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**Monday 25 November 2019**

AN-NAJAH NATIONAL UNIVERSITY

DEPARTMENT OF MEDICINE

Internal Medicine -Senior ILOs

(7221601)

# Course Outline

* **Course Details**

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| --- | --- |
| Course Title | Internal Medicine Senior |
| Course Number | 7221601 |
| Prerequisite(s) | Finish 5th year |
| Course Type:  | Compulsory |
| Credit Hours | 8 |

* **Class Details**

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| --- | --- |
| Weeks | 8 weeks |
| Time | 4 days/ week 8:00 am- 2:00 pm and 6 (24 hours) on-calls |
| Location | An-Najah National University Hospital and Ministry of Health Hospitals affiliated to An-Najah National University in the northern of West Bank |

* **Course Description and Objectives**

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| This course is offered to sixth-year students based on the knowledge previously taken during the fourth year. Emphasis is placed on acquiring skills and attitudes desirable from a compassionate and understanding physician. Students record histories, physical examinations and laboratory data together with the diagnosis and treatment plans as well as drug side effects and drug-drug interactions (Clinical Pharmacology). They are taught how to develop sound clinical reasoning and responsibility for full time involvement in patient care including bed side teaching, morning reports, clinical rounds, outpatient clinic attendance and night calls. Each student works with and is supervised by a resident and attending staff. |

# Textbook(s) and References

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| --- |
| Textbook(s) |
| 1. **Davidson's Principles and Practice of Medicine, 22nd Edition** -With STUDENT CONSULT Online Access. By Nicholas A. Boon, MA, MD, FRCP(Ed), FESC, Nicki R. Colledge, BSc, FRCP(Ed), Brian R. Walker, BSc, MD, FRCP(Ed) and John A. A. Hunter, OBE, BA, MD,FRCP.2. **Kumar and Clark's Clinical Medicine, 7th Edition** -With STUDENT CONSULT Online Access. By Parveen Kumar, CBE, BSc, MD, FRCP, FRCP(Edin) and Michael L. Clark, MD,FRCP3. **Macleod's Clinical Examination, 12th Edition -**With STUDENT CONSULT Access. By Graham Douglas, BSc(Hons), MB, ChB, FRCPE, Fiona Nicol, BSc(Hons), MB, BS, FRCGP, FRCPE and Colin Robertson, BA(Hons), MB, ChB, FRCPE, FRCS(Ed) |
| References |
| * **Harrison's Principles of Internal Medicine, 20th Edition.** By J. Larry Jameson, Anthony S. Fauci, Dennis L. Kasper, Stephen L. Hauser, Dan L. Longo, Joseph Loscalzo
* **Published Scientific papers.**
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# Textbook Cover



# Topics and Teaching Methods

**Critical Care and Intensive Medicine:** At the end of this rotation, students join the Intensive care department for one week where they are taught some essential life support and intensive care of critically ill patients. During that, they are exposed to a different discipline in the specialty and its interaction with different surgical and medical teams. They are provided with necessary theoretical and practical knowledge throughout their rotation in intensive medicine including ventilation set, electrolyte imbalance management, acid base balance management, serology and transfusion medicine, shock states and shock management, single and multiple organ dysfunction and management, inherent post-operative changes and problems, sedation and pain management skills.

