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Selected Medical Specialties ILOs

(7226502)

**Monday 25 November 2019**

AN-NAJAH NATIONAL UNIVERSITY

DEPARTMENT OF MEDICINE

# Course Outline

* **Course Details**

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| Course Title | Selected Medical Specialties |
| Course Number | 7226502 |
| Prerequisite(s) | Finish 4th year |
| Course Type: | Compulsory |
| Credit Hours | 8 |

* **Class Details**

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| Weeks | 8weeks |
| Time | 5 days/ week 8:00 am- 2:00 pm |
| 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 designed to give students of the fifth-year the basic clinical knowledge in:  Dermatology: This is a two-week clerkship offered during the fifth year which is designed to give students broad clinical experience in skin diseases. It emphasizes on outpatient diagnosis and treatment of common skin conditions and the cutaneous manifestations of systemic diseases.  Radiology: This is a 2 weeks clerkship where students learn how to deal with the different aspects of radiographic studies including analysis, discussion and report writing for radiographic images with clinical attachment of these studies to the medical and surgical cases.  Anesthesia: this is a 2 weeks clerkship that offers the student the ability to participate in performing general, regional and local anesthesia with emphasizing on the pre and post anesthetic care of the patients and the intra operative care of the operated patients including monitoring, choosing of anesthetic drugs, doses, positioning, intubation and fluid balance.  Family medicine: The course consists of a two weeks rotation in Family Medicine at ANNU. During this course students are expected to attend different Primary Care Clinics. This includes UNURWA clinics, Diabetes clinics, and "Dar Al-MahabahWa Al-Wiaam" for the elderly. They are also expected to prepare seminars and presentations covering main topics in family medicine |

# Textbooks and References

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| Textbook(s) |
| * **Clinical Dermatology**, 4th edition by HUNTER, SAVIN and DAHL. * **Lecture Notes: Dermatology**, 11th Edition, Robin Graham-Brown, Karen Harman, Graham Johnston * **Clinical Anesthesia 7th edition** * **Clinical Anesthesia (Lecture Notes) 4th edition** * **Radiology at a Glance** * **Radiology (Lecture Notes) 3ed edition** * **Family medicine:** * Text book of Family Medicine Ninth edition Robert E. Rakel, David P. Rakel – introduction to FM * Essentials of Family Medicine (Sloane)- preventive medicine + thyroid disorders   -**Department Handouts** |

# Textbook Cover

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| תוצאת תמונה עבור ‪- Clinical Dermatology, 4th edition by HUNTER, SAVIN and DAHL.‬‏ |  |
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# Topics and Teaching Methods

**Dermatology: (2 credit hours, 100 working hours, 2 weeks)**

This 2-week course is offered to the 5th yearmedical students. During this course students attend daily general dermatology clinics where they encounter patients and learn about a variety of dermatological conditions. They interview and examine patients and discuss under direct supervision of the teaching staff. Students have daily seminars that cover common and important skin disorders. Students are expected to learn how to obtain dermatological history and examination with application of knowledge of specific dermatological terms used to describe various dermatological lesions and rashes as well as know clinical presentations, complications, diagnostic workup for common Dermatoses. Throughout the course, students are involved in the consultations, Bed-side diagnostic tools used in dermatology, outpatient clinics, about managing common dermatological disorders and interactiveseminars.

