Lectures / course material	Allergic rhinitis	1. Discuss clinical features. 2. Discuss treatment options.	2	4
Mid-term exams					5 & 6
Assignment	Traditional lecture/ reading course material	Sinusitis	1. Recognize the clinical features. 2. Identify complications 3. Recall treatment options 4. Identify indications for surgical intervention	2	7
Quiz	Traditional lecture/ reading course material	Pharyngitis / tonsillitis/ the tonsil & adenoid	1. Identify clinical features 2. Use CENTOR score to decide on prescribing AB 3. Identify features of serious conditions presenting as tonsillitis/ pharyngitis. 4. Identify indications for surgery 5. Discuss management of post operative complications.	2	8
Strategic questioning	Traditional lecture/ course material	Laryngitis/ dysphonia	1. Correlate anatomical and pathological changes with the clinical features 2. Localize lesions depending on clinical clues 3. Put a treatment plan	2	9
Strategic	Traditional	Stridor/ CA	1. Correlate anatomical and	2	10

questioning	lecture/ course material	pharynx	pathological changes with the clinical features 2. Localize lesions depending on clinical clues 3. Discuss treatment options 4. Recall aspects of tracheostomy care		
Assignment	Traditional lectures/ course material	Nasal masses/ OME	1. Identify the type of nasal mass depending on clinical clues. 2. Recognize features of malignancy 3. Recall treatment options. 4. Recognize features of OME 5. Identify indications for surgery 6. Investigate causes of OME	2	11
Quiz	Traditional lecture/ course material	Chronic otitis media/ Inner ear diseases	1. Recognize features of COM/ inner ear diseases 2. Identify features of complications 3. Discuss treatment modalities. 4. Put a differential diagnosis depending on clinical features.	2	12
Strategic questioning	Traditional lecture	Miscellaneous	___	2	13

11. Course Evaluation

Out of 100, 26 marks are allocated to the mid-term exam, another 4 degrees to the tasks assigned to the student such as daily preparation, daily oral, quizzes, reports …. etc.

The final examination is 70% of the total course weight.
Final Exam: (70%) consists of:
– multiple-choice questions with single best answer (40 items- 40 marks)
– Essay Questions (5 cases-30 marks)

The minimum requirement of a student to pass is to achieve at least 50% of the total 100 marks assigned for the course. Students failing to attain the 50% cut-off mark are required to re-sit for a second trial examination. Failing the second trial entails retaking the course.

12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	
Main references (sources)	
Recommended books and references (scientific journals, reports…)	1. Bailey and Love's textbook of surgery 2. Scott brown Otorhinolaryngology 3. Logan turner disease of nose throat and ear.
Electronic References, Websites	

Course Description Form

1. Course Name:
clinical emergency
2. Course Code:
SRGEme -5C
3. Semester / Year:
5th year
4. Description Preparation Date:
1st, Jan. 2025
5. Available Attendance Forms:
physical attendance
6. Number of Credit Hours (Total) / Number of Units (Total)
30/5
7. Course administrator's name (mention all, if more than one name)
Name: Shaymaa Hussein shkheir Email: shaymaa.hussein@nahrainuniv.edu.iq

8. Course Objectives	
Course Objectives	• Train students to identify signs and symptoms of life-threatening surgical conditions quickly (e.g., acute abdomen, trauma, intestinal obstruction). • To Develop a solid understanding of the underlying mechanisms behind surgical emergencies to inform clinical decisions. • Teach students to assess and prioritize patients based on the severity and urgency of their condition (triage skills). • Equip students with the foundational knowledge of how to stabiliz patient.
9. Teaching and Learning Strategies	
Strategy	The teaching is based on lecture system. The lectures are given in power point slide format in the halls of the college and hospital. During the session, questions and discussions are encouraged to enhance the learning experience of the student. Assignments are allocated to the students in certain lectures with personalized feed back

10. Course Structure					
Week	**Hours**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
1	3		Introduction	Lecture Hospital visit	Classroom discussion and question
1	3		Cardiac emergencies	Lecture Hospital visit	Classroom discussion and question
1	3		Approach to hematamesis	Lecture Hospital visit	Classroom discussion
1	3		Chest emergencies	Lecture Hospital visit	Classroom discussions
1	3		Abdominal emergencies	Lecture Hospital visit	Classroom discussion and questions
2	3		Basics of ATLAS	Lecture Hospital visit	Classroom discussion and questions
2	3		Approach to acute abdomen	Lecture	Classroom discussion and questions
2	3		Basics of wound management	Lecture	Classroom discussion and questions, assignment
2	3		Burn management	Lecture	Classroom discussion a assignment
2	3		Wound closure	Lecture	Classroom discussion and questions, assignment
3	3		Application of basic and advanced airway management	Lecture	Classroom discussion.
3	3		Triage principles	Lecture	Classroom discussion
3	3		Approach to bleeding per rectum	Lecture	Classroom discussion
3	3		Approach to malena	Lecture	Classroom discussion
Final exam at the ends of the third week					

11. Course Evaluation	
Evaluation methods include the following: Final exam: 100 out of 100 Assessment during the course given as bonus degree	
12. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Baily & love, short practice of surgery, 27th edition, 2018
Main references (sources)	Baily & love, short practice of surgery, 27th edition, 2018
Recommended books and references (scientific journals, reports...)	The American journal of surgery
Electronic References, Websites	https://www.surgjournal.com

Course Description Form

1. Course Name:	
Surgical emergency	
2. Course Code:	
SRGSrg-6C	
3. Semester / Year:	
2nd semester, 5th year	
4. Description Preparation Date:	
20th, march. 2024	
5. Available Attendance Forms:	
physical attendance	
6. Number of Credit Hours (Total) / Number of Units (Total)	
2/30	
7. Course administrator's name (mention all, if more than one name)	
Name: Ammar Noori Al-Hamdani Email: dr.anh1976@nahrainuniv.edu.iq	
8. Course Objectives	
Course Objectives	**1.** To enable the student to gain a good level of knowledge of the basic and standard surgical investigations and to familiarize the student with the more sophisticated and specific investigations that are found in more specialized units **2.** To enable the student to choose a meaningful surgical investigation or investigation plan for the clinical problem, and to develop strategies for managing various clinical conditions. **3.** To have a good knowledge of the surgical emergency of day to day surgical and medical cases **4.** To develop and strengthen the concept of safety in clinical practice, including the safe interpretation of surgical conditions modalities to make sure not to risk missing life-

	threatening diagnosis, the safe choice of investigation that does not delay patient management.

9. Teaching and Learning Strategies

Strategy	The teaching is based on lecture system. The lectures are given in power point slide format in the halls of the college during the lecture, questions and discussions are encouraged to enhance the learning experience of the student. Assignments are allocated to the students in certain lectures with personalized feed back

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2		ATLS	Lecture	Classroom discussion and question
2	1		Torso trauma	Lecture	Classroom discussion and question
3	1		Small & large bowel injuries	Lecture	Classroom discussion and question
4	1		Genitourinary tract injuries	Lecture	Classroom discussion and question
5	2		- Skin graft /flap - Cleft lip and cleft palate	Lecture	Pop-up quizzes and classroom discussion
6	2		Breast	Lecture	Classroom discussion and questions
7	2		- Management of head injuries - Management of spinal injuries	Lecture	Classroom discussion and questions
8	2		- Surgical oncology	Lecture	Classroom discussion and questions

			- Cervical lymph nodes & salivary glands		
9	2		- Clinical approach in vascular trauma - Clinical approach in thoracic trauma	Lecture	Classroom discussion and questions
10	2		Thyroid disease	Lecture	Classroom discussion and questions
11	1		Lymphatic disease	Lecture	Classroom discussion and questions
12	1		Burn	Lecture	Classroom discussion and questions
13	3		Anaesthesia	Lecture	Classroom discussion and questions
14	2		- Venous disease - Aortic aneurysm	Lecture	Classroom discussion and questions
15	1		Pain management	Lecture	Classroom discussion and questions
16	1		Pressure sore	Lecture	Classroom discussion and questions

11. Course Evaluation

Evaluation methods include the following:
Quizzes: 5 out of 100 (multiple quizzes are performed and the average is taken)
Mid-semester exam: 25 out of 100
Final semester exam: 70 out of 100

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	- Baiely's & Love's Short Practice of Surgery -Toronto Notes 2024
Main references (sources)	- Baiely's & Love's Short Practice of Surgery
Recommended books and references (scientific journals, reports...)	- Medscape journal
Electronic References, Websites	

Course Description Form

1. Course Name:	
Surgical emergency	
2. Course Code:	
SRGSrg-6C	
3. Semester / Year:	
2nd semester, 5th year	
4. Description Preparation Date:	
20th , march. 2024	
5. Available Attendance Forms:	
physical attendance	
6. Number of Credit Hours (Total) / Number of Units (Total)	
2/30	
7. Course administrator's name (mention all, if more than one name)	
Name: Ammar Noori Al-Hamdani Email: dr.anh1976@nahrainuniv.edu.iq	
8. Course Objectives	
Course Objectives	• To enable the student to gain a good level of knowledge of the basic and standard surgical investigations and to familiarize the student with the more sophisticated and specific investigations that are found in more specialized units • To enable the student to choose a meaningful surgical investigation or investigation plan for the clinical problem, and to develop strategies for managing various clinical conditions. • To have a good knowledge of the surgical emergency of day to day surgical and medical cases • To develop and strengthen the concept of safety in clinical practice, including the safe interpretation of surgical conditions modalities to make sure not to risk missing life-

	threatening diagnosis, the safe choice of investigation that does not delay patient management.

9. Teaching and Learning Strategies

Strategy	The teaching is based on lecture system. The lectures Are given in power point slide format in the halls of the college during the lecture, questions and discussions are encouraged to enhance the learning experience of the student. Assignments are allocated to the students in certain lectures with personalized feed back

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2		ATLS	Lecture	Classroom discussion and question
2	1		Torso trauma	Lecture	Classroom discussion and question
3	1		Small & large bowel injuries	Lecture	Classroom discussion and question
4	1		Genitourinary tract injuries	Lecture	Classroom discussion and question
5	2		- Skin graft /flap - Cleft lip and cleft palate	Lecture	Pop-up quizzes and classroom discussion
6	2		Breast	Lecture	Classroom discussion and questions
7	2		- Management of head injuries - Management of spinal injuries	Lecture	Classroom discussion and questions
8	2		- Surgical oncology	Lecture	Classroom discussion and questions

			- Cervical lymph nodes & salivary glands		
9	2		- Clinical approach in vascular trauma - Clinical approach in thoracic trauma	Lecture	Classroom discussion and questions
10	2		Thyroid disease	Lecture	Classroom discussion and questions
11	1		Lymphatic disease	Lecture	Classroom discussion and questions
12	1		Burn	Lecture	Classroom discussion and questions
13	3		Anaesthesia	Lecture	Classroom discussion and questions
14	2		- Venous disease - Aortic aneurysm	Lecture	Classroom discussion and questions
15	1		Pain management	Lecture	Classroom discussion and questions
16	1		Pressure sore	Lecture	Classroom discussion and questions

11. Course Evaluation

Evaluation methods include the following:
Quizzes: 5 out of 100 (multiple quizzes are performed and the average is taken)
Mid-semester exam: 25 out of 100
Final semester exam: 70 out of 100

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	- Baiely's & Love's Short Practice of Surgery -Toronto Notes 2024
Main references (sources)	- Baiely's & Love's Short Practice of Surgery
Recommended books and references (scientific	- Medscape journal

journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:	
orthopedic	
2. Course Code:	
SRGOrt-5C	
3. Semester / Year:	
5th year	
4. Description Preparation Date:	
21, MAY. 2025	
5. Available Attendance Forms:	
physical attendance	
6. Number of Credit Hours (Total) / Number of Units (Total)	
5/30	
7. Course administrator's name (mention all, if more than one name)	
Name: Noor Ali Farooq ALSaadi Email: alsadi.ali.1970@nahrainuniv.edu.iq	
8. Course Objectives	
Course Objectives	1-To enable the student to gain a good level of knowledge of the basic and standard fracture cases and how to deal with it and to familiarize the student with the more advanced and specific cases that are found in more specialized units 2-To enable the student to understand the basics of dealing with various trauma cases 3-To have a good understanding of the emergency cases and hoe to deal with them 4-To able be to develop and strengthen the concept of safety in clinical practice, to differentiate between the fractures of upper and lower limb. Spine and pelvis
9. Teaching and Learning Strategies	

Strategy	The teaching is based on lecture system. The lectures are given in power point slide format in the halls of the college and hospital. During the session, questions and discussions are encouraged to enhance the learning experience of the student Assignments are allocated to the students in certain lectures with personalized feed back

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	3		Introduction	Lecture Hospital visit	Classroom discussion and question
1	3		Trauma cases of upper limb	Lecture Hospital visit	Classroom discussion and question
1	3		Trauma cases of lower limbs	Lecture	Classroom discussion
1	3		Multiple injured patient	Lecture	Classroom discussions
1	3		Ortho cases of upper limb	Lecture	Classroom discussion and questions
2	6		Ortho cases of lower limbs	Lecture	Classroom discussion and questions
2	6		Examination of joints of upper and lower limbs	Lecture	Classroom discussion and questions
2	3		Peripheral nerve examination	Lecture	Classroom discussion and questions, assignment
3	3		Post operative management	Lecture	Classroom discussion ar assignment
3	3		Management of emergency cases	Lecture	Classroom discussion and questions, assignment
3	3		Orthopedic cases pictures	Lecture	Classroom discussion
Final exam at the ends of the third week					

11. Course Evaluation	
Evaluation methods include the following: Final exam: 100 out of 100 Assessment during the course given as bonus degree	
12. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Apley's System of Orthopaedics and Fractures 11th edition
Main references (sources)	McRae's Orthopaedic Trauma and Emergency Fracture
Recommended books and references (scientific journals, reports...)	Orthubullet
Electronic References, Websites	

Course Description Form

1. Course Name:
Orthopedics
2. Course Code:
SRGOrt−51
3. Semester / Year:
1st semester, 5th year
4. Description Preparation Date:
21st, Feb. 2024
5. Available Attendance Forms:
physical attendance
6. Number of Credit Hours (Total) / Number of Units (Total)
2/30
7. Course administrator's name (mention all, if more than one name)
Name: Dr. Firas Mohammed Abdul-Ghani Email: firasabdulghani75@nahrainuniv.edu.iq
8. Course Objectives

Course Objectives	• To enable the student to acquire a good level of knowledge of basic and standard fracture cases and to familiarize the student with the more advanced and specific cases found in the more specialized units. • To enable the student to understand the basics of dealing with various trauma cases. • To have a good understanding of emergency cases and how to handle them.

	• To be able to develop a differential diagnosis for fractures of the upper and lower extremities, pelvis, and spine.

9. Teaching and Learning Strategies

Strategy	The teaching is based on lecture system. The lectures are given in power point slide format in the halls of the college during the lecture, questions and discussions are encouraged to enhance the learning experience of the student. Assignments are allocated to the students in certain lectures with personalized feed back

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	3		Introduction to trauma	Lecture	Classroom discussion and question
1 and 2	2		Shoulder trauma and fractures	Lecture	Classroom discussion and question
2	1		Humerus fracture	Lecture	Pop-up quizzes and classroom discussion
2	1		Forearm fractures	Lecture	Classroom discussions
2	1		Wrist and hand fractures	Lecture	Classroom discussion and questions
3	2		Spine trauma	Lecture	Classroom discussion and questions Pop-up quiz
3	1		Pelvic trauma	Lecture	Classroom discussion and questions Pop-up quiz
4	2		Around hip fractures	Lecture	Classroom discussion and questions, assignment

4	1		Femur fractures	Lecture	Classroom discussion assignment
5	3		Knee trauma an fractures	Lecture	Classroom discussion and questions, assignment
6	3		Leg and foot fractures	Lecture	Classroom discussion, pop-up quiz
7	1		Acute and chronic nerve injuries	Lecture	Classroom discussion, pop-up quiz
7	2		Signs, symptoms and investigations	Lecture	Classroom discussion and questions
8	2		Infection of bone and joint acute and chronic	Lecture	Classroom discussion and questions
8	2		Degenerative, osteoarthritis and osteonecrosis	Lecture	Classroom discussion and questions
9	2		Congenital and metabolic disorders	Lecture	Classroom discussion and questions
9	2		Neuromuscular diseases and arthritis	Lecture	Classroom discussion and questions
10	2		Bone and soft tissue tumors, benign, malignant and tumor mimics	Lecture	Classroom discussion and questions
11	1		Disease of shoulder joint	Lecture	Classroom discussion and questions
11	1		Diseases of elbow joint	Lecture	Classroom discussion and questions
12	2		Disorder of the wrist and hand	Lecture	Classroom discussion and questions
13	2		Diseases of the hip joint	Lecture	Classroom discussion and questions
13	1		DDH	Lecture	Classroom discussion and questions
14	2		Diseases of the knee and ankle	Lecture	Classroom discussion and questions

15	1		Cervical spine diseases	Lecture	Classroom discussion and questions
15	2		Lumbosacral spine disorder	Lecture	Classroom discussion and questions

11. Course Evaluation

Evaluation methods include the following:
Quizzes: 5 out of 100 (multiple quizzes are performed and the average is taken)
Mid-semester exam: 25 out of 100
Final semester exam: 70 out of 100

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Apley's System of Orthopaedics and Fractures 11th edition
Main references (sources)	McRae's Orthopaedic Trauma and Emergency Fracture
Recommended books and references (scientific journals, reports...)	Orthobullet
Electronic References, Websites	

Course Description Form

1. Course Name:
Clinical Surgery and its branches
2. Course Code:
(SRGSrg-6C)
3. Semester / Year:
2024-2025
4. Description Preparation Date:
MARCH 2025
5. Available Attendance Forms:
APRIL 2025
6. Number of Credit Hours (Total) / Number of Units (Total)
420 hour, 14 weeks, 15 points
7. Course administrator's name (mention all, if more than one name)
Name: Dr. Mohammed A. Hamdawi Email: mohammedhamdawi@nahrainuniv.edu.iq
8. Course Objectives

Course Objectives	Orient the students about the general principles of care for the surgical patient. This includes both general surgery and its branches (Orthopedics, Urology, Vascular surgery, Neurosurgery, Plastic surgery, Radiology & Anesthesia).
9. Teaching and Learning Strategies	

Strategy	•Cases presentations of both emergency and elective bases and their progress •Attending the surgery outpatient clinic and help managing patients and assist in the bed side investigations and minor surgeries •Attending the major surgery theater •Work with interns and assist them at the emergency department •Seminar presentation by each candidate according to the assigned topic •Morning meeting attendance held by the faculty of surgery •Surgical pathology, and mortality conferences journal club meeting

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
14 ws	30 hour/week	Objectives: 1. Basic principles of general surgery (fluids, wound healing, SSI, instruments) 2. Care for the trauma patient based on	Clinical surgery and its branches	1. Daily rounds in the surgical ward (history taking, examination, approach,..) 2. Attendance to the	Examination at the end of the course and also the final examination include: 1. Short case examination. 2. OSCE examination. 3. Oral examination.

		(ATLS) guidelines 3. Approach to common problems and symptoms in surgery (e.g. acute abdomen, breast lumps, SSI, bleeding per-rectum, goiter, care for the diabetic foot). 4. Ethical and medico-legal considerations in the surgical patient.		surgical theatre once or twice weekly. 3. Skill laboratory. 4. E-learning	4. Written examination. 5. Seminars. 6.Daily attendance and activities

11. Course Evaluation

The minimum requirement of a student to pass is to achieve at least 50% of the total 100 marks assigned for the course. The marks are distributed as follows:

1. At the end of the surgical course training (20 marks):
2. Final Examination at the end of the year (80 marks);

Theory (30 marks): as 60 % single choice examination covering all branches of surgery and 40% written clinical cases examination. Clinical (50 marks): consists of three examination modalities are: A. Short cases examination of at least four cases including general surgery patients and other major branches of surgery (20 marks). B. Objective Structural Clinical Exam (OSCE), a ten stations exam covering all branches of surgery (10 marks). C. Oral exam by a committee including Examiners from all the major and subspecialties related to surgery (20 marks).

12. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	1. Short Practice of Surgery by Hamilton Baiely 2.Schwartz Principles and Practice of Surgery 3.Physical signs in clinical surgery by Hamilton Bailey 4.Demonstration of physical signs by Norman N Brows
Main references (sources)	Short Practice of Surgery by Hamilton Baiely
Recommended books and references (scientific journals, reports…)	-Schwartz Principles and Practice of Surgery -Physical signs in clinical surgery by Hamilton Bailey -Demonstration of physical signs by Norman N Brows
Electronic References, Websites	

Internal Medicine

Course Description Form

1. Course Name:
Internal medicine
2. Course Code:

MEDInt-31
3. Semester / Year:
1st semester / 3rd grade year
4. Description Preparation Date:
May 2025
5. Available Attendance Forms:
Physical Attendance
6. Number of Credit Hours (Total) / Number of Units (Total)
2 credit/ hour: theory 42 hr. + 9 case-bases learning Clinical: 2hr/week 10 – 12 weeks
7. Course administrator's name (mention all, if more than one name)
Name: Asst. prof. Rafid Bashir Altaweel Email: drrafid76@nahrainuniv.edu.iq
8. Course Objectives: theory lectures, PBL & Clinical sessions
Theoretical part The course is designed to enable the students to: 1. Demonstrate in knowledge in the basic symptoms and their ethology 2. Explain the signs and symptoms of common presentation and terms Of their underlying scientific principles 3. Explain the scientific principle of common investigative techniques and critique their appropriateness and results Clinical part 1. Possess the capability to take a full detailed history from a patient in a systematic way. 2. Obtain the basic communication skills to take a consent from the patient, break bad news and discuss important investigations with the patient 3. Acquire the skills to perform a complete general examination Case based learning Discuss different diseases related to a case, their symptoms and signs, investigations, in a small group setting. 1. Analyse symptoms and signs, correlate them to the basic knowledge he had acquired and construct a differential diagnosis from main medical problems 2. Set up treatment plans for main medical problems

9. Teaching and Learning Strategies	
Strategy	1. **Interactive lectures:** physical attendance

	Theory as 50 minutes' Interactive lecture 4 times per week (2 lectures on 2 groups) for 15 weeks. 2. **Problem-based learning (PBL):** physical attendance, small group teaching as case-based learning: Each week 40 - 50 students discuss the case, which had been delivered to them in the beginning of the course. The discussion is guided by the lecturer who highlights the most important point in the history and stimulate an open and brainstorming discussion among students 3. **Clinical sessions:** students are divided to four main groups and each group is divided into three subgroups consisted each of 100 students (on 2 mentors)

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Be familiar with patient history taking and performing examination and art of communication	Introduction to clinical medicine History & examination Communication skills	Lecture	MCQs &/or essay through midterm exam &final exam
	2	– Definition – Pathophysiology – Types	jaundice	Lecture & PBL	MCQs &/or essay through midterm exam &final exam
2	2	Definition Causes Clinical presentation Management	Diarrhoea & constipation	Lecture & PBL	MCQs &/or essay through midterm exam &final exam
	2	Definition Causes Clinical presentation Management	Ascites & odema	Lecture & PBL	MCQs &/or essay through midterm exam &final exam
3	2	Definition Correlation to causes	Genitourinary symptoms	Lecture	MCQs &/or essay through midterm exam &final exam
	2	Definition Pathophysiology Clinical evaluation Causes	Dyspnea and cyanosis	Lecture & PBL	MCQs &/or essay through midterm exam &final exam
4	2	Definition Pathophysiology Causes Clinical evaluation	Cough and hemoptysis	Lecture & PBL	MCQs &/or essay through

					midterm exam &final exam
	2	Introduction to common homological disease presentation causes and symptomatology	Introduction to blood diseases	Lecture & PBL	MCQs &/or essay through midterm exam &final exam
5	2	Definition Pathophysiology Types and clinical orientation	Pain	Lecture	MCQs &/or essay through midterm exam &final exam
	2	Definition Clinical subtypes of consciousness abnormality	Consciousness	Lecture	MCQs &/or essay through midterm exam &final exam
6	4	Definition of abnormalities Type and causes of abnormal levels Clinical and investigational assessment	Fluids and electrolytes	Lecture & PBL	MCQs &/or essay through midterm exam &final exam
7	2	Definition of abnormal balance Pathophysiology Causes Clinical and interventional assessment	Acid base balance	Lecture	MCQs &/or essay through midterm exam &final exam
	2	Introduction to importance of vitamins to body function Highlight common abnormal vitamin deficiency with clinical and therapeutic Aspects	Vitamins	Lecture	MCQs &/or essay through midterm exam &final exam
8	4	Introduction to main nutritional body component with highlighting common nutritional deficiencies with its clinical and therapeutic aspect	Nutrition and nutritional diseases	Lecture	MCQs &/or essay through midterm exam &final exam
9	2	Types Body Effect Causes Clinical Presentation and Therapeutic Option For Each Common Insulting Substance	Poisoning	Lecture & PBL	MCQs &/or essay through midterm exam &final exam

	2	Highlight the presentation and impact on Common medical condition in elderly population	Geriatric medicine	Lecture	MCQs &/or essay through midterm exam &final exam
10	2	Definition Highlight on common environmental diseases with clinical presentation and management	Environmental medicine	Lecture	MCQs &/or essay through midterm exam &final exam
11	2	Definition Highlight an allergic and immunological disorder with its clinical and therapeutic aspect	Immunological diseases	Lecture	MCQs &/or essay through midterm exam &final exam
	2	Definition Causes Management in terms of Investigation and therapy	Weight loss and obesity	Lecture	MCQs &/or essay through midterm exam &final exam

10. Course Evaluation

The minimum requirement of a student to pass is to achieve at least 50% of the total 100 marks assigned for the course.
The marks are distributed as follows:
20% midterm examination as single best answers
5% PBL case full discussion
5% mid clinical assessment
20% clinical part of the course which include structured history taking full systemic clinical examination
Students who fail to attain the 50% cut-off mark are required to re-sit for a second trial examination similar to the final one. Failing in the second trial entails the student to repeat the academic year.

11. Learning and Teaching Resources

Required textbooks (curricular books, if any	
Main references (sources)	Davidson's principles and practice of medicine
Recommended books and references (scientific journals,reports…)	Harrison principle of Internal Medicine Oxford handbook of clinical medicine Uptodate
Electronic references, websites	@medscape

Course Description Form

1. Course Name:
Infectious medicine
2. Course Code:
MedInf-32
3. Semester / Year:
2nd semester / 3rd grade year
4. Description Preparation Date:
January 2025
5. Available Attendance Forms:
physical attendance
6. Number of Credit Hours / Number of Units
100 Hrs. / 5 units
7. Course administrator's name (mention all, if more than one name)
Lecturer Dr. Nezar Mahmood Al-Tameemi Email: nezaross@nahrainuniv.edu.iq

8. Course Objectives: Theory lectures & PBL

The aim of this program is to provide the candidates with
clinical and investigatory skills in all aspects of infectious medicine practice while applying the national and international standards of evidence based medicine.
ability to interact with community problems and respect ethical values according to community culture especially in regards to sexual transmitted disease.
scientific knowledge and intellectual skills to engage in medical education and to design, conduct and apply national and international standards of research as well as auditing.
By the end of the theory program the candidate should be able to:
Master the basic scientific knowledge related to main and rare infectious disease categories and diseases as well as the molecular mechanisms underlying these disorders and their management
Identify the principles behind the modern cellular and molecular techniques behind the immune resistance to infection and drug mechanism of action.
Recognize the value of each diagnostic tool including clinical assessment with laboratory and imaging investigation, their limitations, complications and cost benefit.
Describe the current management modalities for different main, endemic, sporadic and rare infectious disease

By the end of the PBL program the candidate should be able to:
Analyze symptoms & signs, correlate them to the basic knowledge he had acquired and construct a differential diagnosis for main infectious disease
Set up treatment plans for main infectious disease categories problems
Plan a proper management of different critical cases in main infectious disease as sepsis, PUO, food poisoning...etc

9. Teaching and Learning Strategies

1. Interactive Lectures: Physical attendance
2. Problem-Based Learning (PBL): Physical attendance
3. Case-Based Learning (CBL): integrated within the lectures

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	4	Introduction	Clinical examination of patients with infectious disease	Lecture	MCQs &/or essay through midterm exam & final exam
2	4	Fever	Fever & neutropenia	Lecture & PBL	MCQs &/or essay through midterm exam & final exam

3	4	SIRS & shock	SIRS, sepsis & septic shock	Lecture & PBL	MCQs &/or essay through midterm exam & final exam
4	4	Antibiotics	Principles of antimicrobial therapy	Lecture	MCQs &/or essay through midterm exam & final exam
5	4	Food poisoning & acute diarrhoea & Cholera	Acute diarrhea & Food poisoning Shigellosis & Cholera plague, leptospirosis & borelliosis	Lecture & PBL	MCQs &/or essay through midterm exam & final exam
6	4	Viral infections	MMR & HERPES, EBV & CMV	Lecture	MCQs &/or essay through midterm exam & final exam
7	4	Viral infections	Viral hemorrhagic fevers & Rabies Influenza & emerging respiratory infections	Lecture	MCQs &/or essay through midterm exam & final exam
8	4	Bacterial infections	Diphtheria, Anthrax & Tetanus	Lecture & PBL	MCQs &/or essay through midterm exam & final exam
9	4	Specific bacterial infections	Bacterial meningitis Brucellosis & Enteric fevers	Lecture & PBL	MCQs &/or essay through midterm exam & final exam
10	4	Protozoal infections	Amoebiasis, Giardiasis schistosomiasis & Toxoplasmosis	Lecture & PBL	MCQs &/or essay through midterm exam & final exam
11	4	Infestations	Infections caused by Nematodes Filariasis & Tapeworms	Lecture & PBL	MCQs &/or essay through midterm exam & final exam
12	4	HIV	HIV I & II	Lecture & PBL	MCQs &/or essay through midterm exam & final exam
13	4	STD	Sexually Transmitted Diseases	Lecture	MCQs &/or essay through midterm exam & final exam
14	4	Protozoal infections	Malaria	Lecture	MCQs &/or essay through midterm exam & final exam
15	4	Protozoal infections	leishmaniasis & trypanosomiasis	Lecture	MCQs &/or essay through midterm exam & final exam

11. Course Evaluation

The minimum requirement of a student to pass is to achieve at least 50% of the total 100 marks assigned for the course.
The marks are distributed as follows:
25% midterm examination as Single Best Answers 5% PBL case full discussion
20% clinical part of the course which includes structured History taking full systemic clinical examination
50% final examination as Single Best answers (60 items) and Modified Essay Questions (4-5 items)
Students who fail to attain the 50% cut-off mark are required to re-sit for a second trial examination similar to the final one. Failing in the second trial entails the student to repeat the academic year.

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	
Main references (sources)	Davidson's Principles and Practice of Medicine
Recommended books and references (scientific journals, reports...)	Harrison's Principles of Internal Medicine Oxford Handbook of Clinical Medicine
Electronic References, Websites	@Medscape

Course Description Form

1. Course Name:
Endocrinology and Diabetes
2. Course Code:
MEDEnd-42
3. Semester / Year:
Fourth year /Second semester
4. Description Preparation Date:
1/2/2025
In person: Mandatory Attendance
5. Number of Credit Hours (Total) / Number of Units (Total)
1 credit/ hour: 25 hours in total
6. Course administrator's name (mention all, if more than one name)
Prof. Mahmoud Shakir Khudair Gelal Al-Taai Email: Drmah75shakir@ced.nahrainuniv.edu.iq gelal.altaai@nahrainuniv.edu.iq

8. Course Objectives:

- Define basic principles of investigating Endocrinological disorders
- Describe the role of hormones in health and disease
- List common causes of endocrine diseases Recognize the clinical features of endocrine disorders
- Request the appropriate investigations for endocrine disorders.
- Interpret the results of various hormonal profiles
- Provide initial management for diabetic and endocrine emergencies in A&E.
- Organize algorithm plan for management of various common endocrine disorders
- Propose management plan for patients with type 1 and type 2 diabetes based on individual characteristics and comorbidities
- Use sensitive language when asking about the symptoms of endocrine disorders
- Sympathize with the difficulties that patients with diabetes have to go through
- Treat patients with respect

Appreciate the importance of team work and multidisciplinary approaches to patients with endocrine/Diabetes problems.

