



University of Sharjah
College of Medicine

Surgery II:
Clerkship Course Manual 2019-20
Clinical Sciences Department

UNIVERSITY OF SHARJAH
College of Medicine
Department of Clinical Sciences

YEAR 5
SURGERY II CLERKSHIP COURSE MANUAL 2019-2020

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SURGERY II CLERKSHIP

Department of Clinical Sciences
College of Medicine

1. PREAMBLE

A very warm welcome to surgery II clerkship rotation that would take place during year five for 10 weeks. The clerkship would cover surgical subspecialties of urology, orthopedics, ENT, ophthalmology and anesthesia. The program will be carried out in specific hospitals around the Emirates. The co-coordinators from these hospitals, in collaboration with the College of Medicine, have worked to develop this program that will enable you to enrich and promote your knowledge and understanding of surgical acumen. The main aim after successfully completing the program is to have a passion for learning various aspects of modern medicine, a passion for life-long learning, and the confidence to acquiring the clinical knowledge and skills that you will use for the rest of your life.

clinical program is supported overwhelmingly by the staff of the participating hospitals that are committed to passing on their knowledge. During the clerkship program you will meet a large number of hospital staff that will endeavor to encapsulate the critical knowledge in the specialty for your benefit. Students should make the most of the opportunities and generosity of the learning chances they encounter. The final goal of the program is to encourage the students to take an active role as members of the health care team, to learn to be responsible for patient management, to learn to work effectively with other members of the health care team and to develop skills as professionals.

The Department of Clinical Sciences wishes you good luck and is here to support you; and hope to make your clerkship program a fabulous one in both professional and personal development that inevitably arises from the privilege of being part of the team delivering health care to the people we seek to serve.

All the best!

2. CLERKSHIP COORDINATOR WELCOME NOTE

Welcome to Surgery II Clerkship!

This rotation endeavors to facilitate your learning process in surgical specialties that will be complemented by ethical and professional traits for patients' safety and communications. The uniqueness of this clerkship relies on its diversity of contents and various disciplines that will give you a nice mix of cases to observe and improve your knowledge of surgery. This remarkable experience will depict the real art of medicine, which we appreciate in hospitals on daily basis. The overarching purpose of this undergraduate course in surgical specialties is to develop your skills in clinical reasoning and critical thinking along with acquiring core knowledge and expected clinical competencies in various domains.

As you will be getting more and more involved with patient care in the hospitals and getting closer to real life practice, this clinical coaching will prepare you to enter your next phase of internship in the hospital.

As faculty and clinical instructors, we will be glad to teach you basic concepts about surgical subspecialties that will benefit you regardless of which field you chose to enter. It also gives us a chance to show you how exciting surgery can be and to give you a sense of why we chose it for our own careers. The rotation will help the students understand when surgery is the most effective and efficient mode of therapy and thereby help him/her understand when patients need referral to a surgeon.

With the help of this guide, we hope to unlock the mystery of surgery, to provide some tips on how to excel on this rotation, and to outline your responsibilities.

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3. COURSE DESCRIPTION

Academic Year: Year 5

COURSE CODE: SURGERY II (0900602)

Credit Hours: 11

Duration: 10 weeks

Clerkship Description:

This course covers multiple surgical like Orthopedics, Urology, ENT, Ophthalmology, and Anesthesia. They are attending accordingly either in the OT, OPD, or in their dedicated wards. Moreover, students are encouraged to refine their surgical skills, partake in pre- and post-operative assessments, and act as a part of the team. In addition, students are gaining the ability to formulate appropriate management and follow up plans for various surgical conditions.

Clerkship Aims:

- Ability to conduct competent history and physical examination of patients from various surgical subspecialties.
- Integration of strong clinical reasoning along with interpretation skills necessary for diagnosis of the surgical conditions
- Ability to formulate appropriate management and follow up plans for both general and specific surgical conditions and trauma emergencies
- Efficiency in working with other healthcare professionals in multi-disciplinary teams
- Demonstrate effective communication skills with patients and their respective families
- Development of adequate surgical skills for clinical settings application

Teaching Methodologies:

Students are sent in small groups up to 6 to different hospitals attached to their respective surgical team, five days a week starting 8AM to 2PM. Members of the team are taking responsibility in teaching during hospital hours. Students are also gaining their clinical skills through observing and assisting in any available bedside procedures (e.g., Urethral catheterization, Fundoscopy and slit lamp etc.). In addition, students are following patients closely and actively participating in discussions regarding the diagnosis and management. Moreover, dedicated bedside teaching are taking place once per day within the hospital settings. Resource sessions are also being given online by designated faculty to help bridge their knowledge needs.

Assessment Tools:

Students are tested throughout their clerkship rotation for their clinical knowledge and management skills. During their continuous assessment, they are evaluated by the clinical doctor. In addition, the students are continuously evaluated by clinical E-Portfolios through Taskstream. At the end of each rotation, students are further assessed by written examination and OSCE.

4. MBBS PROGRAM INTENDED LEARNING OUTCOMES

By the end of successful completion of the MBBS program students should be able to:

1. Gather essential and accurate information to aid problem identification, reasoning and management through effective communication with patients and their families.
2. Integrate basic and clinical knowledge necessary for patient and community care.
3. Make informed decisions about diagnostic and therapeutic interventions based on accurate analysis of patient information, evidence-based practice, and good clinical reasoning and judgment.
4. Develop patient management plans with engagement of their families and community as partners in the process.
5. Perform medical procedures considered essential for the management of common health problems.
6. Utilize information technology to achieve patient care decisions and education of patients and families.
7. Promote health care services aimed at preventing health problems and improving community health profile.
8. Work in a multidisciplinary team with other healthcare professionals, as member or leader in order to provide a state of the art patient, family and community care.
9. Integrate research principles and statistical analysis methods in designing and conducting research studies aiming at improving diagnostic and therapeutic measures.
10. Apply ethical principles about provision or withholding of clinical care, research, and confidentiality of patient information, informed consent and medico-legal aspects.
11. Practice sensitivity and respect to patients' culture, age, gender, and disabilities.
12. Advocate for quality patient care and assist patients in dealing with healthcare system complexities.