**Specific Objectives**

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|  | Titles | Objectives |
| 1 | **history, dermatological examination and approach to dermatological patients** | * 1. Students are expected to know basic skin structure including various skin layers and additional structures present within skin.   2. Functions of various structures should also be known.   3. The students are introduced to dermatological history and examination using the proper dermatological descriptive terms and how to produce a differential diagnosis in accordance with history and examination findings.   d. Also the use of various bed-side diagnostic aids is also introduced and students should become familiar with these tests during the clinical sessions especially using Wood's light, KOH test, Diascopy, Patch Test, Tzanck smear |
| 2 | **Red Non –scaly rash** | 1. Students are introduced to the common conditions that present with redness without scales including: reactive erythemas (Erythema multiforme, Erythema Nodosum and Urticaria), vasculitis, drugs and common infections associated with a rash. 2. Common clinical presentations and complications related to these conditions should be also understood by students.   Diagnostic workup and management for various conditions in this group |
| 3 | **Red Scaly Rashes** | 1. What is a scale and the importance of finding scales on a rash. 2. Differential diagnosis for a scaly rash. Emphasis given to common scaly Dermatoses: Eczema, Psoriasis, Lichen Planus, Pityriasis Rosea and Fungal infections. 3. Main clinical presentations for various scaly Dermatoses. 4. Diagnostic workup for scaly Dermatoses 5. Main complications 6. Principles of management |
| 4 | **Infections** | 1. Normal flora and related clinical problems to skin flora. 2. Staphylococcal infections: Impetigo, Ecthyma, folliculitis, boils and recurrent staphylococcal infections. 3. Streptococcal infections: cellulitis/erysipelas. 4. Viral infections: Human papilloma virus (warts) and Herpes virus (1, 2, and 3 |
| 5 | **Generalised Pruritus** | 1. Common dermatological caused: Scabies and Lice. Other dermatological conditions associated with rash (e.g.: Eczema, Psoriasis, Urticaria…) or dermatological causes not associated with rash (neurodermatitis, senile, dry skin.) 2. Non-Dermatological conditions: especially underlying medical conditions known to be associated with pruritus e.g: chronic liver disease, Renal failure, Lymphomas, Leukemias, anemia, Thyroid dysfunction |
| 6 | **Pigmentary change: Hyper and Hypopigmentation** | 1. Differential diagnoses for diseases causing pigmentary changes. 2. Clinical presentation for common causes of pigmentary change including hyper and hypopigmentation. 3. Complications related to such conditions and treatments used in their management. 4. Principles of therapy |
| 7 | **Bullous Disorders** | 1. Simplified classification: Genetic, Imuunobullous, infectious, and other causes: frictional/traumatic, Diabetic bulla, insect bites and edmea bulla. 2. Pathogenesis 3. Clinical picture 4. Complications 5. Principles of therapy |
| 8 | **Hair, nail diseases** | 1. Patients with diffuse hair loss: causes, diagnosis, principles of management. 2. Patients with localised hair loss: scarring vs. non-scarring. Various causes, complications, diagnosis and principles of treatment.   Patients with nail problems: emphasis on common disorders including: Psoriasis, Lichen planus, Onychomycosis |
| 9 | **Acne and Rosacea** | 1. Pathogenesis 2. Clinical picture Complications 3. Principles of therapy |

**Anesthesia and Pain management: (2 credit hours, 100 working hours, 2 weeks)**

This 2-week course is offered to the fifth year medical students. During this clinical rotation student spend their morning hours in the operating theater learning basic principles of anesthesia including airway management, fluid management, induction and maintenance of anesthesia, patient’s monitoring, recovery andthe appropriate use of local anaesthetic Agents. Students are given daily seminars that cover important aspects of anesthesia with focusing on pre and post-operative care and complications ofanestheticprocedures as well as how to manage pain.

**lectures in pain management**

* Definition and mechanism pain
* General principles of pharmacological analgesic:

1. Non-opioid analgesics and adjuvant medications
2. Opioid analgesics

* how to deal with patients after surgeries
* Assessing patients in pain
* Create effective treatment plan
* Non-pharmacological therapy: Psychological approaches, Physical rehabilitative approaches

**Specific Topics in anaesthesia**

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| **Skills to be learned**   1. Intravenous cannulation 2. Setting up intravenous infusion 3. Connecting monitoring devices 4. Maintenance of the Airway in unconscious patient | 1. **Observation of induction of Anaesthesia** 2. **Observation of Endotracheal Intubation** 3. **Observation and monitoring recovery from General Anaesthesia** 4. **Observation of Local and Regional Blocks** |