9. Teaching and Learning Strategies

Understand, Think, Question

1. Interactive Lectures: Physical attendance
2. Case-Based Learning (CBL): Clinical Scenarios within the lectures
3. Self-Directed Learning

The strategy in teaching endocrinology is based on teaching students how think about the clinical problems they might face in their career. After acquiring some basic knowledge the students are encouraged to think critically about the interpretation of clinical and biochemical findings to reach the appropriate diagnosis in a logical manner.

Part of what we aim to achieve is to provoke the students to create a list of differential diagnoses or mimics and suggest investigation plan that helps peel the layers of the diagnostic onion and at the same time learn to create a problem list for each individual patient.

We try to drive students towards these goals by steering the assessment wheel towards problem solving and application of knowledge rather than recall and listing. This is achieved by focusing on clinical scenarios that reflect the daily practise that they are expected to face upon graduating particularly as they integrate into their roles as house officers in A&E and medical floors.

10. Course Structure					
Week	**Hours**	**Required Learning Outcomes**	**Unit or subject nam**	**Learning method**	**Evaluation method**
1-3	6	Diagnose Diabetes Manage Diabetic emergencies Screen and manage chronic diabetes complications Prescribe the proper regime of insulin and OHA	Diabetes Mellitus	Lecture	Written Examination

4-6	5	• Recognize the clinical presentation of overactive and underactive thyroid disease • Request proper investigations to screen for over and underactive thyroid • Recognize the complications of thyroid surgery • Suggest a management plant for patients with over and underactive thyroid • Recognize the adverse effects of antithyroid medicaitons • Recognize and manage the complications following	Thyroid disorders	Lecture	Written Examination

		neck surgery			
7-9	5	• Recognize the clinical manifestations of patients with various pituitary disorders • Request Proper • Investigations to screen for specific pituitary disorders • Suggest a proper management plan for patients with sodium • disorders	Pituitary Disorders	Lecture	Written Examination

10-12	5	• Diagnose and manage Adrenal insufficiency presenting to A&E • Recognize the classical presentations of endocrine hypertension and advice on proper investigations • Suggest a diagnostic algorithm for patients with adrenal masses • List the various approaches to adrenal surgery .	Adrenal Disorders	Lecture	Written Examination
12-13	2	• Recognize the usual clinical findings for patients with calcium disorders	Bone and Parathyroid disorders	Lecture	Written Examination

		• Suggest a diagnostic approach for patients with hypercalcemia and hypocalcemia • Advise on Emergency management of patients with presenting with actue hyper/hypocalcemic cirses List different approaches for parathyroidectomy			
14	1	• List the causes of male hypogonadism • Recognize the features of male hypogoandism • List the causes of hirsutism • Suggest a diagnostic approach for women	Reproductive Endocrinology	lecture	Written Examination

		presenting with hirsutism			
15	1	• Recognize the metabolic, mechanical and psychological complications of Obesity • List he medical therapies for obesity • List the indications of surgical treatment of obesity • Recognize the clinical and biochemical manifestations of primary hyperlipidemias • Advise on proper choices of lipid lowering therapies according to the type of hyperlipidemia	Obesity and hyperlipidemia		

10. Course Evaluation

The minimum requirement of a student to pass is to achieve at least 50% of the total 100 marks assigned for the course. The marks are distributed as follows:

30% midterm examination as Single Best Answers
70% final examination as Single Best answers (70 items) and Modified Essay Questions (3 items)
Students who fail to attain the 50% cut-off mark are required to re-sit for a second trial examination similar to the final one. Failing in the second trial entails the student to repeat the academic year.

11. Learning and Teaching Resources

Required textbooks (curricular books, if any	• Davidson Textbook of Medicine
Main references (sources)	1. Davidson textbook of medicine 2. Harrison principle of Medicine 3. William Textbook of Endocrinology 4. Greenspan's Basic & Clinical Endocrinology 5. Cecil Essentials of Medicine
Recommended books and references (scientific journals, reports...)	Oxford handbook of Endocrinology and Diabetes
Electronic References, Websites	Uptodate; Endocrine Society Guidelines; NICE Guidelines; ADA Guidelines

Course Description Form

1. Course Name:
Respiratory
2. Course Code:
MEDResp-41
3. Semester / Year:
1st semester/ 4th year
4. Description Preparation Date:
1/3/2024
5. Available Attendance Forms:
Physical (mandatory) and Virtual(complementary)
6. Number of Credit Hours (Total) / Number of Units (Total)
2 credit/ hour: 30 hours in total
7. Course administrator's name (mention all, if more than one name)
Name: Haider Abdulhameed Alqaraghuli Email: dr.haider.abdulhameed@nahrainuniv.edu.iq
8. Course Objectives

Course Objectives	1. Demonstrate knowledge in the basic sciences pertinent to respiratory system. 2. Explain the signs and symptoms of common respiratory presentations in terms of their underlying scientific principles. 3. Explain the scientific principles of common respiratory complaints and investigative techniques and critique their appropriateness and results. 4. Explain the scientific principles of common approaches to the management of patients with respiratory complaints. 5. Apply acquired knowledge to identify and interpret signs and symptoms associated with respiratory disorders. 6. Utilize scientific principles to analyze and interpret imaging and investigative techniques commonly used in diagnosing respiratory diseases. 7. Develop critical thinking skills to assess the appropriateness of investigative techniques and

	management approaches for patients with respiratory diseases. 8. Demonstrate effective communication skills in explaining complex scientific principles related to respiratory diseases to patients and colleagues.

9. Teaching and Learning Strategies

Strategies	1. Interactive Lectures: Physical attendance 2. Problem-Based Learning (PBL): Via the Google Classroom 3. Small Group Discussions 4. Hands-on Workshops (selected students: optional) 5. Case-Based Learning (CBL): integrated within the lectures 6. Self-Directed Learning 7. Assessment Strategies 8. Continuous Assessment: - Regular quizzes and assignments.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method

1	1	Demonstrate knowledge of the basic anatomy of the respiratory system Apply the knowledge of the physiological basis of ventilation and gas exchange in the assessment of patient complain. List the lung defense mechanisms Predict the consequences of failing defense mechanisms of lung defences	**Clinically relevant anatomy and physiology of the respiratory system**	Lecture	MCQ
1	1	Analyze the patient complain Construct a differential diagnosis based on that complain Recognize the causes of different physical signs Plan the evaluation process according to clinical data	Presenting complains in patients with respiratory diseases Physical signs in patients with respiratory diseases	Lecture+PBL	
2	2	Choose the most appropriate investigation according to the clinical encounter Analyze the results of spirometry Construct a differential diagnosis based on parameters of lung function tests Differentiate the types of respiratory diseases based on the results of arterial blood gas analysis Analyze the result of exercise testing Recognize the different radiological terms Interpret the radiological signs Appraise the benefits of flexible	Pulmonary function tests Arterial Blood Gas analysis Exercise testing Radiology of the chest Flexible bronchoscopy	Lecture+case discussion	MCQ+ Formative
3	2	Recognize the different types of rhinitis Differentiate the treatment options for each type	Diseases of the upper airways: Allergic rhinitis Sleep – related disorders	Lecture+classroom activity	MCQ+ Formative

		Classify sleep – related breathing disorders Distinguish obstructive sleep apnea from simple snoring Interpret the results of sleep study			
4	2	Differentiate the different types of upper respiratory tract infections Assess the need for antibiotic therapy in patients with URTi Define bronchitis Define pneumonia Differentiate between pneumonia and bronchitis List the different causes of pneumonia Describe the clinical features of pneumonia Demonstrate knowledge in the differences between clinical features with regard to microbiologic etiology Formulate plan for management of pneumonia Assess severity of pneumonia Appraise pneumonia complications Choose the appropriate management plan Evaluate readiness for discharge Define hospital acquired pneumonia Recognize the clinical features of hospital acquired pneumonia Choose the appropriate treatment of hospital acquired pneumonia Distinguish the clinical features of ventilator associated pneumonia Choose the appropriate investigations for ventilator associated pneumonia Elect the best treatment strategy for ventilator associated pneumonia	**Infections of the respiratory system**	lecture	MCQ+ Formative

		Recognize the clinical features of aspiration pneumonia Elect the best treatment for aspiration pneumonia Define lung abscess Assemble a differential diagnosis for lung abscess Distinguish between treatment options for lung abscess List clinically relevant fungal infections of the lung Classify the types of aspergillosis Demonstrate knowledge in the management of aspergillosis subtypes6			
5	2	Define tuberculosis Recognize the epidemiology of tuberculosis Analyze the resurgence of tuberculosis List the sites of tuberculous infections Compare the different presentations of tuberculosis Formulate differential diagnosis based on clinical presentations Construct a diagnostic plan for tuberculosis List the diagnostic tests for tuberculosis Analyze the results of diagnostic tests Formulate management plan for patients with tuberculosis Recall the side effects of antituberculous drugs Arrange follow-up plan after treatment Recognize complications of tuberculosis	**Tuberculous lung infections**	lecture	MCQ+ Formative
6	1	Define hydatid cyst Recognize clinical features of hydatid cyst Differentiate hydatid cyst from other cystic lung diseases	**Parasitic Lung disease**	lecture	MCQ

		Describe the diagnostic tests for hydatid cyst Manage hydatid cyst patient Demonstrate knowledge in the indications for surgical removal			
6	1	Recognize the importance of immune suppression on lung diseases. List the infectious diseases associated with HIV Differentiate between the different etiologies Formulate diagnostic plan Recall the diagnostic tests for pneumocystis jirovecci Manage patients with pneumocystis jirovecii Recognize the differences in presentation of tuberculosis patient between immunocompetent and immunosuppressed individuals Define Kaposi sarcoma Recognize the clinical features of Kaposi sarcoma	Lung involvement in immunosuppressed individuals	lecture	MCQ
Mid Term Exams					
7	2	Recall the immunological basis of asthma Illustrate the effect of extrinsic and intrinsic factors in the pathogenesis of asthma Appraise the epidemiology of asthma Compare the different Demonstrate ability to recognize clinical features of asthma Arrange acceptable diagnostic tests Organize management plan for patient with chronic asthma Evaluate patient response to asthma medications Communicate treatment options to patients and address their concerns Discriminate patient with acute severe asthma and life threatening asthma	Asthma	lecture	MCQ+ Formative

		List treatment steps in the management of acute severe asthma			
8	2	Define COPD Recall the causes of COPD Illustrate the relation between environmental factors and the development of COPD Compare the different phenotypes of COPD Demonstrate ability to recognize the clinical features of COPD Arrange acceptable diagnostic test Organize management plan for patient with COPD Evaluate patient response to COPD medications Communicate treatment options to patients and address their concerns Discriminate patient with acute exacerbation of COPD List treatment steps in the management of acute exacerbation of COPD	COPD	lecture	MCQ+ Formative
9	1	List the causes of bronchiectasis Classify bronchiectasis according to etiology Formulate differential diagnosis based on patient history and examination findings Choose diagnostic studies to confirm the diagnosis Construct management plan for non-cystic fibrosis bronchiectasis Manage patient with cystic fibrosis	**Bronchiectasis**	lecture	MCQ
9	2	Define diffuse parenchymal lung diseases Recall the pathogenesis of DPLD List the causes of DPLD Classify DPLD Differentiate IPF from other causes of dyspnea	**Diffuse Parenchymal Lung Diseases**	lecture	MCQ

		Formulate diagnostic plan for suspected IPF Manage patient concern regarding IPF List treatment options for IPF Identify patients at risk of HP Plan diagnostic approach for HP Discuss management principles of HP Recognize patient concerns regarding HP treatment List treatment options for HP Define sarcoidosis Identify sarcoidosis syndromes Recall extrapulmonary involvement in sarcoidosis Differentiate pulmonary sarcoidosis from pulmonary tuberculosis and lymphoma			
10	1	List the causes of pleural effusion Demonstrate knowledge of the mechanisms of fluid accumulation Recognize the clinical features of pleural effusion and its underlying cause Arrange diagnostic plan to confirm and identify the cause of pleural effusion Analyze the results of pleural fluid aspirate and formulate a differential diagnosis accordingly Organize treatment strategy for pleural effusion	Pleural Effusion	lecture	MCQ
11	1	Define pneumothorax Demonstrate knowledge of mechanism of pneumothorax Recognize the clinical features pf pneumothorax Differentiate life-threatening tension pneumothorax from simple pneumothorax	Pneumothorax	lecture	MCQ

		Assess the need for treatment of tension pneumothorax Arrange diagnostic tests to confirm the diagnosis Manage patient with pneumothorax by chest tube Demonstrate knowledge in the indications of chest tube insertion Analyze the function of the chest tube			
11	1	Classify the primary lung tumors Recognize the etiologic causes of lung tumors Apply knowledge in recognizing the clinical features of lung tumors Formulate plan of investigation for the diagnosis of lung tumors List the sites of primary tumors with frequent lung metastasis Arrange a plan for the care of patient with non operable lung tumor Appraise patient concerns dealing with lung tumor diagnosis Arrange plan of investigations to determine the appropriate treatment option . List the contraindications for surgical treatment of lung tumors Recognize the surgical options for treatment of lung tumors Predict the postoperative complications after thoracotomy Demonstrate knowledge in the management of postoperative thoracotomy patient Recognize early and late complications of thoracotomy and illustrate the immediate management plan for them	Tumors of the Lung	Lecture	MCQ

		List the non-surgical treatment options			
12	1	Recognize the indications of surgery in benign lung diseases	**Surgical options for the management of benign lung lesions (Lung abscess, tuberculosis, empyema, bronchiectasis)**	Lecture	
12	1	Recognize diseases of the chest wall Evaluate patient with diseases of the chest wall List the surgical options for treatment of chest wall deformities	**Diseases of the chest wall**	Lecture	
13	1	Recognize diseases of the diaphragm Evaluate patient with diseases of the diaphragm List the surgical options for treatment of diaphragmatic hernia	**Diseases of the diaphragm**	Lecture	
13	1	Recognize the conditions that require lung transplant as part of management List the types of lung transplantation Recall the complications of lung transplantation	**Lung Transplant**	Lecture	
14	2	Define respiratory failure Recall the types of respiratory failure Compare the different types of respiratory failure List the causes of respiratory Describe the clinical features of respiratory failure Arrange diagnostic plan to evaluate patient with respiratory failure Evaluate treatment options for the different types of respiratory failure Assess patient response to initial treatment Address patient concerns Define ARDS	**Critical Care in respiratory medicine**	Lecture	

		Recognize the pathogenesis of ARDS List the causes of ARDS Compare ARDS to cardiac pulmonary edema Evaluate the clinical features that occur with ARDS Formulate a diagnostic plan for ARDS Predict the outcome of ARDS Organize treatment plan for ARDS List the low flow oxygen delivery devices Differentiate the clinical conditions that need low flow delivery devices List the high flow oxygen delivery devices Analyze the conditions that require high flow devices			

1. Continuous Assessment
2. Case Presentations
3. Group Participation
4. Skills Assessment
5. Case Analysis
6. Self-Assessment: Via Google Classroom
7. Comprehensive Examinations (MCQs and Case Based Assays)

11. Learning and Teaching Resources

Required textbooks (curricular books, if any)	1. Davidson's Principles and Practice of Medicine 2. Bailey and Love's textbook of surgery 3. Harrison's Principles of Internal Medicine
Main references (sources)	
Recommended books and references (scientific journals, reports…)	UPTODATE
Electronic References, Websites	GINA Guidelines

Course Description Form

15. Course Name:
General Medicine
16. Course Code:
MEDMed-4C
17. Semester / Year:
Fourth year – First & second semester (Clinical)
18. Description Preparation Date:
/7/1-2024 **Academic year 2024/2025**
19.Available Attendance Forms:
Physical (mandatory) and Virtual(complementary)
20.Number of Credit Hours (Total) / Number of Units (Total)
Clinical : 32 hr **hours / wk. : 4 h/ wk - Credits:** **(2hrs /day x 2 days/week x 8 weeks)**
21. Course administrator's name (mention all, if more than one name)
Assistant Prof. Dr.Moayed Basheer moayed.basheer@nahrainuniv.edu.iq Assistant Prof. Dr.Ali Sameer Dr.alisameer80@nahrainuniv.edu.iq Assistant Prof. Aws Sabah Ghani awsalrubaye@nahrainuniv.edu.iq Prof. dr.Waseem F. Altameemi drwaseem72@nahrainuniv.edu.iq Lecturer Dr.Jalal Altaai Email: gelal.altaai@nahrainuniv.edu.iq Prof. dr. Mahmoud Shakir Khudair Drmah75shakir@ced.nahrainuniv.edu.iq Assistant Prof. dr.Haider Abdulhameed Alqaraghuli dr.haider.abdulhameed@nahrainuniv.edu.iq Assistant Prof. Dr. Rafid Altaweel drrafid76@nahrainuniv.edu.iq

22.	Course Objectives	Knowledge
Course Objectives	**Upon completion of this course, the 4th year medical student at Al-Nahrain College of Medicine will be able to:** 1. Perform a detailed history in a systematic way, facilitating patient's telling of story; effectively using questions/directions to obtain accurate, information needed; responds appropriately to affect, and non-verbal cues. 2. Perform physical examination in an efficient and logical sequence, illicit physical signs and interpret them 3. Show respect, compassion, empathy, establishes trust; attends to patient's needs of comfort, modesty, and confidentiality. Present and summarizes the results history and physical examination in a clear, audible and coherent language	
	Skills	
	A. Complete a patient's history and physical exam in a respectful, logical organized and thorough manner. When necessary, obtain supplemental historical information from collateral sources, such as significant others or previous physicians. **B.** Evaluate and prioritize problems with which a patient presents, appropriately synthesizing these into logical clinical syndromes. **C.** Formulate a differential diagnosis based on the findings from the history and physical examination and apply differential diagnosis to help guide diagnostic test ordering and sequencing. **D.** Formulate an initial therapeutic plan and explain the extent to which the therapeutic plan is based on pathophysiologic reasoning and scientific evidence of effectiveness. **E.** Identify critical and high priority imaging findings on the most commonly performed imaging exams and discuss their importance in clinical patient management.	
	1. Uphold ethical standards in the application of diagnostic and investigative techniques, ensuring patient well-being and autonomy.	

	2. **Recognize any ethical problems and medicolegal concerning of medical diseases, and the student should respect the privacy of the patient.** 3. **Recognize and address potential biases in the evaluation & management of patients with medic disease**.

23. Teaching and Learning Strategies

Strategy	1- Interactive lectures 2- Case scenario discussion 3- Adopt integrative approach when considering medical symptom presentation

24. Course Structure

Week	Hours	Required learning outcomes	Unit/Module or Topic Title	Learning Method	Evaluation Method
1	4	✓ Demonstrate ability to take formal history from a patient presenting with one of the main cardiac symptoms . ✓ Analyze the presenting complains in terms of temporal relations, severity, precipitating, aggravating and relieving factors, associated symptoms. ✓ Differentiate between the different causes of main presenting symptoms	Cardiovascular system: history (presenting symptoms) : breathlessness, chest pain, palpitation, syncope, and leg edema) . physical examination	Clinical sessions	Discussion and oral tests Case Presentations
2	4	✓ Demonstrate ability to take formal history from a patient presenting with one of the main respiratory symptoms . ✓ Analyze the presenting complains in terms of temporal relations, severity, precipitating, aggravating and relieving factors, associated symptoms. ✓ Differentiate between the different causes of respiratory symptoms ✓ Formulate a differential diagnosis based on analysis of the chief complain	Respiratory system History (presenting symptoms: breathlessness, stridor, wheeze, chest pain, cough, and hemoptysis) Physical examination	Clinical sessions	Discussion and oral tests Case Presentations
3	4	✓ Demonstrate ability to take formal history from a patient presenting with one of the gastroenterology and liver symptoms ✓ Analyze the presenting complains in terms of temporal relations, severity, precipitating, aggravating and relieving factors, associated symptoms. ✓ Differentiate between the different causes of jaundice	Gastroenterology History (Anorexia and weight loss, abdominal pain, dysphagia, nausea and vomiting, wind and flatulence, abdominal distension, constipation and diarrhea	Clinical sessions	Discussion and oral tests Case Presentations

		Differentiate between medical and surgical causes of abdominal pain ✓ Differentiate between large and small bowel diarrhea Formulate a differential diagnosis based on analysis of the chief complain	hematemesis and melena, and jaundice) Physical examination of the abdomen		
4	4	✓ Demonstrate ability to take formal history from a patient presenting with one of the renal symptoms Analyze the presenting complains in terms of temporal relations, severity, precipitating, aggravating and relieving factors, associated symptoms. ✓ Formulate a differential diagnosis based on analysis of the chief complain	Renal system History: pain, frequency, dysuria, hematuria, polyuria, oliguria, urgency, nocturia, incontinence, frothy urine Examination of kidneys and bladder	Clinical sessions	Discussion and oral tests Case Presentations
			Mid Term examin		
5	4	✓ Assess patient with suspected endocrine and hematology disease by demonstrating knowledge in history taking and recognition of key physical signs. ✓ Analysis of weight change ✓ Discuss main symptoms of hypoglycemia and hyperglycemia ✓ Explain main symptoms of hypothyroidism and hyperthyroidism ✓ Demonstrate Examination of thyroid gland ✓ Describe common physical findings in diabetes mellitus	Endocrine system appetite and/or weight change sweating polydipsia and/or polyuria change in facial/body hair growth and distribution change in skin and mucosal pigmentation temperature intolerance change in sexual function: erectile dysfunction/loss of libido, gynecomastia, galactorrhea, and amenorrhea	Clinical sessions	Discussion and oral tests Case Presentations

			Hematology: fever, weight loss, bleeding tendency, and lymphadenopathy		
6	4	✓ Assess patient with suspected rheumatlogic disease by demonstrating knowledge in history taking and recognition of key physical signs.	The musculoskeletal system History: pain, stiffness, swelling, erythema (redness) and warmth, weakness, locking and triggering extra-articular features Musculoskeletal examination	Clinical sessions	Discussion and oral tests Case Presentations
7	4	Assess patient with suspected neurologic disease by demonstrating knowledge in history taking and recognition of key physical signs.	Nervous system History: pain, dizziness and vertigo, loss of consciousness, functional symptoms Clinical examination : Cranial nerves Motor system Sensory system Cerebellar signs Peripheral nerves	Clinical sessions	Discussion and oral tests Case Presentations
8	4		Final exam		

Course Evaluation

The minimum requirement of a student to pass is to achieve at least 50% of the total 100 marks assigned for the course.
The marks are distributed as follows:

Daily assessing through questioning & clinical cases approach
Final course exam,(long case exam ,oral viva exam, recall information questions & analytic clinical question with slides show, OSCI).

Students who fail to attain the 50% cut-off mark are required to re-sit for a second trial examination similar to the final one. Failing in the second trial entails the student to repeat the academic year

1. Learning and Teaching Resources

Required textbooks (curricular books, if ar	Macleod s Clinical Examination
Main references (sources)	Davidson s principels and practice in Medicine
Recommended books and references (scientific journals, reports…)	UPTODATE
Electronic References, Websites	Uptodate , Medscape

Course Description Form

1. Course Name:	
Psychiatry clinical	
2. Course Code:	
MEDPsc-5C	
2. Semester / Year:	
1st and 2nd semester/ 5th year	
3. Description Preparation Date:	
9 / 4 / 2025	
4. Available Attendance Forms:	
Physical (mandatory) and Virtual (complementary)	
5. Number of Credit Hours (Total) / Number of Units (Total)	
1.5 credit/ hour: 45 hours in total	
6. Course administrator's name (mention all, if more than one name)	
Name: Assistant professor Dr. Uday Khalid Senior lecturer Dr. Zeena Nabeel Email: udaykhalid@nahrainuniv.edu.iq zenaalhassry@nahrainuniv.edu.iq	
7. Course Objectives	Knowledge
Course Objectives	1. Evaluate the significance of psychiatry within all other medical specialties 2. Compare mental health services at past and present in Iraq and other countries 3. Recognize the epidemiology of psychiatric disorders 4. review components of psychiatric history and examination 5. Identify the presenting features of psychiatric disorders 6. run diagnosis and differential diagnosis 7. Manage psychiatric disorders at primary health care or within whatever specialty the graduate works in.

	8.adopt bio psychosocial approach in management 9. illicit psychopathological phenomena in history and examination 10. relate psychopathological phenomena to syndrome specific symptoms and signs diagnose different Psychiatric disorders 11. demonstrate capacity to make provisional diagnosis and differential diagnosis 12. apply psychopharmacological treatment lines of different psychiatric disorders 13. evaluate role of psychotherapy in management Diseases 14. to acquire standard ethical behavior 15. ensure patient`s confidentiality 16. to exemplify good manners and attitude 17. to communicate effectively with the patients, their families and all health care personnel 18. to be able to work in a team 19. Consider key forensic psychiatry issues pertinent to newly graduate doctor like compulsory admission for patients with loss of insight and those at risk of suicide and substance abuse

8. Teaching and Learning Strategies	
Strategy	1- Real clinical Case demonstration 2- Case discussions

9. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method
1	15	Clinical case study and video case vignettes	Clinical case study	Case demonstration
2	15	Clinical case study and video case vignettes	Clinical case study	Case demonstration
3	15	Clinical case study and video case vignettes	Clinical case study	Case demonstration

10. Course Evaluation

The minimum requirement of a student to pass is to achieve at least 50% of the total 100 marks assigned for the course.
The marks are distributed as follows:
Written case 5%
Course attendance 5%

Midterm Exam (20%) as short answer question written exam
Final Exam (70%) as Structured clinical exam with 7 clinical video stations followed by diagnostic and therapeutic skills written questions. Each station is of 10 marks if fully answered

Students who fail to attain the 50% cut-off mark are required to re-sit for a second trial examination similar to the final one. Failing in the second trial entails the student to repeat the academic year.

11. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	1. Davidson's Principles and Practice of Medicine / chapter of psychiatry 2- USMLE Step 2 psychiatry 3- Oxford pocket book of psychiatry
Main references (sources)	Kaplan and Sadock comprehensive psychiatry
Recommended books and references (scientific journals, reports...)	Kaplan and Sadocks synopsis of psychiatry Oxford shorter Text of psychiatry
Electronic References, Websites	www.nice.org.com www.uptodate.com www.medscape.com

Course Description Form

1. Course Name:	
Psychiatry theory	
2. Course Code:	
MEDPsc-51	
3. Semester / Year:	
1st semester/ 5th year	
4. Description Preparation Date:	
9/4/2025	
5. Available Attendance Forms:	
Physical (mandatory) and Virtual (complementary)	
6. Number of Credit Hours (Total) / Number of Units (Total)	
2 credit/ hour: 30 hours in total	
7. Course administrator's name (mention all, if more than one name)	
Name: Assistant professor Dr Uday Khalid Senior lecturer Dr Zeena Nabeel Email: udaykhalid@nahrainuniv.edu.iq zenaalhassry@nahrainuniv.edu.iq	
8. Course Objectives	Knowledge
Course Objectives	1. Evaluate the significance of psychiatry within all other medical specialties 2. Recognize the epidemiology of psychiatric disorders 3. Identify the presenting features of psychiatric disorders 4. Manage psychiatric disorders at primary health care or within whatever specialty the graduate works in 5. Classify psychotropic medications 6. Explain action, kinetics and adverse reactions of psychotherapeutic drugs needed by family physician

	7. Evaluate the role of non-pharmacological psychological treatments 8. diagnose different Psychiatric disorders 9. relate psychopathological phenomena to syndrome specific symptoms and signs 10. demonstrate capacity to make provisional diagnosis and differential diagnosis 11. apply psychopharmacological treatment lines of different psychiatric disorders 12. evaluate role of psychotherapy in management diseases 13. to acquire standard ethical behavior 14. to exemplify good manners and attitude 15. to communicate effectively with the patients, their families and all health care personnel 16. to be able to work in a team 17. Consider key forensic psychiatry issues pertinent to newly graduate doctor like compulsory admission for patients with loss of insight and those at risk of suicide and substance abuse

12. Teaching and Learning Strategies	
Strategy	1- Interactive lectures 2- Case scenario discussion 3- Adopt integrative approach with other medical fields when considering mental symptom presentation

13. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method
1	1	1. Describe in brief history of psychiatry and development of psychiatric services in Iraq and developed countries,	Introduction	Lecture

		2. recognize epidemiology and the general demographic characteristics of mental illness		
1	1	Psychopathology I 1. Classify psychopathology 2. Define types of psychopathology 3. Define psychopathological phenomena in appearance and behavior and recognize disorders of each 4. Recognize disorders of speech Make relationship between these phenomena and clinical disorders	Psychopathology I	Lecture
2	1	psychopathology of thinking 1. describing disorders of thought form and content 2. define disorders of thought form and content 3. relate each thought disorder to psychiatric disorders	Psychopathology II	Lecture
2	1	psychopathology of mood or emotions and perception 1. divide disorders of mood 2. define specific disorders of mood 3. divide disorders of perception 4. define disorders of perception 5. relate each of these disorders to psychiatric disorders	Psychopathology III	Lecture
3	1	1. divide disorders of cognitive functions define attention, concentration, memory, intelligence and judgment 2. divide disorders of experience of self 3. define derealization, depersonalization, thought alienation and passivity and 4. define insight relate these phenomena to psychiatric disorders	Psychopathology IV	Lecture
3	1	1. define the concept of mental illness 2. evaluate its development from old classifications to international classification of disease 10th revision (ICD 10) and diagnostic and statistical manual 4th and fifth revisions (DSM IV and V) describe the current classifications used for mental illness	Classification of mental illness:	Lecture
4	1	1. Define major depression 2. Describe Epidemiology, presentation, etiology, diagnosis of major depression	Mood disorders I Major depression	Lecture

		3. Recognize monoamine theory of depression			
4	1	1. define anxiety and anxiety disorders 2. classify anxiety disorders (Generalized, panic disorder, phobias) 3. recognize epidemiology, etiology, clinical picture of each disorder 4. evaluate the steps of treatment of each disorder	Anxiety disorders:	Lecture	
5	1	1. Describe management of major depression 2. Classify antidepressant drugs and describe their actions, kinetics and side effects 3. Recognize role of ECT, 4. Evaluate role of psychotherapy	Mood disorders II: Major depression management	Lecture	
5	1	1. define stress, 2. Divide stress coping techniques 3. Define coping and defense 4. Define Post traumatic stress disorders (PTSD) 5. Describe its prevalence, etiology, clinical features diagnosis and management	Stress:	Lecture	
6	1	1. define schizophrenia, 2. describe epidemiology, presentation, etiology 3. recognize dopamine theory of schizophrenia	Schizophrenia I		
6	1	1. evaluate management lines, 2. classify antipsychotics, describe their action, kinetics and side effects recognize Role of ECT, 3. recognize rehabilitation, community vs. institutional care	Schizophrenia I	Lecture	
7	1	1. define somatic disorders 2. describe presentation, prevalence, diagnoses 3. recognize lines of management evaluate the role of cooperation with other medical fields	Somatic disorders:	Lecture	
7	1	1. Define adjustment disorders, 2. Recognize reaction to physical disease, acute, chronic and terminal illness. 3. Define grief and bereavement 4. Describe pathological grief and its treatment	Adjustment reaction	Lecture	
8		1. Define bipolar disorders	Mood disorders III Bipolar disorders:	Lecture	

		2. Describe prevalence, types, presentation etiology, diagnosis and management, 3. Classify mood stabilizers, 4. Describe their kinetics, actions and risks		
8	1	1. Define dissociative (conversion) disorders 2. Evaluate history of hysteria 3. Describe, prevalence, presentation, criteria of diagnosis and 4. Recognize management lines 5. Evaluate role of drugs, psychotherapy, and hypnosis	Dissociative (Conversion) Disorders	Lecture
9	1	1. Define OCD 2. Describe prevalence, presentation, etiology diagnoses 3. Recognize treatment role by drugs like clomipramine, SSRIs and behavior therapy 4. Recognize Impulse dyscontrol, trichotillomania and dysmorphophobia	Obsessive compulsive disorder OCD	Lecture
9	1	1. Define delirium 2. Describe presentation, etiology and management. 3. Define dementia 4. Classify dementia 5. Describe prevalence, etiology, diagnosis and management of dementia.	Neurocognitive mental disorders:	Lecture
10	1	1. Define anorexia nervosa and bulimia nervosa 2. Describe key features, etiology and management 3. Classify and define sleep disorders 4. Describe key presenting features and lines of management of sleep disorders	Eating and sleep disorders	Lecture
10	1	1. Define, Abuse, tolerance, dependence (psychological vs. physiological), withdrawal phenomenon. 2. Define alcoholism: 3. Describe criteria of alcoholism, complications, investigations and management	Substance abuse and addictive disorders I	Lecture
11	1	1. Define puerperal psychosis, postpartum depression and maternity blues: 2. Describe key features and management 3. Recognize premenstrual dysphoric disorder; presentation and management	Puerperal psychiatric disorders:	Lecture

11		1. Recognize addictive properties of benzodiazepines, narcotics, CNS stimulants, marijuana, hallucinogens, solvents, anticholinergics. 2. Evaluate tendency for abuse or dependence physiological or psychological, withdrawal symptoms and management for each substance	Substance abuse and addictive disorders II		
12	1	1. Assess suicide risk 2. Evaluate prevention of suicide 3. Recognize parasuicide and its management 4. Revise other emergencies like delirium, conversion and panic at casualty setting	Emergency psychiatric disorders		
12	1	Classify sexual disorders, Explain sexual dysfunction in light of sex stimulation response cycle Evaluate the role Behavioral sex therapy	Sexual disorders:		
13	1	1. Classify childhood mental disorders. 2. Classify learning disability 3. Describe, diagnosis and management of learning disability 4. Compare school refusal to truancy	Child psychiatry I		
13	1	1. Classify personality disorders (clinical vs. dimensional). 2. Describe presentation, diagnosis and management	Personality disorders:		
14	1	1. Define enuresis, describe presentation, causes and management 2. Define attention deficit hyperactivity disorder ADHD, and describe key features and causes and management 3. Define conduct disorder and describe key features, causes and management 4. define autism, describe key features, causes and management	Child psychiatry II		
14	1	1. Define psychotherapy 2. Classify psychotherapy 3. Describe, supportive therapy, Counseling, behavior therapy	Psychotherapy I:		
15	1	1. classify and sub classify psychotropic medications 2. describe indications, actions, kinetics, side effects and dosage for each class	Physical treatments		

15	1	1. Describe cognitive behavior therapy CBT 2. Recognize uses of CBT 3. Describe psychodynamic (psychoanalytic) therapy 4. Recognize uses of analytic therapy	Psychotherapy II:	

14. Course Evaluation

The minimum requirement of a student to pass is to achieve at least 50% of the total 100 marks assigned for the course.
The marks are distributed as follows:
Midterm Exam (30%) as single best answer questions
Final Exam (70%) as – 50 % Single best answer questions
Short answer questions 20 %
Students who fail to attain the 50% cut-off mark are required to re-sit for a second trial examination similar to the final one. Failing in the second trial entails the student to repeat the academic year.