5. SURGERY II CLERKSHIP LEARNING OUTCOMES

At the end of rotation, the students should be able to:

1. Obtain and report a basic orthopedic patient history for common orthopedic conditions and injuries.
2. Perform and report a basic orthopedic physical examination of the spine, shoulder, elbow, wrist and hand, pelvis and hip, knee, foot and ankle.
3. Demonstrate understanding of the basic sciences, physiology, pathophysiology, pathology, and natural history of common orthopedic conditions and injuries.
4. Develop a working differential diagnosis for common orthopedic conditions and injuries and to demonstrate an understanding of the appropriate timing and use of common diagnostic testing modalities to assist with determining a definitive diagnosis.

5. Apply appropriate available treatment alternatives, including both non-operative and operative for common orthopedic conditions and injuries and complications.
6. Describe possible preventative measures to avoid common orthopedic conditions and injuries.
7. Demonstrate an adequate and a minimum knowledge of the medical ethics, in addition, the issue of confidentiality of patient's medical record and information is emphasized.

6. SURGERY II CLERKSHIP PROGRAM STRUCTURE

The surgery clerkship is a clinical experience that introduces students to basic principles of general surgery and surgical sub-specialties. The whole surgery program spans over 20 weeks divided between the 4th and 5th years.

In Surgery II Clerkship Program, the students will go through 10 weeks of surgical sub specialties:

Speciality	Duration
Orthopedics	3 weeks
Urology	2 weeks
ENT	2 weeks
Ophthalmology	1 week
Anesthesia	1 week
Exam week	1 week

The clerkship is designed to equip the students with knowledge, skills and attitudes relevant to surgical management that all physicians should possess. In addition, it emphasizes teamwork and professional behavior as essential qualities for young physicians to develop. The Year 5 clerkship program has been designed to be a transitional pre-intern experience, preparing students to function as interns in the hospital. Students will be encouraged to function as a pre-intern within the surgical team.

During their rotation, students learn pre- and post-operative evaluation and management of surgical problems and participate in surgical procedures. Time is spent on the wards, in outpatient clinics, in the operating room and the emergency department. Other important educational activities are weekly problem solving sessions, surgical anatomy and surgical pathology sessions.

Communication skills, ethics and professionalism and evidence-based medicine are integral to the program. Students will find that the outcome competencies and related objectives are reflected on the goals, objectives, contents, and skills of the Surgical Clerkship. During the 10-week surgery II clerkship rotation, you will be posted to various sub-specialties including Orthopedics, Urology, Anesthesia, ophthalmology and ENT. You will be part of the surgical team, which includes consultants, specialists, residents and interns. As a pre-intern in this team, it is expected that you will be able to experience firsthand the practical

application of theoretical knowledge and clinical skills in management of surgical patients and acute trauma care. You will also be able to observe the interaction between medical staff, nursing staff and allied healthcare workers to form a multidisciplinary team approach in the delivery of optimal patient care. In addition, you will get hands on experience in clerking patients in the surgical wards, clinical examination, case presentation and procedural skills, which will be of paramount importance as you graduate to become an intern. You will also spend time in the operating theatre observing and assisting in basic surgical and anesthetic procedures as well as writing post-operative orders in the recovery room.

During this rotation, a number of case based discussion sessions will be conducted by clinical instructors where you will be able actively participate in clinical reasoning and critical thinking for making a justifiable diagnosis and a management plan. As part of the surgical team, you will be required to attend ward rounds including evening pre-op rounds, bedside teachings, operating theatre, outpatient clinics and other activities of the unit. Each student will be assigned to specific beds in the ward and your responsibilities / duties for patient care including post-operative care will be supervised. If your patient is on the operating list, you are expected to attend the surgery and if possible scrub in and assist in the surgical procedure.

7. PROFESSIONAL CODE AND CONDUCT

7.1 Attitude

Students are expected to employ effective communication skills and to elicit professionally appropriate attitudes, honesty and integrity in all interactions with patients, patient's family, colleagues and clinical supervisors. They also need to understand and respect the role of other health care professionals, appreciating the need to collaborate with others in caring for the individual patients and promoting health of a given population. They have to show commitment to advocate the interest of the patient over any other interest at all times.

7.2 Attendance

During all clinical clerkships in hospitals, the students will be responsible for getting the attendance sheets signed and stamped by the clinical instructors for each educational activity.

Students must be on time and present for all clerkship activities. If the student is likely to be late or absent for any reason, it is his or her duty to inform the coordinator at the hospital and the administrative assistant in the college. According to the University of Sharjah attendance and absence policy, a student whose absences exceed 20 percent will not be eligible to sit for the final exams (DOCEE, OSCE and Written exam).

Students are required to at the affiliated hospitals every weekday (Sunday – Wednesday) from 8 am to 2 pm.

- **Sign in:** Students should sign in with the designated person in the surgery department. At that time, each student will be given his/her daily assignments from PPT presentations, floor rounding, bed-side patient clerking etc.
- **Sign out:** Students should sign out with the designated person in the surgery department. Students will report on their day's accomplishments and finished assignments. The on-call students will be assigned and their appropriate duties are given.
- On weekends, students are expected to come in if on call. On average, students have one day off a week. Students must inform the coordinator of any absences as soon as possible.
- A system for attendance has been developed where all students will get their attendance verified by the clinical tutor who supervised educational activities in the hospitals.

7.3 Dress code

Appropriate conservative dress, with white coats is required. Shirts and ties are suggested for men.