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| 1. **Anaesthetic Agents**   **(Intravenous Anaesthetic )** | |
| **1.1. Barbiturate: (Thiopentone)** |  |
| **Thiopentone** | **Ketamine** |
| ● physical, chemical properties and presentation | ● physical, chemical properties and presentation |
| ● Pharmacokinetics | ● Pharmacokinetics and mechanism of action |
| ● Pharmadynamics (effect on the different organ systems) | ● Pharmadynamics (effect on the different organ systems) |
| ● Dosage and Administration | ● Dosage and Administration |
| ● Indications and Contraindications(absolute and relative) | ● Indications andContraindications |
| ● Adverse effects (extravascular,intraarterial,Allergy.........) |  |
|  | **Other adJuvant intravenous anaesthetic agents:** |
| **1.2.Non- Barbiturate: (Propofol, Ketamine)** | ● Benzodiazepines (only midazolam and Diazepam) |
| **Prpopfol** | ● Narcotic Agonists and Antagonists : Definition, Site of action, Effect on organ systems, Fentanyl and Morphine.  ● Narcotic Antagonist :Naloxone. |
| ● physical, chemical properties and presentation |  |
| ● Pharmadynamics (effect on the different organ systems) |  |
| ● Dosage and Administration |  |
| ● Indications andContraindications |  |

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| **II. Anaesthetic Agents**  **(Inhalational Agents)** | |
| ● MAC and factors which alter MAC. | **Nitrous Oxide(N2O):** |
| ● Factors determining how quickly the inhalational agent | ● physical properties |
| reaches the alveoli | ● MAC Value of N2O |
| ● Factors determining how quickly the inhalational agent | ● The second gas effect |
| reaches the brain from the alveoli in order to establish | ● Diffusion hypoxia |
| Anaesthesia | ● Effect on closed gas spaces |
| ● MAC Value of N2O, Halothane, Isoflurane, Sevoflurane |  |
|  | **Halothane, Isoflurane, Sevoflurane** |
|  | ● **IN DETAILS** |
|  | ●Enlurane. And Deslurane JUST the value of MAC |

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| **III. Muscle relaxant& Anticholinergic drugs& Cholinesterase inhibitors** | |
| **1.Physiology of neuromuscular Transmission** |  |
| **2.Depolarizing Muscle relaxant:**  ● **Suxamethonium:**  \* Structure and Mechanism of action  \* Dose onset and duration of action  \* Indications and Contraindications  \* Side effects of Suxamethonium  \* Factor Affecting duration of Suxamethonium | **4. Anticholinergic drugs:(mainlyAtropine)**  \* Effect on the different organ systems:  (Cardiovascular, Salivary Glands, smooth muscles and Pupils)  \* Dose.  \*(Scopolamine and Glycopyrrolate: differences to Atropine) |
| **3. Non-Depolarizing Muscle relaxant:**  \* Mechanism of action  \* Factor Affecting duration of Non-Depolarizing  Muscle relaxant  ● **Atracurium** and **Cis-Atracurium** (Tracrium®): **in Dtails**  ● **Rocuronium bromide** (Esmeron®): **in Details**  ● **Pancuronium bromide** (Pavulon®): **in Details**  ● **Vecuronium bromide** (Norcuron®): **in Details** | **5. Cholinesterase inhibitors: (mainly Neostigmin)**  \* Mechanism of action  \* effect on the different organ systems:  (Cardiovascular, Salivary Glands, smooth muscles and  Pupils)  \* Dose.  6. **The role of**Anticholinergic drugs(Atropin) and Anti Cholinesterase (Neostigmine) in the Anesthesia? |
| ● **JUST MENTION BY NAME:**  \* Mivacurium \* Alcuronium \* Tubocurarine |  |