15. Learning and Teaching Resources

Required textbooks (curricular boo if any)	1. Davidson's Principles and Practice of Medicine / chapter of psychiatry 2- USMLE Step 2 psychiatry
Main references (sources)	Kaplan and Sadock comprehensive psychiatry
Recommended books and references (scientific journals, reports...)	Kaplan and Sadocks synopsis of psychiatry Oxford shorter Text of psychiatry
Electronic References, Websites	www.nice.org.com www.uptodate.com www.medscape.com

Course Description Form

1. Course Name:	
Rheumatology	
2. Course Code:	
MEDRhe-52	
3. Semester / Year:	
2nd semester/ 5th year	
4. Description Preparation Date:	
1/3/2024	
5. Available Attendance Forms:	
Physical (mandatory) and Virtual (complementary)	
6. Number of Credit Hours (Total) / Number of Units (Total)	
1 credit/ hour: 15 hours in total	
7. Course administrator's name (mention all, if more than one name)	
Name: Yasameen Abbas Humadi Email: jasmine86abbss@nahrainuniv.edu.iq	
8. Course Objectives	
Course Objectives	1. Demonstrate knowledge in the basic sciences pertinent to connective tissues and joints. 2. Explain the signs and symptoms of common regional and rheumatic presentations in terms of their underlying scientific principles. 3. Explain the scientific principles of common autoimmune and imaging investigative techniques, and critique their appropriateness and results. 4. Explain the scientific principles of common approaches to the management of patients with autoimmune rheumatic diseases and regional complaints. 5. Uphold ethical standards in the application of diagnostic and investigative techniques, ensuring patient well-being and autonomy. 6. Respect patient confidentiality and privacy in the management of

	autoimmune rheumatic diseases and regional complaints. 7. Recognize and address potential biases in the evaluation and management of patients with autoimmune rheumatic diseases, ensuring equitable care for all. 8. Demonstrate integrity and honesty in critiquing investigative techniques 9. and management approaches, prioritizing patient welfare above all else.

9. Teaching and Learning Strategies	
Strategy	1. Interactive Lectures: Physical attendance 2. Problem-Based Learning (PBL): Via the Google Classroom 3. Small Group Discussions 4. Hands-on Workshops (selected students: optional) 5. Case-Based Learning (CBL): integrated within the lectures 6. Self-Directed Learning 7. Assessment Strategies 1. Continuous Assessment: - Regular quizzes and assignments. - Participation in interactive sessions. 2. Case Presentations: - Students present clinical cases. - Evaluation based on diagnosis and management. 3. Group Participation: - Active involvement in group discussions. - Criteria include contribution and engagement. 4. Skills Assessment: - Practical assessments of clinical skills. - Evaluation of proficiency in interventions. 5. Case Analysis: - Analysis of written or virtual case studies. - Focus on clinical reasoning and management. 6. Self-Assessment: - Online quizzes and reflective exercises. - Students evaluate understanding and set goals. 7. Comprehensive Examinations: - End-of-course MCQs and case-based assays. - Assess overall comprehension and application.

10. Course Structure					
Week	**Hours**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
	1	1. Understand the fundamental anatomical structures of the back, neck, and joints, including their interrelationships and functions. 2. Utilize comprehensive knowledge of the physiological mechanisms underlying degenerative and inflammatory diseases to effectively assess patient complaints related to these conditions. 3. Identify and enumerate the diverse causes of back pain, encompassing both common etiologies and less frequent but potentially serious factors. 4. Demonstrate proficiency in recognizing "red flags" associated with back pain, indicative of underlying pathologies requiring urgent evaluation and intervention. 5. Familiarize oneself with a range of management strategies for back pain, spanning from simple interventions to mitigate symptoms to protocols for addressing life-threatening situations. 6. Develop the ability to discern mimickers of back pain in clinical presentations and radiographic studies, facilitating accurate diagnosis and appropriate treatment planning.	Back and neck pain	Lecture	MCQ
	1	1. Comprehend the underlying etiology and pathophysiology of Rheumatoid Arthritis (RA), elucidating immune-mediated mechanisms and their effects on joint and tissue function. 2. Proficiently discern the varied patterns and clinical presentations associated with RA, distinguishing manifestations across different disease stages. 3. Recognize and evaluate the broad spectrum of extra- articular manifestations commonly linked to RA, assessing their potential impact on patient prognosis and management. 4. Interpret the key laboratory findings characteristic of RA, including serological markers such as rheumatoid factor and anti-cyclic citrullinated peptide (anti-CCP), as well as inflammatory markers like C-reactive protein (CRP) and erythrocyte sedimentation rate (ESR).	RA	Lecture +PBL	

	1	1. Identify and differentiate the differential diagnosis of Rheumatoid Arthritis (RA) from other rheumatic and autoimmune conditions, utilizing clinical, laboratory, and imaging modalities. 2. Develop comprehensive treatment plans for RA patients, employing a stepwise approach that integrates disease-modifying anti-rheumatic drugs (DMARDs), nonsteroidal anti-inflammatory drugs (NSAIDs), corticosteroids, and biologic agents as appropriate. 3. Demonstrate thorough understanding of the primary DMARDs used in the management of RA, including methotrexate, sulfasalazine, hydroxychloroquine, and biologic agents, along with their major contraindications and potential side effects. 4. Evaluate and anticipate complications arising from RA, encompassing joint deformities, extra-articular manifestations, cardiovascular disease, and increased susceptibility to infections, while also understanding the leading causes of mortality in RA patients, such as cardiovascular events and infections.	RA part 2	Lecture +case discussion	MCQ+ Formative

	1	1. Distinguish between the various types of Connective Tissue Diseases (CTDs), including systemic lupus erythematosus (SLE), rheumatoid arthritis, systemic sclerosis, Sjögren's syndrome, and others, by analyzing their distinct clinical features and diagnostic criteria. 2. Develop a comprehensive understanding of the undamental etiology and pathophysiology that underlie different presentations of SLE, elucidating the complex nterplay of genetic, environmental, and immunological actors contributing to disease development and progression. 3. Explain the basic mechanisms of autoimmunity in SLE, ncluding aberrant immune responses targeting self- antigens such as nuclear components, resulting in tissue damage and systemic inflammation characteristic of the disease. 4. Familiarize oneself with the various types of lupus, ncluding systemic lupus erythematosus (SLE), cutaneous upus erythematosus (CLE), and drug-induced lupus, while also understanding the classification criteria established by organizations such as the American College of Rheumatology (ACR) and the Systemic Lupus International Collaborating Clinics (SLICC).	CTD part 1	Lecture +classroom activity	MCQ+ Formative
+6	1	1. Recognize and differentiate between the various presentations of Lupus, ranging from mild to severe manifestations, including Lupus nephritis pathology and lupus cerebritis, by evaluating clinical signs and symptoms. 2. Recall and identify the potential differential diagnoses (DDX) associated with Lupus complaints, utilizing comprehensive knowledge of overlapping symptoms and clinical patterns to facilitate accurate diagnosis. 3. Formulate treatment strategies tailored to the different presentations of Lupus, integrating pharmacological interventions, lifestyle modifications, and disease monitoring protocols to optimize patient outcomes. 4. Discuss the disease course and potential complications of Lupus, including long-term sequelae such as organ damage, cardiovascular complications, and increased susceptibility to infections, while emphasizing the importance of early intervention and multidisciplinary management approaches.	SLE	lecture	MCQ+ Formative

	1	1. Demonstrate proficiency in identifying and categorizing the types of Connective Tissue Diseases (CTDs), including Scleroderma, Autoimmune Myopathies, Sjögren's Syndrome, Overlap Syndromes, and Mixed CTD, by understanding their basic etiologies, clinical characteristics, and pathophysiological mechanisms. 2. Analyze the main presentations and distinguish the eading serological markers associated with each type of CTD, utilizing diagnostic criteria and laboratory findings to aid in accurate diagnosis and disease management. 3. Develop comprehensive treatment plans tailored to the specific needs of patients with each CTD, integrating pharmacological interventions, immunosuppressive therapies, and supportive measures to address disease activity and minimize complications. 4. Recognize and evaluate potential life-threatening presentations of each CTD, including severe organ nvolvement, vascular complications, and respiratory compromise, while implementing timely interventions to mitigate risks and optimize patient outcomes.	CTD part 2	lecture	MCQ+ Formative
MID TERM EXAMS					

	1	1. Understand the classification of vessels and vasculitides, distinguishing between large, medium, and small vessel involvement, while identifying their respective clinical and pathological features. 2.Recognize clues suggestive of vasculitides, including characteristic symptoms, laboratory findings, and imaging patterns, to facilitate prompt diagnosis and appropriate management. 3. Differentiate the various patterns of presentation observed in vasculitides, such as cutaneous, systemic, and organ-specific manifestations, to guide tailored diagnostic approaches and treatment strategies. 4. Implement comprehensive diagnostic approaches for large, medium, and small vessel vasculitides, incorporating clinical assessment, laboratory investigations, imaging studies, and histopathological examination, as necessary, to confirm diagnosis and assess disease severity. 5. Develop individualized treatment strategies for large, medium, and small vessel vasculitides, utilizing a combination of immunosuppressive agents, corticosteroids, biologic therapies, and supportive measures to achieve disease control and minimize complications. 6. Recognize potential mimickers of vasculitides, including infections, malignancies, and other inflammatory conditions, by utilizing clinical judgment, comprehensive evaluation, and appropriate diagnostic testing to differentiate true vasculitides from other pathologies.	Vasculitis	lecture	MCQ+ Formative

11	1	1. Understand the spectrum of Spondyloarthropathies (SPA), encompassing Ankylosing Spondylitis (AS), Psoriatic Arthritis (PsA), Reactive Arthritis (ReA), and Enteropathic Arthritis (associated with inflammatory bowel disease), by elucidating their basic etiologies and pathogenic mechanisms. 2. Identify the common clinical features shared by all SPA, including inflammatory back pain, enthesitis, peripheral arthritis, and extra-articular manifestations such as uveitis and psoriasis, to facilitate recognition and diagnosis. 3. Differentiate between specific types of SPA and their characteristic clinical presentations, such as axial involvement predominant in AS, peripheral arthritis and skin involvement in PsA, and the association with preceding infections in ReA. 4. Employ a systematic approach to differential diagnosis, considering other rheumatologic conditions, infectious etiologies, and non-inflammatory causes of musculoskeletal symptoms, based on clinical evaluation, laboratory testing, and imaging studies. 5.Utilize appropriate diagnostic modalities, including laboratory investigations (such as inflammatory markers, HLA-B27 testing), imaging studies (such as MRI, radiographs), and clinical assessment tools (such as Bath Ankylosing Spondylitis Disease Activity Index), to confirm diagnosis and assess disease activity. 6. Establish basic therapeutic targets for SPA management, aiming to reduce inflammation, control symptoms, preserve function, and prevent structural damage, through the use of nonsteroidal anti-inflammatory drugs (NSAIDs), disease-modifying antirheumatic drugs (DMARDs), biologic agents, and targeted therapies. 7. Recognize and manage potential complications of SPA, including spinal deformities, sacroiliitis, peripheral joint damage, uveitis, and inflammatory bowel disease-related complications, through appropriate monitoring and multidisciplinary care.	SPA	lecture	MCQ+ Formative

12	1	1. Identify the various types of crystals implicated in crystal deposition diseases, including monosodium urate (MSU), calcium pyrophosphate dihydrate (CPPD), and hydroxyapatite crystals, by elucidating their composition and pathophysiological mechanisms of formation. 2. Explore the pathophysiology underlying crystal formations, encompassing factors such as supersaturation of bodily fluids, alterations in pH levels, and impaired crystal clearance mechanisms, to comprehend the triggers and mechanisms leading to crystal deposition. 3. Recognize the diverse clinical presentations associated with different types of crystals, ranging from acute gouty arthritis in MSU crystal deposition to pseudogout attacks in CPPD crystal deposition, and consider manifestations such as tophaceous deposits and chronic joint damage. 4. Employ diagnostic approaches for crystal deposition diseases, utilizing techniques such as joint aspiration with polarized light microscopy to visualize characteristic crystal shapes, alongside laboratory tests to assess inflammatory markers and confirmatory imaging studies. 5. Demonstrate proficiency in distinguishing crystal deposition diseases from infectious causes of joint inflammation, through careful clinical evaluation, appropriate laboratory investigations (including synovial fluid analysis), and consideration of risk factors and predisposing conditions. 6. Establish therapeutic targets for managing crystal deposition diseases, aiming to alleviate acute symptoms, reduce inflammation, prevent recurrent attacks, and address underlying metabolic abnormalities through lifestyle modifications, pharmacological interventions (such as nonsteroidal anti-inflammatory drugs and colchicine), and targeted therapies.	Crystal Arthritis	lecture	MCQ+ Formative
13	1	1. Explain the fundamental etiology and pathophysiology underlying Osteoarthritis (OA), elucidating the intricate interplay between mechanical stress, joint inflammation, and cartilage degradation. 2. Identify the various types of OA and their diverse clinical presentations across different joints, considering factors such as age, genetics, and joint biomechanics in disease manifestation. 3. Understand the progressive degeneration and eventual fate of joints affected by OA, including cartilage erosion, subchondral bone changes, osteophyte formation, and joint deformity. 4. Employ differential diagnosis (DDx) techniques to distinguish OA from other rheumatic and degenerative conditions, utilizing clinical assessment, imaging studies, and laboratory tests as necessary. 5. Evaluate therapeutic options for managing OA, including controversial supplements, intra-articular injections (such as corticosteroids, hyaluronic acid), and surgical interventions (such as arthroplasty	OA	lecture	MCQ+ Formative

		osteotomy), considering their efficacy, risks, and patient-specific factors in treatment decision-making.			
14		1. Understand the causes and mechanisms of major Metabolic Bone Diseases (MBD), including osteoporosis, osteomalacia, Paget's disease, and metabolic osteopathies. 2. Recognize the clinical types and presentations of MBD, noting characteristic symptoms, signs, and diagnostic findings. 3. Identify diverse manifestations of MBD, including fractures, bone pain, and skeletal deformities. 4. Differentiate MBD from other bone disorders through clinical evaluation, lab tests, and imaging. 5. Utilize diagnostic methods such as bone density testing and biochemical assays. 6. Discuss preventive and therapeutic options for managing MBD, including lifestyle changes and pharmacological interventions tailored to individual needs	MBD	lecture	MCQ+ Formative
	1	1. Comprehend the fundamentals of Rehabilitation Medicine, encompassing its principles and objectives in restoring function and enhancing quality of life. 2. Differentiate between the various types of rehabilitation, including physical, occupational, and speech therapy, tailored to address specific impairments and disabilities. 3. Identify and analyze the different physical modalities and exercises utilized in rehabilitation, considering their indications and contraindications for optimal therapeutic outcomes. 4. Evaluate the appropriateness of physical modalities and exercises based on individual patient needs, medical conditions, and treatment goals. 5. Implement evidence-based rehabilitation interventions, employing a multidisciplinary approach to maximize patient outcomes and facilitate independence in daily activities. 6. Continuously assess and adapt rehabilitation plans based on patient progress, functional goals, and evolving medical requirements, ensuring holistic and patient-centered care.	REHAB	lecture	

11. Course Evaluation	
1. Continuous Assessment 2. Case Presentations 3. Group Participation 4. Skills Assessment 5. Case Analysis 6. Self-Assessment: Via Google Classroom 7. Comprehensive Examinations (MCQs and Case Based Assays)	
12. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	1. Davidson's Principles and Practice of Medicine 2. Bailey and Love's textbook of surgery 3. Harrison's Principles of Internal Medicine
Main references (sources)	Kelley and Firestein Textbook Rheumatology
Recommended books and references (scientific journals, reports…)	UPTODATE
Electronic References, Websites	EULAR/ACR websites: https://rheumatology.org/

Course Description Form

1. Course Name:
General Medicine
2. Course Code:
MEDMed 6c12
3. Semester / Year:
Sixth year – First & second semester (Clinical)
4. Description Preparation Date:
1/2/2025 **Academic year 2024/2025**
5. Available Attendance Forms:
Physical (mandatory) = Daily attendance for clinical and Virtual (complementary)
6. Number of Credit Hours (Total) / Number of Units (Total)
Clinical: 300 h / 12 wk. **hours / wk.: 25h/ wk- Credits:**
7. Course administrator's name (mention all, if more than one name)
Name: Prof. Hasan Aziz Assistant Prof. Dr.Haider Abdulhameed Senior lecturer Dr. Jassmin Abbas Senior lecturer Dr. kholod abbas Email: hah_hamdani@nahrainuniv.edu.iq dr.haider.abdulhameed@nahrainuniv.edu.iq jasmine86abbss@nahrainuniv.edu.iq kholod.abbass85@nahrainuniv.edu.iq
8. Course Objectives

Course Objectives:	Knowledge Upon completion of this course, the 6th year medical student at Al-Nahrain College of Medicine will be able to: A. Recognize the physiologic mechanisms that explain key findings in the history and physical exam. B. Describe the etiologies, pathophysiology, clinical features, differential diagnosis, and related diagnostic testing and management of common inpatient medical conditions. C. List the indications for the most commonly performed investigations. **D.** Demonstrate knowledge of human anatomy by recognizing key structures on various imaging modalities. **Problem based and Clinical Skills** **A.** Complete a patient's history and physical exam in a respectful, logical organized and thorough manner. When necessary, obtain supplemental historical information from collateral sources, such as significant others or previous physicians. **B.** Evaluate and prioritize problems with which a patient presents, appropriately

synthesizing these into logical clinical syndromes.

C. Formulate a differential diagnosis based on the findings from the history and physical examination and apply differential diagnosis to help guide diagnostic test ordering and sequencing.

D. Formulate an initial therapeutic plan and explain the extent to which the therapeutic plan is based on pathophysiologic reasoning and scientific evidence of effectiveness.

E. Advice patients and colleagues on the risks, benefits, limitations and indications of each of the most commonly performed investigations.

F. Identify critical and high priority imaging findings on the most commonly performed imaging exams and discuss their importance in clinical patient management.

Practice-Based Learning and Improvement

A. Recognize when additional information is needed to care for the patient and demonstrate ongoing commitment to self-directed learning.

B. Demonstrate ability to answer clinical questions using evidence-based medicine.

C. Analyze gaps in knowledge and skills and see resources including assistance from colleagues to address gaps.

D. Consider factors when performing diagnostic testing, including pretest probability, performance characteristics of tests (sensitivity, specificity, and likelihood ratios) and cost, risk and patient preferences and interpret these tests.

E. Build a model for solving imaging related problems that effectively integrates indications for imaging, evidence-based uses for imaging, analysis of imaging findings and generation of an imaging differential diagnosis.

Systems-Based Practice

A. Differentiate the role and contribution of each team member to the care of the patient, and call on interdisciplinary resources (case workers, nurses, physical therapists, etc.) to provide optimal and comprehensive care.

B. Apply health systems-based thinking to address outcomes in patient care.

C. Consider patient, physician, and system barriers (including cost) to successfully negotiate treatment plans and patient adherence; and understand strategies that may be used to overcome these barriers.

Interpersonal and Communication Skills

A. Demonstrate appropriate listening and verbal skills to communicate empathy, elicit information regarding the patient's preferences and provide basic information and an explanation of the diagnosis, prognosis and treatment plan.

B. Perform as an effective member of the patient care team, incorporating skills in inter-professional communication and collaboration including giving and receiving feedback.

C. Document and orally present new patient and follow up patient cases in a thorough and focused manner.

Professionalism

A. Demonstrate a commitment to caring for all patients regardless of their medical diagnoses or

B. social factors.

C. Exhibit teamwork and respect toward all members of the health care team, as manifested by reliability, responsibility, honesty, helpfulness, selflessness, and initiative in working with the

	D. team. **E.** Demonstrate a positive attitude towards learning by showing intellectual curiosity, initiative, honesty, integrity, and dedication. **Ethics** 1. Uphold ethical standards in the application of diagnostic and investigative techniques, ensuring patient well-being and autonomy. 2. Recognize any ethical problems and medicolegal concerning of medical diseases, and the study should respect the privacy of the patient. 3. Recognize and address potential biases in the evaluation & management of patients with medic disease.

9. Teaching and Learning Strategies	
Strategy	Clinical sessions: The students are divided into small groups each of 15 students. Assessment Strategies 1. Continuous Assessment: - Participation in interactive sessions. **2.** Formative assessments: - Discussion and oral tests. **3.** Summative assessments: **-** Case Presentations: **-** Conducting the clinical exam. **-** Evaluation based on diagnosis and management. **4.** Group Participation: **-** Active involvement in group discussions. **-** Criteria include contribution and engagement. 5. Skills Assessment: **-** Practical assessments of clinical skills. **-** Evaluation of proficiency in interventions. -Presenting important ideas for community service -The initiative to express effective and constructive opinions and suggestions **6.** Case Analysis: **-** Analysis of written or virtual case studies. **-** Focus on clinical reasoning and management. 7. Self-Assessment: **-** Online quizzes and reflective exercises. **-** Students evaluate understanding and set goals. 8. Comprehensive Examinations: **-** Final clinical exams. **-** Assess overall comprehension and application.

9.Course Structure					
Week	**Hours**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
1	**25**	**Assess patient with suspected cardiac disease by demonstrating knowledge in history taking and recognition of key physical signs.** **Formulate differential diagnosis based on initial patient data** **Arrange diagnostic work up Choose a management plan accordingly** **Identify key abnormalities in the ECG and differentiate between conditions and arrange appropriate management** **Demonstrate skills in carrying out ECG testing**	**Cardiovascular Medicine:** **History and Physical exam** **ECG** **Acute and Chronic Heart Failure** **Ischemic Heart Disease** **Arrhythmia**	**Clinical sessions**	**Discussion and oral tests** **Case Presentations** **Final clinical exams**
2	**25**	**Assess patient with suspected respiratory disease by demonstrating knowledge in history taking and recognition of key physical signs.** **Formulate differential diagnosis based on initial patient data** **Arrange diagnostic work up** **Choose a management plan accordingly** **Identify key abnormalities in the CXR and differentiate between conditions and arrange appropria management** **Identify key abnormalities in the PFT and differentiate**	**Pulmonology:** **History and Physical exam** **Chest X-ray** **Pulmonary function test** **Asthma, COPD** **Interstitial Lung Diseases** **Infections of respiratory system**	**Clinical sessions**	**Discussion and oral tests** **Case Presentations** **Final clinical exams**

		between conditions and arrange appropriate management **Demonstrate skills in coaching patient about the proper use of inhalers** **Communicate with patients and their relatives about the importance of inhaler therapy in minimizing side effects and optimizing control**			
3	**25**	**Assess patient with suspected hematologic disease by demonstrating knowledge in history taking and recognition of key physical signs.** **Formulate differential diagnosis based on initial patient data** **Arrange diagnostic work up** **Choose a management plan accordingly** **Identify key abnormalities in the CBC and differentiate between conditions and arrange appropriate management** **Demonstrate skills in preparing patient for bone marrow examination** **Communicate empathetically with patients diagnosed with malignant diseases**	**Hematology:** **History and Physical exam** **Complete blood count** **Anemia** **Acute and Chronic leukemias** **Lymphomas** **Multiple Myelomas**	**Clinical sessions**	**Discussion and oral tests** **Case Presentations** **Final clinical exams**

4	**25**	**Assess patient with suspected neurologic disease by demonstrating knowledge in history taking and recognition of key physical signs.** **Formulate differential diagnosis based on initial patient data** **Arrange diagnostic work up** **Choose a management plan accordingly** **Demonstrate skills in preparing patient for lumbar puncture** **Communicate effectively with patient about the benefits and risks of lumbar puncture**	**Neurology:** **History and Physical Exam** **Stroke** **Movement Disorders** **Epilepsy** **Meningitis**	**Clinical sessions**	**Discussion and oral tests** **Case Presentations** **Final clinical exams**
5	**25**	**Assess patient with suspected endocrine disease by demonstrating knowledge in history taking and recognition of key physical signs.** **Formulate differential diagnosis based on initial patient data** **Arrange diagnostic work up** **Choose a management plan accordingly** **Communicate the implications of diabetes effectively to patients** **Apply Knowledge in the management and follow up of patient with diabetes** **Identify key abnormalities in the thyroid function test and differentiate between conditions and arrange appropriate management** **Demonstrate skills in coaching diabetic patient for the self-monitoring and regular check ups**	**Endocrinology:** **History and Physical exam** **Thyroid function test** **Diabetes type 1 and 2** **Thyroid disorders** **Pituitary Disorders** **Adrenal Disorders**	**Clinical sessions**	**Discussion and oral tests** **Case Presentations** **Final clinical exams**

6	**25**	**Assess patient with suspected hematologic disease by demonstrating knowledge in history taking and recognition of key physical signs.** **Formulate differential diagnosis based on initial patient data** **Arrange diagnostic work up** **Choose a management plan accordingly** **Identify key abnormalities in the renal function test and differentiate between conditions and arrange appropriate management** **Demonstrate skills in the preparation of patient for hemodialysis** **Analyze patient history and physical examination findings to recommend type of renal replacement therapy**	**Nephrology:** **History and Physical Exam** **Renal function test and eGFR** **Acute and Chronic renal failure** **Glomerulonephritis** **Renal disease in systemic diseases**	**Clinical sessions**	**Discussion and oral tests** **Case Presentations** **Final clinical exams**
7	**25**	**Assess patient with suspected gastroenterologic or liver disease by demonstrating knowledge in history taking and recognition of key physical signs.** **Formulate differential diagnosis based on initial patient data** **Arrange diagnostic work up** **Choose a management plan** **Communicate the implications of viral hepatitis to patient and family** **Identify key abnormalities in the LFT and differentiate between conditions and arrange appropriate management** **Demonstrate skills in performing peritoneal aspirate**	**Gastroenterology:** **History and Physical Exam** **Liver function test** **Acute and chronic liver failure** **Upper and lower GI bleeding** **Ascites** **Infectious diseases of the GI and Liver**	**Clinical sessions**	**Discussion and oral tests** **Case Presentations** **Final clinical exams**

8	**25**	**Assess patient with suspected poisoning by demonstrating knowledge in history taking and recognition of key physical signs.** **Formulate differential diagnosis based on initial patient data** **Arrange diagnostic work up Choose a management plan**	**Acute Medicine:** **Poisoning** **Cardiac emergencies** **Respiratory emergencies**	**Clinical sessions**	**Discussion and oral tests** **Case Presentations** **Final clinical exams**

10. Course Evaluation

The minimum requirement of a student to pass is to achieve at least 50% of the total 100 marks assigned for the course.

The marks are distributed as follows:

Daily assessing through questioning & clinical cases approach

Final course exam, (long case exam ,oral viva exam, recall information questions & analytic clinical question with slides show, OSCI).

Students who fail to attain the 50% cut-off mark are required to re-sit for a second trial examination similar to the final one. Failing in the second trial entails the student to repeat the academic year

11. Learning and Teaching Resources

Required textbooks (curricular books, if any)	-Macleod s Clinical Examination
Main references (sources)	- Davidson s principels and practice in Medicine
Recommended books and references (scientific journals, reports…)	UPTODATE
Electronic References, Websites	Web and internet as source information.