8. ROTATION ACTIVITIES

You should aim to complete the following tasks during the rotation in different sub-specialties:

- Attend unit activities including pre-op rounds, ward rounds, bedside teaching and operating theatre days
- Practice focused history taking, clinical examination, formulating differential diagnoses and treatment plans
- Patient admissions under supervision
- Case presentations
- Observe and perform selected clinical procedures identified in each sub-specialty

For patients admitted to your assigned beds, in addition to history taking and formulation of treatment plans, it is expected that you will attend scheduled procedures including surgical operations for these patients and follow up their progress on a daily basis.

I. ORTHOPEDICS CLERKSHIP (Three weeks)

Course overview

You should mainly attend outpatient clinics and ward rounds and observe operative procedures once a week. This schedule should be observed regularly for three weeks.

The overall goal of this rotation is to provide the students with basic understanding of the pre and postoperative evaluation of the emergency and elective orthopedic cases and basic principles of wound management. This rotation will help you to improve your decision-making skills and how to navigate through difficult patient interactions.

Learning objectives

At the completion of the rotation, the student should have reinforced certain broad goals and objectives, including:

1. The ability to obtain and report a basic orthopedic *patient history* for common orthopedic conditions and injuries.
2. The ability to perform and report a basic orthopedic *physical examination* of the spine, shoulder, elbow, wrist and hand, pelvis and hip, knee, foot and ankle.
3. Demonstrate understanding of the *basic sciences*, physiology, pathophysiology, pathology, and natural history of common orthopedic conditions and injuries.
4. The ability to develop a working *differential diagnosis* for common orthopedic conditions and injuries and to demonstrate an understanding of the appropriate timing and use of common diagnostic testing modalities to assist with determining a definitive diagnosis.
5. Knowledge of appropriate available *treatment alternatives*, including both non-operative and operative for common orthopedic conditions and injuries. Students should be able to discuss the relative merits and limitations of each type of treatment as well as any potential side effects or complications of the treatment.
6. Knowledge of possible preventative measures to avoid common orthopedic conditions and injuries.
7. Demonstrate an adequate and a minimum knowledge of the medical ethics, in addition, the issue of confidentiality of patient's medical record and information is emphasized.

LIST OF COMMON PROBLEMS AND PRESENTATIONS OF CASES

FRACTURES, DISLOCATIONS, AND SUBLUXATIONS

Students should be able to define, describe and discuss

- A. Open and closed fractures, dislocations, and subluxations.
- B. The clinical and radiological features of fractures.
- C. Management priorities in treating fractures, dislocations and subluxations.
- D. Evaluation of patients with musculoskeletal trauma
 - Symptoms
 - Vascular integrity
 - Radiology

E. Fracture management- Discuss indications and complications

- **Compartment syndrome**
 - Reduction, Maintenance of Reduction
 - Cast application
 - Internal Fixation
 - External Fixation
 - Traction
- **Common fractures**
 - Carpal Scaphoid Fracture
 - Fracture clavicle
 - Fracture neck and shaft of femur
 - Fracture tibia and fibula
 - Colles Fracture
 - Olecranon Fracture
 - Supracondylar Humerus Fracture
 - Shoulder Dislocation
 - Hip Fracture
 - Ankle fracture

MUSCULOSKELETAL INFECTION

- **Students should be able to define, describe and discuss:**

1. Osteomyelitis
2. Septic Arthritis
3. Infection of hand

ARTHRITIS

- **Students should be able to define, describe and discuss:**

1. Osteoarthritis
2. Rheumatoid Arthritis
3. Discuss the symptoms and signs of inflammatory (noninfectious) joint disease.
4. List and discuss the laboratory and radiological techniques used in making the diagnosis of rheumatoid arthritis and osteoarthritis.
5. List and discuss the nonsurgical and surgical treatment options of degenerative joint disease of the hip, knee, and spine.

METABOLIC ENDOCRINE DISORDERS

- **Students should be able to define, describe and discuss:**

1. Osteoporosis
2. Osteomalacia
3. Hyperparathyroidism
4. Paget's Disease
5. Define osteoporosis and osteomalacia and list common etiologies of each.
6. Discuss the pathophysiology, symptoms, and laboratory and radiographic findings of hyperparathyroidism and Paget's disease.

BONE NECROSIS

- **Students should be able to define, describe and discuss:**

Discuss the pathophysiology of osteonecrosis.

SPINE

- **Students should be able to define, describe, and discuss:**

1. Lumbar Spine

Etiology of

- Low Back Pain
- Lumbar Strain
- Spondylolysis
- Disc Herniation
- Spinal Stenosis

2. Cervical Spine

- Cervical Disc Protrusion
- Cervical Spondylosis
- Rheumatoid Arthritis of the Cervical Spine

3. List and discuss common causes of low back pain and cervical pain.

4. Discuss the symptoms and signs and outline the diagnostic workup for a patient with lumbar or cervical herniation.

5. Clinical presentation of infectious and neoplastic spine diseases.

BONE TUMOR

- **Students should be able to define, describe and discuss:**

Diagnostic workup for a patient with a suspected primary and secondary malignant neoplasm of bone.

GAIT

- **Students should be able to define, describe and discuss:**

Basic components of gait and discuss common gait abnormalities in relation to mechanical or neurological disorders.

Procedures to be observed and performed:

- Pressure hemostasis
- Application of POP slab
- Principles of cast application
- Cervical collar application

Implementation

Course objectives are to be accomplished in hospitals with adequate clinical facility, and should be under supervision.

The review sessions of the orthopaedic year 5 at UHS will be conducted once a week.

All the basic objectives **must** be covered during the rotation.

The use of diverse methods appropriate to the individual and the clinical site are encouraged, but the patient-centred teaching remains the optimal teaching tool.