**Core Curriculum in Internal Medicine:**

1 Bronchial Asthma

2 Chronic obstructive lung disease

3 Lung cancer

4 Pneumonia

5 Pleural effusion

6 Venous thromboembolism

7 Acute coronary syndrome

8 Heart failure

9 Arrhythmias

10 Hypertension

11 Acute renal failure

12 Chronic renal failure

13 Nephrotic syndrome

14 Urinary tract infection

15 Upper GI bleeding

16 Inflammatory bowel disease

17 Infectious hepatitis

18 Liver cirrhosis

19 Malabsorption

20 Peptic ulcer disease

21 Anemias

22 Lymphomas

23 Leukemias

24 Hemogobinopathies

25 Diabetes mellitus

26 Hypothyroidism

27 Thyrotoxicosis

28 Cushing's syndrome

29 Systemic lupous erythematosus

30 Rheumatoid arthritis

31 Gout arthritis

32 Behcet's disease

33 Familial Mediterranean Fever

34 Tuberculosis

35 Sepsis

36 Palliative Medicine

37 Common Geriatric Abnormalities

 **Specific Objectives:**

**CLINICAL EPIDEMIOLOGY/MEDICAL REASONING**

A. Describe phases of clinical reasoning

 1. Defining the “clinical problem”

 2. Generating a differential diagnosis

 3. Ordering of appropriate investigations to narrow down the list of differential diagnosis

 4. Planning for treatment and prevention of disease

B. Define:

1. Prevalence

2. Sensitivity

3. Specificity

4. False negative rate

5. False positive rate

6. Negative predictive value (NPV) and positive predictive value (PPV)

**CARDIOVASCULAR SYSTEM**

* **Knowledge/Mix of Diseases/Patients**

A. Ischemic heart disease and myocardial infarction including practice guidelines for the management of unstable angina. Recognize RV infarct, MI complications

B. Congestive heart failure practice guidelines. Systolic vs diastolic

C. Congenital heart disease which may occur in adults

D. Valvular heart disease—causes

E. Clinical diagnosis of rheumatic fever

F. Cardiomyopathies

G. Pericardial disease

H. Hypertension: essential and secondary

* **Arrhythmias**

1. Distinction between ventricular and supraventricular arrhythmias

2. Atrial fibrillation, atrial flutter, SVT and MAT

3. Heart block 1o, 2o, 3o

4. Bundle branch and hemiblocks

* **Diagnostic Tests**

A. EKG interpretation

B. Chest X-ray--recognize classical findings in HF, pericardial effusion, chamber enlargement

C. Echocardiography--Be able to order when appropriate in evaluation of valvular heart disease, LVH, cardiomyopathy, endocarditis, pericardial effusion

* **Therapeutic Interventions**

A. Know therapeutic indications for angioplasty and other therapeutic applications of catheterization

B. Describe therapeutic approach to clinical syndromes described in I. Emphasize particularly

1. Indications for thrombolytic therapy in MI

2. Contraindications for thrombolytic therapy in MI

3. Analgesia, oxygen, and sedation

4. Role of ASA, anticoagulation, Beta blockers, magnesium

5. Recognize and treat complications of MI including ventricular tachycardia and fibrillation, idioventricular rhythm, sinus bradycardia, conduction disturbances and heart block.

6. Know how to use common drugs for angina pectoris including types of nitrates, Beta blockers and calcium channel blockers.

7. Understand all modalities in the management of CHF including reduction of workload, control of salt and fluid, diet, diuretic vasodilators and digoxin. Use additional options in acute pulmonary edema.

8. Describe drugs of choice for bradyarrhythmias and tachyarrhythmias

9. Know the approach to acute pericarditis and evaluation of the patient with possible tamponade

* **Prevention of Cardiac Disease**

A. Have plan of intervention for hyperlipidemia

B. Approach patient with options for cessation of cigarette smoking

C. Be able to advise patient on diet, exercise program, and stress reduction

D. Identify patients who are at highest risk

A. EKG interpretation

B. Chest X-ray--recognize classical findings in congestive heart failure, pericardial effusion, chamber enlargement

C. Echocardiography--Be able to order when appropriate in evaluation of valvular heart disease, LVH, cardiomyopathy endocarditis, pericardial effusion

E. Know all antibiotic regimens for prophylaxis of endocarditis in at-risk patients

**Clinical Pharmacology**

**I. Knowledge**

A. Principles of drug therapy

1. Loading and maintenance dosing

2. Calculate creatinin clearance

3. Drug interaction lists (particularly coumadin, theophylline, dilantin, digoxin)

B. Adverse reactions

1. Endocrine, metabolic, dermatologic, hematologic, renal, cardiovascular, neurologic and psychiatric, GI

2. Polypharmacy and the elderly

C. Action and side effects of nonsteroidals (NSAIDs)

D. Indications and physiologic effects of autonomic drugs (adrenergic, dopaminergic, alpha and beta blocking agents)

**II. History Skills**

A. Ability to take careful drug history

B. Assess compliance

C. History of herbal use

**III. Physical Exam**

A. Recognize drug rashes

B. Recognize Stevens Johnson syndrome

C. Recognize angioedema, gingival hyperplasia, dental discoloration

D. Evaluate and categorize mental status changes associated with drug effects

**IV. Diagnostic Tests**

A. Interpret peak and trough levels of aminoglycoside and vancomycin

B. Appropriate use of digoxin levels

C. Drug screens – indications

**V. Therapeutic Interventions**

A. Treatment of drug toxicities and overdose

1. Fundamentals

2. Management of specific poisons - acetaminophen, acids and alkali, salicylate, carbon monoxide, digoxin, theophylline, methemoglobinemia, lithium