Pediatrics

Course Description Form

1. Course Name:	
Pediatrics Fourth Year 1st and 2nd Semesters Fifth Year 1st and 2nd Semesters Fourth year (Clinical) Sixth Year (Clinical)	
2. Course Code:	
PEDped-41: Fourth Year, First Semester PEDped-42: Fourth Year, Second Semester PEDped-51: Fifth Year, First Semester PEDped-52: Fifth Year, Second Semester 4C-PEDped: Fourth Year, Clinical 6C-PEDped: Sixth Year, Clinical	
3. Semester / Year:	
Semester-Based	
4. Description Preparation Date:	
9 / 4 / 2025	
5. Available Attendance Forms:	
Physical (mandatory) and Virtual (complementary)	
6. Number of Credit Hours (Total) / Number of Units (Total)	
3 credit/ hour: 30 hours in total	
7. Course administrator's name (mention all, if more than one name)	
Name: Assistant professor Dr Uday Khalid Senior lecturer Dr Zeena Nabeel Email: udaykhalid@nahrainuniv.edu.iq zenaalhassry@nahrainuniv.edu.iq	
8. Course Objectives	Knowledge
Course Objectives	18. Evaluate the significance of psychiatry within all other medical specialties 19. Recognize the epidemiology of psychiatric disorders

	20. Identify the presenting features of psychiatric disorders 21. Manage psychiatric disorders at primary health care or within whatever specialty the graduate works in 22. Classify psychotropic medications 23. Explain action, kinetics and adverse reactions of psychotherapeutic drugs needed by family physician 24. Evaluate the role of non-pharmacological psychological treatments 25. diagnose different Psychiatric disorders 26. relate psychopathological phenomena to syndrome specific symptoms and signs 27. demonstrate capacity to make provisional diagnosis and differential diagnosis 28. apply psychopharmacological treatment lines of different psychiatric disorders 29. evaluate role of psychotherapy in management diseases 30. to acquire standard ethical behavior 31. to exemplify good manners and attitude 32. to communicate effectively with the patients, their families and all health care personnel 33. to be able to work in a team 34. Consider key forensic psychiatry issues pertinent to newly graduate doctor like compulsory admission for patients with loss of insight and those at risk of suicide and substance abuse
D. Teaching and Learning Strategies	
Strategy	4- Interactive lectures 5- Case scenario discussion 6- Adopt integrative approach with other medical fields when considering mental symptom presentation

1. Course Name: Pediatrics
Fourth Year 1st and 2nd Semesters Fifth Year 1st and 2nd Semesters Fourth year (Clinical) Sixth Year (Clinical)
2. Course Code:
PEDped-41: Fourth Year, First Semester PEDped-42: Fourth Year, Second Semester PEDped-51: Fifth Year, First Semester PEDped-52: Fifth Year, Second Semester 4C-PEDped: Fourth Year, Clinical 6C-PEDped: Sixth Year, Clinical
3. Semester / Year:
Semester-Based
4. Description Preparation Date:
2024
5. Available Attendance Forms:
In-person Only
6. Number of Credit Hours (Total) / Number of Units (Total)
Fourth Year, First Semester: 2 hrs/week (2 credits) Fourth Year, Second Semester: 1 hr/week (1 credit) Fifth Year, First Semester: 2 hrs/week (2 credits) Fifth Year, Second Semester: 1 hr/week (1 credit) Fourth Year Clinical: 60 hrs (2 credits) Sixth Year Clinical: 300 hrs (10 credits)
7. Course administrator's name
1. Fourth Year Theoretical: Dr. Areej Abdul Abbas Email: areej.abdulabbas@ced.nahrainuniv.ed.iq 2. Fourth Year Clinical: Dr. Shatha Hussain Email: shatha6ali@nahrainuniv.edu.iq 3. Fifth Year: Dr. Saba Abdul Kadhim Email: saba.abdulkadhim@nahrainuniv.edu.iq 4. Sixth Year: Dr. Sinan Abdul Rhazzak Email: Sinanrazzak@nahrainuniv.edu.iq

8. Course Objectives	
Fourth year (1st semester)	**Course Objectives:** 1. Introduce students to the principles and fundamentals of pediatrics. 2. Reinforce the principles and fundamentals of the practical application of medical information. 3. Familiarize students with types of infants feeding and diseases resulting from nutritional and vitamin deficiencies. 4. Introduce the most important infectious diseases in children. 5. Introduce the most important diseases affecting the nervous system in children. 6. Introduce the most important endocrine diseases and diabetes in children. 7. Teach physical and mental growth and development in children. Course Learning Outcomes A. Cognitive Objectives: 1. Recognize the principles and fundamentals of pediatrics. 2. Enable students to interact with children and diagnose life-threatening diseases. 3. Enable students to identify diseases affecting physical and mental development in children, infectious diseases, types of infant feeding, diseases resulting from vitamin deficiencies, and diseases affecting the nervous system, endocrine glands, and diabetes in children. B. Skill-Based Objectives: 1. Develop and enhance the student's ability to perform clinical examinations by identifying the most important diseases affecting children and their complications. 2. Develop and enhance the student's ability to use diagnostic methods, laboratory tests, and imaging for these diseases. C. Affective and Value-Based Objectives: 1. Accuracy in observation. 2. Speed in decision-making. 3. Patient care and adherence to humanitarian and ethical principles in dealing with patients. D. General and Transferable Skills (Related to Employability and Personal Development): 1. Seminar presentations. 2. Develop students' discussion skills and enhance personal interaction skills.
Fourth year (2nd semester)	**Course Objectives** 1. Introduce students to the principles and fundamentals of pediatrics. 2. Reinforce the principles and practical application of medical information. 3. Familiarize students with the most common diseases affecting newborns and infants. 4. Introduce students to the most common kidney diseases in children. **Course Learning Outcomes** A. Cognitive Objectives

	1. Understand the principles and fundamentals of pediatrics. 2. Enable students to interact with children and diagnose life-threatening diseases. 3. Equip students to recognize diseases affecting newborns and preterm infants, as well as kidney diseases in children. B. Course-Specific Skill Objectives 1. Develop and enhance students' ability to perform clinical examinations by identifying common pediatric diseases and their complications. 2. Improve students' diagnostic skills and their ability to interpret laboratory and radiological tests for these diseases. C. Affective and Value-Based Objectives 1. Accuracy in observation. 2. Quick decision-making. 3. Patient care and adherence to humanitarian and ethical principles in dealing with patients. D. General and Transferable Skill Development Objectives (Skills related to employability and personal development). 1. Delivering seminars. 2. Enhance students' discussion skills and develop interpersonal interaction abilities.
Fourth year (Clinical)	**Course Objectives** 1. Introduce students to the principles and fundamentals of pediatrics. 2. Reinforce the principles and practical application of medical information. 3. Familiarize students with the most common diseases affecting newborns and infants. 4. Teach students how to take medical histories for infants and preterm babies. | 5. Teach and reinforce the principles of clinical examination for infants and preterm babies. | Cognitive Objectives 1. Understand the principles and fundamentals of pediatrics. 2. Enable students to recognize diseases affecting newborns and infants. 3. Teach students how to take medical histories for newborns and infants. 4. Train students in clinical examination techniques for newborns and infants. B. Course-Specific Skill Objectives 1. Develop and enhance students' ability to perform clinical examinations by identifying clinical signs of pediatric diseases and their complications. 2. Discuss various clinical cases in pediatric wards. 3. Improve communication skills with patients' families. C. Affective and Value-Based Objectives 1. Accuracy in observation. 2. Quick decision-making. 3. Patient care and adherence to humanitarian and ethical principles in dealing with patients and their families.

Fifth Year (1st Semester)	**Course Objectives** 1. Introduce students to the principles and fundamentals of pediatrics. 2. Reinforce the principles and practical application of medical information. 3. Familiarize students with the most common cardiovascular diseases in children. 4. Introduce students to the most common blood disorders and cancers in children. 5. Familiarize students with the most common joint diseases in children. Course Learning Outcomes 1. Cognitive Objectives - Understand the principles and fundamentals of pediatrics. - Enable students to interact with children and diagnose life-threatening diseases. - Equip students to recognize cardiovascular diseases and congenital heart defects in children. - Enable students to identify common blood disorders and cancers in children. - Familiarize students with joint diseases in children. B. Course-Specific Skill Objectives 1. Develop and enhance students' ability to perform clinical examinations by identifying clinical signs and complications of cardiovascular diseases, congenital heart defects, blood disorders, cancers, and joint diseases in children. 2. Improve students' diagnostic skills and their ability to interpret laboratory and radiological tests for these diseases. C. Affective and Value-Based Objectives 1. Accuracy in observation. 2. Quick decision-making. 3. Patient care and adherence to humanitarian and ethical principles in dealing with patients. D. General and Transferable Skill Development Objectives (Skills related to employability and personal development). 1. Delivering seminars. 2. Enhance students' discussion skills and develop interpersonal interaction abilities. 3. Improve students' ability to ask questions and engage in group discussions with peers.
Fifth Year (2nd Semester)	**Course Objectives** 1. Introduce students to the principles and fundamentals of pediatrics. 2. Reinforce the principles and practical application of medical information. 3. Familiarize students with the most common gastrointestinal diseases in children. 4. Introduce students to the most common nutritional deficiency diseases in children. 5. Familiarize students with the most common respiratory diseases in children. 6. Introduce students to the most common genetic diseases in children. Course Learning Outcomes A. Cognitive Objectives

	1. Understand the principles and fundamentals of pediatrics. 2. Enable students to interact with children and diagnose life-threatening diseases. 3. Equip students to recognize gastrointestinal diseases in children. 4. Enable students to identify and manage nutritional deficiency diseases. 5. Familiarize students with respiratory diseases in children. 6. Introduce students to genetic diseases in children. B. Course-Specific Skill Objectives 1. Develop and enhance students' ability to perform clinical examinations by identifying common pediatric diseases affecting the digestive system, nutritional deficiencies, respiratory system, and genetic disorders. 2. Improve students' diagnostic skills and their ability to interpret laboratory and radiological tests for these diseases. C. Affective and Value-Based Objectives 1. Accuracy in observation. 2. Quick decision-making. 3. Patient care and adherence to humanitarian and ethical principles in dealing with patients. D. General and Transferable Skill Development Objectives (Skills related to employability and personal development). 1. Delivering seminars. 2. Enhance students' discussion skills and develop interpersonal interaction abilities.
Sixth Year (Clinical)	Course Objectives 1. Introduce students to the principles and fundamentals of pediatrics. 2. Reinforce the principles and practical application of medical information. 3. Familiarize students with the most common diseases affecting newborns and infants. 4. Teach students how to take medical histories for infants and preterm babies. 5. Teach and reinforce the principles of clinical examination for infants and preterm babies. 6. Train students in conducting medical research. 7. Teach students how to diagnose medical conditions and perform required tests. 8. Teach the principles of treatment for medical conditions. Course Learning Outcomes A. Cognitive Objectives 1. Understand the principles and fundamentals of pediatrics. 2. Enable students to recognize diseases affecting newborns and infants. 3. Teach students how to take medical histories for newborns and infants. 4. Train students in clinical examination techniques for newborns and infants. 5. Train students in essential laboratory tests and treatments for emergency cases in pediatric emergency wards.

	Teach students diagnostic methods for medical conditions and general steps for appropriate treatments. B. Course-Specific Skill Objectives 1. Develop and enhance students' ability to perform clinical examinations by identifying common pediatric diseases and their complications. 2. Discuss various clinical cases in pediatric wards. 3. Improve communication skills with patients' families. 4. Enhance students' research and presentation skills through periodic seminars on diverse topics. C. Affective and Value-Based Objectives 1. Accuracy in observation. 2. Quick decision-making. 3. Patient care and adherence to humanitarian and ethical principles in dealing with patients and their families. 4. Commitment to official schedules and deadlines.

9. Teaching and Learning Strategies

Strategy	
Fourth Year (1st Semester)	Lectures are delivered twice a week, each lasting one hour. The lectures are interactive and include case-based learning with pre- and post-lecture questions, encouraging self-directed learning and scientific discussions among students in the classroom.
Fourth Year (2nd Semester)	Lectures are delivered once a week, each lasting one hour. The lectures are interactive and include case-based learning with pre- and post-lecture questions, encouraging self-directed learning.
Fifth Year (1st Semester)	Lectures are delivered twice a week for two groups in this class (four lectures per week), each lasting one hour (total of four hours per week). The lectures are interactive and include case-based learning with pre- and post-lecture questions, encouraging self-directed learning.
Fifth Year (2nd Semester)	The course is delivered once a week for two groups in this class (two lectures per week), each lasting one hour (total of two hours per week). The lectures are interactive and include case-based learning with pre- and post-lecture questions, encouraging self-directed learning.
Fourth Year (Clinical)	The course is delivered over eight weeks in the teaching hospital's pediatric ward, for two hours daily, four days a week. There are four groups per year, each with about 40 students, divided into three smaller groups of 12–13 students each. Case-based learning: Taking medical histories and performing appropriate examinations using management protocols. Interpreting history and examination results to reach a professional diagnosis. Bedside teaching and physical examination skills. Demonstrating clinical signs of various medical conditions. Demonstrations of different tools used in the pediatric and neonatal wards.

Sixth Year (Clinical)	The course is delivered over ten weeks in the teaching hospital's pediatric and neonatal emergency wards, for six hours daily, five days a week. There are four groups per year, each with about 32 students, divided into two smaller groups of 15–16 students each. Case-based learning: Taking medical histories and performing appropriate examinations using management protocols. Interpreting history and examination results to reach a professional diagnosis. Bedside teaching and physical examination skills. Demonstrating clinical signs of various medical conditions. Demonstrations of different tools used in the pediatric and neonatal wards.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
15	26		Fourth Year, First Semester (Theoretical)	Theoretical lectures for undergraduate students using PowerPoint presentations and medical videos.	Written theoretical exam (midterm and final). Summarizing quizzes and formative assessments, interactive real-time questions.
15	14		Fourth Year, Second Semester (Theoretical)	Theoretical lectures for undergraduate students using PowerPoint presentations and medical videos.	Written theoretical exam (midterm and final). Summarizing quizzes and formative assessments, interactive real-time questions.
15	27		Fifth year first semester	Theoretical lectures for undergraduate students using PowerPoint presentations and medical videos.	Written theoretical exam (midterm and final). Summarizing quizzes and formative assessments, interactive real-time questions.
15	15		Fifth year second semester	Theoretical lectures for undergraduate students using PowerPoint presentations and medical videos.	Written theoretical exam (midterm and final). Summarizing quizzes and formative assessments, interactive real-time questions.

10	300		Sixth year (Clinical)	Case-based learning: Taking medical histories and performing physical examinations. Bedside teaching. Demonstrating clinical signs of various medical conditions. Demonstrating different tools used in the pediatric and neonatal wards.	Written Theoretical Examination Clinical Assessment: Long case, short cases, and slide examination Formative and Summative Evaluation
8	64		Fourth year (clinical)	Case-based learning: Taking medical histories and performing physical examinations. Bedside teaching. Demonstrating clinical signs of various medical conditions. Demonstrating different tools used in the pediatric and neonatal wards.	Written Theoretical Examination Clinical Examination: Long case and OSCE (Objective Structured Clinical Examination) Slide Examination Formative and Summative Assessment

11. Course Evaluation

Fourth Year (Theoretical)
The minimum passing grade for students is achieving at least 50% of the total 100 marks allocated for the course.

The marks are distributed as follows:

- Class exam (30%) includes best-answer questions, observation questions, and essay questions.
- Final exam (70%) includes 50 best-answer individual items.
- EMQ questions.
- Modified - Essay questions (4 cases).
- Students who fail to achieve the cutoff mark of 50% must retake a second exam similar to the final exam. Failing the second attempt requires the student to repeat the academic year.

Fourth Year, Second Semester (Theoretical)
The minimum passing grade for students is achieving at least 50% of the total 100 marks allocated for the course.

The marks are distributed as follows:

- Class exam (30%) includes best-answer questions and essay questions.
- Final exam (70%) includes 60 best-answer individual items.
- Modified - Essay questions (4 cases).
- EMQ questions.

Students who fail to achieve the cutoff mark of 50% must retake a second exam similar to the final exam. Failing the second attempt requires the student to repeat the academic year

Fifth Year, First Semester
The minimum passing grade for students is achieving at least 50% of the total 100 marks allocated for the course.

The marks are distributed as follows:
- Class exam (30%) includes best-answer questions and essay questions.
- Final exam (70%) includes 60 best-answer individual items.
- Modified - Essay questions (4 cases).
- EMQ questions.

Students who fail to achieve the cutoff mark of 50% must retake a second exam similar to the final exam. Failing the second attempt requires the student to repeat the academic year.

Fifth Year, Second Semester
Class exam (30%) includes best-answer questions and essay questions.
- Final exam (70%) includes 60 best-answer individual items.
- Modified - Essay questions (4 cases).
-EMQ questions.

Students who fail to achieve the cutoff mark of 65% must retake a second exam similar to the final exam. Failing the second attempt requires the student to repeat the academic year.

Fourth Year (Practical)
The minimum passing grade for students is achieving at least 50% of the total 100 marks allocated for the course.

The marks are distributed as follows:
- Midterm exam (history taking only) (20%)
- theoretical exam (6%) includes best-answer questions.
- Student participation in daily activities (1.5%)
- Log book (2.5%)
End-of-course exam includes long case history and examination (70%)
  - Taking history and presentation (40%).
  - Exam performance (40%)
  - Other (information and scenarios) (20%)

Students who fail to achieve the cutoff mark of 50% must retake a second exam similar to the final exam. Failing the second attempt requires the student to repeat the academic year.

Sixth Year (Practical)
The minimum passing grade for students is achieving at least 50% of the total 100 marks allocated for the course. The marks are distributed as follows:
  Course exam (20 marks) divided as follows:
  - Written exam (6%) includes best-answer questions, essay questions, and case scenarios.
  - Long case scenarios (5%).
  - Slide exams (4%).
  - log book (1.5%)
  - Seminar presentation (1.5%)

-Course attendance includes participation in clinical activities with assessments (2%).
-Students required to complete research will have their course average calculated from 16 marks, with the remaining four marks allocated to the research score.

End-of-year final exam (80 marks) divided as follows:
- Written: single choice questions + EMQ questions and interview questions covering almost all aspects of pediatrics (30%).
- Medical student's skill in evaluating long case history and performing clinical examinations (20%).
2. Oral exam (20%).
3. Clinical case slide exams and screening tools (10%). Students who fail to achieve the cutoff mark (50%) must retake a second exam similar to the final exam. Failing the second attempt requires the student to repeat the academic year.

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Nelson's essentials of pediatrics 9th edition Macleod's clinical examination Nelson textbook of pediatrics 21st edition 2019
Main references (sources)	Current of pediatrics AAP journal
Recommended books and references (scientific journals, reports…)	Medscape
Electronic References, Websites	

Gynecology & Obstetrics

Course Description Form

1. Course Name:
Fourth year/ 1st semester &2nd semesters Fifth year 1st &2nd semesters Sixth year clinical Fourth year clinical
2. Course Code:
GYNGy-41 & GYNGy-42
GYNGy-51 & GYNGy-52
GYNGy-4C
GYNGy-6C
3. Number of Credit Hours (Total) / Number of Units (Total)
Fourth year 1st semester 2hes/week credit (2) 2nd semester 1hr/week credit (1) Fifth year 1st semester 2hrs/week credit (2) 2nd semester 1hr/week credit (1) Fourth year clinical 60 hrs credit (2) Sixth year clinical 300hrs credit (10)
4. Course administrator's name (mention all, if more than one name)
Fourth-year Theory : Dr sahar hisham Email: sahoorty@nahrainuniv.edu.iq Fourth-year clinical: Assistant Professor Dr Sara Al-rawaf sara_kani81@nahrainuniv.edu.iq Fifth year: Dr Sahar alfartosy Dr Sahar.h45@nahrainuniv.edu.iq
4. Course Objectives

Fourth-year (Clinical)	• Demonstrate knowledge of the physiology of the female pelvic anatomy with an emphasis on reproductive development and changes in endocrinology across a woman's lifespan. • Acquire a comprehensive understanding of primary and preventive care for women across the lifespan with appropriate screening tests, exams, and treatments at each stage. • Develop an evidence-based understanding of the pathophysiology of conditions and common disorders that affect women, tests to diagnose, and the appropriate management options for these conditions. • Describe the course of a normal pregnancy and effective healthcare during pregnancy to ensure the health of the mother and fetus.

	• Discuss the proper management of labor and delivery and the management of common medical complications that occur during and after pregnancy. • Recognize common obstetric and gynecological surgical procedures in terms of patient selection, pre-operative concerns, and the risks and benefits of each procedure. • Able to Take an effective history and physical examination, develop a differential diagnosis, and develop a management plan for common disorders and conditions.
Fourth year (1st semester)	• Demonstrate knowledge in the basic science including those relevant to the the female reproductive system. • Explain the signs and symptoms of pregnancy and maternal physiological changes. • Explain the principle of detection and confirmation of early pregnancy problems and common approaches to identified high-risk pregnancies. • Describe specific terms used in labor, and the mechanism of labor. • Demonstrate the most common complications that may arise during pregnancy and the approach to diagnosis and management.
Fourth year (2nd semester)	• Explain the most common types of high-risk pregnancies and medical disorders complicating pregnancy. • Skills and knowledge will be taught regarding the management, counseling, and follow-up of these patients. • The course also involves an introduction to obstetric analgesia and anesthesia, risks, indications, and contraindications. • Lectures will be given regarding imaging in obstetrics and gynecology and how to interpret patient radiological records.
Fifth year (1st semester)	• Explain high-risk pregnancies with obstetric complications and medical disorders. • Skills and knowledge will be taught regarding the management, counselling, and follow-up of these patients. • Explain the most common gynaecological disorders in different age groups and complications. • Apply a plan for diagnosis, treatment, and management of these disorders. • Demonstrate appropriate counseling and communication skills to achieve the optimum outcome for the patients.

Fifth year (2^{nd} semester)	• Demonstrate the normal and abnormal development of the female genital tract and those with amenorrhea and intersex. • Explain the signs and symptoms of these conditions. • Explain infertility and the most common causes. • Explain the most common gynecological oncological disorders. • Clarify the methods of diagnosis, treatment, and management of these disorders. • Communicate treatment options to the patient and address their concerns.
Sixth Year	• Demonstrate knowledge of the physiology of the female pelvic anatomy with an emphasis on reproductive development and changes in endocrinology across a woman's lifespan. • 2. Acquire a comprehensive understanding of primary and preventive care for women across the lifespan with appropriate screening tests, exams, and treatments at each stage. • 3. Develop an evidence-based understanding of the pathophysiology of conditions and common disorders that affect women, tests to diagnose, and the appropriate management options for these conditions. • 4. Describe the course of a normal pregnancy and effective healthcare during pregnancy to ensure the health of the mother and fetus. • 5. Discuss the proper management of labor and delivery and the management of common medical complications that occur during and after pregnancy. • 6. Recognize common obstetric and gynecological surgical procedures in terms of patient selection, pre-operative concerns, and the risks and benefits of each procedure. • 7. Learning Problem Solving and Clinical Skills/Patient Care through Taking an effective history and physical, developing a differential diagnosis, and developing a management plan for common disorders and conditions. • 8. Evaluate surgical patients pre-operatively and post-operatively in terms of common complications and explain proper management of these complications. 9. Discuss how to provide non-directive counseling to patients regarding pregnancy options and various methods of contraception with their benefits and risks. • 10. Assess the health of the mother and fetus health during pregnancy and labor and demonstrate the proper technique for delivering the baby. • 11. Apply Lifelong Learning/Practice-Based Learning and Improvement by using evidence-based resources to better understand the condition and treatment of patients. • 12. Improve performance based on instructional feedback from the faculty, residents, and healthcare.

5. Teaching and Learning Strategies

Strategy	
Fourth (1st semester)	The course is given as a twice-weekly lecture for 1 hour each. The lectures are interactive and composed of case-based learning with pre- and post-questions and encourage the student into self-directed learning.
Fourth (2ndt semester)	The course is given as once weekly lecture for 1 hour each. The lectures are interactive and composed of case-based learning with pre- and post-questions and encourage the student into self-directed learning.
Fifth (1st semester)	The course is given twice weekly for two groups in this grade (4 lectures weekly), lecture for 1 hour each (total 4 hr. weekly). The lectures are interactive and composed of case-based learning with pre- and post-questions and encourage the student into self-directed learning.
Fifth 2nd semester)	The course is given once weekly for two groups in this grade (2 lectures weekly), lecture for 1 hour each (a total of 2 hr. weekly). The lectures are interactive and composed of case-based learning with pre- and post-questions and encourage the student into self-directed learning.
Fourth (Clinical)	1. The course is given in eight weeks in the teaching hospital, obstetrics and gynecology floor for 2 hours each day for four days per week. 2. We have four groups per year, each group with about 40 students, each group subdivided into 3 small groups each one with 12-13 students. 3. Case-based learning: history taking and performing proper examinations with management protocols. 4. Interpret the findings from history and examination to reach a professional diagnosis. 5. Bedside teaching skills and physical examination. 6. Demonstrate clinical signs of various obstetrical and gynecological conditions. 7. Demonstrations of different tools used in obstetrical and gynecological departments.

Sixth year(clinical)	The course is given in ten weeks in the teaching hospital, obstetrics, and gynecology floor for 6 hours each day for five days per week. 2. We have four groups per year, each group about 32 students, each group subdivided into 2 small groups each one 15-16 students. 3. Case-based learning: history taking and performing proper examinations with management protocols. 4. Interpret the findings from history and examination to reach a professional diagnosis. 5. Bedside teaching skills and physical examination 6. Demonstrate clinical signs of various obstetrical and gynecological conditions. 7. Demonstrations of different tools used in obstetrical and gynecological departments.

6. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
15	**26**	Memorize the Anatomy and physiology of the female reproductive system Review and memorize the formation of the fetus and placenta Describe the normal changes of pregnancy Understand and apply the mechanisms of	**4th 1st– semester theory**	theoretical lectures for undergraduates using PowerPoint presentations and medical videos	Theory written exam (mid-semester and final exam.) Summative and formative quizzes Real-time interactive questions

		natural and abnormal childbirth			
15	**14**	Understand and apply the detection and treatment of some complications that occur during pregnancy, such as preeclampsia and increased amniotic fluid volume	**4th 2nd semester theory**	theoretical lectures for undergraduates using PowerPoint presentations and medical videos	Theory written exam (mid-semester and final exam.) Summative and formative quizzes Real-time interactive questions
15	**27**	Learn about the most important complications and conditions that affect pregnant women, such as diabetes, heart disease, and digestive system diseases. Learn and remember the most important changes that occur in women during puberty and after menopause. .	**5th 1st– semester theory**	theoretical lectures for undergraduates using PowerPoint presentations and medical videos	Theory written exam (mid-semester and final exam.) Summative and formative quizzes Real-time interactive questions
15	**15**	Learn and remember the most important infertility problems in women. Learn, remember, and apply the early detection mechanism for cervical, ovarian, and endometrial cancer	**5th 2nd– semester theory**	theoretical lectures for undergraduates using PowerPoint presentations and medical videos	Theory written exam (mid-semester and final exam.) Summative and formative quizzes Real-time interactive questions
10	**300**	review the theoretical	Sixth clinical course	Case-based learning	Theory written exam.

		material from previous stages. Practice care for pregnant women in the delivery room. Practice care for pregnant women after childbirth in the women's ward. Practice care for pregnant women in the gynecology clinic. Practice how to monitor early detection of gynecological cancers in the gynecology clinic.		history intake and performing physical examinations. Bedside teaching Demonstration of clinical signs of various obstetrical and gynecological conditions Demonstrate different tools used in the obstetrical and gynecological department	Clinical examination as long and OSCE cases Slide examination. Formative and summative assessment

7. Course Evaluation

Fourth (1st semester)

The minimum requirement for a student to pass is to achieve at least 50% of the total 100 marks assigned for the course.
The marks are distributed as follows:
Daily quizzes and Homework (5%)
Midterm Exam (25%) as single best answer questions and essay questions
Final Exam (70%) as – Single Best Answer 50 items
- EMQ questions
- Modified – Essay Questions (4 cases)

Students who fail to attain the 50% cut-off mark are required to re-sit for a second trial examination similar to the final one. Failing in the second trial entails the student to repeat the academic year.

Fourth (2nd semester)

The minimum requirement for a student to pass is to achieve at least 50% of the total 100 marks assigned for the course.
The marks are distributed as follows:
Daily quizzes and HomeWorks (5%)
Midterm Exam (25%) as single best answer questions and essay questions.
Final Exam (70%) as – Single Best Answer 60 items
- Modified – Essay Questions (4 cases)
- EMQ questions.

Students who fail to attain the 50% cut-off mark are required to re-sit for a second trial examination similar to the final one. Failing in the second trial entails the student to repeat the academic year.

Fifth (1st semester)

The minimum requirement of a student to pass is to achieve at least 50% of the total 100 marks assigned for the course.

The marks are distributed as follows:

Daily quizzes and Homework (5%)

Midterm Exam (25%) as single best answer questions and essay questions

Final Exam (70%) as – Single Best Answer 60 items

Modified – Essay Questions (4 cases)

EMQ questions.

Students who fail to attain the 50% cut-off mark are required to re-sit for a second trial examination similar to the final one. Failing in the second trial entails the student to repeat the academic year.

Fifth (2nd semester)

Daily quizzes and Homework (5%)

Midterm Exam (25%) as single best answer questions and essay questions.

Final Exam (70%) as – Single Best Answer 60 items

Modified – Essay Questions (4 cases)

EMQ questions.

Students who fail to attain the 50% cut-off mark are required to re-sit for a second trial examination similar to the final one. Failing in the second trial entails the student to repeat the academic year.

Fourth (Clinical)

The minimum requirement for a student to pass is to achieve at least 50% of the total 100 marks assigned for the course.

The marks are distributed as follows:

Mid-course examination (history taking only) (20%)

Theory examination (6%) as single best answer questions.

Logbook (2.5%).

Student participation in daily activity (1.5%)

Final Exam. Include long case history and examination (70%) as History taking and presentation 40 %

Examination performance 40 %

Others (information and attitudes 20%

Students who fail to attain the 50% cut-off mark are required to re-sit for a second trial examination similar to the final one. Failing in the second trial entails the student to repeat the academic year.

Sixth (Clinical)

The minimum requirement for a student to pass is to achieve at least 50% of the total 100 marks assigned for the course. The marks are distributed as follows:

A. Course examination (20 marks) divided as:

1. Theory examination (6%) as single best answer questions, essay questions, and case scenario
2. Long case examinations (5%)
3. Slides examinations (4%)

4. Logbook (1.5%).
5. Seminar presentation (1.5%)
6. Attendance throughout the whole course and participation in clinical activities with quizzes (2%) 7. Students who are required to complete research will have their course average calculated from 16 marks and the research mark will contribute the remaining 4 marks.

B. Final examination at the end of the year (80 marks) divided as:

1. Written: single choice questions +EMQ and assay questions covering almost all aspects of obstetrics and gynecology (30%)
2. Long case examination assessment medical student skill for eliciting history and performing clinical examination (20%)
3. Oral examination (20%)
4. Clinical slides examination of common condition and tools (10%) Students who fail to attain the 50% cut-off mark are required to re-sit for a second trial examination like the final one. Failing in the second trial entails the student to repeat the academic year.

8. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Textbooks: Ten Teachers in Obstetrics and Gynecology and RCOG &ACOG guidelines
Main references (sources)	
Recommended books and references (scientific journals, reports…)	
Electronic References, Websites	

Physiology & Medical Physics

Course Description Form

1. Course Name:
Medical physics
2. Course Code:
PHSPhs-1
3. Semester / Year:
1st semester/1st year
4. Description Preparation Date:
13/4/2025
5. Available Attendance Forms:
personal students attendance

6. Number of Credit Hours (Total) / Number of Units (Total)
2 hours theory and 3 hours practical/ 3.5
7. Course administrator's name (mention all, if more than one name)
Dr.Siham Sabah Abdullah Email: drsihamsabah66@nahrainuniv.edu.iq Name: Dr.Rasha Sabeeh Ahmed Email: rasha_ryadh@nahrainuniv.edu.iq Name: Dr.Jenan Hussein Taha Email: asienan@ nahrainuniv.edu.iq Name: Dr.May Fadheel Estephan Email: mayfadheel@nahrainuniv.edu.iq Name: Dr.Rwaidhah Abdulameer Mussttaf Email: ruwaidahmussttaf@narainuniv.edu.iq
8. Course Objectives

Course Objectives	1. Define some terms. 2. Discuss the force that controls all movement in the world. Force is very important in the body. 3. Describe the physical law and its effect on bones. 4. Briefly discuss the physical foundations of heating and cooling, and methods for measuring body temperature. 5. Describe the effect of energy acting on the body. 6. Describe how we can measure pressure inside the body. 7. Explain the effect of physical law on the mechanism of breathing. 8. Describe the physical aspects of **the cardiovascular system**……

9. Teaching and Learning Strategies	
Strategy	The curriculum is delivered to students through lectures, with te (structured and unstructured). The lectures are presented in t form of PowerPoint slides and instructional videos, with so illustrations on the whiteboard.

10. Course Structure

10. Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1st	2	Medical physics	Terminology, Modeling, measurement, how to make a full diagnose.	Theoretical lecture	-Short daily, mid-term & final exams.
2nd	2	Medical physics	Forces on and in the human body.	Theoretical lecture	Short daily, mid-term & final exams
3rd	2	Medical physics	Centrifuge, Sedimentation velocity.	Theoretical lecture	Short daily, mid-term & final exams
4th	2	Medical physics	Physics of the skeleton.	Theoretical lecture	Short daily, mid-term & final exams
5th	2	Medical physics	Elastic properties of biological materials.	Theoretical lecture	Short daily, mid-term & final exams
6th	2	Medical physics	Heat and cold in medicine.	Theoretical lecture	Short daily, mid-term & final exams
7th	2	Medical physics	Cold in medicine.	Theoretical lecture	Short daily, mid-term & final exams
8th	2	Medical physics	Energy, work, and power of the body.	Theoretical lecture	Short daily, mid-term & final exams
9th	2	Medical physics	Pressure	Theoretical lecture	Short daily, mid-term & final exams
10th	2	Medical physics	The physics of lung.	Theoretical lecture	Short daily, mid-term & final exams
11th	2	Medical physics	The breathing mechanism, airway resistance.	Theoretical lecture	Short daily, mid-term & final exams
12th	2	Medical physics	Compliance, physics of alveoli.	Theoretical lecture	Short daily, mid-term & final exams
13th	2	Medical physics	Major components of the cardiovascular system (CVS).	Theoretical lecture	Short daily, mid-term & final exams
14th	2	Medical physics	Laplace law, Bernoulli's principle, Viscosity &Poiseuille's law.	Theoretical lecture	Short daily, mid-term & final exams
15th			final exams		

7- Course Evaluation

Midterm Theory Exam: 18%

Midterm Practical Exam: 8%

Quiz Exams: 4%

Attempt Grade: 30%

Final Theory Exam: 50%

Final Practical Exam: 20%

Final Grade: 100%

8- Learning and Teaching Resources	
Required textbooks (curricular books, if any)	1-Medical physics by John Cameron 2- physics for biology and pre medical students by Burns and McDonald 3-Practical physics by Armitage
Main references (sources)	1-Medical physics by John Cameron 2- physics for biology and pre medical students by Burns and McDonald 3-Practical physics by Armitage
Recommended books and references (scientific journals, reports…)	
Electronic References, Websites	

Course Description Form

1. Course Name:
Medical physics
2. Course Code:
PHSPhs−2
3. Semester / Year:
2nd semester/1st year
4. Description Preparation Date:
13/4/2025
5. Available Attendance Forms:
personal students attendance
6. Number of Credit Hours (Total) / Number of Units (Total)
2 hours theory and 3 hours practical/ 3.5
7. Course administrator's name (mention all, if more than one name)
Dr.Siham Sabah Abdullah Email: drsihamsabah66@nahrainuniv.edu.iq Name: Dr.Rasha Sabeeh Ahmed Email: rasha_ryadh@nahrainuniv.edu.iq Name: Dr.Jenan Hussein Taha Email: asienan@ nahrainuniv.edu.iq Name: Dr.May Fadheel Estephan Email: mayfadheel@nahrainuniv.edu.iq Name: Dr.Rwaidhah Abdulameer Mussttaf Email: ruwaidahmussttaf@narainuniv.edu.iq
8. Course Objectives

Course Objectives	1. Define some terms. 2. Discuss the force that controls all movement in the world. Force is very important in the body. 3. Describe the physical law and its effect on bones. 4. Briefly discuss the physical foundations of heating and cooling, and methods for measuring body temperature. 5. Describe the effect of energy acting on the body. 6. Describe how we can measure pressure inside the body. 7. Explain the effect of physical law on the mechanism of breathing.