Didactic methods to achieve required objectives

- Reading assignments
- Lectures
- Computer-assisted programs (if available)
- Student attendance at/participation in formal clinical presentations by medical faculty

Clinically oriented teaching methods

- Examples of case scenario and interactive discussion.
- Participation in clinic visits, daily patient rounds and conferences
- Supervised and critiqued clinical work-ups of patients admitted to the service
- Assigned, case-oriented reading case presentations

Three levels of achievement are identified

- Familiarity with a variety of medical procedures through observation and assisting
 - Awareness of the availability of various medical procedures and their use
- Proficiency in clinical procedures through actual supervised performance

Expected skills to be acquired

The following skills are expected to be acquired by the students at the end of the 3 weeks rotation;

- (1) How to take basic orthopaedic history and perform a physical examination of the musculoskeletal system
- (2) How to diagnose and treat common adult orthopaedic problems
- (3) Basics of fracture treatment, including cast application
- (4) Basic principles of total joint replacement surgery
- (5) Management of postoperative adult orthopaedic patients

Example of orthopaedics typical weekly tentative timetable

Time	Sunday	Monday	Tuesday	Wednesday	Thursday
8:00-9:00	Handover and morning round	Handover and morning round	Handover and morning round	Handover and morning round	Handover and morning round
9:00-10:00	Outpatient clinic	Clinical case Discussion	Clinical case Discussion	Outpatient clinic	Operating room
10:00-11:00	Outpatient clinic	Clinical case Discussion	Clinical case Discussion	Outpatient clinic	Operating room
11:00-12:00	Outpatient clinic	Clinical case Discussion	Clinical case Discussion	Outpatient clinic	Operating room
12:00-2:00	Outpatient clinic	Clinical case Discussion	Clinical case Discussion	Outpatient clinic	Operating room

- ❖ Some alterations to the above mentioned schedule may happen depending on the hospital of training and program of the teaching faculty

Resources:

1. Adams's Outline of Orthopaedics, by David L. Hamblen PhD DSc FRCS
2. Adams's Outline of fractures, by David L. Hamblen PhD DSc FRCS
3. Apley's Concise System of Orthopaedics and Fractures
4. Current Diagnosis and Treatment Orthopedics, 4e, Skinner, Harry B.
5. [UpToDate online resource](#)
6. [ClinicalKey online resource](#)

II. UROLOGY CLERKSHIP (Two weeks)

Course overview

Consists of a two-week period of rotation in MOH hospitals, during which students are involved in an overview of urology through daily clinics, ward work, and the operating room. This clerkship exposes students to general and specialty based urology (oncology, female urology, pediatric urology, endourology, and minimally invasive surgery). During the clerkship, students learn broad concepts regarding the evaluation, diagnosis, and management of the common diseases of the genitourinary tract. Students in this clerkship are an integral part of the service. Every effort is made to provide students with as much personal contact with faculty and residents as possible and is appropriate for positive patient care. The daily clinics of the various faculties expose students to ambulatory urological care and provide them with an opportunity to take urologic histories and physical examinations. Students are expected to take part in patient ward care and to attend at surgery on those patients observed on the ward.

This 3-week urology clerkship rotation, in addition to providing students with the knowledge and skills to enable them to recognize and understand common genito-urinary problems will provide the foundation for the student who may be seeking a future career in urology. It will allow them to start to develop the broader knowledge of urologic surgery that will allow them to become effective contributors to urologic surgical teams.

The following outlines some of the knowledge and skills that should be acquired by the end of the rotation. The objectives outlined must be considered as nominal and must not act as a limit to a student's personal learning in the diagnosis and management of genito-urinary related diseases. Where the topic is not directly experienced in clinical practice the student should take the opportunity to pursue the topic through independent study.

Learning objectives of the rotation

At the end of the rotation, the students should be able to:

1. Identify common acute and chronic urological conditions.
2. Take appropriate focused urologic history and performance of physical examination.
3. Understand general principles of patient's symptomatology, differential diagnosis and treatment of urological diseases.
4. Discussing the anatomy, pathology and physiology in relation to urological presentations.

5. Develop a working diagnosis and developing a management plan including justification of appropriate investigations
6. Demonstrate emergency management: for example acute urinary retention.

❖ *This rotation will be conducted in both Al-Qassimi, UHS and Al Baraha Urology units over 2 weeks. The batch of students is split into 3 groups of rotation. The weekly activity will be 4 days Urology (OPD, Bedside teaching and O.R.)*

To achieve the objectives, the following common urological conditions will form the core content for this rotation.

- Obstructive Uropathy (Hydronephrosis and Prostatic hyperplasia).
- Genito-urinary trauma and injuries
- Renal Colic and urolithiasis.
- Blood in urine (Microscopic and Macroscopic Hematuria).
- Urinary tract infection (UTI) and (STDs).
- Loss of Urinary voluntary control (Urinary incontinence).
- Upper and Lower urinary tract tumors (Hypernephroma, Bladder and Prostatic Tumors).
- Scrotal masses and acute pain (Testicular Tumors, Varicocele and Testicular Torsion).

Program structure of training in hospitals:

1. **(8-9 AM)** Every day, students attend the morning round with the urology team.
2. **(9–10 AM)** In the urology section of the male surgical ward. Students are divided usually into two groups. Each group will have a different case. They start history taking, clinical examination and review of the patient investigations (Laboratory and radiology). This depends on the availability of suitable cases.
3. **(10-12 AM)** The assigned urologist for teaching starts discussion of the clinical case with the students and usually in some details especially in the previously mentioned four clinical problems.
4. On outpatient clinic days **(Usually Sundays and Wednesdays)**, students attend and observe and share in clinical assessment of patients and decision making regarding further investigations or treatment schedule. They attend also the procedures of: Ultrasonography, Urodynamic examination, Urethral catheterizations and dilations. They attend outpatient cystoscopy procedures as removal of stents or diagnostic cystoscopy. They attend the lithotripsy ESWL sessions.
5. **On Thursdays**, students attend the operation room to get oriented with the O.T. environment, scrubbing, commonly used surgical instruments, equipments and devices as fluoroscopy, endoscopes, LASER machine, and diathermy. Students should follow the patient since admission to the O.T. to recognize the steps the patient passes through till being admitted for anesthesia. Inside the Operating room, they will follow the anesthesia team to see the induction of the anesthesia and the arrangements the nursing staff do after to bring the case is ready situation for surgery. Students have to learn the scrubbing procedure and they can share as assistants in some procedures. Students will observe the recovery procedure and

accompany the patient to the recovery room to attend the recovery process till the patient is send back to his word after full recovery. In addition, students should observe the communication and Ethics part of the procedure like handover, time-ou