**Diseases of The Kidney and Urinary Tract**

* **Knowledge/Mix of Diseases/Patients**

A. Acute renal failure--The student must distinguish prerenal, renal, and post renal disease using clinical and laboratory parameters

B. Chronic renal failure and its associated metabolic-endocrine, GI, cardiovascular hematologic, and neuromuscular complications

C. The major glomerulopathies including acute GN, rapidly progressive GN, GN associated with nephrotic syndrome, and glomerulopathies associated with multisystem disease

D. Tubulointerstitial disease

E. Vascular injury

F. Causes of renal stones--associated underlying diseases

* **Diagnostic Tests**

A. The student should be able to:

B. Calculate fractional excretion of sodium as a measure of prerenal vs post renal azotemia

C. Evaluate the patient with glomerulonephritis for multisystem disease

D. Choose the most appropriate imaging test for the specific patient problem

* **Therapeutic Interventions**

The student should be able to:

A. Manage the patient with acute renal failure and know all indications for dialysis

B. Recognize the possibility of urinary tract obstruction and perform urethral catheterization using sterile technique

C. Recognize the indications for consultation for performance of peritoneal and hemodialysis, lithotripsy or stone surgery, nephrostomy tube, renal vascular surgery, suprapubic cystotomy, renal transplantation

**Disorders Of The Respiratory System**

* **Knowledge/Mix of Diseases/Patients**

A. Diseases of Airflow Limitation

1. Asthma

2. Bronchitis

3. Emphysema

4. Bronchiectasis

5. Cystic fibrosis

B. Interstitial Lung Diseases

1. Occupational lung disease

2. Hypersensitivity pneumonias

3. Sarcoidosis

4. Idiopathic pulmonary fibrosis

C. Infectious Lung Diseases

1. Community acquired pneumonia

2. Nosocomial pneumonias

3. Mycotic lung diseases

4. Tuberculosis

D. Pulmonary Vascular Lung Diseases

1. Pulmonary thromboembolism

2. Pulmonary hypertension

3. Noncardiogenic pulmonary edema (ARDS)

E. Neoplastic Disease of the Lung

1. Bronchogenic carcinoma

2. Paraneoplastic syndromes

F. Diseases of the Pleura

1. Pleural effusion

2. Pneumothorax

* **Diagnostic Test Skills**

A. The student should be able to:

1. Interpret arterial blood gases including mixed acid base abnormalities

2. Use the A-a gradient to determine the causes of hypoxemia

3. Use the a/A ratio as an expression of patient's ability for gas exchange

4. Understand the use and limitations of the pulse oxymeter

5. Interpret spirometry including Flow-Volume loops

6. Interpret the chemical profile of pleural effusions

7. Utilize the Gram stain, AFB stains, and Wright stain

8. Interpret the standard PA and lateral chest radiograph

B. The student should understand the indications for:

1. Pulmonary function tests

2. Sleep studies

3. Serology and special immunofluorescent stains

4. Thoracentesis

5. Pleural biopsy

6. Chest tube insertion

7. Bronchoscopy

8. Transthoracic needle biopsy

9. Open lung biopsy

10. Mediastinoscopy

* **Therapeutic Skills**

A. The student must be familiar with the management of all diseases listed in I.

B. The student should be able to:

1. Properly clear and maintain an airway

2. Perform therapeutic and diagnostic thoracentesis

3. Teach incentive spirometry

4. Correctly select antimicrobial agents for respiratory infection

5. Recognize a significant reaction to PPD

6. Know the indications and side effects for the commonly used medications in pulmonary medicine

* **Preventive Measures**

A. The student must recognize the value of:

1. Immunization with the Pneumovax

2. Immunization with the influenza vaccine

3. Prophylactic use of amantadine in influenza outbreaks

4. Immunization with the BCG vaccine

5. Measures to prevent the spread of tuberculosis

6. High risk screening for tuberculosis infection

7. INH prophylaxis

8. Low flow oxygen

**Endocrinology And Metabolism**

* **Knowledge/Mix of Diseases/Patients**

A. Diseases of the pituitary

1. Diabetes insipidus

a. Central b. Nephrogenic

2. Pituitary tumors

a. Acromegaly b. Cushing Disease

c. Prolactinoma

3. Hypopituitarism

4. Empty Sella Syndrome

B. Thyroid Disease

1. Hypothyroidism causes

a. Primary hypothyroidism b. Secondary hypothyroidism

2. Hyperthyroidism

a. Graves disease b. Toxic multinodular goiter

c. Toxic adenoma d. Factitious

3. Thyroiditis

a. Chronic thyroiditis (Hashimoto's) b. Subacute thyroiditis (painful and painless)

4. Approach to thyroid nodule

C. Diseases of the Adrenal Cortex

1. Cushing Syndrome

2. Hyperaldosteronism

a. Primary hyperaldosteronism b. Secondary hyperaldosteronism

3. Addison's Disease

4. Hypoaldosteronism

5. Incidental adrenal mass

6. Congenital adrenal hyperplasia (classical and non-classical)

D. Pheochromocytoma

E. Diabetes mellitus

1. Diagnosis

2. Classification and pathogenesis

3. Clinical features

4. Complications

a. DKA b. Hyperosmolar coma

c. Vascular disease d. Ocular

e. Nephropathy f. Neuropathy (somatic and autonomic)

g. Foot ulcers h. Other infections

5. Treatment

a. Diet b. Insulin

c. Oral agents d. HTN Rx

F. Hypoglycemia

1. Fasting

a. Insulinoma vs. factitious

2. Reactive

G. Testicular function

1. Primary hypogonadism

a. Klinefelter's

2. Secondary hypogonadism

a. Pituitary tumor b. Hyperprolactinemia

3. Pubertal development

a. Delayed puberty b. Cryptorchidism

H. Disorders of ovary and female genital tract

1. Hirsutism and virilization

2. Amenorrhea/galactorrhea (hyperprolactinemia)

3. Estrogen replacement

I. Multiple endocrine disorders

J. Disorders of the parathyroid gland and of calcium metabolism (hyperparathyroidism differential of hypercalcemia, hypocalcemia)

K. Metabolic bone disease

1. Osteoporosis

2. Osteomalacia

3. Paget's

4. Renal osteodystrophy

* **Diagnostic Skills**

A. Understand the use of thyroid function tests in the diagnosis of thyroid disease and thyroid abnormalities in non-thyroidal diseases