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| **IV. Conduct of Anesthesia**  1. Inhalational Induction:  \* Procedure  \*Indications  \*Difficulties and Complications  **2.** Maintenance of Anaesthesia  2.1. Conduct of inhalational Anaesthesia with spontaneous ventilation  2.2. Difficulties and complications  3. 2.Airway Maintenance delivery of inhalational agents  \* face mask  \* Laryngeal mask  \* Tracheal intubation (Indications) | **4.** Anaesthesia for tracheal intubation:  4.1. Inhalational technique for intubation  4.2. Relaxant Anaesthesia  \* Indications  **5.** Conduct of extubation:  \* Procedure  \* Complications of tracheal extubation |

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| **V. Intubation and Anatomy of the Airway**  **And Anesthesia apparatus** | 5. Laryngoscopes and type of blades |
| 1. Assessment of patients airway including 1-2-3-Test | 6. Tracheal tubes: size and types of tubes |
| 1. Different classifications of airway structures | 7. Shape of tube and specialized tubes |
| 1. The technique of tracheal intubation ( the 5 steps in Detail) | 8. the laryngeal mask |
| 1. The anatomical structures seen in region of intubation (name of these structures) | 1. Other apparatus including oro- and nasopharyngeal airways. |

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| **VI.Monitoring in Anesthesia** |  |
| 1. Anesthsia Depth | 5. how to identify Cynosis |
| 2. Guidelines to the practice of anaesthesia and patient Monitoring | 6. O2- Hb-dissociation curve |
| 3. What and how we monitor the Oxygenation, ventilation, \circulation, Tempreture | 7. the normal values of monitored parameters for a healthy adult |
| 4. Moniting : ECG, Pulsoximertry, Blood pressure , CVP, Capnography EtCO2 | Undergoing general anesthesia |

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| **VII. Local Anaesthetic Agents**  **The Pharmacology of Local Anaesthetic Agents**  **1.Definition**  **2. Classification of Local Anaesthetic Agents**  **2.1. Comparison between the two Classes.**  **3. Mode of action**  **4. Preparation of Local Anaesthetic Agents**  **5. Addition of Vasoconstrictors**  5.1. Indications and Contraindications and Dosage.  **5.2.** How can I prepare Adrenaline 1:200000?  **6. Clinical uses of local anesthetic agents**  **7. Lidocaine**  **8.Toxicity (Causes, Prevention and Treatment)**  8.1. Systemic Toxicity | VIII. Local Anaesthetic Techniques **1. Central Block: Spinal and Epidural**  **Anaesthesia**   * 1. Procedure including Anatomy,   2. Indications and contraindications   3. Complications (Prevention and Treatment)  2. I.V.R.A. (BIER S Block)  * 1. Procedure   2. Indications and contraindications   1.3.Complications (Prevention and Treatment) |

**VIII. BLS and ACLS**

**Radiology: (2 credit hours, 100 working hours, 2 weeks)**

This 2-week clinical rotation in radiology is offered to fifth year medical

students. The goal of this course is to present a basic introduction of the common radiological exams procedures and techniques as well as familiarize medical students with indications and contraindications of different radiological exams. The course also emphasizes basic radiological anatomy and train medical students to identify and diagnosis common and emergency pathological conditions using different radiological modalities in relation to the medical and surgical cases. This course also focuses on the interventional radiology where students observe some of the common interventional procedures in both surgical and medical cases.