Skills required to be obtained during urology clerkship:

- Urethral catheterization and dilation in males and females.
- Urethral swab & urine dipstick testing.
- Abdominal, Prostatic and small parts linear U/S.
- Urodynamic of the lower urinary tract (Q-max. for outflow obstruction).
- Lithotripsy (ESWL) in Al-Qassimi Hospital
- Office cystoscopy in Al-Qassimi Hospital

Example of Urology Typical Weekly Tentative Timetable

Time	Sunday	Monday	Tuesday	Wednesday	Thursday
8:00-9:00	Handover and morning round	Handover and morning round	Handover and morning round	Handover and morning round	Handover and morning round
9:00-10:00	Outpatient clinic	Clinical case Discussion	Clinical case Discussion	Outpatient clinic	Operating Theatre
10:00-11:00	Outpatient clinic	Clinical case Discussion	Clinical case Discussion	Outpatient clinic	Operating Theatre
11:00-12:00	Outpatient clinic	Clinical case Discussion	Clinical case Discussion	Outpatient clinic	Operating Theatre
12:00-2:00	Outpatient clinic	Clinical case Discussion	Clinical case Discussion	Outpatient clinic	Operating Theatre

❖ Some alterations to the above mentioned schedule may happen depending on the hospital of training and program of the teaching faculty

RESOURCES

1. Bailey & Love’s short Practice of Surgery
2. Smith general Urology.
3. EAU up-date guidelines.
4. AUA updates series 2010-2012.
5. Urology Emergency Manual in UHS
6. UpToDate online resource
7. ClinicalKey online resource

III. OPHTHAMOLOGY CLERKSHIP (One week)

COURSE OVERVIEW

The main objective of this one-week training is to introduce students to common eye problems and expose them to few ophthalmic procedures done in routinely. Medical students spend all their time in the clinic with a faculty member, participating in patient examinations and watching minor procedures.

Key learning objectives

At the end of the rotation, the students should be able to:

1. Identify common ophthalmological presentations and conditions
2. Understand basic structure and function of the human eye
3. Take appropriate focused history and performs relevant ophthalmological examination
4. Perform simple skills required in the field of ophthalmology
5. Utilize knowledge to interpret evidence and formulate simple management plans for patients with ophthalmological conditions

To achieve these objectives, the following common ophthalmological presentations will form the core content of this rotation:

- Acute and chronic visual loss
- Eye trauma.
- Red eye (glaucoma, conjunctivitis)
- Eye emergencies
- Strabismus and / or amblyopia

Examinations and procedures to be observed / performed during the rotation

- Examination of the eye and visual acuity
- Fundoscopy and slit lamp
- Clinical optics / optometry

During this rotation, the students will also be expected to observe in the operating room common procedures including those for cataract extraction, glaucoma, retinal detachment, strabismus correction and excision of style.

Example of Ophthalmology Typical Weekly Tentative Timetable

Time	Sunday	Monday	Tuesday	Wednesday	Thursday
8:00-10:00	Outpatient clinic	Outpatient clinic	Outpatient clinic	Operating Theatre	Fundoscopy
10:00-12:00	Outpatient clinic	Outpatient clinic	Outpatient clinic	Operating Theatre	Outpatient clinic
12:00-2:00	Clinical case Discussion	Clinical case Discussion	Clinical case Discussion	Operating Theatre	Outpatient clinic

- ❖ In the outpatient clinic students will acquire the skills of taking the ophthalmic history and principals of examination of the eye, as well as they will have an idea and training about various equipment's in ophthalmic practice.
- ❖ Some alterations to the above schedule may happen depending on the hospital of training and program of the teaching faculty.

RESOURCES

1. Parson's Diseases of the Eye
2. UpToDate online resource
3. ClinicalKey online resource

IV. ENT CLERKSHIP (Two weeks)

Course overview

The clerkship program in Otorhinolaryngology is aimed at exposing the students to common ENT problems and their management. During the rotation, students will learn history taking and the techniques of examination of the ear, nose, pharynx, mouth, and larynx.

Key learning objectives

At the end of the rotation, the students should be able to:

1. Take appropriate focused history and performs physical examination of common ear, nose and throat patient problems
2. Formulate management plans of common ENT problems with emphasis on emergency situations.

To achieve these objectives, the following common ENT presentations will form the core content of his rotation

- Epistaxis
- Dizziness / vertigo / tinnitus
- Ear pain
- Hearing loss/deafness
- Hoarseness
- Tonsillitis/ quinsy/ croup
- Sore throat
- Smell/taste dysfunction

- Head and neck pain / facial palsy
- Upper respiratory tract obstruction

Examinations and Procedures to be observed / performed during the rotation

1. Oscopes
2. Tuning fork test
3. Rinne's test
4. Performs and interpret pure tone audiometry, tympanometry, stapedius reflex, acoustic brainstem responses (ABR)
5. Tracheostomy

Example of ENT Typical Weekly Tentative Timetable

Time	Sunday	Monday	Tuesday	Wednesday	Thursday
8:00-9:00	Operating Theatre	Word round	Word round	Word round	Word round
9:00-10:00	Operating Theatre	Clinical case Discussion	Clinical case Discussion	Audio-visual Lab	Outpatient clinic
10:00-11:00	Operating Theatre	Clinical case Discussion	Outpatient clinic	Audio-visual Lab	Outpatient clinic
11:00-12:00	Common ENT problems allergic rhinitis	Outpatient clinic	Outpatient clinic	Outpatient clinic	Outpatient clinic
12:00-2:00	ENT imaging	Outpatient clinic	Outpatient clinic	Outpatient clinic	Outpatient clinic

- ❖ Some alterations to the above schedule may happen depending on the program of the teaching faculty

RESOURCES

1. Logan Turner's diseases of the nose, throat and ear
2. UpToDate online resource
3. ClinicalKey online resource

V. ANESTHESIA CLERKSHIP (One week)

Course overview

During this rotation, students will this clerkship provides an introduction to the perioperative anesthetic management of the surgical patient. In this clinical setting, and under close faculty and resident supervision, students have an opportunity to learn and apply the principles of preoperative evaluation of patients, intraoperative monitoring techniques, assessment of vital organ status, pharmacology of anesthetic and related drugs, and immediate postoperative management. In addition, students have ample opportunity to learn and practice a variety of

technical skills, including airway management and intravenous cannulation, which will be of value in any clinical specialty.