1. TSH

2. I123 uptake

3. Thyroid scan

B. Clinical circumstances for the use of the following tests:

1. Water deprivation

2. Growth hormone suppression by glucose

3. Dexamethasone suppression

4. ACTH stimulation

5. PRA, aldosterone

6. Prolactin, LH, FSH, ACTH

7. Vitamin D and related metabolites

8. Serum catecholamines (clonidine stimulatix)

9. Cortisol

10. DHEA - sulfate

11. Testosterone

12. 17 0H progesterone

C. Urinary

1. Hydroxysteroids/urine free corticoid

2. Pregnancy test

3. Metanephrine, VMA

4. 5-hydroxy indoleacetic acid

D. Describe the tests necessary to diagnose diseases listed in I.

* **Therapeutic Interventions**

A. Understand the indications, side effects, adverse reactions and approach to follow-up for each of the following:

1. ACTH

2. L-thyroxine

3. Cortisones

4. Testosterone

5. Vasopressin

6. Antithyroid drugs

7. Oral hypoglycemics

8. Insulin (all forms)

9. Glucagon

10. Bromocriptine

11. Hypolipidemic agents

B. Recognize the need for consultation for the following:

1. Transsphenoidal hypophysectomy

2. Partial thyroidectomy

3. Adrenalectomy

4. Parathyroid exploration and resection

**Gastroenterology**

* **Knowledge/Mix of Diseases/Patients**

A. Diseases of the esophagus: anatomic and motor causes of esophagitis

B. Peptic ulcer and gastritis role of Helicobacter, Zollinger Ellison syndrome

C. Neoplasms of the esophagus and stomach

D. Disorders of absorption

E. Inflammatory bowel disease

F. Diseases of the large and small bowel

G. Liver and biliary tract disease

1. Acute and chronic hepatitis

2. Cirrhosis and alcoholic liver disease

3. Infiltrative disease of the liver

4. Diseases of the gallbladder

H. Pancreatic diseases

1. Acute pancreatitis

2. Chronic pancreatitis

3. Pancreatic cancer

4. Endocrine tumors

* **Diagnostic Studies**

A. Know indications for and properly perform paracentesis and placement of nasogastric tube

B. Properly interpret the following laboratory tests:

1. Serologic studies for hepatitis

2. Liver function tests

3. Stool electrolytes and osmolality

4. Serum B12

C. The student should know sensitivity and specificity of imaging modalities for diseases in I. including:

1. Radionucleotide scan of liver

2. Abdominal ultrasound & CT scan

3. Upper, lower GI barium studies

4. Esophagoscopy, gastroscopy and colonoscopy

5. Small bowel biopsy

6. Endoscopic retrograde cannulation of pancreas and bile duct (ERCP)

* **Therapeutic Skills**

A. Places nasogastric tube for pancreatitis or other GI symptoms

B. Performs therapeutic paracentesis

C. Requests appropriate consultation for consideration of the following:

1. Surgical abdomen

2. Sclerotherapy or banding for esophageal varices

3. Control of GI bleed

4. Bowel resection for inflammatory bowel disease

5. Esophageal dilatation

6. Portacaval shunt

7. GI cases where surgical intervention is indicated

D. The student knows indications, mechanism of action, side effects, interactions and follow-up for the following medications:

1. Laxatives

2. Anti-emetics

3. Bile sequestrants

4. Anti-diarrheals

5. Antacids

6. Pancreatic enzymes

7. Corticosteroids

8. H2 antagonists

9. Anti-helminthics

10. PPI’s

11. Prokinetic agents

* **Preventive Measures**

A. Knows indications for occult blood screening and for periodic colonoscopy in high-risk patients

B. Knows approach to follow up of the patient with history of polyp disease

**Hematoncology**

* **Knowledge/Mix of Diseases/Patients**

A. Pathophysiology of anemia

B. Anemia of chronic disease

C. Iron deficiency anemia

D. Megaloblastic anemia

E. Hemolytic anemias (congenital and acquired)

F. Iron overload states

G. Bone marrow failure

H. Myeloproliferative disorders

I. Leukemias (acute and chronic)

J. Myelodysplastic syndromes

K. Lymphoma (Hodgkins, non-Hodgkins and plasma cell myeloma)

 L. Palliative Medicine in Cancer patients

M. Clotting disorders

1. Platelet and vessel wall

2. Coagulation and Thrombosis

3. Hypercoagulable state

* **Diagnostic Skills**

A. Perform peripheral blood smear on all patients with suspicion of blood disorders

B. Evaluate:

1. Red blood cell size and shape. Determine if there is variation in red blood cell size

2. Determine platelet count on smear

3. Leucocyte morphology

* **Therapeutic Interventions**

A. Know the appropriate indications for transfusion of erythrocytes and platelets

B. Write note to document need in all patients receiving these treatments

C. Know indications for fresh frozen plasma, cryoprecipitate, and purified factor concentrates

D. Know mechanism of action, indication side effects, and method of follow-up for each of the following drugs:

1. Glucocorticoids

2. Oral and parenteral iron

3. Folic acid

4. Vitamin B12

E. Recognize necessity for consultation with hematologist for the following surgical procedures:

1. Splenectomy

2. Staging laparotomy

3. Bone marrow transplant

**Infectious Diseases**

* **Knowledge/Mix of Diseases/Patients**

A. Clinical syndromes

1. Gram-negative sepsis

2. Infective endocarditis

3. Upper and lower respiratory infections

4. Urinary tract infections

5. Infectious arthritis and osteomyelitis

6. Sexually transmitted disease

7. Soft tissue infection

8. Tuberculosis

9. Syphilis and other spirochetal diseases

10. Rocky Mountain spotted fever and other rickettsial diseases

11. Mycoplasma pneumoniae pneumonia

12. Infections caused by drug-resistant organisms

B. Viral infection

1. Influenza and prevention

2. Herpes infection, Hepatitis A, B and C

3. Infectious mononucleosis and cytomegalovirus

C. Fungal infection

1. Deep seated mycoses

2. Clinical syndromes of aspergillus

3. Cryptococcal infection

4. Mucormycoses

D. Protozoal infection

E. Helminthic infection

F. Leishmaniasis

G. Antibiotic, antifungal, antiviral therapy

H. AIDS and its opportunistic infections

* 1. Fever of unknown origin

**Rheumatology**

* **Knowledge**

A. Clinical manifestations of SLE

B. Rheumatoid arthritis

C. Scleroderma

D. Mixed connective tissue disease

E. Sjogren's syndrome

F. Ankylosing spondylitis

G. Vasculitic syndromes

H. Sarcoidosis

I. Osteoarthritis

J. Psoriatic arthritis and arthritis associated with GI diseases

K. FMF

L. Behcet’s disease

M. Gout

* **Diagnostic Tests**

The student should be able to:

A. Aspirate effusion of knee

B. Order appropriate X-rays for joint disease and recognize characteristic abnormalities

C. Know relative sensitivity and specificity of the following: rheumatoid factor, anti DNA, anti SM, anti RNP, anti RO (SSA), anti LA (SSB), ANCA

* **Therapeutic Interventions**
1. Know standard treatment options for all diseases listed in I
2. Seek orthopedic consultation to assess need for: osteotomy, synovectomy, joint reconstruction or replacement, synovial cyst surgery, unstable joint tendon repair
3. Seek physical therapy consultation for: heat treatment, massage, range of motion exercises, ultrasound
* **Preventive Measures**

Know rheumatic fever prophylaxis – indications

1. On-call duty, from 5 to 10 PM, with active participation to admission of acutely-ill patients
2. Attendance of daily morning reports, with presentation of cases and review of the pertinent literature.

**List of seminars or group discussion and their objectives**

|  |  |
| --- | --- |
| Interpretation of ABG’s | 1. Basics acid base disorders
2. How to interpret ABG
3. Understand physiology od acid base disorders
4. Clinical implications of acid base disorders
 |
| Approach to patient with anemia  | 1. Classification of anemia
2. Causes of anemia
3. Approach to patient with anemia
4. Role of blood film in anemia
 |
| Approach to Patient with Heart Failure | 1. Clinical picture of heart failure
2. Causes of heart failure
3. Precipitating factors
4. Diagnostic approach
5. Therapeutic approach
 |
| Brain Attack | 1. Define brain attack
2. Clinical picture and anatomic localization of the stroke
3. Approach to management
4. Prevention of stroke
 |
| Pleural Effusion | 1. Clinical and radiographic picture of pleural effusion
2. Diagnostic approach to pleural effusion
3. Exudative versus transudative effusion
 |
| Liver Cirrhosis  | 1. Clinical and laboratory features of liver cirrhosis
2. Causes of liver cirrhosis
3. Diagnostic approach
4. Therapeutic approach
5. Complications of liver cirrhosis
 |
| Interpretation of Chest X Ray | 1. Basics of chest radiography
2. Identify technical proplems in a CXR
3. Identify anatomic landmarks in CXR
4. Know common pathologies in CXR
 |
| Diabetic & Endocrine Emergencies | 1. Diabetic ketoacidosis
2. Non-ketotic Hyperosmaolar state
3. Thyrotixicosis crises
4. Hypoadrenalism
 |
| Management of Epilepsy | 1. identify types of epilepsy
2. discuss various antiepiletic medications
3. Common side effects of theses medications
4. Management of status epilepticus
 |
| Peptic Ulcer Disease | 1. clinical feature
2. Role of endoscopy
3. Erradication therapy
4. Acute and long term complications
 |
| Approach to patient with arthritis | 1. Monoarthritis
2. Polyarthritis
3. Role of serology
4. Seronegative arthritis
 |
| Acute Upper Gastro-intestinal bleeding | 1. Causes
2. Diagnosis
3. Severity assessment
4. Role of endoscopy
5. Treatment
 |
| Cardiac Arrhythmias | 1. Tachyarrhthmias
2. Bradyarrhthmias
3. ECG diagnosis
4. Acute and long term managment
 |
| Interpretation of PFT | 1. Physiology of lung function
2. Main ventilatory defects
3. Interpretation of spirometry and flow volume loop curve
4. Clinical use of PFT
 |
| Acute Coronary Syndrome | 1. Define ACS2. Unstable angina3. Non ST elevation acute MI4. ST elevation MI5. Role of cardiac cath |