**Specific Topics & Lectures in Radiology**

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| **NO** | **TOPIC** | **OBJECTIVES** |
|  | Introduction radiology | * 1. Review the basic concepts of radiation and its different types.   2. Review the sources of photons ( x and gamma rays) and its interaction with matter   3. Review the principles of radiobiology and radiation protection.   4. Show example of different radiological modalities and discuss possible indications. |
| 22. | Chest radiology | 1. Describe different modalities used to evaluate chest pathology. 2. Introduce the students to chest radiological anatomy. 3. Expose the students to example of urgent and common chest pathology seen on chest X-ray. |
| 3. | Neuro-radiology | 1. Review the radiological anatomy of central nervous system. 2. Discuss the indication for different imaging modalities in neuro-radiology. 3. Discuss the appearances of basic pathological process on CT and MRI. 4. Show example of common and emergency pathology on CT and MRI. |
| 4. | Uro-Radiology | 1. Explain the radiological modalities used to investigate urological problems. 2. Show examples of common pathological entities on different radiological exams. |
| 5. | Gastro-intestinal radiology | 1. Discuss the radiology modalities used to investigate GI problems and their indication. 2. Show examples of common pathological entities. |
| 6. | Musculoskeletal radiology | 1. General radiological anatomy. 2. MRA of joints & bones. 3. Common pathology of bones & joints. |
| 7. | Mammogram | 1. Anatomy breast 2. Benign & malignant disease. 3. Interventional. |
| 8. | Pediatric radiology | 1. General common congenital disease. |
| 9. | Miscellaneous | 1.3 Radiologist teaching common radio-pathology. |
| 10. | Nuclear medicine | 1. Introduce the medical students to the concept of nuclear medicine and its application. 2. Show example of normal exams of different nuclear medicine tests and some pathological entities. 3. Discuss the indication for common nuclear medicine exams. |

**Family medicine**

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| **NO** | **TOPIC** | **OBJECTIVES** |
| **1** | **Introduction to family medicine** | * What is Family medicine/ general practice * Describe the principles of Family Medicine. * Describe the elements of cost-effective practice * Define the role of family physician in the continuity of care for patient * The role of primary care in Minor illness * Recognize The red flags as guides to referral * To understand the concept of a safety net * Understand how to safely manage minor illness in primary care and be able to apply the principles of minor illness management |
| **2** | **Consultation and counseling** | * Definition, what is counseling. * Understand the role of counseling in family medicine. * Advantages and disadvantages of counseling. * Application of counseling in clinical practices. * Consultation skills needed in counseling. * Recognize type of counseling. |
| **3.** | **Breaking bad news** | * To describe the model of giving bad news (SPIKES) |
| **4.** | **Dealing with difficult patient** | * Recognize why it is important to deal with difficult patients. * Recognize the factors leading to difficult patient encounters. * Types of difficult patients. * Approaches and methods in dealing with difficult patients |
| **5.** | **Patient centered care** | * To recognize the concept of patient centered care. * To apply the concept on diagnosis process. * To show the importance of the concept in diagnosis, management, follow up of the patient. * To verify the importance of engage patient in the consultation |
| **6.** | **Geriatric medicine** | * Understand how to approach to thegeriatrics patients and deal with them. * Identify Common physical changes occurring in elderly * Identify the common disease in geriatric. * Understand the importance of overall function (IDA. ADL). * Understand the comprehensive assessment in elderly. * Identify the common screening methods in elderly. |
| **7.** | **Prevention (USPTFS)** | * Definition of preventive medicine * Discussing of the modalities of preventive medicine * Revising the levels of prevention * Mentioning the role of the primary care physician in providing preventive services * Discussing screening as a modality of preventive medicine * Reviewing the USPTF guidelines regarding screening for chronic diseases and malignancies |
| **8.** | **Clinical approach** | * Abdominal pain * Chest pain * Headache * Back pain |

# Assessment

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| **Exam Format** | **Note** | **Weight (%)** |
| Written exam | An exam done at the end of the academic year to evaluate the medical knowledge in each of the given specialties written by the department examination committee. | 60% |
| 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 and it may also include an oral exam. | 40% |
| Total |  | 100% |

# Student Evaluation Form During Clerkships

# Important Dates

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| * **At the end of the Clerkship: 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.
* 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.