	8. Describe the physical aspects of the cardiovascular system..... ....
9. Teaching and Learning Strategies	
Strategy	The curriculum is delivered to students through lectures, with tests (structured and unstructured). The lectures are presented in the form of PowerPoint slides and instructional videos, with some illustrations on the whiteboard.

10. Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1st	2	Medical physics	Electricity within the body	Theoretical lecture	-Short daily, mid-term & final exams.
2nd	2	Medical physics	Cardiovascular Instrumentation	Theoretical lecture	Short daily, mid-term & final exams
3rd	2	Medical physics	The Applications of Magnetic flied in medicine	Theoretical lecture	Short daily, mid-term & final exams
4th	2	Medical physics	Sound in medicine	Theoretical lecture	Short daily, mid-term & final exams
5th	2	Medical physics	Sound in medicine	Theoretical lecture	Short daily, mid-term & final exams
6th	2	Medical physics	Physics of the ear and hearing.	Theoretical lecture	Short daily, mid-term & final exams
7th	2	Medical physics	Light in medicine	Theoretical lecture	Short daily, mid-term & final exams
8th	2	Medical physics	The eye and vision	Theoretical lecture	Short daily, mid-term & final exams
9th	2	Medical physics	Laser interaction with tissue and its medical applications	Theoretical lecture	Short daily, mid-term & final exams
10th	2	Medical physics	Physics of X-ray	Theoretical lecture	Short daily, mid-term & final exams
11th	2	Medical physics	Computed tomography (CT) scan	Theoretical lecture	Short daily, mid-term & final exams
12th	2	Medical physics	Physics of nuclear medicine: Medical radioisotopes.	Theoretical lecture	Short daily, mid-term & final exams
13th	2	Medical physics	Physics of radiation therapy	Theoretical lecture	Short daily, mid-term & final exams
14th	2	Medical physics	Magnetic resonance imaging (MRI)	Theoretical lecture	Short daily, mid-term & final exams
	2		Final exam		

11.Course Evaluation	
Midterm Theory Exam: 14% Midterm Practical Exam: 8% Quiz Exams: 4% Seminar: 4% Attempt Grade: 30% Final Theory Exam: 50% Final Practical Exam: 20% Final Grade: 100%	
12.Learning and Teaching Resources	
Required textbooks (curricular books, if ar	1-Medical physics by John Cameron 2- physics for biology and pre medical students by Burns and McDonald 3-Practical physics by Armitage
Main references (sources)	1-Medical physics by John Cameron 2- physics for biology and pre medical students by Burns and McDonald 3-Practical physics by Armitage
Recommended books and references (scientific journals, reports…)	
Electronic References, Websites	

Course Description Form

1.Course Name:	
body fluid	
2.Course Code:	
PHYPhy−11	
3. Semester / Year:	
1st semester/1st year	
4. Description Preparation Date:	
20/10/2024	
5. Available Attendance Forms:	
personal students attendance	
6. Number of Credit Hours (Total) / Number of Units (Total)	
15 hours theory/1	
7. Course administrator's name (mention all, if more than one name)	
Name: assist. Prof. Dr. Abbas Fadhil Email:	
8. Course Objectives	
Course Objectives	- Classify body fluid compartments according to the water distribution - Determine the method of measuring different body fluid compartments - Identify the disturbances that occur in different body fluid compartments - Explore the mechanisms of Na+ and K+ regulation and the causes of alteration of their balance - Explain the pathophysiological causes of edema
9. Teaching and Learning Strategies	
Strategy	Lectures, quizzes

10. Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	1	Physiology of body fluids	Introduction to body fluid	Lectures	Exams & quizzes
2	1	Physiology of body fluids	composition of body fluid	Lectures	Exams & quizzes
3	1	Physiology of body fluids	Transport Across the Plasma Membrane I	Lectures	Exams & quizzes
4	1	Physiology of body fluids	Transport Across the Plasma Membrane II	Lectures	Exams & quizzes
5	1	Physiology of body fluids	osmosis I	Lectures	Exams & quizzes
6	1	Physiology of body fluids	osmosis II	Lectures	Exams & quizzes
7	1	Physiology of body fluids	regulation of water balance	Lectures	Exams & quizzes
8	1	Physiology of body fluids	Disorders of water balance	Lectures	Exams & quizzes
9	1	Physiology of body fluids	electrolytes	Lectures	Exams & quizzes
10	1	Physiology of body fluids	Electrolytes regulation 1	Lectures	Exams & quizzes
11	1	Physiology of body fluids	Electrolytes regulation II	Lectures	Exams & quizzes
12	1	Physiology of body fluids	Electrolytes regulation III	Lectures	Exams & quizzes
13	1	Physiology of body fluids	Acid base balance I	Lectures	Exams & quizzes
14	1	Physiology of body fluids	Acid base balance II	Lectures	Exams & quizzes
15	1	Physiology of body fluids	overview	Lectures	Exams & quizzes

11.Course Evaluation	
Theory midterm	23%
Quizzes	7%
Total Average	30%
Final theory exam	70%
Total grade	100%

12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Guyton text book of Physiology 2021
Main references (sources)	
Recommended books and references (scientific journals, reports…)	
Electronic References, Websites	

Course Description Form

1. Course Name:
Blood
2. Course Code:
PHYPhy−12
3. Semester / Year:
2nd semester/1st year
4. Description Preparation Date:
20/10/2024
5. Available Attendance Forms:
personal students attendance
6. Number of Credit Hours (Total) / Number of Units (Total)
15 hours theory/1
7. Course administrator's name (mention all, if more than one name)
Name: lecturer. Dr. Jumana Mahdi Kareem Email:

9− Course Objectives	
Course Objectives	• **Describe the components of blood and lymph, their origins, and the role of hemoglobin in transporting oxygen in red blood cells.** • **Understand the molecular basis of blood groups and the reasons for transfusion reactions.** ▪ **Delineate the process of hemostasis that restricts blood loss when vessels are damaged, and the adverse consequences of intravascular thrombosis.** ▪ **Identify the types of blood and lymphatic vessels that make up the circulatory system and the regulation and function of their primary constituent cell types**

	▪ **Understand the basis of disease states where components of the blood and vasculature are abnormal, dysregulated, or both.**
10- Teaching and Learning Strategies	
Strategy	Lectures, quizzes

11. Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	1	Physiology of blood	Blood Volume as a Circulatory Fluid & the Dynamics of Blood Flow	Lectures	Exams & quizzes
2	1	Physiology of blood	Red Blood Cells	Lectures	Exams & quizzes
3	1	Physiology of blood	Hemoglobin	Lectures	Exams & quizzes
4	1	Physiology of blood	Anemia and Polycythemia	Lectures	Exams & quizzes
5	1	Physiology of blood	White blood cells	Lectures	Exams & quizzes
6	1	Physiology of blood	Inflammation	Lectures	Exams & quizzes
7	1	Physiology of blood	Immunity I	Lectures	Exams & quizzes
8	1	Physiology of blood	Immunity II	Lectures	Exams & quizzes
9	1	Physiology of blood	Platelets	Lectures	Exams & quizzes
10	1	Physiology of blood	Blood Group	Lectures	Exams & quizzes
11	1	Physiology of blood	Transfusion reactions and hemolytic disease of the newborn	Lectures	Exams & quizzes
12	1	Physiology of blood	Hemostasis I	Lectures	Exams & quizzes
13	1	Physiology of blood	Hemostasis II	Lectures	Exams & quizzes
14	1	P Physiology of blood	Hemostasis III	Lectures	Exams & quizzes
15	1	P Physiology of blood	Hemostasis	Lectures	Exams & quizzes

12.Course Evaluation	
Theory midterm	23%
Quizzes	7%
Total Average	30%
Final theory exam	70%
Total grade	100%

13.Learning and Teaching Resources

Required textbooks (curricular books, if any)	Guyton text book of Physiology 2021
Main references (sources)	
Recommended books and references (scientific journals, reports…)	
Electronic References, Websites	

Course Description Form

1. Course Name:	
Physiology	
2. Course Code:	
PHYPhy−21	
3. Semester / Year:	
1st semester/2nd year	
4. Description Preparation Date:	
20/10/2024	
5. Available Attendance Forms:	
personal students attendance	
6. Number of Credit Hours (Total) / Number of Units (Total)	
105 hours theory and practical/5.5 credit	
7. Course administrator's name (mention all, if more than one name)	
Name: Assist. Prof. Dr. Zainab Hasan, Assist. Prof. Dr.Ibrahim Abdullah Assist. Prof. Dr. Hussein Ghani, lecturer Dr. Majid Hameed Email:	
8. Course Objectives	
Course Objectives	• Describe the different levels of muscle structure, and the actions of skeletal muscles. • Describe motor units, and explain the significance of recruitment of motor units. • Describe the extrinsic regulation of cardiac rate and contractility. • Explain the relationship between stroke volume and venous return. • Explain the Frank-Starling law of the heart. • Describe the structures and functions of the conducting and respiratory zones of the lungs., Describe the location and significance of the pleural membranes. • Describe the structure and functions of kidney and describe measurement of GFR and factors affecting it.....
9. Teaching and Learning Strategies	
Strategy	Lectures, quizzes

10. Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	7	CVS	**Cardiac muscle Introduction of CVS**	Theoretical lectures Practical sessions	Theoretical, quizzes and practical exams
2	7	Excitable tissue	Excitable tissue Action Potential	Theoretical lectures Practical sessions	Theoretical, quizzes and practical exams
3	7	CVS	Pacemaker potential Contraction excitation coupling of cardiac muscle	Theoretical lectures Practical sessions	Theoretical, quizzes and practical exams
4	7	Excitable tissue	Excitation of muscle	Theoretical lectures Practical sessions	Theoretical, quizzes and practical exams
5	7	CVS	Electrocardiogram Cardiac cycle	Theoretical lectures Practical sessions	Theoretical, quizzes and practical exams
6	7	Excitable tissue	Muscle contraction changes	Theoretical lectures Practical sessions	Theoretical, quizzes and practical exams
7	7	CVS	Cardiac output	Theoretical lectures Practical sessions	Theoretical, quizzes and practical exams
8	7	Excitable tissue	Muscle energy and metabolism	Theoretical lectures Practical sessions	Theoretical, quizzes and practical exams
9	7	CVS	Circulatory physiology	Theoretical lectures Practical sessions	Theoretical, quizzes and practical exams
10	7	Excitable tissue	Neuro muscular junction	Theoretical lectures Practical sessions	Theoretical, quizzes and practical exams
11	7	renal	Introduction to renal system Renal circulation & glomerular filtration	Theoretical lectures Practical sessions	Theoretical, quizzes and practical exams
12	7	renal	Tubular reabsorption and secretion	Theoretical lectures Practical sessions	Theoretical, quizzes and practical exams

13	7	Respiratory	Process of Respiration: Mechanics of Breathing	Theoretical lectures Practical sessions	Theoretical, quizzes and practical exams
14	7	Respiratory	Lung volumes and Capacities	Theoretical lectures Practical sessions	Theoretical, quizzes and practical exams
15	7	Respiratory	Alveolar surface tension Acid base disturbance	Theoretical lectures Practical sessions	Theoretical, quizzes and practical exams

11.Course Evaluation

Theory midterm	16%
Practical midterm	4%
Quizzes	6%
Problem based learning (PBL)	4%
Total Average	30%
Final theory exam	50%
Final practical exam	20%
Total grade	100%

12.Learning and Teaching Resources

Required textbooks (curricular books, if any)	Guyton text book of Physiology 2021
Main references (sources)	
Recommended books and references (scientific journals, reports…)	
Electronic References, Websites	

Course Description Form

1. Course Name:	
Physiology	
2. Course Code:	
PHYPhy−22	
3. Semester / Year:	
2nd semester/2nd year	
4. Description Preparation Date:	
20/10/2024	
5. Available Attendance Forms:	
personal students attendance	
6. Number of Credit Hours (Total) / Number of Units (Total)	
105 hours theory and practical/5.5 credit	
7. Course administrator's name (mention all, if more than one name)	
Name: Assist. Prof. Dr. Zainab Hasan, Assist. Prof. Dr.Ali Fuad Assist. Prof. Dr. Abbas Fadhil Email:	
8. Course Objectives	
Course Objectives	• Name the posture-regulating parts of the central nervous system and discuss the role of each. • Describe the basal ganglia and list the pathways that interconnect them, along with the neurotransmitters in each pathway. • Describe the components and functions of the visual, auditory and various special senses, define synaptic pathways and their roles in learning and memory. • List the consequences of insulin deficiency and explain how each of these abnormalities is produced, describe the structure of glucagon and other physiologically active peptides produced from its precursor. • List the major gastrointestinal secretions, their components, and the stimuli that regulate their production. • Describe the major functions of the liver with respect to metabolism, detoxification, and excretion of hydrophobic substances.
9. Teaching and Learning Strategies	
Strategy	Lectures, quizzes

10. **Course Structure**

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	7	CNS	Introduction to central nervous system physiology Synapses	Theoretical lectures Practical sessions	Theoretical, quizzes and practical exams
2	7	CNS	Sensory pathways for transmitting somatic signals into the CNS Pain sensation	Theoretical lectures Practical sessions	Theoretical, quizzes and practical exams
3	7	CNS	Thermal sensation The somatic sensory cortex	Theoretical lectures Practical sessions	Theoretical, quizzes and practical exams
4	7	GIT	Oesophagus and stomach	Theoretical lectures Practical sessions	Theoretical, quizzes and practical exams
5	7	CNS	Brain stem Motor Cortex	Theoretical lectures Practical sessions	Theoretical, quizzes and practical exams
6	7	GIT	Function of the Liver	Theoretical lectures Practical sessions	Theoretical, quizzes and practical exams
7	7	CNS	Transmission of signals from motor cortex to the muscles	Theoretical lectures Practical sessions	Theoretical, quizzes and practical exams
8	7	GIT	Physiology of the pancreas	Theoretical lectures Practical sessions	Theoretical, quizzes and practical exams
9	7	CNS	The Cerebellum Basal Ganglia	Theoretical lectures Practical sessions	Theoretical, quizzes and practical exams
10	7	GIT	Digestion and Absorption	Theoretical lectures Practical sessions	Theoretical, quizzes and practical exams
11	7	Endocrine	Neurohypophysis hormones Hypothalamus and adenohypophysis hormones	Theoretical lectures Practical sessions	Theoretical, quizzes and practical exams
12	7	Endocrine	Growth hormone Thyroid gland & hormones	Theoretical lectures Practical sessions	Theoretical, quizzes and practical exams

13	7	Endocrine	Ca++ metabolism, vitamin D, Parathyroid hormone	Theoretical lectures Practical sessions	Theoretical, quizzes and practical exams
14	7	Endocrine	Adrenal gland: Anatomy and physiology	Theoretical lectures Practical sessions	Theoretical, quizzes and practical exams
15	7	Endocrine	Male reproductive system Female reproductive system	Theoretical lectures Practical sessions	Theoretical, quizzes and practical exams

11.Course Evaluation

Theory midterm	16%
Practical midterm	4%
Quizzes	6%
Problem based learning (PBL)	4%
Total Average	30%
Final theory exam	50%
Final practical exam	20%
Total grade	100%

12.Learning and Teaching Resources

Required textbooks (curricular books, if any)	Guyton text book of Physiology 2021
Main references (sources)	
Recommended books and references (scientific journals, reports…)	
Electronic References, Websites	

Supporting Sciences Unit

Course Description Form

1. Course Name:
English Language (Theoretical & Practical) – Medical and Health Humanities / English for Medi Purposes
2. Course Code:
EngLang-11 (1st Term) EngLang-12 (2nd Term)
3. Semester / Year:
First and Second Semesters / First Year (2024–2025)
4. Description Preparation Date:
5. Available Attendance Forms:
In person & hybrid
6. Number of Credit Hours (Total) / Number of Units (Total)
2 Credit Hours Total (1 hrs/week Theoretical + 2 hrs/week Practical × 15 weeks)
7. Course administrator's name (mention all, if more than one name)
Name: Bushra Jani Email: bushrajani@nahrainuniv.edu.iq Name: Thanaa Hindi Salih Email: thanaasalih@nahrainuniv.edu.iq

11- Course Objectives	
Course Objectives	• Enhance students' proficiency in English language skills (reading, writing, listening, speaking) in medical contexts. • Introduce Medical and Health Humanities to promote empathy, ethics, and critical thinking. • Prepare students for real-life communication in healthcare through role-plays, reflective tasks, and patient-centered scenarios.

12- Teaching and Learning Strategies	
Strategy	• Task-Based Learning (TBL)

	• Content-Based Instruction (CBI) • Interactive lectures and discussions • Role-plays and case-based simulations • Reflective writing and critical analysis • Use of audio-visual medical materials

13- Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1		Students will understand and correctly use basic medical terms in classroom instructions and patient communication.	Introduction	Lectures	Tasks, Exams & quizzes
2		Learners will follow and respond to common instructions given by medical staff in clinical settings.	Unit 1	Lectures	Tasks, Exams & quizzes
3		Students will introduce themselves and others in a professional healthcare context using appropriate language.	Unit 1	Lectures	Tasks, Exams & quizzes
4		Learners will engage in role-plays to simulate common interactions between doctors and patients.	Unit1	Lectures	Tasks, Exams & quizzes
5		Students will identify and describe major body parts and systems using accurate medical vocabulary. Learners will match anatomical terms	Unit 2	Lectures	Tasks, Exams & quizzes

6		with their related functions and positions in the body.	Unit 2	Lectures	Tasks, Exams & quizzes
7		Students will demonstrate empathy when discussing sensitive health issues through guided scenarios.	UNIT 2	Lectures	Tasks, Exams & quizzes
8		Learners will analyze ethical dilemmas in healthcare using examples from narrative texts and case studies.	Unit 3	Lectures	Tasks, Exams & quizzes
9		Students will read and reflect on patient stories to understand the emotional and human side of illness.	Unit 3	Lectures	Tasks, Exams & quizzes
10		Learners will distinguish between clinical language and personal expression in patient narratives.	Unit3	Lectures	Tasks, Exams & quizzes
11		Students will write short reflective responses based on simulated or real patient encounters.	Unit 4	Lectures	Tasks, Exams & quizzes
12		Learners will apply critical thinking when interpreting historical and cultural aspects of medicine.	Unit 4	Lectures	Tasks, Exams & quizzes
13		Students will compare ancient and modern practices in healthcare from medical humanities perspectives.	Unit 5	Lectures	Tasks, Exams & quizzes
			Unit 5	Lectures	Tasks, Exams & quizzes

14 15		Learners will communicate their ideas clearly through writing and discussion, integrating empathy and ethics. Students will use English confidently in real-life medical situations, showing awareness of patient experience.	Unit 5	Lectures	Tasks, Exams & quizzes

14-Course Evaluation
The final score (100 marks) is distributed as follows: • Daily participation and oral answers • Short quizzes and assignments • Monthly written exams • Final written and practical exams • Reports, role-plays, and presentations

15- Learning and Teaching Resources

Required textbooks (curricular books, if any)	*English for Medical and Health Humanities* (internal syllabus)
Main references (sources)	*Oxford English for Careers: Medicine 1*
Recommended books and references (scientific journals, reports…)	Scientific articles and case studies related to narrative medicine, ethics, and communication
Electronic References, Websites	English Oxford Dictionary MedEdPORTAL,PubMed, https://oxfordlearnersdictionaries.com, WHO health, communication tools

Supporting Sciences Unit

Course Description Form

1. Course Name:
English Language (Theoretical & Practical) – Medical and Health Humanities / English for Medi Purposes
2. Course Code:
EngLang-11 (1st Term) EngLang-12 (2nd Term)
3. Semester / Year:
First and Second Semesters / First Year (2024–2025)
4. Description Preparation Date:
5. Available Attendance Forms:
In person & hybrid
6. Number of Credit Hours (Total) / Number of Units (Total)
2 Credit Hours Total (1 hrs/week Theoretical + 2 hrs/week Practical × 15 weeks)
7. Course administrator's name (mention all, if more than one name)
Name: Bushra Jani Email: bushrajani@nahrainuniv.edu.iq Name: Thanaa Hindi Salih Email: thanaasalih@nahrainuniv.edu.iq
8. Course Objectives

Course Objectives	• Enhance students' proficiency in English language skills (reading, writing, listening, speaking) in medical contexts. • Introduce Medical and Health Humanities to promote empathy, ethics, and critical thinking. • Prepare students for real-life communication in healthcare through role-plays, reflective tasks, and patient-centered scenarios.

9. Teaching and Learning Strategies

Strategy	• Task-Based Learning (TBL) • Content-Based Instruction (CBI) • Interactive lectures and discussions • Role-plays and case-based simulations • Reflective writing and critical analysis • Use of audio-visual medical materials

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1		Students will understand and correctly use basic medical terms in classroom instructions and patient communication.	Introduction	Lectures	Tasks, Exams & quizzes
2		Learners will follow and respond to common instructions given by medical staff in clinical settings.	Unit 1	Lectures	Tasks, Exams & quizzes
3		Students will introduce themselves and others in a professional healthcare context using appropriate language.	Unit 1	Lectures	Tasks, Exams & quizzes
4		Learners will engage in role-plays to simulate common interactions between doctors and patients.	Unit1	Lectures	Tasks, Exams & quizzes
5		Students will identify and describe major body parts and systems using	Unit 2	Lectures	Tasks, Exams & quizzes

		accurate medical vocabulary.			
6		Learners will match anatomical terms with their related functions and positions in the body.	Unit 2	Lectures	Tasks, Exams & quizzes
7		Students will demonstrate empathy when discussing sensitive health issues through guided scenarios.	UNIT 2	Lectures	Tasks, Exams & quizzes
8		Learners will analyze ethical dilemmas in healthcare using examples from narrative texts and case studies.	Unit 3	Lectures	Tasks, Exams & quizzes
9		Students will read and reflect on patient stories to understand the emotional and human side of illness.	Unit 3	Lectures	Tasks, Exams & quizzes
10		Learners will distinguish between clinical language and personal expression in patient narratives.	Unit3	Lectures	Tasks, Exams & quizzes
11		Students will write short reflective responses based on simulated or real patient encounters.	Unit 4	Lectures	Tasks, Exams & quizzes
12		Learners will apply critical thinking when interpreting historical and cultural aspects of medicine.	Unit 4	Lectures	Tasks, Exams & quizzes
13		Students will compare ancient and modern practices in	Unit 5	Lectures	Tasks, Exams & quizzes

14 15		healthcare from medical humanities perspectives. Learners will communicate their ideas clearly through writing and discussion, integrating empathy and ethics. Students will use English confidently in real-life medical situations, showing awareness of patient experience.	Unit 5 Unit 5	Lectures Lectures	Tasks, Exams & quizzes Tasks, Exams & quizzes

16- Course Evaluation

The final score (100 marks) is distributed as follows:

- Daily participation and oral answers
- Short quizzes and assignments
- Monthly written exams
- Final written and practical exams
- Reports, role-plays, and presentations

17- Learning and Teaching Resources

Required textbooks (curricular books, if any)	*English for Medical and Health Humanities* (internal syllabus)
Main references (sources)	*Oxford English for Careers: Medicine 1*
Recommended books and references (scientific journals, reports…)	Scientific articles and case studies related to narrative medicine, ethics, and communication
Electronic References, Websites	English Oxford Dictionary MedEdPORTAL,PubMed, https://oxfordlearnersdictionaries.com, WHO health, communication tools

Pharmacology

Course Description Form

1. Course Name:	
Pharmacology 1st Semester Pharmacology 2nd Semester	
2. Course Code:	
PHRphr-31 PHRphr-32	
3. Semester / Year:	
1st and 2nd Semester, 3rd year (2024-2025)	
4. Description Preparation Date:	
16-4-2025	
5. Available Attendance Forms:	
Theoretical lectures Practical laboratories Live online & recorded lectures	
6. Number of Credit Hours (Total) / Number of Units (Total)	
1st semester >>> 15 weeks * 5 hr = 75 hours / 4 credits 2nd semester >>> 15 weeks * 5 hr = 75 hours / 4 credits	
7. Course administrator's name (mention all, if more than one name)	
Name: Assist. Prof. Dr. Fouad Kadhim Gatea Email: dr.fouadk@nahrainuniv.edu.iq	
8. Course Objectives	
Course Objectives	• To review normal physiological functions of body systems • To know the pharmacokinetics • To know the pharmacodynamics of drugs • Study the adverse effects and drug interactions • To know the effects of drugs on the human body
9. Teaching and Learning Strategies	
Strategy	**1.** Conducting practical experiments and using laboratory animals **2.** The use of explanatory videos as a means to explain scientific ideas

	3. Use of modern display devices

10.Course Structure (Pharmacology 1st semester – PHRphr31)					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1st	3	Learning the basic principles of pharmacology	Introduction to pharmacology	Lecture	Quizzes, formative exams, seminars
			Pharmacokinetics Part 1	Lecture	
	2		Problem solving in pharmacokinetics (lab)	Lecture & clinical examples	Homework & reports
2nd	3	Learning the basic principles of pharmacology	Pharmacokinetics Part 2	Lecture	Quizzes, formative exams, seminars
			Pharmacodynamics part1 & 2	Lecture	homework & reports
	2	Learning principles of lab animals	Handling Lab animals (Lab)	Lecture & experiment	
3rd	3	Learn the principles of the autonomic nervous system & the effects of different drugs	Introduction to the autonomic nervous system	Lecture	Quizzes, formative exams, seminars
			Drugs affecting the parasympathetic nervous system part 1 & 2	Lecture	
	2	Learning the basic principles of pharmacology	Routes of drug administration (Lab)	Lecture & experiment	homework & reports
4th	3	Learn the principles of the autonomic nervous system & the effects of different drugs	Drugs affecting the sympathetic nervous system part 1 & 2	Lecture	Quizzes, formative exams, seminars
	2	Learning principles of lab animals	Methods of blood collection from lab animals	Lecture & experiment	homework & reports
5th	3	Learning the principles of CVS and affecting drugs	Medications used for hypertension part 1 & 2	Lecture	Quizzes, formative exams, seminars
			Diuretics	Lecture	
	2	Learning the basic principles of pharmacology	Types of dosage forms (Lab)	Lecture & example	homework & reports

6th	3 2	Learning the principles of CVS and affecting drugs Learning the different effects of drugs on lab animals	Medications used for coronary heart disease part 1 & 2 Effects of parasympathomimetics on glandular secretions (Lab)	Lecture Lecture & experiment	Quizzes, formative exams, seminars homework & reports
7th	3 2	Learning the principles of CVS and affecting drugs	Drugs used in heart failure part 1 & 2 Digoxin toxicity (Lab)	Lecture Lecture & clinical example	Quizzes, formative exams, seminars homework & reports
8th	3 2	Learning the principles of CVS and affecting drugs	Drugs acting on cardiac arrhythmias Effects of different drugs on blood pressure (Lab)	Lecture Lecture & experiment	Quizzes, formative exams, seminars homework & reports
9th	3 2	Learning the basic principles of the central nervous system & the affecting drugs	Introduction to CNS Antipsychotic drugs Drugs for Parkinson's disease Evaluation of anticonvulsants	Lecture Lecture Lecture Lecture & experiment	Quizzes, formative exams, seminars homework & reports
10th	3 2	Learning the basic principles of the central nervous system & the affecting drugs	Antiepileptic drugs part 1& 2 Drugs acting as anxiolytics, sedatives, & hypnotics Evaluation of antiepileptics in lab animals	Lecture Lecture Lecture & experiment	Quizzes, formative exams, seminars homework & reports
11th	3 2	Learning the basic principles of the central nervous system & the affecting drugs	Antidepressant agents Opioid analgesics part 1 & 2 Evaluation of the analgesic activity of opioids (Lab)	Lecture Lecture Lecture & experiment	Quizzes, formative exams, seminars homework & reports

12th	3 2	Learning the basic principles of the central nervous system & the affecting drugs	Muscle relaxants General Anesthetic Agents Local anesthetic agents Evaluation of general anesthetics (Lab)	Lecture Lecture Lecture Lecture & experiment	Quizzes, formative exams, seminars homework & reports
13th	3 2	Learning the effects of alcohol on the CNS & their antidotes	Alcohol Antidotes for overdose with CNS medications Case scenario and problem solving in CNS medications	Lecture Lecture Clinical examples	Quizzes, formative exams, seminars homework & reports
14th	3 2	Learning the types of autocoids & the affecting drugs	Types of autocoids & the related drugs part 1 & 2 NSAIDs Evaluation of the analgesic effect of NSAIDs (LAB)	Lecture Lecture Lecture & experiment	Quizzes, formative exams, seminars homework & reports
15th	3 2	Review & analysis of clinical cases	Review of some important topics with clinical examples Final practical exam	Lecture Exam	 Written exam

11.Course Structure (Pharmacology 2nd semester – PHRphr32)					
Week	**Hours**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
1st	3	To know the effect of histamine and prostaglandins, and the affected drugs	Histamine & antihistamines	Lecture	Quizzes, formative exams, seminars
			Prostaglandins and their analogs	Lecture	
			Medications used for gout	Lecture	
	2		Drugs acting on the eye part 1 (lab)	Lecture & clinical examples	Homework & reports
2nd	3	To know the basic principles of antibiotics, their types, and uses	Introduction to antibacterial	Lecture	Quizzes, formative exams, seminars
			Antibacterial agents (cell wall synthesis inhibitors)	Lecture	
	2		Drugs acting on the eye part 2 (Lab)	Lecture & clinical example	homework & reports
3rd	3	To know the basic principles of antibiotics, their types, and uses	Antibacterial agents (protein synthesis inhibitors)	Lecture	Quizzes, formative exams, seminars
			Aminoglycosides	Lecture	
			Antibacterials (quinolones & sulfonamides)	Lecture	
	2		Medication used in emergency (Lab)	Lecture & clinical example	homework & reports
4th	3	To know the basic principles of antibiotics, their types, and uses	Anti-mycobacterial agents	Lecture	Quizzes, formative exams, seminars
			Antifungal agents	Lecture	
			Antiviral agents	Lecture	
	2		Management of UTI (Lab)	Lecture & clinical example	homework & reports

5th	3 2	Review the physiological function of endocrine glands and related drugs	Hypothalamus & pituitary hormones Anti-protozoal agents Sex steroids Medications used for obesity (Lab)	Lecture Lecture Lecture Lecture & example	Quizzes, formative exams, seminars homework & reports
6th	3 2	Review the physiological function of endocrine glands and related drugs	Contraceptives Drugs affecting uterine smooth muscles Drugs used in pregnancy & lactation (Lab)	Lecture Lecture Lecture & clinical example	Quizzes, formative exams, seminars homework & reports
7th	3 2	Review the physiological function of endocrine glands and related drugs	Thyroid and anti-thyroid medications Corticosteroid's part 1 & 2 Effect of histamine & adrenaline on human skin (Lab)	Lecture Lecture Lecture & clinical example	Quizzes, formative exams, seminars homework & reports
8th	3 2	Review the physiological function of endocrine glands and related drugs	Insulin & insulin analogs Oral hypoglycemic agents part 1& 2 Nicotine pharmacology & toxicity (Lab)	Lecture Lecture Lecture & experiment	Quizzes, formative exams, seminars homework & reports
9th	3 2	Review the physiology of blood components & learn the medications & supplements affecting it	Drugs used for coagulation disorders part 1 &2 Hematopoietic agents Evaluation of NSAID on inflammation in lab animals	Lecture Lecture Lecture & experiment	Quizzes, formative exams, seminars homework & reports

10th	3 2	Learning drugs affecting the blood homeostasis of cholesterol Learning drugs affecting bronchial smooth muscle	Antihyperlipidemic agents part 1 & 2 Drugs used for asthma & COPD Adverse drug reactions	Lecture Lecture Lecture & example	Quizzes, formative exams, seminars homework & reports
11th	3 2	Learning drugs affecting the function of the GIT	Drugs acting on the GIT Chemotherapeutic agents part 1 & 2 Therapeutic uses & toxicities of OTC drugs (Lab)	Lecture Lecture Lecture & examples	Quizzes, formative exams, seminars homework & reports
12th	3 2	Knowing drugs affecting the immune function & their use in immune-mediated disorders	Immunomodulating agents part 1 & 2 Drugs used for rheumatoid arthritis Prescription writing (Lab)	Lecture Lecture Lecture Lecture & examples	Quizzes, formative exams, seminars homework & reports
13th	3 2	Learning agents used for osteoporosis & agents used for worm infestation	Drugs affecting bone minerals Anthelmintic agents Problem-solving cases in pediatrics	Lecture Lecture Clinical examples	Quizzes, formative exams, seminars homework & reports
14th	3 2	Learning about types of drug abuse and their management Knowing the most important herbal agents	Drugs of abuse Herbal Medications Part 1 & 2 Problem-solving cases in geriatrics (Lab)	Lecture Lecture Clinical examples	Quizzes, formative exams, seminars homework & reports

15th	3 2	Review & analysis of clinical cases	Review of some important topics with clinical examples Final practical exam	Lecture Exam	 Written exam

12.Course Evaluation	
• Mid-term and final examinations • Oral discussions & daily quizzes • Laboratory reports • Formative exams • Seminars	
13. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Lippincott Pharmacology, 8th edition (2021)
Main references (sources)	Katzung & Trevors Pharmacology Examination & Board Review, 12th edition (2019)
Recommended books and references (scientific journals, reports)	Goodman and Gilman's The Pharmacological Basis of Therapeutics, 14th ed. (2022). Journals: 1- Current opinion in pharmacology 2- American journal of pharmacology 3- Frontiers in Pharmacology 4- Lancet 5- European Journal of Pharmacology 6- Acta Pharmacologica Sinica / Nature
Electronic References, Websites	https://www.uptodate.com/ https://www.medscape.com/ https://www.nice.org.uk/

Family and Community Medicine

Course Description Form

1. Course Name:
Family and community medicine
2. Course Code:
COMCom-32
3. Semester / Year:
Second Semester/ third stage
4. Description Preparation Date:
2024-2025
5. Available Attendance Forms:
6. Number of Credit Hours (Total) / Number of Units (Total)
4/2
7. Course administrator's name (mention all, if more than one name)
Professor Ali Abd Ali Sahib **Assistant Prof. Atheer J Al saffar** **Assistant Prof. Nibras Alaa Hussain** **Assistant prof. Methaq H Alogaili** **Assistant prof. Luma kareem Mohammad** Email: methaqhassan@ced.nahrainuniv.edu.iq
8. Course Objectives

Course Objectives	To prepare highly qualified doctors able to meet the community health needs, capable of gathering medical data relevant to these needs and analyzing these data statistically.

