



The University of Jordan Accreditation & Quality Assurance Center

Course Syllabus)

Course Name:
Internal medicine
course for 6th year
medical students



1	Course title	Internal Medicine for 6th year medical students		
2	Course number			
	Credit hours (theory, practical)			
	Contact hours (theory, practical)	5 days a week, 8am-5pm		
		8 weeks total training for each group (6 weeks at University Hospital and 2 weeks at one of the oteaching hospitals which include: King Hussein M Center, Al-Bashir Hospital, King Hussein Cancer Center the National Center for Diabetes Endocrinolog Genetics).		
		Each rotation is 2 weeks in one the following medical spec		
3		Cardiology		
		Respiratory		
		Nephrology		
		Gastroenterology		
		Hematology/Oncology		
	The second second	Endocrinology		
		Rheumatology		
		Infectious diseases		
4	Prerequisites	Pass 5th year to 6th year		
5	Program title	Internal Medicine for 6th year medical students		
6	Program code			
7	Awarding institution	Jordan University		
8	Faculty	Faculty of Medicine		
9	Department	Internal Medicine		
10	Level of course			
11	Year of study and semester(s)	Sixth year		
12	Final Qualification	32		
13	Other department(s) involved in teaching the course	none		
14	Language of Instruction	English		
15	Date of production/revision	8/10/2023		

16. Course Coordinator:

Dr Laith al shobaki Internal medicine department, L.AlShowbaki@ju.edu.jo



17. Other instructors:

Dr Tarek Gharibeh Internal medicine department Tarekgharibeh@gmail.com

18. Course Description:

As stated in the approved study plan.

- Students will spend 8 weeks in the department of medicine and they are divided into small subgroups that rotate on different specialties of medicine with 2 weeks spend in each subspecialty. During COVID-19 pandemic, students within each group are further divided into two small groups (A and B). Groups A and B alternate on coming to hospital for teaching round. A daily online activity is also held in each rotation for both groups.
- Students will be exposed to a wide variety of acute and chronic medical diseases. Emphasis is placed on thorough history taking and physical examination, formulation of diagnostic and therapeutic plans with appropriate use of laboratory studies, and problem solving with case based discussion.
- Students will participate with the medical team in the evaluation and management of patients with medical problems. Basic mechanisms in the pathophysiology of the disease process will be stressed, as well as the practical aspects of diagnosis and therapy.
- The preceptorship method and small group discussions will be employed as the main teaching modalities. Students will make regularly scheduled rounds. Seminars, clinical and physiological conferences and other small group exercises will supplement clinical experiences and emphasize the scientific basis of clinical problems.
- The medical team responsible for the medical student will be the consultant who is in charge of the teaching process, fellows, the residents and the house officers.
- During the placement, medical students will also spend time in the clinics and in the procedure area if applicable such as endoscopy.
- Students are also expected to follow up on patients during their hospitalization till their discharge from the hospital with focus on the management skills.

19. Course aims and outcomes:

A- Aims:

- I. To highlight the concept of health and disease and provide knowledge of the common medical disorders
- II. To offer information regarding approach to patients, identification of disease, reaching diagnosis, and how to provide care and respond to patient needs
- III. To help students develop skills about how to obtain medical history and perform physical examination, and how and what investigations to request. Also, to assist the student to develop skills of interviewing, communication, and rapport establishment.
- IV. To provide the students with information regarding formulation, broad lines of management and safety use of medications and drug interactions

B- Intended Learning Outcomes (ILOs): Upon successful completion of this course students will be able to:

Respiratory:

- 1. To review the anatomy and physiology of respiratory system
- 2. To understand and interpret pulmonary function tests
- 3. To understand and interpret arterial blood gases
- 4. To be able to read and interpret common findings on Chest x-ray
- 5. To learn how to approach and be able to outline the management for patients with chronic obstructive pulmonary disease, thrombo-embolism, lung cancer, bronchiectasis, bronchial asthma, pulmonary hypertension, acute respiratory distress, pneumonia, pleural disease, obstructive sleep apnea, interstitial lung disease and respiratory failure
- 6. At outside teaching hospitals the focus will be mainly on mastering taking history and physical examination of patients with COPD, pleural effusion, pneumonia, lung fibrosis, and asthma.

Cardiology:

- 1. To review the anatomy and physiology of cardiovascular system.
- 2. To understand the symptoms and signs of cardiovascular conditions.
- 3. To be able to read and interpret basic electrocardiogram for common cardiac conditions.
- 4. To learn how to approach and be able to outline the management for patients with ischemic heart disease, acute coronary syndrome, arrhythmias, basic concepts about congenital heart disease, cardiac arrest, pericardial disease, valvular heart disease, rheumatic fever, infective endocarditis, core pulmonale, cardiac tumors, peripheral vascular disease, lipid disorders, cardiomyopathies, myocarditis, congestive heart failure and hypertension.
- 5. To emphasize the concept of primary prevention of cardiovascular diseases with lipid management and hypertension treatment especially in out-patient clinic settings.
- 6. At outside teaching hospitals the focus will be mainly on mastering taking history and physical examination of patients with CHF exacerbation, valvular heart disease, JVP examination, and EKGs interpretation.