# Updates and Advances in Internal Medicine:

Students are involved in all of the hospital’s teaching activities including attending morning reports, Journal Clubs, lectures, seminars and Rounds. Updates on guidelines, Case study discussions and other advances in Internal Medicine are usually a part of the Morning report, Journal Clubs and Mid-day activities. Students are involved in carrying out presentations in selected topics and cases nominated by their teaching physicians.

# Integration with Health system and Community

A valued focus on the most common diseases in the Palestinian community which includes DM, HTN, Thalassemia and others. This is more obvious in morning reports, journal clubs and mid-day activities. Students are also in courage to do medical days that takes a picture of screening campaigns in the local Palestinian community that includes blood sugar levels, blood Pressure measurement, ophthalmic and ear examinations.

* **Topics Covered in Clerkships:**

|  |  |
| --- | --- |
| **Week** | **Topics** |
| 1 | History taking and Physical Examination |
| 2 | Cardiovascular system |
| 3 | Respiratory system |
| 4 | Gastrointestinal system |
| 5 | Geriatrics |
| 6 | Nephrology |
| 7 | Musculoskeletal system |
| 8 | Rheumatology |
| 9 | Hematology |
| 10 | Endocrinology system |
| 11 | Neurology |
| 12 | Oncology |
| Note: | * Not all Students have the same order of the weeks’ topics. This is a rough distribution of the topics to weeks, sometimes some topics takes more than one week, others take less. Moreover, it also depends on the attending physician specialty. By the end of the clerkship every student should cover all the above mentioned topics.
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# Assessment

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| --- | --- | --- |
| **Exam Format** | **Note** | **Weight (%)** |
| OSCE-exam | Practical exams done after the end of the clerkship on real patients to evaluate the medical knowledge of students, ability to take medical history, clinical skills and communication with patients. It includes 5-6 stations each of 7 minutes’ duration. 1-2 of these stations are dry in which students answer cases-questions based on their knowledge in X-Ray, ECG, ABGs and other related basic imaging and tests. In this year external examiners are invited to the exam to have a more accurate evaluation of what the graduate has to be in the practice. | 40% |
| Written exam | An exam done at the end of the academic year to evaluate the medical knowledge. Moreover, these exams were provided from the National Board of Medical Examiners (NBME) in USA which is an independent, not-for-profit organization that serves the public through its high- quality assessments of healthcare professionals. | 40% |
| Evaluation  | Evaluation during rotation which depends on: daily attendance of morning report, educational rounds, clinical skills, basic medical procedures, group discussions, seminars, lectures attendance, student attitude and respect for patients and team. | 20% |
| Written cases | Students are required to write 10 full cases that includes History, Vital sings, Physical examination, Labs, Imaging and Differential diagnosis. |
| Total |  | 100% |

# Student Evaluation Form During Clerkships

# Important Dates

|  |
| --- |
| * **At the end of the Academic year: OSCE Exam**
* **At the end of the Academic year: Written Exam**
 |

# Teaching and Learning Methods

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| --- |
| **Tools** |
| 1. Lectures.
2. Small-group teaching.
3. Problem-based or case-based learning.
4. Peer assisted learning.
5. Bed-side teaching.
6. Clinical demonstrations.
7. Clinical skills laboratory training.
8. Field exercises in the community.
 |

# Course **Policies**

* Students should attend all the activities mentioned above during this clerkship every day, and do the required on-calls.
* The maximum allowed absence is 10% of the clerkship’s duration and this only in case of an accepted situation evaluated by the Department of Medicine.
* Students are not allowed to have even a single day off without an accepted reason evaluated by the department of medicine. In that case, 2 points of the clerkship total will be subtracted and this will be added to the student file record.