9. Teaching and Learning Strategies

Strategy	The course provides the following: - Descriptive statistics with different statistical problem solving - Knowledge of principles of PHC - Knowledge of environmental problems that affect health - Knowledge of common nutritional diseases and calculating individual nutritional needs

10. Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2 theory 2 practical		Introduction: Biostatistics – Data Presentation	PPT, statistical problem	Practical exercise grades Quizzes
2	2 theory 2 practical		Environmental Hazards-air pollution Biostatistics – sampling	PPT, statistical problem	Practical exercise grades Quizzes
3	2 theory 2 practical		Introduction to Primary Health Care Biostatistics – Central Tendency	PPT, statistical problem	Practical exercise grades Quizzes
4	2 theory 2 practical		Water pollution Biostatistics – Dispersion Measures	PPT, statistical problem	Practical exercise grades Quizzes
5	2 theory 2 practical		Primary Health Care (characteristics, Elements and Principles) Biostatistics: Probability & normal distribution curve	PPT, statistical problem	Practical exercise grades Quizzes
6	2 theory 2 practical		Hazardous waste Biostatistics – Estimation	PPT, statistical problem	Practical exercise grades Quizzes
7	2 theory 2 practical		Primary Health Care (Obstacles) Biostatistics – Hypothesis Testing	PPT, statistical problem	Practical exercise grades Quizzes Mid term exam
8	2 theory 2 practical		Primary Health Care (Seven star doctors) Introduction to nutrition	PPT, statistical problem	Practical exercise grades Quizzes
9	2 theory 2 practical		Biostatistics – Chi Test Global warming	PPT, statistical problem	Practical exercise grades Quizzes

10	2 theory 2 practical		Biostatistics – One Samples Healthcare waste	PPT, statistical problem	Practical exercise grades Quizzes
11	2 theory 2 practical		Biostatistics – Two Sample Nutritional Assessment	PPT, statistical problem	Practical exercise grades Quizzes
12	2 theory 2 practical		Biostatistics – Paired Test The Millennium Development Goals	PPT, statistical problem	Practical exercise grades Quizzes
13	2 theory 2 practical		Biostatistics correlation Nutrients deficiency	PPT, Nutrition assessment	Practical exercise grades Quizzes
14	2 theory 2 practical		Biostatistics regression protein energy malnutrition	PPT, protein requirement	Practical exercise grades Quizzes
15	2 theory 2 practical		Primary Health Care (Levels of care) Clinical cases review	Case based discussion	Final exam

11. Course Evaluation	
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports .... etc	
12. Learning and Teaching Resources	
Required textbooks (curricular books, if any	Biostatistics: A Foundation for Analysis in the Health Sciences. 11th Edition. 2018
Main references (sources)	Oxford Handbook of Public Health Practice.4th Edition. 2020.
Recommended books and references (scientific journals, reports...)	CURRENT Diagnosis & Treatment Occupational & Environmental Medicine, 6th Edition. 2021
Electronic References, Websites	- Manual and books of Iraqi MOH - WHO & UNICEF websites

Course Description Form

1. Course Name:
Family and community medicine
2. Course Code:
COMCom-41
3. Semester / Year:
First Semesters/ Fourth stage
4. Description Preparation Date:
2024-2025
5. Available Attendance Forms:
6. Number of Credit Hours (Total) / Number of Units (Total)
6/4.5
7. Course administrator's name (mention all, if more than one name)
Professor Ali Abd Ali Sahib **Assistant Prof. Atheer J Al saffar** **Assistant Prof. Nibras Alaa Hussain** **Assistant prof. Methaq H Alogaili** **Assistant prof. Luma kareem Mohammad** Email: methaqhassan@ced.nahrainuniv.edu.iq
8. Course Objectives

Course Objectives	To prepare high level doctors capable of conducting research and studies about community health problems and healthy lifestyle with implementation of primary health care programs.
9. Teaching and Learning Strategies	
Strategy	The course provides the following: - Knowledge of programs concerned with mother and child health - Knowledge of behavior related diseases - Knowledge of epidemiological distribution of diseases. - Knowledge of types of research study design - Knowing the risk of occupations - Knowledge of the family medicine doctor’s rules and duties

10.Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	3 theory 3 practical		Epidemiology of Occupational Medicine Introduction to Family Medicine School health program	PPT, PHC center visit	- Theory Quizzes - Practical grades
2	3 theory 3 practical		Introduction to epidemiology Dynamics of disease transmission School health psychology	PPT, PHC center visit	- Theory Quizzes - Practical grades
3	3 theory 3 practical		Occupational hazards Family Medicine, Principles PHC psychology	PPT, problem solving	- Theory Quizzes - Practical grades
4	3 theory 3 practical		Epidemiology- Outbreak Family Medicine, making decisions Breast Feeding	PPT, problem solving	- Theory Quizzes - Practical grades
5	3 theory 3 practical		Antenatal care programs Epidemiology- Investigation of epidemic Growth Monitoring	PPT, problem solving	- Theory Quizzes - Practical grades
6	3 theory 3 practical		Heavy metals Maternal mortality- causes and prevention Family Planning	PPT, problem solving	- Theory Quizzes - Practical grades - Mid term exam
7	3 theory 3 practical		Epidemiology- Risk assessment Methodology of Research- introduction Immunization	PPT, problem solving	- Theory Quizzes - Practical grades

8	3 theory 3 practical		Epidemiology-Cause and effect Family Medicine, Approach to health through human life IMNCH-1	PPT, problem solving	- Theory Quizzes - Practical grades
9	3 theory 3 practical		Study designs Occupational lung diseases IMNCH-1	PPT, problem solving	- Theory Quizzes - Practical grades
10	3 theory 3 practical		Demography-Rates, proportion, ratios Systemic effect of occupational hazards	PPT, problem solving	- Theory Quizzes - Practical grades
11	3 theory 3 practical		Analytic study design Demography-Life table	PPT, problem solving	- Theory Quizzes - Practical grades
12	3 theory 3 practical		Demography-Population pyramids Sociology of medicine	PPT, problem solving	- Theory Quizzes - Practical grades
13	3 theory 3 practical		Research ethics Evidence - Based Medicine	PPT, problem solving	- Theory Quizzes - Practical grades
14	3 theory 3 practical		Communication skills and patient doctor relationship Occupational health effect	PPT, problem solving	- Theory Quizzes - Practical grades
15	3 theory 3 practical		School health programs ICD11	PPT, problem solving	- Theory Quizzes - Practical grades - Final exam

11.Course Evaluation	
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports .... etc	
12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Leon Gordis. Epidemiology, 2009, 4th edition
Main references (sources)	- Gordis Epidemiology, 7th Edition, 2024 - Hennekens C H and Buring J E. Epidemiology in medicine.2nd Edition - Essentials of Family Medicine, 7th edition (2018) - Taylors Manual of Family Medicine, 4th Edition, 2015
Recommended books and references (scientific journals, reports...)	CURRENT Diagnosis & Treatment Occupational & Environmental Medicine, 6th Edition (Current Occupational and Environmental Medicine), 4th Edition, 2021
Electronic References, Websites	- WHO website - CDC website - Iraqi MOH official website

Course Description Form

1. Course Name:	
Family and community medicine	
2. Course Code:	
COMCom-42	
3. Semester / Year:	
Second Semesters/ Fourth stage	
4. Description Preparation Date:	
2024-2025	
5. Available Attendance Forms:	
6. Number of Credit Hours (Total) / Number of Units (Total)	
6/3.5	
7. Course administrator's name (mention all, if more than one name)	
Professor Ali Abd Ali Sahib **Assistant Prof. Atheer J Al saffar** **Assistant Prof. Nibras Alaa Hussain** **Assistant prof. Methaq H Alogaili** **Assistant prof. Luma kareem Mohammad** Email: methaqhassan@ced.nahrainuniv.edu.iq	
8. Course Objectives	
Course Objectives	To prepare high level doctors capable of estimating community health needs and solving health problems of communicable or noncommunicable diseases and development of healthy lifestyle for the community.
9. Teaching and Learning Strategies	
Strategy	The course provides the following: - Qualify students about principals of family and community medicine and its relations with the Iraqi health system. - Enable students to conduct research that matters to people health, including research methods, data collection and statistical analysis.

	- Ability to know and implement the prevention of most common communicable diseases. - Ability to know risk factors of noncommunicable diseases and their prevention. - Knowledge of health administration principles. - Ability to know and implement the prevention of most common occupational and environmental diseases.

10.Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2 theory 3 practical		- Epid.of MMR - Epid. Of sexual transmitted diseases	PPT, conducting field research	- Theory Quizzes - Practical grades
2	2 theory 3 practical		- Epid. Of DPT - Introduction Non-Communicable diseases	PPT, conducting field research	- Theory Quizzes - Practical grades
3	2 theory 3 practical		- Epid of Cholera - Epid. Of TB 1	PPT, conducting field research	- Theory Quizzes - Practical grades
4	2 theory 3 practical		- Epid of Rabies - Epid. of cardiovascular diseases	PPT, conducting field research	- Theory Quizzes - Practical grades
5	2 theory 3 practical		- Epid. of viral Hepatitis - Epid. of Bilharzia	PPT, conducting field research	- Theory Quizzes - Practical grades
6	2 theory 3 practical		- Epid. of TB 2 - Epid. of Malaria	PPT, conducting field research	- Theory Quizzes - Practical grades
7	2 theory 3 practical		- Epid.of HIV - Introduction to Health Administration	PPT, conducting field research	- Theory Quizzes - Practical grades
8	2 theory 3 practical		- Epid. Of Hypertension - Iraq health care system	PPT, conducting field research	- Theory Quizzes - Practical grades - Mid-term exam

9	2 theory 3 practical		- Epid.of Leishmaniasis - Epid. Of Diabetes	PPT, conducting field research	- Theory Quizzes - Practical grades
10	2 theory 3 practical		- Epid. Of Polio - Epid. Of Brucellosis	PPT, conducting field research	- Theory Quizzes - Practical grades
11	2 theory 3 practical		- Epid.of Influenza - Epid. Of chronic respiratory diseases	PPT, conducting field research	- Theory Quizzes - Practical grades
12	2 theory 3 practical		- Epid.of Typhoid - Management and planning	PPT, conducting field research	- Theory Quizzes - Practical grades
13	2 theory 3 practical		- Epid. of COVID - Epid. of epilepsy	PPT, conducting field research	- Theory Quizzes - Practical grades
14	2 theory 3 practical		- Epid. of Cancer - Leadership	PPT, conducting field research	- Theory Quizzes - Practical grades
15	2 theory 3 practical		- Epidemiology of scabies - Problem solving	PPT, conducting field research	- Theory Quizzes - Practical grades
16	1 theory		- Epidemiology of acute rheumatic fever	PPT, WHO reports	- Theory Quizzes
17	1 theory		- Epidemiology of antimicrobial resistance	PPT, WHO reports	- Theory Quizzes - Final exam

11. Course Evaluation	
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports .... etc	
12. Learning and Teaching Resources	
Required textbooks (curricular boo if any)	Control of Communicable Diseases Manual, 20th Edition. 2014
Main references (sources)	- Gordis Epidemiology. 7th Edition. 2024 - Hennekens C H and Buring J E. Epidemiology in medicine.2nd Edition - Essentials of Family Medicine. 7th Edition. 2018 - Taylors Manual of Family Medicine. 4th Edition. 2015
Recommended books and references (scientific journals, reports...)	CURRENT Diagnosis & Treatment Occupational & Environmental Medicine. 6th Edition. 2021
Electronic References, Websites	- WHO website - CDC website - Iraqi MOH official website

Biochemistry

Course Description

Course Name: Molecular Biology
Course Code: CHMMol-22
Semester / Academic Year: Second / 2025-2026
Date of Preparation: 01/02/2025
Delivery Mode: On-campus only
Credit Hours (Total) / Units: 1 hour theory + 2 hours practical

Course Coordinators:

- Prof. Dr. Estabraq Abdulrasool Al-Wasiti – estabraqalwasiti@nahrainuniv.edu.iq
- Assoc. Prof. Dr. Mohammed Abdul Latif Mohammed Ali – mohammedchina@nahrainuniv.edu.iq

Course Objectives:

- To introduce students to core concepts and advanced applications in molecular biology.
- To develop research competencies through hands-on laboratory techniques.
- To integrate analytical and critical thinking through the application of clinical case studies.
- To enhance interdisciplinary understanding by linking molecular biology to medical genetics and molecular diagnostics.

Teaching and Learning Strategies:

- Delivery of theoretical and practical lectures using professional PowerPoint presentations.
- Incorporation of trusted educational videos and scientific animations for visual understanding.
- Organizing student seminars and group discussions on selected topics.
- Conducting laboratory experiments including advanced molecular techniques.
- Utilization of case studies and virtual simulations to encourage interactive learning.

Course Structure:

Week	Topics and Outcomes	Learning Method	Assessment Method
1	Introduction to molecular biology, history, significance, and lab safety tools	Lectures	Formative & Summative
2	Nucleic acids and DNA replication, Lab: DNA extraction	Lectures + Lab	Formative & Summative
3	Gene expression and epigenetics, Lab: RNA isolation and analysis	Lectures + Lab	Formative & Summative
4	Genomics and next-generation sequencing, Lab: PCR primer design	Lectures + Lab	Formative & Summative
5	Protein synthesis and modification, Lab: Protein isolation, Western blot	Lectures + Lab	Formative & Summative

6	Recombinant DNA technology, Lab: Recombinant protein expression	Lectures + Lab	Formative & Summative
7	PCR and RT-PCR techniques, Lab: Gene expression analysis	Lectures + Lab	Formative & Summative
8	Sanger and NGS sequencing, Lab: Sequence data analysis	Lectures + Lab	Formative & Summative
9	CRISPR-Cas9 techniques, Lab: Gene editing experiment	Lectures + Lab	Formative & Summative
10	Personalized molecular medicine, Lab: Pharmacogenomics analysis	Lectures + Lab	Formative & Summative
11	Nanotechnology applications in molecular diagnostics (New)	Lectures + Presentations	Summative
12	Short project presentations and applied data analysis (Added)	Interactive	Formative

Course Assessment:

Semester Work (30%):

- 15% Midterm theoretical exam (MCQs, matching, fill-in-the-blank, T/F, diagrams, essay)
- 10% Lab reports and experiments
- 5% Quizzes (3 summative, 2 formative)

Final Exam (70%):

- 50% Theory: 30% MCQs (bubble sheet), 20% essay
- 20% Practical: 10% theoretical lab questions, 10% live experiment

Learning and Teaching Resources:

Prescribed Textbook(s):

- Stryer, L., et al. Biochemistry. W. H. Freeman. https://books.google.iq/books?id=S7-CDwAAQBAJ

Main References:

- Cox, Doudna, & O'Donnell. Molecular Biology: Principles and Practice

Supporting Books and References:

- Molecular Diagnostics: Fundamentals, Methods, and Clinical Applications by Lela Buckingham
- Scientific journals: Nature Reviews Molecular Cell Biology, The Journal of Molecular Biology, Trends in Molecular Medicine

Websites:

- NCBI: https://www.ncbi.nlm.nih.gov/
- PubMed: https://pubmed.ncbi.nlm.nih.gov/
- EMBL-EBI: https://www.ebi.ac.uk

Course Description

Molecular Biology – Second Year / Second Semester

Department of Molecular and Medical Biotechnology
College of Biotechnology
Al-Nahrain University
Academic Year: 2025–2026
Date of Preparation: 1/02/2025
Mode of Delivery: In-Person (Lectures and Laboratory)
Credit Hours: 3 (1 Theory + 2 Practical)

Course Coordinators:

• Prof. Dr. Estabraq Abdulrasool Al-Wasiti – estabraqalwasiti@nahrainuniv.edu.iq
• Assoc. Prof. Dr. Mohammed Abdul Latif Mohammed Ali – mohammedchina@nahrainuniv.edu.iq

Course Description:

This course provides a comprehensive introduction to the field of molecular biology, covering foundational concepts and advanced techniques used to investigate the molecular mechanisms of life. Students will explore the structure, function, and interactions of DNA, RNA, and proteins, and how these macromolecules regulate gene expression, inheritance, and cellular processes. The course integrates theoretical lectures with hands-on laboratory experiments using state-of-the-art molecular tools.

Course Objectives:

- - Understand the molecular basis of genetic information and its regulation.
- - Develop practical skills in key molecular biology techniques including DNA/RNA isolation, PCR, electrophoresis, and CRISPR.
- - Interpret experimental data and apply molecular techniques in clinical, diagnostic, and research contexts.
- - Enhance critical thinking and communication through scientific writing and presentations.

Course Schedule and Weekly Topics:

Week	Topics	Learning Mode	Assessment
1	Introduction to molecular biology and lab safety practices	Lecture + Orientation	Participation
2	DNA structure and replication mechanisms; DNA isolation lab	Lecture + Lab	Practical report
3	Transcription and RNA processing; RNA extraction lab	Lecture + Lab	Quiz
4	Translation and protein biosynthesis; protein isolation lab	Lecture + Lab	Lab report
5	Gene expression regulation and epigenetics	Lecture	Formative assessment

6	Molecular cloning and recombinant DNA technology	Lecture + Lab	Lab quiz
7	Polymerase Chain Reaction (PCR) and gel electrophoresis	Lecture + Lab	Experiment assessment
8	DNA sequencing technologies (Sanger and NGS)	Lecture + Lab	Written assignment
9	CRISPR and genome editing tools	Lecture + Case Study	Midterm exam
10	Applications in diagnostics and therapeutic gene editing	Lecture + Simulation	Presentation
11	Molecular biomarkers and pharmacogenomics	Lecture + Discussion	Review
12	Project presentations and data interpretation	Student-led + Feedback	Final Project

Assessment and Grading:

The course is assessed as follows:

- - Midterm Exam (Theory): 20%
- - Laboratory Reports and Attendance: 20%
- - Short Quizzes and Assignments: 10%
- - Final Exam (Theory): 30%
- - Final Practical Exam (Live Lab + Written): 20%

Learning Materials and Resources:

Prescribed Textbook:

- Molecular Biology: Principles and Practice by Cox, Doudna, O'Donnell (Latest Edition)

Additional References:

- Molecular Cell Biology by Lodish et al.
- Molecular Diagnostics: Fundamentals, Methods, and Clinical Applications by Buckingham
- Scientific Journals: Nature Genetics, Trends in Molecular Medicine, Cell Reports

Recommended Online Platforms:

- NCBI: https://www.ncbi.nlm.nih.gov
- PubMed: https://pubmed.ncbi.nlm.nih.gov
- EMBL-EBI: https://www.ebi.ac.uk
- HHMI Biointeractive: https://www.biointeractive.org/

Course Description Form

1. Course Name:
Biochemistry II
2. Course Code:
CHMBio-21
3. Semester / Year:
1st / 2024-2025
4. Description Preparation Date:
1/10/2024
5. Available Attendance Forms:
Attendance + part of electronic assessments
6. Number of Credit Hours (Total) / Number of Units (Total)
90 hours for semester (45 theoretical + 45 practical)/ 4.5 units
7. Course administrator's name (mention all, if more than one name)
Name: Prof Dr. Mohammed I.Hamzah Email: moh_alsafi75@nahrainuniv.edu.iq Name: Asst Prof Dr. Hassan H. Al-Saeed Email: dr.hasanalsaeed@nahrainuniv.edu.iq Name: Asst Prof Dr. Mohammed Abdulatif Mohammed Ali:- mohammedchina@nahrainuniv.edu Name: Asst Prof. Dr. Zeena Abdulelah Abd Ali:- zeenaalsedi@nahrainuniv.edu.iq
8. Course Objectives

Course Objectives	**At the end of the teaching, the student will be able to recognize:** **1- What are life processes, their types, and how to generate energy.** **2- Characteristics of bioenergy, the laws of thermodynamics, thermodyna coefficients (free energy of compression, enthalpy, and enthalpy), importance of energy interactions and mechanics in biological interactio the central role of high-energy phosphate molecules in the transfer capture of energy, and the importance of the adenosine triphosphate molec and its central role in the transfer and capture of energy.** **3- What is biological oxidation and knowledge of the types of reactions t occur in living cells, the importance of oxidation-reduction reactions, and types of cofactors and enzymatic aids that play important roles in transfer electrons.**

9. Teaching and Learning Strategies	
Strategy	1 - Educational strategy, collaborative concept planning. 2- Brainstorming education strategy. 3- Education Strategy Notes Series

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	3T + 3P	Empowering and providing the stude with knowledge: 1- Knowledge of biochemistry and metabolism of biomolecules and linking them to the body's physiology. 2- Knowing the types chemical reactions th occur in living cells what bioenergy is, ho to transfer electron through the respirato chain, oxidative phosphorylation, an the pathological conditions associate with a defect in the transfer of electron through the respirato chain. 3- Complete knowled of the metabolism c carbohydrates, lipid proteins, their derivatives, and oth compounds that cont nitrogen through knowing the food molecules, their functions, and thei required proportions the body and their metabolism, startin with their digestion absorption, metaboli (synthesis and breakdown), and 12excretion, and how obtain and calculat energy, and the disea associated with the metabolism, and how deal with them. 4- Knowing the natu of hormones, their	Bioenergetic and biological oxidation	Explain the lecture by presenting the main message of the topic. Writing the lecture objectives. Presenting the most important topics covered in the lecture and introduction. Divide the lecture time to cover the main topic, conclusion, and discussion	By conducting a number of formative assessments and summative assessments in the theoretical and practical aspects, conducting seminars and preparing reports in the practical aspect, and taking the mid-term and end-of-term examinations.
2	3T + 3P		Respiratory chain and oxidative phosphorylation		
3	3T + 3P		Carbohydrates (digestion and absorption)		
4	3T + 3P		Glycolysis, Krebs cycle and gluconeogenesis Glycogenesis and glycogenolysis		
5	3T + 3P		Seminar		
6	3T + 3P		Lipid metabolism, digestion and absorption		
7	3T + 3P		Fat oxidation		
8	3T + 3P		Ketone bodies and fat synthesis		
Holida					
Holida			Midterm exam		
			Midterm exam		
11	3T + 3P		Metabolic control of oxidation and synthesis of fats and cholesterol		
12					
13	3T + 3P		Proteins (digestion and absorption)		
	3T + 3P		Proteins degradation and breaks down of amino acids		

14 15	3T + 3P 3T + 3P	receptors, types, mechanisms of actio and accompanying diseases resulting fr lack or excess of the secretion. 5- Providing the student with practical skills in diagnosis and knowledge of clinical biochemistry and laboratory medicine.	Degradation of the carbon skeleton of amino acids Other nitrogen containing compounds		

11. Course Evaluation

Distribution as follows: 20 marks for midterm + seminar and daily exams + 10 marks for practical (practical + results + report) + 70 final marks (50 theoretical + 20 practical)

12. Learning and Teaching Resources

Required textbooks (curricular books, if any	Liplipincott's Illustrated Reviews, 8th Ed., Willia & Wilkins, 2021
Main references (sources)	Harper's Illustrated Biochemistry, 31st Ed,. McGraw-Hill Companies, Inc, 2022
Recommended books and references (scientific journals, reports…)	1. Lehninger Principles of Biochemistry. 2. Stryer Biochemistry.
Electronic References, Websites	

Course Description Form

1. Course Name:	
Clinical Chemistry	
2. Course Code:	
CHMBio−22	
3. Semester / Year:	
2/ 2024−2025	
4. Description Preparation Date:	
18/2/2025	
5. Available Attendance Forms:	
Attendance + part of electronic assessments	
6. Number of Credit Hours (Total) / Number of Units (Total)	
75 hours for semester (30 theoretical + 45 practical)/ 3.5 units	
7. Course administrator's name (mention all, if more than one name)	
Name: Prof Dr. Mohammed I.Hamzah Email: moh_alsafi75@nahrainuniv.edu.iq Name: Asst Prof Dr. Hassan H. Al-Saeed Email: dr.hasanalsaeed@nahrainuniv.edu.iq Name: Asst Prof. Dr. Zeena Abdulelah Abd Ali:- zeenaalsedi@nahrainuniv.edu.iq	
8. Course Objectives	
Course Objectives: At the end of the teaching, the student will be able to:	• **Working safely in laboratories and being able to collect and handle biological samples.** • **Using necessary laboratory devices and tools and maintaining them.** • **Linking diseases to abnormal changes in blood components and other body parts.** • **Understanding and distinguishing between types of carbohydrates and lipids (fats, oils) in food, their functions, required amounts in the body, and their roles in many diseases.** • **Knowing and distinguishing between types of proteins in food, their functions, required amounts in the body, and understanding the complete role of proteins and their disorders starting from digestion**

	and absorption to related diseases and their relationship with metabolic disorders.