Key learning objectives

1. Gather the important information that is needed for preoperative anesthesia evaluation
2. Demonstrate the ability to perform the pertinent physical examination of the airway.
3. Describe common adult and pediatric critical care conditions.
4. Perform direct laryngoscopic examination
5. Capable of homeostasis; hemodynamic fluid and electrolytes management.
6. Understand training/career pathway for anesthesiology.

Skills expected to acquire during this rotation

- Induction
- Emergence and maintenance
- Hemodynamic changes
- Airway management including difficult airway
- Regional anesthesia
- Decision making in case of critically ill patient
- Airway management
- Regional anesthesia
- Vascular access
- Ventilator support

Clinical anesthesia

Students will learn techniques of airway management and general anesthesia for both adults and pediatric patients. This term also includes rotations at inpatient and outpatient facilities. In addition, as the students achieve basic competencies, they are introduced to regional anesthesia. Each student also has a one-week rotation in the Post Anesthesia Care Unit where they manage perioperative complications of anesthesia. Under the guidance of a specialist, Students may share/plan and initiate a research project during their existence in the department.

Example of Anesthesia Typical Weekly Tentative Timetable

Time	Sunday	Monday	Tuesday	Wednesday	Thursday
8:00-10:00	Operating Theatre	Operating Theatre	Operating Theatre	Operating Theatre	Operating Theatre
10:00-12:00	Word round	Word round	Word round	Word round	Word round
12:00-2:00	Clinical case Discussion	Clinical case Discussion	Clinical case Discussion	Clinical case Discussion	Clinical case Discussion

- ❖ Some alterations to the above schedule may happen depending on the program of the teaching faculty

RESOURCES

1. UpToDate online resource
2. ClinicalKey online resource
3. Resource sessions and clinical demonstrations

VI. Resource sessions

	Date & Time	Topic	Faculty
Week 3	Monday 05/10/2020 15:00 – 17:00	MCQ Review-Types of anesthesia and pharmacology of anesthesia drugs	Dr.Ahmad Shorrab
	Wednesday 07/10/2020 15:00 – 17:00	MCQ Review –ophthalmology (Common cases)	Dr.Magdi
Week 4	Monday 12/10/2020 15:00 – 17:00	MCQ Review – Emergencies in anesthesia	Dr.Ahmad Shorrab
	Tuesday 13/10/2020 15:00 – 17:00	ABG	Dr.Ahmad Shorrab
	Wednesday 14/10/2020 15:00 – 17:00	MCQ Review-Ear related conditions	Dr.Ahmad Munther
Week 5	Monday 19/10/2020 15:00 – 17:00	MCQ Review- Urinary tract stones	Dr.Younis
	Tuesday 20/10/2020 15:00 – 17:00	MCQ Review- Osteoporosis and fractures.	Dr.Luay Tapponi
	Wednesday 21/10/2020 15:00 – 17:00	MCQ Review – Bone tumors: primary and metastatic	Dr.Ahmad Abaub
Week 6	Tuesday 27/10/2020 15:00 – 17:00	MCQ Review- Diabetic and hypertensive retinopathies	Dr.Qasem Hamouri
	Wednesday 28/10/2020 15:00 – 17:00	MCQ Review – Prostatic enlargement (BPH, prostate cancer...etc.)	Dr.Tharwat Ramadan
Week 7	Sunday 01/11/2020 15:00 – 17:00	MCQ Review- Osteoarthritis	Dr.Luay Tapponi
	Tuesday 03/11/2020 15:00 – 17:00	MCQ Review- Osteoporosis and fractures.	Dr. Luay Tapponi
Week 8	Monday 9/11/2020 15:00 – 17:00	MCQ Review- Cataract	Dr.Qasem Hamouri
	Tuesday 10/11/2020 15:00 – 17:00	MCQ Review- Acid Base Balance	Dr. Ziad Saeed
	Wednesday 11/11/2020 15:00 – 17:00	MCQ Review – Nose and throat related conditions	Dr.Ahmad Munther

9. STUDENT ASSESSMENT

Portfolio

Students are expected to continue to keep an educational portfolio, through an electronic portal of Taskstream, which constitutes an integral component of the continuous assessment. A plagiarism threshold of up to 25% is acceptable for all submission and the similarity index more than 25% shall be dealt with policies and procedures of the UoS.