Gastroenterology:

- 1. To review the anatomy and physiology of gastrointestinal system.
- 2. To understand the symptoms and signs of gastrointestinal conditions.
- 3. To understand and interpret liver function tests.
- 4. To learn how to approach and be able to outline the management for patients with jaundice, autoimmune liver disease, complications of liver diseases, chronic viral hepatitis, acute viral hepatitis, peptic ulcer disease, pancreatitis, gastrointestinal hemorrhage, inflammatory bowel disease, esophageal disorders, irritable bowel syndrome, gastrointestinal infections, chronic diarrhea, malabsorption syndromes, celiac disease and gallbladder diseases.
- 5. At outside teaching hospitals the focus will be mainly on mastering taking history and physical examination of patients with gastrointestinal bleeding, end stage liver disease/cirrhosis, IBD, dysphagia, and esophageal disorders.

Nephrology:

1. To review the anatomy and physiology of the renal system

2. To understand the symptoms and signs of renal conditions

3. To be able to read and interpret urine analysis for common renal conditions.

4. To understand and interpret acid base and electrolytes disturbances

- 5. To learn how to approach and be able to outline the management for patients with proteinuria, hematuria, glomerulonephritis, tubular interstitial diseases, lupus nephritis, urinary tract infections, acute kidney injury, chronic kidney disease, renal replacement therapy, nephrolithiasis, diabetic nephropathy, hypertension and polycystic kidney disease
- 6. At outside teaching hospitals the focus will be mainly on mastering taking history and physical examination of patients with AKI, acute glomerulonephritis, admitted hemodialysis and peritoneal dialysis patients, admitted kidney transplant patients, hypertensive emergency and urgency, and patients with possible secondary hypertension.

Hematology:

- 1. To review the physiology of the hematopoietic and coagulation systems
- 2. To understand symptom and signs of hematological conditions
- 3. To be able to read and interpret blood films for common hematological conditions.

4. To understand and interpret coagulation and clotting disturbances

5. To learn how to approach patients with anemia including: Iron deficiency anemia, megaloblastic anemia, aplastic anemia, acquired hemolytic anemia, RBC enzymopathies and hemoglobinopathies

6. To evaluate and be able to outline the management for patients with Iron overload disorders

- 7. To learn how to approach patients with bleeding disorders, platelets disorders, hemophilia, thrombophilia and other bleeding disorders
- To learn how to approach and be able to outline the management for patients with acute leukemia, chronic leukemia, chronic myeloproliferative disorders, lymphomas and plasma cell disorders
- To understand basic concepts about bone marrow and stem cell transplantation

10. To learn indications and safety principles of blood transfusion.

11. At outside teaching hospitals the focus will be mainly on mastering taking history and physical examination of patients with bone marrow transplant patients, plasma cell disorders, and solid malignancies.

Endocrinology:

- 1. To understand the pathophysiology of Diabetes Mellitus
- 2. To be able to diagnose and treat patients with Diabetes Mellitus

3. To learn how to prevent and recognise complications of Diabetes Mellitus

- 4. To learn how to approach and outline the management of patients with hypothalamic adrenal axis disorders, pituitary and adrenal disorders, overview of pituitary tumours, hirsutism, thyroid disorders, secondary hypertension, reproductive endocrine disorders, calcium disorders and osteoporosis.
- 5. At outside teaching hospitals the focus will be mainly on mastering taking history and physical examination of patients with pituitary disorders and osteoporosis.

Infectious diseases:

- 1. To review the basic concepts about viral, bacterial and fungal pathogens.
- 2. To learn the principles of antibiotic therapy and Antibiotic resistance

3. To learn the principles of infection control

- 4. To learn how to approach and outline the management of patients with HIV infection, Brucellosis, Sepsis, Infectious diarrhea, fever and fever of unknown origin, tuberculosis, syphilis, neutropenic fever and influenza infection.
- 5. At outside teaching hospitals the focus will be mainly on mastering taking history and physical examination of patients with fever of unknown origin, febrile illnesses, zoonotic diseases, and animal bites.

Rheumatology:

- To learn how to interpret common laboratory finding of rheumatological conditions
 To learn how to approach patients with painful joints
 To learn the principles of anti-inflammatory and immune suppressive agents
 To learn how to approach and outline the management of patients with rheumatoid arthritis, lupus, osteoarthritis, seronegative arthritis, seronegative spondylo-arthropathy, polymyalgia rheumatica, vasculitis, crystal induced arthritis and scleroderma.
- 5. At outside teaching hospitals the focus will be mainly on mastering taking history and physical examination of patients with SLE, rheumatoid arthritis, vasculitis, myositis, osteoarthritis, and scleroderma.