9. Teaching and Learning Strategies

Strategy	1 - Educational strategy, collaborative concept planning. 2- Brainstorming education strategy. 3- Education Strategy Notes Series

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1 2 3 4 5 6 7	2T + 3P 2T + 3P 2T + 3P 2T + 3P 2T + 3P 2T + 3P 2T + 3P	Empowering and providing the studer with knowledge: 1. Regulating blooc sugar levels, and studying the role o hormones in balanci blood sugar levels 2. Types of blood sug knowledge of clinic cases, and methods diagnosing the types diabetes 3. Study the acute ar chronic complicatio that accompany diabe 4.Identify glycogen storage diseases and the cause of each type. 5. Study of fats, their types, and the relationship of their disorders to diseases 6. Study the relationship of diabetes to fat decomposition and what that is, and study the types of fat storage in the body and the reason why each type occurs. 7. Study the causes of anemia, its types, and methods of	Introduction to diabetes, its definition, and study of its types. 2. Study the role of hormones in regulating diabetes 3. Formation of ketone bodies in diabetics and the role of the liver in their synthesis 4. Study the types of low blood sugar and know the types of blood sugar storage diseases 5. Defining fats and their types in the body and studying the role of hormones in regulating fats 6. Studying the role of the liver in fat metabolism 7. Studying metabolic disorders in fat metabolism	Explain the lecture by presenting the main message of the topic. Writing the lecture objectives. Presenting the most important topics covered in the lecture and introduction. Divide the lecture time to cover the main topic, conclusion, and discussion	By conducting a number of formative assessments and summative assessments in the theoretical and practical aspects, conducting seminars and preparing reports in the practical aspect, and taking the mid-term and end-of-term examinations.

		diagnosis and treatment 8. Study of diseases resulting from disorders of amino acid interactions and their relationship to deficiency metabolism that occurs at an early age. The student acquires practical skills in diagnosis and knowledge of clinical biochemistry and laboratory medicine	and knowing the types of fat disorders based on World Health Organization measurements		
8	2T + 3P		8.Identifiers on the types of deficiency of lipid complexes (lipoproteins and their causes). Study of fat storage diseases, their types and causes.		
Holida	2T + 3P		Midterm exam		
Holida	2T + 3P		Midterm exam		
11	2T + 3P		9.. Defining proteins and knowing the diseases associated with them in the event of an enzymatic defect Metabolic deficiency diseases, their types and causes		
12	2T + 3P		10. Hemoglobin in the blood. Types of anemia and types of high hemoglobin in the blood.Porphyria causes, its types, and methods of diagnosis		
13	2T + 3P		11. Hormones. Their definition, types, causes of imbalance in their secretion, increase or decrease, and the relationship of this to the pathological		

14 15	2T +3P 2T +3P		conditions that accompany them. 12. Discuss medical conditions resulting from endocrine disorders 13. Seminar		

11. Course Evaluation

Distribution as follows: 15 marks for midterm + seminar and daily exams + 10 marks for practical (practical + results + report) + 70 final marks (50 theoretical + 20 practical)

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Martin Andrew Crook, EIGHT Ed., CLINICAL BIOCHEMISTRY & METABOLIC MEDICINE.
Main references (sources)	Tietz Fundamentals of Clinical Chemistry and Molecular Diagnostics, 9th Ed,2024
Recommended books and references (scientific journals, reports…)	William J. Marshall, S. K. Banger, 9th ed.2020 (Clinical Chemistry)
Electronic References, Websites	

Microbiology

Course Description Form

1. Course Name:
Medical Bacteriology & Mycology (Theoretical & Practical)
2. Course Code:
MICBac:31
3. Semester / Year:
First Semesters / Third Year
4. Description Preparation Date:
5. Available Attendance Forms:
In person
6. Number of Credit Hours (Total) / Number of Units (Total)
3 Credit Hours Total (2 hrs/week Theoretical + 2 hrs/week Practical × 15 weeks)
7. Course administrator's name (mention all, if more than one name)
Name: Professor Dr. Azhar A. F. Al-Attraqchi, Email: tariq_963@nahrainuniv.edu.iq Name: Prof. Dr. Thanaa R. Abdul-Rahman, Email: thanaraaa1970@nahrainuniv.edu.iq Name: Prof. Dr. Jabbar S. Hassan Email: jabbarsalman30@nahrainuniv.edu.iq Name: Assistant Prof. Dr. Maysaa Dh. Abdul-Razzaq, Email: dr_maysaa@nahrainuniv.edu.iq Name: Lecturer Dr. Fadi Fuad Yaqoub Email: ffsammak@nahrainuniv.edu.iq
8. Course Objectives

Course Objectives	Studying of the pathogenic bacteria and fungi, life threatening bacteria and fungi of immunocompetent and immunocompromised patients, Signs and symptoms, methods of diagnosis, and treatment

9. Teaching and Learning Strategies	
Strategy	• Task-Based Learning (TBL) • Content-Based Instruction (CBI) • Interactive lectures and discussions • Unknown samples and case-based simulations • Use of videa-visual practical sessions

10. Course Structure					
Week	**Hours**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
1	**1**	Identify the basic strucure of bacteria and their types growth mechanisms	Bacterial Cell, Classification and Growth	PowerPoint presentation	Quizes
1	**1**	Identify the how different classes of antibiotics works on bacteria	Antibiotics & Antibiotic Resistance	PowerPoint presentation	Quizes
2	**1**	Identify the basic informations about staphylococcus spp and their related diseases	Staphylococci	PowerPoint presentation	Quizes
2	**1**	Identify the basic informations about Streptococcus spp and their related diseases	Streptococci	PowerPoint presentation	Quizes
3	**1**	Identify the basic informations about Enterococcus spp and their related diseases	Streptococci (part 2) and Enterococcus	PowerPoint presentation	Quizes
3	**1**	Identify the basic informations about Neisseriae, Moraxella catarrhalis and Acinetobacter and their related diseases	Neisseriae, Moraxella catarrhalis and Acinetobacter	PowerPoint presentation	Quizes
4	**1**	Identify the basic informations about Mycobacterium spp and their related diseases	Mycobacteria	PowerPoint presentation	Quizes
4	**1**	Identify the basic informations about different enterobacteriacae spp and their related diseases	Enterobacteriaceae	PowerPoint presentation	Quizes
5	**1**	Identify the basic informations about Pseudomonas spp and their related diseases	Pseudomonas	PowerPoint presentation	Quizes
5	**1**	Identify the basic informations about Haemophilus, Bordetella and Legionellae and their related diseases	Haemophilus, Bordetella and Legionellae	PowerPoint presentation	Quizes

6	**1**	Identify the basic informations about Corynebacterium, Listeria and Erysipelothrix and their related diseases	Corynebacterium, Listeria and Erysipelothrix	PowerPoint presentation	Quizes
6	**1**	Identify the basic informations about invasive Clostridia spp and their related diseases	Clostridia (invasive)	PowerPoint presentation	Quizes
7	**1**	Identify the basic informations about none invasive Clostridia spp and their related diseases	Clostridia (non-invasive) Bacillus	PowerPoint presentation	Quizes
7	**1**	Identify the basic informations about invasive Spirochetes spp and their related diseases	Spirochetes	PowerPoint presentation	Quizes
8	**1**	Identify the basic informations on Mycology and Mycetoma	Introduction to Mycology and Mycetoma	PowerPoint presentation	Quizes
8	**1**	Identify the basic informations about Normal Microbiota and Probiotics	Normal Microbiota and Probiotics	PowerPoint presentation	Quizes
9	**1**	Identify the basic informations about Dermatophytosis and their related diseases	Dermatophytosis	PowerPoint presentation	Quizes
9	**1**	Identify the basic informations about Infections Caused by Anaerobic Bacteria and their related diseases	Infections Caused by Anaerobic Bacteria	PowerPoint presentation	Quizes
10	**1**	Identify the basic informations about Candidiasis and their related diseases	Candidiasis	PowerPoint presentation	Quizes
10	**1**	Identify the basic informations about Bartonella, Brucella, Francisella, Yersinia and Pasteurella and their related diseases	Bartonella, Brucella, Francisella, Yersinia and Pasteurella	PowerPoint presentation	Quizes
11	**1**	Identify the basic informations about	Cryptococcosis	PowerPoint presentation	Quizes

		Cryptococcosis and their related diseases			
11	**1**	Identify the basic informations about Mycoplasma and their related diseases	Mycoplasma	PowerPoint presentation	Quizes
12	**1**	Identify the basic informations about Histoplasmosis and their related diseases	Histoplasmosis	PowerPoint presentation	Quizes
12	**1**	Identify the basic informations about Vibrios, Aeromonas, Campylobacters and Helicobacter and their related diseases	Vibrios, Aeromonas, Campylobacters and Helicobacter	PowerPoint presentation	Quizes
13	**1**	Identify the basic informations about Blastomycosis & Aspergillosis and their related diseases	Blastomycosis & Aspergillosis	PowerPoint presentation	Quizes
13	**1**	Identify the basic informations about Sporotrichosis & Antimycotics and their related diseases	Sporotrichosis & Antimycotics	PowerPoint presentation	Quizes
14	**1**	Identify the basic informations about Miscellaneous Fungi and their related diseases	Miscellaneous Fungi	PowerPoint presentation	Quizes
14	**1**	Identify the basic informations about Rickettsia & Chlamydia and their related diseases	Rickettsia & Chlamydia	PowerPoint presentation	Quizes
15	**1**	Identify the basic informations about Microbial genetics and their impact on resistance and treatment	Microbial genetics	PowerPoint presentation	Quizes

11. Course Evaluation

The final score (100 marks) is distributed as follows:

- Daily participation and oral answers
- Short quizzes and assignments and powerpoint presentation
- midterm written exam
- Final written and practical exams

12. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	1. Jawetz Melnick & Adelbergs Medical Microbiology and Immunology, 27 editions 2015.
Main references (sources)	
Recommended books and references (scientific journals, reports...)	Medical Mycology By Dr. Azhar A. F. Ibrahim. 2013.
Electronic References, Websites	

Course Description Form

1. Course Name:
Immunology
2. Course Code:
MICImm:31
3. Semester / Year:
First Semesters / 3rd Year
4. Description Preparation Date:
5. Available Attendance Forms:
In person
6. Number of Credit Hours (Total) / Number of Units (Total)
3 Credit Hours Total (2 hrs/week Theoretical + 2 hrs/week Practical × 15 weeks)
7. Course administrator's name (mention all, if more than one name)
Name: Professor Dr. Ahmed Abdulhassan Abbas Email: ahmed26770@nahrainuniv.edu.iq Name: Professor Dr. Haider Faisal Ghazi Email: haiderfaisal69@nahrainuniv.edu.iq Name: Assistant Professor Dr. Mohammed Razak Ali Email: dr_mohammedrazak@nahrainuniv.edu.iq Name: Lecturer Dr. Abdulrahman Mohammed Hassan Hadi Email: abdulrhman.m.hadi@nahrainuniv.edu.iq
8. Course Objectives

Course Objectives	Introduces the principles and terms of immunology Development of the immune system, innate immunity, immunoglobulin structure and genetics, antigen-antibody reactions, the major histocompatibility complex reactions and antigen presentation, T and B cells activation, cytokines, Immune responses to infectious organisms and Tumors, autoimmune diseases, Allergies, Immune deficiencies, Transplantation, Immunotherapy and Vaccination

9. Teaching and Learning Strategies	
Strategy	• Content-Based Instruction (CBI) • Interactive lectures and discussions • Role-plays and case-based studies and presentations • Practical sessions and models of immunodiagnosis

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	**1**	Students will identify and	**-Overview of the Immune System**	Lectures	Quizzes

		introduce the basic knowledge of			
2	**1**	Identify the components immune system.	**-Cells and Organs of the Immune System**	Lectures	Quizzes
3	**1**	Students will know the terms of antigen	**-Antigen**	Lectures	Quizzes
4	**1**	Know mechanism of innate immunity	**-Innate immunity, inflammation and phagocytosis**	Lectures	Quizzes
5	1	Students will know how cytokine work	**- Cytokines**	Lectures	Quizzes
6	1	identify how complement system works and their related diseases	**- Complement**	Lectures	Quizzes
7	1	Students will know the classes of MHC molecules and how important in health and disease	**-MHC**	Lectures	Quizzes
8	1	Student with recognize the process of adaptive response and how antigen presentation occur.	**-Adaptive Immune Response, antigen presenting cells**	Lectures	Quizzes
9	1	Identify the mechanism of t cell response	**- T-Cell Development, Activation, Differentiation, and Memory Generation**	Lectures	Quizzes
10	1	Identify the mechanism of B cell response	**- B-Cell Development, Activation, Differentiation,**	Lectures	Quizzes

			and Memory Generation		
11	1	Identify how antibody generated	**- Antibody**	Lectures	Quizzes
12	1	Know the mechanism of immune response	**- Effector Mechanisms**	Lectures	Quizzes
13	1	Identify the levels of immune regulation	**- Immune system regulation**	Lectures	Quizzes
14	1	Students will know the mucosal immunity and how it works	**- Barrier immunity**	Lectures	Quizzes
15	3	How immune response will acts against viral, bacterial, parasitic and fungal pathogens	**-Infection and Immunity**	Lectures	Quizzes
16	3	Identify the mechanism of 4 types of hypersensitivity and related diseases	**- Hypersensitivity type I-4**	Lectures	Quizzes
17	1	How does tolerance initiated.	**-Tolerance**	Lectures	Quizzes
18	3	Identify the mechanism of autoimmune diseases	**- Autoimmunity**	Lectures	Quizzes
19	1	Identify the importance of control on immune system during transplantation	**Transplantation**	Lectures	Quizzes

20	2	Identify the terms and diseases related to immune deficiency	**- Immunodeficiency diseases**	Lectures	Quizzes
21	1	Identify the anti-tumor mechanisms	**-Cancer and the immune system**	Lectures	Quizzes
22	1	Identify the modalities of immune therapies	**Immunotherapy**	Lectures	Quizzes
23	1	Identify the types of vaccines and how it works	**-Vaccines**	Lectures	Quizzes

11. Course Evaluation

The final score (100 marks) is distributed as follows:

- Daily participation and oral answers
- Short quizzes and assignments
- Mid-term written exams
- Final written and practical exams
- Reports and presentations

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Owen J, Punt J, Stranford S, Jones P. *Kuby Immunology*. Macmillan Learning; 2018.
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:
Medical Virology (Theoretical & Practical)
2. Course Code:
MICVir-32
3. Semester / Year:
Second Semesters / Third Year (2024–2025)
4. Description Preparation Date:
5. Available Attendance Forms:
In person
6. Number of Credit Hours (Total) / Number of Units (Total)
3 Credit Hours Total (2 hrs/week Theoretical + 2 hrs/week Practical × 15 weeks)
7. Course administrator's name (mention all, if more than one name)
Name: Professor Dr. Ahmed Sahib AbdulAmeer Email: ahmsah73@nahrainuniv.edu.iq Name: Professor Dr. Asmaa Baqer Salem Email: asmaa.viro@nahrainuniv.edu.iq Name: Professor Dr. Arwa Mujahed Abdullah Email: arwa.mujahid@nahrainuniv.edu.iq
8. Course Objectives

Course Objectives	• Elucidate what is the virus, its definition and structure • What are Medically important viruses and the diseases they cause, and how to classify Medically important viruses • Enhance students' proficiency in diagnosing Medically important viruses and the diseases they cause • *Enhance students' proficiency in preventing viral infection, what are the vaccines and antiviral drugs used

9. Teaching and Learning Strategies

Strategy	• Task-Based Learning (TBL) • Content-Based Instruction (CBI) • Interactive lectures and discussions • Role-plays and case-based simulations • Reflective writing and critical analysis • Use of Practical -visual medical tests

10. Course Structure					
Week	**Hours**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
1	**2**	Students will understand what are viruses and their classification	Introduction: General prosperities & classificati of viruses	Lectures	Tasks, Exams & quizzes
2	**2**	What is the virus replicat cycle and how viruses ca human diseases	Viral replication and genetics Pathogenesis of viral disea	Lectures	
3	**2**	What are the virus vaccir and antiviral drugs classification and mechanism of action	Prevention and treatment viral infections	Lectures	
4	**2**	Starting systematic virolo and learning about the diseases caused by non enveloped DNA viruse	Medically important non enveloped DNA viruses	Lectures	
5	**2**	What are the diseases caused by Enveloped DN viruses	Medically important enveloped DNA viruses	Lectures	
6	**2**	What are the influenza viruses and how cause epidemics or pandemic	Orthomyxoviruses	Lectures	
7			Midterm Exams		
8	**2**	What are the diseases caused by Paramyxovirus and their importance ir Pediatrics	Paramyxoviruses	Lectures	
9	**2**	What are medically important hepatitis virus	Hepatitis viruses	Lectures	
10	**2**	How does Rubella viru affect the pregnancy outcome	Rubella virus and other congenital viral infectior	Lectures	
11	**2**	What is rabies? What are the viruses tha cause diarrhea?	Rhabdovirus , RNA non enveloped viruses, Rotaviruses	Lectures	
12	**2**	Learning about poliomyelitis disease an other related viruses	Picornaviruses	Lectures	
13	**2**	Learning about AIDS	Retroviruses (HIV)	Lectures	
14	**2**	Learning about Corona pandemic	Coronaviruses	Lectures	
15	**2**	What are arthropod-bor viruses?	Arboviruses and *Ebola Virus Zeka virus, Dengu virus	Lectures	
11. Course Evaluation					

The final score (100 marks) is distributed as follows:

- Daily participation and oral answers
- Short quizzes and assignments
- midterm written exam
- Final written and practical exams
- Reports, role-plays, and Seminar presentations

12. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	*Jawetz, Melnick, & Adelberg's Medical Microbiology, 28e*
Main references (sources)	*Jawetz, Melnick, & Adelberg's Medical Microbiology, 28e*
Recommended books and references (scientific journals, reports...)	Fields Virology Book Journal of Virology
Electronic References, Websites	https://virologyj.biomedcentral.com https://www.sciencedirect.com

Course Description Form

1. Course Name:					
Medical Parasitology					
2. Course Code:					
MICPar:32 (2nd Term)					
3- Semester / Year:					
Second Semesters / Third Year (2024–2025)					
4- Description Preparation Date:					
5- Available Attendance Forms:					
In person & hybrid					
6- Number of Credit Hours (Total) / Number of Units (Total)					
3 Credit Hours Total **(2 hrs/week Theoretical + 2 hrs/week Practical × 15 weeks)**					
7- Course administrator's name (mention all, if more than one name)					
Name: Prof. Dr. Haider Sabah Kadhim Email: hs.kadhim.medschool@nahrainuniv.edu.iq Name: Prof. Dr. Huda Dhaher Hathal Name: Asst. Prof. Dr. Qudus Wamidh Jamal Lecturer Dr. Haleema Salman Saleh					
8- Course Objectives					
Course Objectives	The goal of this course is to provide knowledge of medically important parasitic infection in Iraq. This course is designed to introduce students to the medical parasitology field, provide complete information for students to know about parasites in respect to the classification, pathogenesis, understand new techniques of diagnosis, and prevention. In addition, this course aims at overviewing the role of parasites in human morbidity and mortality.				
9- Teaching and Learning Strategies					
Strategy	• Interactive lectures and discussions • Reflective writing and critical analysis • Use of audio-visual medical materials				
10- Course Structure					
Week	**Hours**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
1	**2**	• Discuss the various types of parasites and hosts. • Explain the relationship between a parasite and the host and their effects. • Discuss the classification of	A-**Introduction**, classification, definitions and host-parasite relationships. B-**Nematodes**: *Enterobius vermicularis*	Lectures	Tasks, Exams & quizzes

		medically important parasites. • Learn about the classification of Nematoda • Recognize the life cycle of Enterobious vermicularis • Observe the roots of infection, the disease process, and distinguish the clinical features. Learn about the Dx, Tx and Prevention			
2	**2**	• Recognize the life cycle of Ascaris lumbricoides, Trichuris trichiura,. Strongyloides stercoralis, • Observe the roots of infection, the disease process, and distinguish the clinical features. • Learn about the Dx, Tx and Prevention.	**Nematodes**: A-***Ascaris*** *lumbricoides*, B-***Trichuris*** *trichiura,. Strongyloides stercoralis,*	Lectures	Tasks, Exams & quizzes
3	2	• Recognize the life cycle of *Hookworms and Trichinella spiralis* • Observe the roots of infection, the disease process, and distinguish the clinical features. • Learn about the Dx, Tx and Prevention.	A-**Hookworms**. B-Continue Hookworms *and* ***Trichinella*** *spiralis*,	Lectures	Tasks, Exams & quizzes
4	2	• Recognize the life cycle of filaria • Observe the roots of infection, the disease process, and distinguish the clinical features. Learn about the Dx, Tx and Prevention	A. Introduction to **filaria** B. Continue **filaria**.	Lectures	Tasks, Exams & quizzes
5	2	• Learn about the classification of Cestodes • Recognize the life cycle of Echinococcs granulosus and E.multilocularis. H. nana and H.diumutia Observe the roots of infection, the disease	A-Introduction to **cestodes**, *Echinococcs granulosus* and *E. multilocularis* B- ***H. nana*** and *H. diumutia*	Lectures	Tasks, Exams & quizzes

		process, and distinguish the clinical features. Learn about the Dx, Tx and Prevention			
6	2	• Recognize the life cycle of Taenia solium, Taenia saginata, Dipylidium caninum, Diphyllobothrium. • Observe the roots of infection, the disease process, and distinguish the clinical features. • Learn about the Dx, Tx and Prevention	***A. Taenia*** *solium, Taenia saginata* B-***Dipylidium*** *caninum, Diphyllobothrium latum*	Lectures	Tasks, Exams & quizzes
7	2	• Learn about the classification of Trematodes • Recognize the life cycle of blood flukes and tissue flukes. • Observe the roots of infection, the disease process, and distinguish the clinical features. • Learn about the Dx, Tx and Prevention	A-**Trematodes**: Introduction, **blood flukes**: *Schistosoma.* B-**Tissue flukes**: Intestinal, pulmonary, hepatic.	Lectures	Tasks, Exams & quizzes
8	1	Med-Term Exam			
9	2	• Discuss the classification of medically important Protozoa. • Learn about the classification of Protozoa. • Recognize the life cycle of Amoebae • Observe the roots of infection, the disease process, and distinguish the clinical features. Learn about the Dx, Tx and Prevention	**A-Introduction to protozoa** Amoebae: *Entamoeba histolytica,* **B-Non-pathogenic Amoebae** (*E.coli,E.dispar, E.gengivalis*),Opportunistic Amoebae (*Naegleria fowleri, Acanthamoeba spp.*)	Lectures	Tasks, Exams & quizzes
10	2	• Recognize the life cycle of Giardia lamblia,Trichomonas vaginalis and Leishmaniasis • Observe the roots of infection, the disease	F A-Flagellates**:** Intestinal, Oral and Genital Flagellates **(***Giardia lamblia,*	Lectures	Tasks, Exams & quizzes

		process, and distinguish the clinical features. • Learn about the Dx, Tx and Prevention	*Trichomonas vaginalis, T.tenax*). **B-Blood and tissue Flagellates:** Old and New World Leishmaniasis (*Leishmania donovani, L. infantum, L.tropica,L. major and L. aethiopica*). (*L.braziliensis complex,L.mexicanacomplex,L. peruviana and L.chagasi*)		
11	2	• Recognize the life cycle of Trypanosomiasis • Observe the roots of infection, the disease process, and distinguish the clinical features. • Learn about the Dx, Tx and Prevention	**Blood and Tissue Flagellates:** Trypanosomes (*Trypanosoma brucei gambiense, T. b.rhodesiense, T.cruzi*).	Lectures	Tasks, Exams & quizzes
12	2	• Recognize the life cycle of Malaria, Toxoplasmosis and Cryptosporidium • Observe the roots of infection, the disease process, and distinguish the clinical features. • Learn about the Dx, Tx and Prevention	**FA-Sporozoa:** Malaria parasites B-**Toxoplasma**	Lectures	Tasks, Exams & quizzes
13	2	• Recognize the life cycle of Ciliates • Observe the roots of infection, the disease process, and distinguish the clinical features. • Learn about the Dx, Tx and Prevention.	A ***Cryptosporidim*** *parvum* B- **Cilite**	Lectures	Tasks, Exams & quizzes
14	2	• Discuss the various types of Arthropods. • Explain the relationship between a arthropods and the host and their effects.	Medical **Entomology**	Lectures	Tasks, Exams & quizzes

		• Discuss the classification of medically important arthropods. • Learn about the classification of arthropods • Diseases caused by different arthropods.			
15	2	• Discuss recent advances in vaccine development for parasitic diseases • Malaria vaccine WHO pipeline of vaccine for different parasites.	**Vaccine** in Parasitology	Lectures	Tasks, Exams & quizzes

11- Course Evaluation
The final score (100 marks) is distributed as follows: • Daily participation and oral answers • Homework participations • Short quizzes and assignments • Mid-term written exams • Final written and practical exams

12- Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Paniker`s Textbook of Medical Parasitology 8th-e-2018
Main references (sources)	Paniker`s Textbook of Medical Parasitology 8th-e-2018
Recommended books and references (scientific journals, reports...)	Paniker`s Textbook of Medical Parasitology 8th-e-2018
Electronic References, Websites	WHO, CDC

Anatomy

Course Description Form

1. Course Name:
Embryology- systems-Based Embryology
2. Course Code:
ANTEmb-21
3. Semester / Year:
2nd semester/2nd year
4. Description Preparation Date:
1/2/2025
5. Available Attendance Forms:
Attendance only
6. Number of Credit Hours (Total) / Number of Units (Total)
2
7. Course administrator's name (mention all, if more than one nam
Name: Name: Prof. May Fadhil Majid Email: mayalhabib@nahrainuniv.edu.iq Professor Dr. Thaer Mahmood Farhan Email: aljomaili2005@nahrainuniv.edu.iq
8. Course Objectives
Course Objectives • Study the morphogenetic changes related to organs formation. • Understanding the embryological aspects of congenital malformations • Understanding the clinical varieties of the most Common applied embryological presentations related to systemic embryology
9. Teaching and Learning Strategies

Strategy	

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method

1st	3	Teach the morphogenetic changes related to musculoskeletal organs formation	Embryology of musculoskeletal system (Somitogenesis & Myogenesis).	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
2nd	3	Teach the morphogenetic changes related to skeletal organs formation learn the clinical correlation with embryological knowledge	Development of the skeletal system: (the skull, limbs, vertebrae, rib and sternum)	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
3rd	3	Teach the morphogenetic changes related to oud system organs formation, learn the clinical correlation with embryological knowledge	Development of the central nervous system	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
4th	3	Teach the morphogenetic changes related to head & neck organs formation, learn the clinical correlation with embryological knowledge	Development of the head and neck	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
5th	3	Teach the morphogenetic changes related to eye & ear organs formation, learn the clinical correlation with embryological knowledge	Formation of the eye and ear.	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
6th	3	Teach the morphogenetic changes related to cardiac system organs formation, learn the clinical correlation with embryological knowledge	Morphogenesis of the cardiac system I	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam

7th	3		Midterm exam		
8th	3		Midterm exam		
9th	3	Teach the morphogenetic changes related to cardiac system organs formation, learn the clinical correlation with embryological knowledge	Morphogenesis of the cardiac system II	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
10th	3	Teach the morphogenetic changes related to vascular organs formation, learn the clinical correlation with embryological knowledge	Development of the vascular system	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
11th	3	Teach the morphogenetic changes related to gut tube organs formation, learn the clinical correlation with embryological knowledge	Embryogenesis of gut tube diverticulum.	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
12th	3	Teach the morphogenetic changes related to renal organs formation, learn the clinical correlation with embryological knowledge	Embryogenesis of the Urogenital system: renal system	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
13th		Teach the morphogenetic changes related to internal genital organs formation, learn the clinical correlation with embryological knowledge	Developmental of the internal genital organs	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
14th		Teach the morphogenetic changes related to external genital organs	Development of the external genital organs	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and

		formation, learn the clinical correlation with embryological knowledge			theoretical exam , final exam
15th			Over view of systemic embryology.	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam.

11. Course Evaluation

Theory	15
Practical	10
Assessment	5 quizzes
Total Average	30
Final Theory	50
Final Practical	20
Total Grad	100%

12. Learning and Teaching Resources

- Sadler TW (2014): Langman's medical embryology. 13thEd.William& Wilkins. Philadelphia.
- Moore KL and Persaud TVN (1998): Before we are born, Essentials of embryology and birth defects. 5th Ed. Saunders' comp. Philadelphia.
- Moore KL and Persaud TVN (1998): The developing human, clinical oriented embryology. 6th Ed. Saunders' comp. Philadelphia.

Main references (sources)

Many soft wares and websites

Course Description Form

1. Course Name:

Histology /1st semester
2. Course Code:
ANAT-His21
3. Semester / Year:
2
4. Description Preparation Date:
4/12/2025
5. Available Attendance Forms:
obligatory
6. Number of Credit Hours (Total) / Number of Units (Total)
3
7. Course administrator's name (mention all, if more than one name)
Name: Prof. May Fadhil Majid Email:mayahabib@nahrainuniv.edu.iq Name: huda rashid kareem kamoona Email: resheed.huda@nahrainuniv.edu.iq
8. Course Objectives

Course Objectives	• Define the basics of the tissues of human body, in terms of parts, structures, and relate the normal histology to selected changes in structures, functions in selected related pathological conditions

9. Teaching and Learning Strategies	
Strategy	Theoretical lectures, tutorials and practical sessions, problem solving strategy in questions

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1st week	4	Understand ; The general plane of GIT wall, types of tongue papillae, related pathology to esophageous and stomach as (GERD), gastric ulcer	**1. What is histlogy. General informations about light micrscopy.** **2. The major 4 basic tissue, General features of epithelium, Types of epithelia**	Quizzes (theory and practical)	lectures ,tutorials and laboratory sessions
2nd week	4	Correlate the basic knowledge with clinical scenarios	**1. Specializations of the cell surface.** **2. Glandular epithelia.**	Quizzes (theory and practical)	lectures ,tutorials and laboratory sessions
3rd week	4	-Correlate the basic knowledge with clinical scenarios	**1.Connective tissue: ground substance, fibers.** **2. Cells of connective tissue.**	Quizzes (theory and practical)	lectures ,tutorials and laboratory sessions
4th week	4	- Correlate the basic knowledge with clinical scenarios	**1.Types of connective tissue; Adipose tissue (unilocular & multilocular).** **2. Cartilage; hyaline, elastic & fibrocatilage, histogensis of cartilage.**	Quizzes (theory and practical)	lectures ,tutorials and laboratory sessions
5th week	4	Correlate the basic knowledge with clinical scenarios	***1.*** **Bone: cells, matrix, types of bones.** **2. Bone histogenesis,**	Quizzes (theory and practical)	lectures ,tutorials and laboratory sessions

			growth & remodeling.		
6th week	4	Correlate the basic knowledge with clinical scenarios	**1. Blood: cells, formed elements.** **2. Hematopoiesis; stem cells, bone marrow, maturation.**	Quizzes (theory and practical)	lectures ,tutorials and laboratory sessions
7th week	4	Correlate the basic knowledge with clinical scenarios	**1. Maturation of granyolocytes, maturation of lymphocytes & monocytes, origin of platelets.** **2 *Theoretical Examination***	Quizzes (theory and practical)	lectures ,tutorials and laboratory sessions
8th week	4	Correlate the basic knowledge with clinical scenarios	**1. Muscle tissue: structure, contraction & of skletetal muscle.** **2. Cardiac muscle & smooth muscle.**	Quizzes (theory and practical)	lectures ,tutorials and laboratory sessions
9th week	4	Correlate the basic knowledge with clinical scenarios	**1. Nervous tissue: histogenesis, cells,& synapses.** **2. Nerve fibers, nerves, ganglia.**	Quizzes (theory and practical)	lectures ,tutorials and laboratory sessions
10th week	4	Correlate the basic knowledge with clinical scenarios	**1. Membrans and vessels of the CNS,blood-brain-barrier** **2. Cytoarchitecture of the spinal cord,**	Quizzes (theory and practical)	lectures ,tutorials and laboratory sessions
11th week	4	Correlate the basic knowledge with clinical scenarios	**1. Skin: Epidermis, Dermis and Subcutaneous Tissue.** **2. Skin: Receptors, Hair, Nail, and Glands.**	Quizzes (theory and practical)	lectures ,tutorials and laboratory sessions

12th week	4	Correlate the basic knowledge with clinical scenarios	**1. The Circulatory System; structural plan, large elastic arteries.** **2. Medium arteries, Arterioles, AV anastomosis, Capillaries, and Veins.**	Quizzes (theory and practical)	lectures ,tutorials and laboratory sessions
13th week	4	Correlate the basic knowledge with clinical scenarios	**1. Heart.** **2. Lymphoid Organs; Tonsils, and Thymus.**	Quizzes (theory and practical)	lectures ,tutorials and laboratory sessions
14th week	4	Correlate the basic knowledge with clinical scenarios	**1. Lymphoid Organs; Lymph Nodes.** **2. Lymphoid Organs; Spleen.**	Quizzes (theory and practical)	lectures ,tutorials and laboratory sessions
15th week		Correlate the basic knowledge with clinical scenarios	**overview**	Quizzes (theory and practical)	lectures ,tutorials and laboratory sessions

13- Course Evaluation

Mid term theory 15%
Mid term practical 10%
Quizes 5%
Final theory 50%
Final practical 20%

16- Learning and Teaching Resources

Required textbooks (curricular books, if any	Lectures JUNQUEIRA'S BASIC HISTOLOGY (14th. ed)
Main references (sources)	Junqueira LC & Carneiro J (2016): *Basic Histology*; *Text & Atlas*. 14th ed. McGraw-Hill Medical. New York. -Leeson TS, Leeson CR & Paparo AA (198 *Text/Atlas of Histology*. WB Saunders. USA
Recommended books and references (scientific journals, reports…)	
Electronic References, Websites	▪ http://www.histology-world.com/ http://www.siumed.edu/%7Edking2/index.htm.

	http://www.lab.anhb.uwa.edu.au/mb140/	

Course Description Form

1. Course Name:
Histology /2nd semester

2. Course Code:
ANAT-His22
3. Semester / Year:
2
4. Description Preparation Date:
1/2/2025
5. Available Attendance Forms:
paper documents, online platform
6. Number of Credit Hours (Total) / Number of Units (Total)
3
7. Course administrator's name (mention all, if more than one name)
Name: Prof. May Fadhil Majid Email:mayahabib@nahrainuniv.edu.iq Name: huda rashid kareem kamoona Email: resheed.huda@nahrainuniv.edu.iq
8. Course Objectives

Course Objectives	• Define the basics of the organ systems of human body, in terms of parts, structures, • and relate the normal histology to selected changes in structures, functions in selected related pathological conditions……
9. Teaching and Learning Strategies	
Strategy	Theoretical lectures, tutorials and practical sessions, problem solving strategy in questions
10. Course Structure	

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1st	4	Understand ; The general plane of GIT wall, types of tongue papillae, related pathology to esophageous and stomach as (GERD), gastric ulcer	Digestive Tract; General structure, the oral cavity and tongue, and Pharynx Esophagus and stomac	Quizzes (theory and practical)	lectures ,tutorials and laboratory sessions
2nd	4	Correlate the basic knowledge with clinical scenarios	- Small intestine. -Large intestine & appendix, malabsorbtion as in inflammatory bowel changes and celiac disease	Quizzes (theory and practical)	lectures ,tutorials and laboratory sessions
3rd	4	-Correlate the basic knowledge with clinical scenarios	TOrgans associated with the digestive tract; . Pancreas. - Liver, gall bladder and biliary tract.	Quizzes (theory and practical)	lectures ,tutorials and laboratory sessions
4th	4	- Correlate the basic knowledge with clinical scenarios	Respiratory System; Nasal cavity, , larynx and trachea. - Broncheal tree, and The Lung, obstructive and restrictive lung diseases, and ARDS	Quizzes (theory and practical)	lectures ,tutorials and laboratory sessions
5th	4	Correlate the basic knowledge with clinical scenarios	The Urinary System I. The Kidney and nephrons -The Urinary System II. Ureter, urinary bladder, and urethra.	Quizzes (theory and practical)	lectures ,tutorials and laboratory sessions
6th	4	Correlate the basic knowledge with clinical scenarios	***Mid-term Examination (Theory).*** -***Mid-term Examination (practical)***	Quizzes (theory and practical)	lectures ,tutorials and laboratory sessions
7th	4	Correlate the basic knowledge with clinical scenarios	Endocrine glands ; Pituitary gland, adenomas, hypopituitarism - supra renal gland cushing disease	Quizzes (theory and practical)	lectures ,tutorials and laboratory sessions
8th	4	Correlate the basic knowledge with clinical scenarios	-thyroid and thyroid disorders parathyroid glands -pineal body and endocrine pancreas	Quizzes (theory and practical)	lectures ,tutorials and laboratory sessions
9th	4	Correlate the basic knowledge with clinical scenarios	-Male Reproductive System. Testes - Prostate & Urethra.	Quizzes (theory and practical)	lectures ,tutorials and laboratory sessions

10th		Correlate the basic knowledge with clinical scenarios	The Male reproductive System; Accessory genital glands. - The Female Reproductive System; Ovaries , & oviducts	Quizzes (theory and practical)	lectures ,tutorials and laboratory sessions
11th		Correlate the basic knowledge with clinical scenarios	-Uterine endometrial cycle & vagina. - Mammary glands	Quizzes (theory and practical)	lectures ,tutorials and laboratory sessions
12th		Correlate the basic knowledge with clinical scenarios	Organs of Special Senses; Eye I. -Organs of Special Senses; Eye II.	Quizzes (theory and practical)	lectures ,tutorials and laboratory sessions
13th		Correlate the basic knowledge with clinical scenarios	-Organs of Special Senses; Ear I. -Organs of Special Senses; Ear II.	Quizzes (theory and practical)	lectures ,tutorials and laboratory sessions
14th		Correlate the basic knowledge with clinical scenarios	-Organs of Special Senses; Golgi tendon organ. - sensory receptors of Skin	Quizzes (theory and practical)	lectures ,tutorials and laboratory sessions
15th		Correlate the basic knowledge with clinical scenarios	Overview	Quizzes (theory and practical)	lectures ,tutorials and laboratory sessions

11. Course Evaluation

- Mid term theory 15%
- Mid term practical 10%
- Quizes and seminars 5%
- Final theory 50%
- Final practical 20%

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Lectures JUNQUEIRA'S BASIC HISTOLOGY (14th. ed)
Main references (sources)	Junqueira LC & Carneiro J (2016): *Basic Histology*; *Text & Atlas*. 14th ed. McGraw-Hill Medical. New York.