The portfolio should enclose all student activities and projects during the rotation including but not limited to:

Specialty	No. Of Weeks	No. Of Submissions
Surgery II	9 Weeks	13 Submissions
Orthopaedics	3 Weeks	1. Orthopedics Case Write Up 1 2. Orthopedics Case Write Up 2 3. Orthopedics Case Write Up 3 4. Orthopedics Weekly Student's Reflection
Urology & Anaesthesia	3 weeks	1. Urology Case Write up 1 2. Urology Case Write up 2 3. Urology Weekly Student's Reflection 4. Anaesthesia Weekly Student's Reflection
ENT & Ophthalmology	3 Weeks	1. ENT Case Write up 1 2. ENT Case Write up 2 3. ENT Weekly Student's Reflection 4. Ophthalmology Case Write up 1 5. Ophthalmology Weekly Student's Reflection

Surgery II			
No.	Requirement	Evaluation Method	Marks
1.	Orthopedics Case Write Up 1	Write-In score	13
2.	Orthopedics Case Write Up 2	Write-In score	13
3.	Orthopedics Case Write Up 3	Write-In score	13
4.	Orthopedics Weekly Student's Reflection	Write-In score	3
5.	Urology Case Write Up 1	Write-In score	13
6.	Urology Case Write Up 2	Write-In score	13
7.	Urology Weekly Student's Reflection	Write-In score	2
8.	ENT Case Write Up 1	Write-In score	13
9.	ENT Case Write Up 2	Write-In score	13
10.	ENT Weekly Student's Reflections	Write-In score	2
11.	Ophthalmology Weekly Student's Reflection	Write-In score	1
12.	Anesthesia Weekly Student's Reflection	Write-In score	1

Surgery II			
No.	Requirement	Evaluation Method	Marks
			100

B. Summative General Regulations

1. The minimum cumulative pass mark to pass clerkship examinations is 70%, provided that a student scores a minimum pass mark (70%) in the DOCEE + OSCE.
2. On the 9th week of rotation, the coordinators of the clerkship will report to the College the suitability of any student to appear/not to appear for the clinical examination on the basis of his/her continuous assessment. Unsatisfactory performance will not allow the students to take the end of clerkship examination.
3. If a student fails in the clerkship examination and this failure is due to a low score on clinical examination, s/he will be given a re-sit clinical exam within 15 days of the first examination.
4. Students failing the re-sit examination will be allowed to continue his 5th year; however, they will have a re-sit examination with a next batch of students during the 1st end-clerkship rotation examination. They will also have to repeat 4 weeks of training in the clerkship in which they have failed, before taking the re-sit examination.
5. **In order to sit for the EXIT examination at the end of year 5, all students must pass all end-clerkship rotation examinations.**

❖ Assessment tools

1. Pre and post-tests
- Multiple-choice test question
2. Comprehensive exams
4. Student Portfolio evaluation: Case Write Up & Weekly Students Reflections.
5. Class project (individual or group).
6. Final Exams: OSCE, OSPE, MCQ, EMQ.
7. Student Success rates.

❖ Marks distribution for Surgery II

The mark distribution for these two rotations (clerkships) in year 5 is as follows:

- **Continuous Assessment: 20%**
 1. Portfolio = 10%
 2. Clinical Faculty Evaluation = 10%
- **End of Clerkship Examinations: 80%**
 3. MCQs = 45%
 4. OSCE = 35%

10.HOSPITAL COORDINATORS AND EVALUATORS

Dept	Coordinator's Name	Hospital	Contact#	Email
Uro	Dr.Younis Al Shamsi	Al Qassimi	050-7979791	dryounis@hotmail.com younis.alshamsi@moh.gov.ae
	Dr.Tharwat Abdelghaffar	UHS	050-6327872	tharwatd@yahoo.com
	Dr. Rafi Alnjadat	SKGH	052-2075320	Rafi.Alnjadat@skgh.ae
	Dr. Fratoon	Zulekha	055-2654212	fpatrawala@zulekhahospital.com
Anesth	Dr. Sameh Mohktar Banoub	Al Qassimi	050-6150027	samehbanoub@yahoo.ca
	Dr.Ahmed Shorrab	UHS	050-2702820	ahmed.shorrab@uhs.ae
Ortho	Dr.Luay F Tapponi	Al Dhaid	050-2452409	luaytapponi@yahoo.com
	Dr.Ahmed Al Suwaidi	Al-Kuwaiti	050-6366262	Ahmed.alsuwaidi@moh.gov.ae
	Dr. Ahmed Aboub	UHS	056-7341746	aabaub@yahoo.com - ahmed.abaub@gmail.com
	Dr. Tarek Abu Zakuk	American	0563496715	tabuzakuk@gmail.com
	Dr. Nayzak Tahir Raooof	Burjeel Dubai	050-4567725	nayzakraoof@hotmail.com
Ophthal	Dr.Magdy Anis G. Rophail	Al Qassimi	050-6283728	magdyhal@hotmail.com
	Dr.Qasem Hamouri	UHS	056-2282036	qasemlzl@yahoo.com
	Dr.Eman Al Houli	Al Qassimi	050-6343212	Eman.hamad@moh.gov.ae
	Ahmed Munzer Alwaa	UHS	050-9253306	ahmad.alwaa@uhs.ae

1. PRESCRIBED AND RECOMMENDED RESOURCES

There is no single text book or resource that can be suggested for the undergraduate medical students. The following books and resources are suggested only for your guidance and you can choose anyone of the suggested or other books and resources for your studies.

I. Orthopedics

1. Adams's Outline of Orthopaedics, by David L. Hamblen (Published by Churchill Livingstone, 2009. ISBN 9780702030611)
2. Adams's Outline of fractures, by David L. Hamblen PhD DSc FRCS (Published by Churchill Livingstone, 2007. ISBN 9780443102974)
3. Apley's Concise System of Orthopaedics and Fractures (Published by Hodder Education Publishers, 2005. ISBN 9780340809846)
4. Current Diagnosis and Treatment Orthopedics, 4e, Skinner, Harry B (Published by Appleton & Lange, 2000. ISBN 9780838503638)

II. Urology

1. Bailey and Love's Short Practice of Surgery 27th Edition (Published by CRC Press, 2018. ISBN 9781498796507)
2. Smith general Urology (Published by Mcgraw Hill, 2000. ISBN 9780071120067)
3. EAU update guidelines.
4. AUA updates guidelines 2010-2012.
5. Urology Emergency Manual in UHS.