Neurology:

1. The students should be able to take an appropriate history and do a proper neurological examination;

2. The students should be able to know how to use and interpret investigations in neurology;

3.By attending neurology clinics in their fourth year, the students should be able to know how to approach a patient in a neurology

- 4. The students should be able to learn the major topics in neurology.
- 5. The students should be able to identify neurological disorders that are best treated by neurosurgery.
- 6. The students should be aware of the best neurosurgical techniques and postoperative care.
- 7. The students should be able to identify the appropriate methods of investigation of major neurosurgical disorders of the peripheral and central nervous system.
- 8. The students should be able to use information technology in learning and practice of medicine.
- 9. The students should be able to communicate with patients and other colleagues.
- 10. The students should be able to learn to work with others in the team in neurology and neurosurgery.
- 11. The students should be able to develop the capacity of life-long self learning.
- 12. The students should be able to develop the capacity of appreciating issues Regarding Patient Safety and Privacy.
- 13. No outside teaching hospitals rotation during the neurology rotation.

20. Topic Outline and Schedule:

Topic	Week	Instructor	Achieved ILOs	Evaluation Methods	Reference
One of the above outlined subspecialty: Cardiology Respiratory Nephrology Gastro- intestinal Hematology Endocrinology Rheumatology Infectious diseases	Total of 8 weeks in the department of Medicine. Two weeks at a time in one subspecialty. 5 days a week, 8 am-5 pm	Consultants in each Subspecilaity.	See below in Evaluati on methods	See below in Evaluation methods	See below in Referen ces

21. Teaching Methods and Assignments:

Development of ILOs is promoted through the following teaching and learning methods:

Teaching will be delivered in different modalities including bed side teaching and the following:

- 1. Daily ward round with senior doctors and bed side teaching. Within each group, students will be further divided into two small groups and clinical round days will be decided in each subspecialty individually
- 2. Daily on-line seminars with active students participation
- 3. Outpatient clinics attendance and discussion of medical problems
- 4. Written tasks given by the consultant to the medical students.
- 5. After hours on call to provide the exposure to medical emergencies

22. Evaluation Methods and Course Requirements:

Opportunities to demonstrate achievement of the ILOs are provided through the following <u>assessment methods and requirements</u>:

1. Evaluation will be done individually at the end of the rotation according to a special form use by the department of medicine. It includes (20 marks):

- Student attendance, motivation, commitment, and behavior
- Students competence and skills
- Students participation in activities in the clinical sessions and seminars
- Students homework performance
- Achievement of ILOS
- 2. Final year Clinical Examination (30 marks)
 - OSCE version of clinical exam
- 3. Final year Examination (50 marks)
 - Paper (MCQ) exam

23. Course Policies:

A- Attendance policies:

There is a logbook provided for attendance that is tracked by the department secretary. This is now done electronically using e-learning platform.

B- Absences from exams and handing assignments on time:

Cases of absence from exam are discussed during division meeting for further actions.

C- Health and safety procedures:

Student safety is not compromised in any activity

D- Honesty policy regarding cheating, plagiarism, misbehavior:

Any violation of honesty is taken seriously and will be discussed during division meeting

E- Grading policy:

We use the standard university A/B/C/D/F system for grading for the final course score

F- Available university services that support achievement in the course:

Medical library resources, simulation lab for physical examination.

24. Required equipment:

Standard white lab coat, stethoscope, measuring tape, neurological examination hammer

25. References:

A- Required book (s), assigned reading and audio-visuals:

There are no required books but suggested references that students are encouraged to use:

- Macleod's clinical examination
- Harrison's textbook of medicine
- Davidson' textbook of medicine
- Kumar textbook of medicine
- B- Recommended books, materials, and media:
 - 1. Goldman-Cecil Medicine
 - 2. Kumar textbook of medicine
 - 3. Macleod's clinical examination
 - 4. Harrison's textbook of medicine
 - 5. Davidson' textbook of medicine
 - 6. Medical library: uptodate.com, textbooks, journals and periodicals, Medline PubMed

26. Additional information:

Name of Course Coordinator: Laith Al shobaki, M.D., Tarek Gharaibeh 08-004-2023 Signature: Head of curriculum committee/Department: Date: Signature: Head of Department: Hussam Al hawari, M.D. Date: Head of curriculum committee/Faculty: Signature: Date: Dean: Professor Yaser Rayyan, M.D. Signature: Date: Copy to: **Head of Department** Assistant Dean for **Quality Assurance** Course File