	-Leeson TS, Leeson CR & Paparo AA (1988): *Text/Atlas of Histology*. WB Saunders. USA.
Recommended books and references (scientific journals, reports…)	
Electronic References, Websites	http://www.histology-world.com/ http://www.siumed.edu/%7Edking2/index.htm. http://www.lab.anhb.uwa.edu.au/mb140/

Course Description Form

1. Course Name:
Medical Biology

2. Course Code:
ANTBio11
3. Semester / Year:
1st /1st
4. Description Preparation Date:
1/2/2025
5. Available Attendance Forms:
Paper documents, online platform
6. Number of Credit Hours (Total) / Number of Units (Total)
4.5
7. Course administrator's name (mention all, if more than one name)
Name: Prof. May Fadhil Majid Email: mayalhabib@nahrainuniv.edu.iq Assist. Professor Dr. Thaer Mahmood Farhan aljomaili2005@nahrainuniv.edu.iq Assist. Professor. Shatha Mahmoud Hasan Shathamahmoud72@nahrainuniv.edu.iq
8. Course Objectives
Intended - Learning objectives- ILO: The course is designed to enable the student to: 1. Understand the concept of cell Biology and different types of living cells 2. Biosafety: theoretical, general definition of biohazards and risk assessment with universal safety precaution 3. - Understand different anatomical terms used in describing: different regions of the body, directions, position, and movement.
9. Teaching and Learning Strategies

Strategy	

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method

1st	6	*Introduction to cell biology *type of living cells *plasma membrane & and functions	Introduction to cells and their significance There are two main types or categories of cells: prokaryotic cells and eukaryotic cells. Structures and differences between them The plasma membrane, also known as the cell membrane, is a crucial component of all cells in living organisms	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
2nd	6	*Transport Across Cell Membranes *Bulk Transport *The cytoplasm	Principles of transmembrane Transport> with a medical applied Exocytosis and endocytosis Cytoplasm is a semi-fluid, gel-like substance that fills the interior of a cell with a medical applied	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
3rd	6	*Cytoskeleton *(mitochondria) *Mitochondrial disease	The cytoskeleton is a dynamic network of protein filaments and tubules with a medical applied Structure and function of mitochondria and cellular respiration Mitochondrial disease, or mitochondrial disorder	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
4th	6	**endomembrane system I-II *Cell junctions.	Structure and function of endomembrane system Study the types of connecting junctions, that bind the cells together with a medical applied	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
5th	6	*The nucleus *The nucleolus *Cell cycle	Structure and functions of the nucleus Nucleolus structure and function with a medical applied A cell cycle is a series of events that take place in a cell	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
6th	6	*Mitosis *Meiosis I *Meiosis II	Mitosis is a process of cell duplication or reproduction. And studies the different stages of mitosis. With a medical applied Meiosis is a type of cell division in sexually reproducing organisms	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam

			that reduces the number of chromosomes in gametes With a medical applied		
7th			Midterm exam		
8th			Midterm exam		
9th	6	*Human anatomy; definitions, types, and imaging techniques *Different body planes and terminology *Body cavities and abdomino- pelvic region	Define anatomy / types of anatomy / anatomical position / methods and techniques used to know about living anatomy Describing different types of planes and lines and their clinical correlation / terms of direction, reclining and movement Classification of body cavities / parts and membranes / divisions of the abdomino-pelvic region (9 and 4 quadrants)	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
10th	6	*Locomotor system: body skeleton *Locomotor system; muscles *Locomotor system; the joints	Types of bones / anatomy of long bones / classification of human body skeleton; axial and appendicular skeleton Types of muscles / types of muscle action / tendon and tendon sheath / muscles name Definition / classification and examples / characteristics of body joints	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
11th	6	*Locomotor system; synovial joints *Cardiovascular system; The heart *Cardiovascular system; Blood vessels	Definitions / types and examples / anatomy and movements Anatomy and location of the heart / circulation Classification and definition of blood vessels examples on upper and lower limb vessels/anastomosis	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
12th	5	*Nervous system; CNS *Nervous system; PNS *Skin and fascia,	Classification of the nervous system/anatomy of the brain, brain stem, spinal cord and cerebellum / Anatomy of the peripheral nervous system / spinal nerves / cranial nerves / ANS Anatomy of integumentary system/definition and types of fascia	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam

13th	6	*lymphatic system *Introduction to biosafety and security and biosafety barriers in bio labs *Biosafety level and Biological agents	By graduation, medical students should know common presentations of Description of lymphatic drainage/anatomy of lymphatic vessels and nodes / clinical importance Biosafety and security refer to a set of measures and practices designed to protect researchers, the environment, and the public from potential risks associated with biological materials, including microorganisms, toxins, and genetically modified organisms (GMOs	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
14th	6	*Types of biological wastes *Transportation of biological materials *Accident response	Transportation of biological materials involves the movement of living organisms, tissues, blood, cultures, or other biological substances from one location to another for research, diagnostic, medical, or commercial purposes.	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
15th	6	Overview 1&11			

11. Course Evaluation

Theory	15
Practical	10
Assessment	5 quizzes
Total Average	30
Final Theory	50
Final Practical	20
Total Grad	100%

12. Learning and Teaching Resources

- -Dalley KL & Dalley AF (2006): Clinically oriented Anatomy. 5th Ed Lippincott Williams& Wilkins. Philadelphia
- 2- Molecular Biology of the cell, Bruce Albert,6th Edition (2017)
- 3-Human Biology, Sylvia S. Mader. fifteenth Edition (2017)
- Cell Biology and Histology,Leslie P. Gartner.Copyright © 2011 Lippincott Williams & Wilkins

Course Description Form

1. Course Name:
Medical Biology- Cytogenetics
2. Course Code:

ANTBio12
3. Semester / Year:
1st /2nd
4. Description Preparation Date:
1/2/2025
5. Available Attendance Forms:
Paper documents, online platform
6. Number of Credit Hours (Total) / Number of Units (Total)
3.5
7. Course administrator's name (mention all, if more than one name)
Name: Prof. May Fadhil Majid Email: mayalhabib@nahrainuniv.edu.iq Assist. Professor Dr. Thaer Mahmood Farhan aljomaili2005@nahrainuniv.edu.iq Assist. Professor. Shatha Mahmoud Hasan Shathamahmoud72@nahrainuniv.edu.iq
8. Course Objectives
Intended - Learning objectives- ILO: The course is designed to enable the student to: 1-understanding the basis of genetics and medical inheritance. 2. study the basic information about the human genome and techniques used in genetic studies of chromosomes 3. understanding how the gene expression 4. study the Genetic diseases and cancer 5-Classification and biological aspects of lower organisms the relation between free-living forms and parasitic forms, and the effects of the environment complement each other in the life of man and other organisms.
9. Teaching and Learning Strategies
Strategy
10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1st	5	*Introduction to cytogenetics	Cytogenetics" traditionally refers to the study of	Lectures+ practical sessions	Exam: formative and summative exams, midterm

		*Patterns of Chromosome Inheritance	chromosomes with the use of microscopy Students need to understand the basic laws of inheritance to appreciate how conditions are passed on in a family. An		practical and theoretical exam , final exam
2nd	5	Chromosomes structure 1& 2	Study chromosomes are thread-like structures in which DNA is tightly packaged within the nucleus. DNA is coiled around proteins called histones, which provide the structural support	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
3rd	5	*Chromosome Inheritance abnormalities *Chromosome Inheritance abnormalities	Learn the terms used to describe the abnormalities in chromosomal numbers: polyploidy, aneuploidy: trisomy and monosomy, and mosaicism and their causing mechanisms.• Learn the terms that describe the abnormalities in chromosomal structure: deletions, duplications, translocations, and inversions	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
4th	5	*Inheritance of Genetic Disorders *Sex-Linked Inheritance	A trait or disorder that is determined by a single gene in an autosome is said to show autosomal inheritance Study Sex-linked inheritance refers to the pattern of inheritance shown by genes that are located on either of the sex chromosomes	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
5th	5	*Cell cycle regulationI *Cell cycle regulationII	Describe the internal and external factors that influence the cell cycle control system Explain how the abnormal cell division of cancerous cells escapes normal cell cycle controls	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
6th	5	*DNA Biology(DNAstructure *RNA Structure& Function	describe the structure of DNA as a polymer composed of many nucleotides joined by phosphodiester bonds forming a sugar-phosphate backbone	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam

			RNA molecules perform a variety of roles in the cell but are mainly involved in the process of protein synthesis (translation) and its regulation, and describe the similarities and differences between RNA and DNA		
7th			Midterm exam		
8th			Midterm exam		
9th	5	*DNA Replication *Gene Expression I	Understand the basic mechanism of DNA replication, and know the various enzymes that play a role in this process. This lesson describes the steps involved in a cell as DNA sequence information is read to make RNA and RNA is read to make proteins. A gene will only control a trait in an organism when the gene is expressed	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
10th	5	**Gene Expression II	Describe the basic mechanics of translation, including the roles of ribosomes, tRNAs, and amino acids.	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
11th	5	*Mitochondrial DNA *Mitochondrial diseases	Mitochondria are unique organelles carrying their genetic material, independent from that in the nucleus. Describe the etiology, pathogenesis, and clinical features of one type of mitochondrial disease	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
12th	5	*Cancer (Overview of cancer) *Causes and Prevention of Cancer	Describe in general terms how cancers develop and be able to describe the hallmarks of cancer. Describe the important genetic/familial syndromes related to cancer development, identify their mode of inheritance and impact on cancer development	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
13th	5	*Diagnosis of Cancer *Stem cells I	By graduation, medical students should know common presentations of cancer and how	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and

			to make a diagnosis of cancer In this lesson, students will be able to state where stem cells are found, describe the function of stem cells in the human		theoretical exam , final exam
14th	5	*Stem cells II Protozoa I *Platyhelminthes I	Study the potential benefits and risks of using stem cells in medicine Study protozoa to provide students with knowledge concerning biological, epidemiological and ecological aspects of parasites causing diseases in humans	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
15th	5	Overview 1&11			

11. Course Evaluation

Theory	15
Practical	10
Assessment	5 quizzes
Total Average	30
Final Theory	50
Final Practical	20
Total Grad	100%

12. Learning and Teaching Resources

- Molecular biology of the cell, Bruce Albert.2002
- 2-Elements of Medical genetics, Alan E, H. Emery, sixth edition, London 1983
- 3-EMERY'S Elements of Medical Genetics. Peter D. Turnpenny, Sian Ellard,14th EDITION
- Essentials of Medical Genetics for Health Professionals.Laura M. Gunder, DHSc, MHE, PA-C.Copyright © 2011 by Jones & Bartlett Learning, LLC
- ABC OF CLINICAL GENETICS, THIRD EDITION.

Course Description Form

1. Course Name:

Gross Anatomy- Anatomy of Upper & Lower Limbs

2. Course Code:
ANT-ant 12
3. Semester / Year:
1st / 2nd
4. Description Preparation Date:
20/102/2023
5. Available Attendance Forms:
personal students attendance
6. Number of Credit Hours (Total) / Number of Units (Total)
45 hours theory + 90 hours practical / 6 credit hours
7. Course administrator's name (mention all, if more than one name)
Name: Prof. Dr. Haider Abdulrassoul Jaffar Lecturer Dr. Hussein Abbas Jarullah
8. Course Objectives
Intended - Learning objectives- ILO: **The course is designed to enable the student to:** 1**.** Describe the topography of the upper and lower limbs 2. Identify the surface markings of limb structures on the body wall emphasizing peripheral pulses and palpable bony landmarks 3. Direct the anatomical knowledge towards the appearance of structures when they are imaged in radiographs. 4. Emphasize the clinical significance of anatomical structures and relations facilitating the understanding of a disease process or surgical procedure on anatomical grounds
9. Teaching and Learning Strategies

Strategy	Teaching and learning of human upper & lower limbs anatomy includes the following methods: **1. Theory**: • Give theory background interactive lectures attending physically in the lectures-halls three lectures per week on two repetition, • Do some formative quizzes at the end of the lectures for feedback knowledge • Using Al-Nahrain medical college platform is one of the methods used to communicate with student at home and use this classroom to give the headlines for the next coming lectures, inform them about upcoming quizzes in addition to performing home formative quizzes and assignments

	• Physically attending Formative assessment and exam **2. Practical sessions and training:** • Demonstration of the real cadaveric dissection • Plastic models demonstration • Live-camera anatomy demonstration using [modified closed- circuit audiovisual learning system] • Virtual anatomy lab. Teaching [virtual anatomy tables] these are synchronized with master table in the lab. That controls what are being displaced on the virtual tables and LCD screens in the anatomy lab. • Students are subdivided into 4 groups [A, B, C, D] in the lab., each group is composed of around (80-90) students who are allowed to use all the tools and facilities in the anatomy lab., as well as the virtual anatomy lab through-out 3 hrs. on two occasions per week [practical anatomy lab. Sessions] • Clinically oriented practical anatomy teaching for students to be able to correlate the basic anatomical knowledge with the clinically based scenarios provided in practical exams.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1st	9	Teach the anatomy of the Upper limb, learn the clinical correlation with anatomical knowledge	1. Osteology of the upper limb 2. Superficial structures of the upper limb 3. Anterior and post. thoraco-appendicular muscle	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
2nd	9	Teach the anatomy of the Upper limb, learn the clinical correlation with anatomical knowledge	4. Joints of the pectoral region and scapulohumeral muscles 5. The shoulder joint, functional and clinical anatomy 6. The axilla: boundaries and axillary vessels and lymph nodes. Clinical correlates	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
3rd	9	Teach the anatomy of the Upper limb, learn the clinical correlation with	7. The brachial plexus 8. The arm: anterior & post. Compartment. Clinical anatomy	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and

		anatomical knowledge	9. The cubital fossa and elbow joint. Applied anatomy of cubital fossa		theoretical exam , final exam
4th	9	Teach the anatomy of the Upper limb, learn the clinical correlation with anatomical knowledge	10. Flexor compartment of the forearm 11. Extensor compartment of the forearm 12. Nerves and vessels of the forearm. The radio-ulnar joints	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
5th	9	Teach the anatomy of the Upper limb, learn the clinical correlation with anatomical knowledge	13. Clinical anatomy of fractures of radius & ulna 14. The wrist region and the Hand (muscles) 15. The Hand (blood vessels and nerves)	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
6th	9	Teach the anatomy of the Upper limb, learn the clinical correlation with anatomical knowledge	16. Applied anatomy of wrist and hand 17. Nerve injuries of upper limbs 18. Imaging and cross sectional anatomy of upper limb	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
7th		Teach the anatomy of the Upper limb, learn the clinical correlation with anatomical knowledge	MID-TERM EXAMINATION		
8th		Teach the anatomy of the Lower limb, learn the clinical correlation with anatomical knowledge	1. Osteology of the lower limb 2. Superficial thigh structures & Applied anatomy 3. The femoral triangle, Femoral sheath, the anterior and adductor compartment. Adductor canal		
9th	9	Teach the anatomy of the Lower limb, learn the clinical correlation with	4. Gluteal region; anatomy and its clinical correlate	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and

		anatomical knowledge	5. The hip joint; anatomy and main clinical conditions related 6. Posterior compartment of the thigh		theoretical exam , final exam
10th	9	Teach the anatomy of the Lower limb, learn the clinical correlation with anatomical knowledge	7. Clinical anatomy of fractures of femur 8. Popliteal fossa; anatomy and applied anatomy 9. The knee joint; anatomy and main clinical conditions related	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
11th	9	Teach the anatomy of the Lower limb, learn the clinical correlation with anatomical knowledge	10. Posterior crural compartment 11. The sole of the foot 12. The ankle joint and joints of the foot	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
12th	9	Teach the anatomy of the Lower limb, learn the clinical correlation with anatomical knowledge	13. Arches of the foot; anatomy and clinical significance 14. Posture and gait 15. Venous drainage of the lower limb & varicose veins	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
13th	9	Teach the anatomy of the Lower limb, learn the clinical correlation with anatomical knowledge	16. Nerve injuries in the lower limb 17. Imaging and cross sectional anatomy of the lower limb 18. Applied anatomy of lower limb (cutaneous nerves 19. and peripheral pulses)	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
14th	9	Teach the anatomy of the Lower limb, learn the clinical correlation with anatomical knowledge	How to analyse clinical Scenarios based on anatomical knowledge. Examples and discussion	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
15th	9	Teach the anatomy of the Lower limb, learn the clinical correlation with	Overview	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and

		anatomical knowledge			theoretical exam , final exam

11. Course Evaluation

Theory	14
Practical	8
Assessment	5 quizzes
Total Average	30
Final Theory	50
Final Practical	20
Total Grad	100%

12. Learning and Teaching Resources

- Moore KL & Dalley AF (2022): Clinically Oriented Anatomy. 9th Ed. Lippincott Williams & Wilkins. Philadelphia
- Snell R (2018): Clinical Neuroanatomy. 8th Ed. Lippincott Williams & Wilkins. Philadelphia

Main references (sources)

- Moffatt DB (1993): Lecture notes on anatomy. 2nd ed., Blackwell publications. Oxford
- Snell RS 10th edition (2018): Clinical anatomy for medical students. 6th Ed. Williams & Wilkins. Philadelphia
- Wilkinson: neuroanatomy for medical students
- Barr & Kiernan: the human nervous system

- MRI of the brain and spine (CD)
- McMinn's head and neck anatomy (CD)
- McMinn's color atlas of human anatomy (CD)
- McMinn & Abrahams's clinical atlas of human anatomy (CD)
- Weir J & Abrahams P: Imaging atlas of the human body (CD)
- Netter's Interactive Anatomy (CD)
- Grant's atlas of anatomy (CD)

Course Description Form

1. Course Name: Human Anatomy-

Thorax-Abdomen-Pelvis and Perineum
2. Course Code:
ANT-Ant 21
3. Semester / Year:
2nd /1st
4. Description Preparation Date:
4/12/2024
5. Available Attendance Forms:
Paper documents, online platform
6. Number of Credit Hours (Total) / Number of Units (Total)
6 credit hrs
7. Course administrator's name (mention all, if more than one name)
Professor Dr. Thaer Mahmood Farhan aljomaili2005@nahrainuniv.edu.iq
8. Course Objectives

Intended - Learning objectives- ILO:

Thorax : The course is designed to enable the student to

1. Identify the parts and components of thorax on dissections and prosections
2. Realize the basic Knowledge on thoracic cavity organization and topography
3. Identify the external and internal features of the heart and discuss their functional significance, including their clinical application in cauterization e.g.
4. Highlight the clinical significance of thorax structures and viscera
5. Establish working knowledge of cross sectional anatomy of the thorax and relevant applications.
6. Pay attention to orient the medical students for function of respiration by lungs and the related muscles of respiration and the principles for clinical correlate of different disorders.
7. 7. Apply problem-solving and critical thinking techniques to apply anatomical theory to common clinical scenarios
8. Demonstrate professional respect and responsible care of human specimens

Abdomen – pelvis and perineum

1. Describe the topography of the **Abdomen – pelvis and perineum**
2. Teach the students different anatomical structures and organs with their important relations in **Abdomen – pelvis and perineum**
3. Provide surface markings of anatomical structures on the body wall.
4. Emphasize the clinical significance of anatomical structures and relations facilitating the understanding of a disease process or surgical procedure on anatomical grounds

5. Provide the anatomy essential to understand clinical procedures in the examination of **Abdomen – pelvis and perineum**
6. Direct the anatomical knowledge towards the appearance of structures when they are imaged in radiographs
7. Make easier description of the neurovascular anatomy by cadaveric as well as angiographic and imaging methods.
8. Medical students' satisfaction with the course contents and their future career.

9. Teaching and Learning Strategies

Strategy	

10. Course Structure

Week	**Hours**	**Unit or subject name**	**Learning method**	**Evaluation method**
1st	3 theory+ 6 practical	1.Osteology of the thoracic cage 2.Applied anatomy of the intercostal spaces 3.-life saving procedures like pericardiocentesis, pleural aspiration. Chest tube- application	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
2nd		4.The applied anatomy of pleura 5.-pneumothorax, pleuritic chest pain, pleural effusion 6.The applied anatomy of lung+ anatomical consideration in lung surgery and peumonectomy	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
3rd		7.The heart: The pericardium. External features. 8.-Pericardial pain, pericardial effusion-radiological anatomy	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
4th		9.The heart: Internal features 10-anatomical principles of the congenital heart disease of The heart: Blood supply & conductive system. Clinical correlates 11.The mediastinum division: anterior mediastinum, superior mediastinum	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
5th		12.The posterior mediastinum 13.Sectional and applied anatomy of mediastinum 14.The clinical anatomy of breast 15.-anatomical principles of mastectomy	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
6th		16.SECTION OF ABDOMEN	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and

		17.Topographic anatomy of the abdomen and anterior abdominal wall		theoretical exam , final exam
7th		18.Applied anatomy of the anterior abdominal wall & surgical incisions 19.The inguinal region & testis. Clinical correlates		
8th		20.General organization of the peritoneum & peritoneal spaces 21.The oesophagus, stomach, and spleen		
9th		22.The duodenum and pancreas 23.The liver and biliary system. Clinical correlates 24.The clinical anatomy of small intestine, endoscopic anatomy	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
10th		25.The clinical anatomy of large intestine, endoscopic anatomy 26.The posterior abdominal wall: Muscles, vessels, nerves 27.Arterial blood supply of GIT	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
11th		28.Venous drainage of the GIT. The portal system 29.The diaphragm. kidney & ureter, 30.-anatomical basis of renal colic	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
12th		31.-renal variation and congenital malformation 32.-diaphragm congenital malformation 33.Pain pathways of abdominal viscera	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
13th		34.The applied anatomy of back, back pain 35.Imaging and cross sectional anatomy of the abdomen 36.Pelvic walls: Bones, muscles, ligaments, & joints	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
14th		37.Pelvic walls: Sex differences, measurements & variations 38.Pelvic fascia, & peritoneum 39. Urinary bladder & male internal genital organs, the anatomical factors in male infertilityFemale internal genital organs, anatomical factor in female infertilityThe rectum and the anal canalClinical anatomy of haemorrhoids and anal surgical condition	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
15th		40. The perineum: The anal triangle & ischiorectal fossa 41. The perineum: The urogenital triangle 42. Nerves & Vessels of the pelvis	Lectures+ practical sessions	

		43.Imaging and cross sectional anatomy of the pelvic region 44. overview		

11. Course Evaluation

Theory	15
Practical	10
Assessment	5 quizzes
Total Average	30
Final Theory	50
Final Practical	20
Total Grad	100%

12. Learning and Teaching Resources

• Moore KL & Dalley AF (2022): Clinically Oriented Anatomy. 9th Ed. Lippincott Williams & Wilkins. Philadelphia	
Main references (sources)	
• Moffatt DB (1993): Lecture notes on anatomy. 2nd ed., Blackwell publications. Oxford • Snell RS 10th edition (2018): Clinical anatomy for medical students. 6th Ed. Williams & Wilkins. Philadelphia	
• MRI of the thorax (CD) • McMinn's abdomen- pelvis anatomy (CD) • McMinn's color atlas of human anatomy (CD) • McMinn & Abrahams's clinical atlas of human anatomy (CD) • Weir J & Abrahams P: Imaging atlas of the human body (CD) • Netter's Interactive Anatomy (CD) • Grant's atlas of anatomy (CD) MLA Style. Dalley, Arthur F.. Moore's clinically oriented anatomy, 9th international edition.. 9 Philadelphia: Wolters Kluwer, 2023	

Course Description Form

1. Course Name:
Human Anatomy- Neuroanatomy, Head & Neck Anatomy

2. Course Code:
ANT-Ant 22
3. Semester / Year:
2nd /2nd
4. Description Preparation Date:
1/2/2025
5. Available Attendance Forms:
Paper documents, online platform
6. Number of Credit Hours (Total) / Number of Units (Total)
6
7. Course administrator's name (mention all, if more than one name)
Name: Prof. May Fadhil Majid Email: mayalhabib@nahrainuniv.edu.iq Professor Dr. Thaer Mahmood Farhan aljomaili2005@nahrainuniv.edu.iq
8. Course Objectives

Intended - Learning objectives- ILO:

Neuroanatomy: The course is designed to enable the student to

- Identify the parts and components of CNS on dissections and prosections
- Realize the basic Knowledge on CNS organization and topography
- Identify major cortical and subcortical features of the brain and discuss their functional significance, including their involvement in select pathways
- Highlight the clinical significance of neuroanatomical structure
- Establish working knowledge of cross sectional anatomy of CNS and relevant applications.
- Pay attention to orient the medical students for functional neuroanatomy and understand the principles for clinical correlate of neurologic disorders.
- 7. Apply problem-solving and critical thinking techniques to apply anatomical theory to common clinical scenarios (e.g., lesion localization and associated deficits)
- Demonstrate professional respect and responsible care of human specimens
- **Head and neck:**
- Describe the topography of the head and neck
- Teach the students different anatomical structures and organs with their important relations in head and neck
- Provide surface markings of anatomical structures on the body wall.

- Emphasize the clinical significance of anatomical structures and relations facilitating the understanding of a disease process or surgical procedure on anatomical grounds
- Provide the anatomy essential to understand clinical procedures in the examination of head and neck structures
- Direct the anatomical knowledge towards the appearance of structures when they are imaged in radiographs
- Make easier description of the neurovascular anatomy by cadaveric as well as angiographic and imaging methods.
- Medical students' satisfaction with the course contents and their future career.

9. Teaching and Learning Strategies

Strategy	

10. Course Structure

Week	**Hours**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
1st	9	Teach the anatomy of the CNS, learn the clinical correlation with anatomical knowledge	1.breifing and orientation for medical students about the neuroanatomy & head and neck course 2. Gross anatomy of brain & medullary centers. 3. Functional localization of cerebral cortex I	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
2nd	9	Teach the anatomy of the CNS, learn the clinical correlation with anatomical knowledge	4. Functional localization of cerebral cortex II 5. Brain stem I. 6. Brain stem II & reticular formation.	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
3rd	9	Teach the anatomy of the CNS, learn the clinical correlation with anatomical knowledge	7. Meninges. & Ventricles of the brain with clinical correlate 8. Blood supply of the brain. with angiography 9. Limbic system with clinical correlate	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
4th	9	Teach the anatomy of the CNS, learn the clinical correlation with anatomical knowledge	10. Cerebellum. 11. Diencephalon. 12. Basal ganglia.	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam

5th	9	Teach the anatomy of the CNS, learn the clinical correlation with anatomical knowledge	13. Spinal cord I: gross and sectional anatomy 14. Spinal cord II. Ascending and descending pathways 15. The extracranial course of cranial nerves.	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
6th	9	Teach the anatomy of the head & neck, learn the clinical correlation with anatomical knowledge	16. Sectional & imaging anatomy of the CNS 17. Surface anatomy, planes and fascia of the neck. 18. Posterior triangle of neck.	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
7th			Midterm exam		
8th			Midterm exam		
9th	9	Teach the anatomy of the head & neck, learn the clinical correlation with anatomical knowledge	19. Anterior triangle of neck. 20. Thyroid and parathyroid glands. Viscera of neck. 21. Nerves & Blood vessels of the neck.	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
10th	9	Teach the anatomy of the head & neck, learn the clinical correlation with anatomical knowledge	22. Prevertebral & suboccipital regions. 23. Root of the neck. 24. Clinical anatomy of the pharynx.	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
11th	9	Teach the anatomy of the head & neck, learn the clinical correlation with anatomical knowledge	25. Clinical anatomy of the larynx. 26. The scalp &muscles of face. 27. Nerves & vessels of face.	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
12th	9	Teach the anatomy of the head & neck, learn the clinical correlation with anatomical knowledge	28. Parotid region. 29. Infratemporal fossa 30. Ptyregopalatine fossa.	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
13th	9	Teach the anatomy of the head & neck, learn the clinical correlation with anatomical knowledge	31. Temporomandibular joint & palate. With clinical correlates 32. Mouth &submandibular region. 33. clinical and applied anatomy of the ear	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
14th	9	Teach the anatomy of the head & neck, learn the clinical correlation with	34. The nose & paranasal sinuses. 35. The orbit. & the eyeball	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and

		anatomical knowledge	36. Applied anatomy of lymphatic drainage of head & neck		theoretical exam , final exam
15th	9	Teach the anatomy of the head & neck, learn the clinical correlation with anatomical knowledge	37. Sectional & imaging anatomy of the head & neck 38. Case scenario & problem solving for head and neck anatomy	Lectures+ practical sessions	Exam: formative and summative exams, midterm practical and theoretical exam , final exam

11. Course Evaluation

Theory	15
Practical	10
Assessment	5 quizzes
Total Average	30
Final Theory	50
Final Practical	20
Total Grad	100%

12. Learning and Teaching Resources

- Moore KL & Dalley AF (2022): Clinically Oriented Anatomy. 9th Ed. Lippincott Williams & Wilkins. Philadelphia
- Snell R (2018): Clinical Neuroanatomy. 8th Ed. Lippincott Williams & Wilkins. Philadelphia

Main references (sources)

- Moffatt DB (1993): Lecture notes on anatomy. 2nd ed., Blackwell publications. Oxford
- Snell RS 10th edition (2018): Clinical anatomy for medical students. 6th Ed. Williams & Wilkins. Philadelphia
- Wilkinson: neuroanatomy for medical students
- Barr & Kiernan: the human nervous system

- MRI of the brain and spine (CD)
- McMinn's head and neck anatomy (CD)
- McMinn's color atlas of human anatomy (CD)
- McMinn & Abrahams's clinical atlas of human anatomy (CD)
- Weir J & Abrahams P: Imaging atlas of the human body (CD)
- Netter's Interactive Anatomy (CD)
- Grant's atlas of anatomy (CD)

MLA Style. Dalley, Arthur F.. Moore's clinically oriented anatomy, 9th international edition.. 9 Philadelphia: Wolters Kluwer, 2023.