III. Ophthalmology

1. Parsons Disease of the Eye (Published by Elsevier India, 2019. ISBN 9788131254158)

IV. ENT

1. Logan Turner's diseases of the ear, nose, throat (Published by CRC Press, 2015. ISBN 9780340987322)

V. Anesthesia

1. Resources sessions and clinical demonstrations

2. Online resources

- A. e-Medicine
- B. Medscape
- C. College of medicine e-Platform Blackboard
- D. UpToDate
- E. Clinical key

2. PROGRAM AND STUDENT EVALUATION FORMS

Form 1: Assessment rubric for students Direct Observation Clinical Encounter Examination (DOCEE) (To be used with Form-2)

MCR item	1 (Unsatisfactory)	2 (Borderline)	3 (Pass)	4 (Good)	5 (Excellent)
1. Patient Assessment (history and examination)	Very inadequate, falls short of the required standard	Performs an assessment that has frequent incomplete and Inaccurate elements; Assessment Is conducted In an unstructured Manner. Student is unsure and/or Uncoordinated in examination techniques and demonstrates lack of sensitivity to patient's comfort and dignity	Mostly demonstrates a coherent , approach to assessment in which most of the important elements are covered; Examination techniques are reasonably coordinated, Is aware of the need to demonstrate sensitivity to patient's comfort and dignity	Exceeds the required standard but there is room for improvement	A Coherent, comprehensive, accurate and structured approach to assessment; Examination techniques are well coordinated. Assessment is appropriate to the clinical problem, facilitates patient's telling of the story, effectively uses appropriate questions, and is sensitive to patient's comfort and dignity.
2. Clinical Reasoning	Very inadequate, falls short of the required standard	Formulates some simple diagnostic hypotheses but neglects important data; Unable to accurately estimate severity of illness; Superficial discussion of relevant investigative tests; Management plans are poorly developed.	Formulates a list of common simple diagnostic hypotheses. Synthesizes important data and can estimate severity of illness. Can determine and justify appropriate investigative tests. Able to develop a suitable management plans	Exceeds the required standard but there is room for improvement	Formulates a complete list of all/almost all diagnostic hypotheses; Identifies all of Important patient problems and estimates severity of illness; Able to discuss and justify investigative tests cognizant of differential diagnosis and individual patient factors; Able to develop well formulated management plans and consider risks benefits.
3. Medical Interview- Information giving	Very inadequate, falls short of the required standard	Provides some inaccurate Information that is not always presented In a logical order; Information 'of the management plan Is mostly unclear and not easily understood by the patient; Does not 'always check the patient's understanding of the Information	Gives mostly accurate information in logical order; instructs the patient on the main aspects of the management plan and present information that enables patient understanding; Emphasizes important points and attempts to check patient understanding	Exceeds the required standard but there is room for improvement	Gives accurate Information in a logical order; Explores patients perspective; Clearly instructs the patient about the management plan/therapy; Uses jargon free, open, honest and explicit language and terms that are easily understood; Checks the patient's Understanding of the information and if the patient has any

					questions or concerns; Uses active listening during the patient encounter.
4. Professional I Ethical Behavior	Very inadequate, falls short of the required standard	Occasionally lacks discretion and neglects patients' needs of confidentiality, comfort and respect; At times behaves unprofessionally In front of or in the hearing of patients and/or relatives; Allows own views to impact on the consultation; Not able to fully grasp the ethical issues quickly	Demonstrates discretion and pays attention to patient's needs of confidentiality, comfort , and respect; Demonstrates a safe grasp of ethical issues, students is non-judgmental and has some insight into own clinical ability	Exceeds the required standard but there is room for improvement	Student shows respect, compassion, empathy and Is always discrete; Is fully aware of patients' needs for confidentiality, comfort and respect. Behaves In an ethical manner and has a well-developed understanding of ethical Issues; Student Is non-judgmental, is aware of limitations and uses a professional approach at all times.

Form 2 END OF CLERKSHIP ROTATION CLINICAL EXAMINATION
Direct Observation Clinical Encounter Examination (DOCEE)

Name of Student: _____	ID No: _____	Clerkship: _____
_____		Hospital: _____
Date: _____	From: _____	To: _____

CLINICAL PROBLEM/S ENCOUNTERED _____

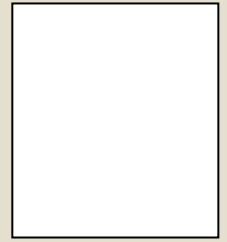
Item examined	Student Mark	
CLINICAL SKILLS		
History Taking skills	20 %	-----/20
Physical Examination skills	20 %	-----/20
Data organization & presentation	10 %	-----/10
REASONING & ANALYSIS SKILLS		
Problem/s identification	10 %	-----/10
Differential diagnosis and most likely diagnosis	10 %	-----/10
DECISION MAKING SKILLS		
Ordering relevant investigation	5 %	-----/5
Interpretation of laboratory and Radiological tests	2.5 %	-----/2.5
Identification of appropriate management plan	10 %	-----/10
Consideration of priority and sequence of investigations and treatment	2.5 %	-----/2.5
PROFESSIONAL ATTITUDE		
Approach and respect to patients and examiner	5 %	-----/5
Communication abilities (Patient and Examiner)	5 %	-----/5
Final Score		----- /100

For your information: Passing Score is 70% or above

Tutor's Comments: _____

Tutor's Name: _____ Signature _____ Date: _____

Tutor's Name: _____ Signature _____ Date: _____



FORM 3:

Student's Clinical Evaluation Form

Name of Student:	ID No:	
Clerkship:	Hospital:	
Date of Rotation:		

The purpose of this form is to evaluate student's performance by clinical faculty during the clerkship.

		%	Comments:
1	Attendance & Punctuality (20%)		
2	Interaction & Communication (20%)		
3	Participation & Self learning (20%)		
4	Behavior & Attitude (20%)		
5	Knowledge & Skills (20%)		
Overall marks		_____ /100	

General Comments:

Provide suggestions for improvement:

Tutor's Name: _____ Signature: _____

Tutor's Name: _____ Signature: _____

Form 4 STUDENT'S CLINICAL ROTATION EXPERIENCE

(To be filled by the student at the end of each Clinical Rotation)

Kindly refer to your Portfolio to fill this form.