

# Curriculum of surgery

## Syllabus of Grade 3

Number	Learning objectives The student should be able to:	Domain K/S/A/C	Level K/KH/ SH/P	Suggested Teaching Learning method	Suggested Assessment method	Vertical Integration	Horizontal Integration
<b>Topic: Metabolic response to injury</b>				<b>Number of objectives : (03)</b>		د مهند الشلاه	
				<b>Number of lecture 2</b>			
SU1.1	Describe Basic concepts of homeostasis, enumerate the metabolic changes in injury and their mediators.	K	KH	Lecture, Bed side clinic, Small group discussion	Written/ Viva voce	Physiology, Biochemistry	
SU1.2	Describe the factors that affect the metabolic response to injury.	K	KH	Lecture, Bed side clinic, Small group discussion	Written/ Viva voce	Biochemistry	
SU1.3	Describe basic concepts of perioperative care.	K	KH	Lecture, Bed side clinic, Small group discussion	Written/ Viva voce		
<b>Topic: Shock</b>				<b>Number of objectives : (03)</b>		د مهند الشلاه	
				<b>Number of lecture 3</b>			
SU2.1	Describe Pathophysiology of shock, types of shock & principles of resuscitation including fluid replacement and monitoring.	K	KH	Lecture, Small group discussion	Written/ Viva voce	Pathology, Physiology	

SU2.2	Describe the clinical features of shock and its appropriate treatment.	K	KH	Lecture, Small group discussion	Written/ Viva voce		
SU2.3	Communicate and counsel patients and families about the treatment and prognosis of shock demonstrating empathy and care	A/C	SH	DOAP session	Skill assessment	AEC	
<b>Topic: Blood and blood components</b>				<b>Number of objectives : (03)</b>		<b>د مهند الشلاه</b>	
				<b>Number of lecture 1</b>			
SU3.1	Describe the Indications and appropriate use of blood and blood products and complications of blood transfusion.	K	KH	Lecture, Small group discussion	Written/ Viva voce	Pathology	
<b>Number</b>	<b>Learning objectives The student should be able to:</b>	<b>Domain K/S/A/C</b>	<b>Level K/KH/ SH/P</b>	<b>Suggested Teaching Learning method</b>	<b>Suggested Assessment method</b>	<b>Vertical Integration</b>	<b>Horizontal Integration</b>
SU3.2	Observe blood transfusions.	S	SH	Small group discussion, DOAP session	Skills assessment/ Log book		
SU3.3	Counsel patients and family/ friends for blood transfusion and blood donation.	A/C	SH	DOAP session	Skills assessment		
<b>Topic: Nutrition and fluid therapy</b>				<b>Number of objectives : (03 )</b>			
				<b>Number of lecture 2</b>			

SU4.1	Enumerate the causes and consequences of malnutrition in the surgical patient	K	KH	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce	Physiology	
SU4.2	Describe and discuss the methods of estimation and replacement of the fluid and electrolyte requirements in the surgical patient	K	KH	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce	Physiology	
SU4.3	Discuss the nutritional requirements of surgical patients, the methods of providing nutritional support and their complications	K	KH	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce	Biochemistry	

**Topic: Wound healing and wound care**

**Number of objectives : (04 )**

**Number of lecture 2**

SU5.1	Describe normal wound healing and factors affecting healing.	K	KH	Lecture, Small group discussion	Written/ Viva voce	Pathology	
SU5.2	Elicit, document and present a history in a patient presenting with wounds.	C	SH	Lecture, Small group discussion	Written/ Viva voce		
SU5.3	Differentiate the various types of wounds, plan and observe management of wounds.	K	KH	Lecture, Small group discussion	Written/ Viva voce		
SU5.4	Discuss medico legal aspects of wounds	K	KH	Lecture, Small group discussion	Written/ Viva voce		

Topic: Burns				Number of objectives : (04 )				د باهر صباح
Number of lecture 2								
SU6.1	Elicit document and present history in a case of Burns and perform physical examination. Describe Pathophysiology of Burns.	K	KH	Lecture, Small group discussion	Written/ Viva voce	Physiology		
Number	Learning objectives The student should be able to:	Domain K/S/A/C	Level K/KH/ SH/P	Suggested Teaching Learning method	Suggested Assessment method	Vertical Integration	Horizontal Integration	
SU6.2	Describe Clinical features, Diagnose type and extent of burns and plan appropriate treatment.	K	KH	Lecture, Small group discussion	Written/ Viva voce			
SU6.3	Discuss the Medicolegal aspects in burn injuries.	K	KH	Lecture, Small group discussion	Written/ Viva voce			
SU6.4	Communicate and counsel patients and families on the outcome and rehabilitation demonstrating empathy and care.	A /C	SH	Small group discussion, Role play, Skills assessment	Viva voce			
Topic: Skin and subcutaneous tissue				Number of objectives : (02)				
Number of lecture 2								د باهر صباح
SU7.1	Describe the pathogenesis, clinical features and management of various cutaneous and subcutaneous infections.	K	KH	Lecture, Small group Discussion	Written/ Viva voce			

SU7.2	Classify skin tumors Differentiate different skin tumors and discuss their management.	K	KH	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment		
<p><b>Topic: Surgical infections</b></p> <p><b>Number of objectives : (02)</b></p> <p><b>Number of lecture 3</b></p> <p>د کاظم جلوپ</p>							
SU8.1	Define and describe the aetiology and pathogenesis of surgical Infections	K	KH	Lecture, Small group discussion	Written/ Viva voce	Microbiology	
SU8.2	E n u m e r a t e  P r o p h y l a c t i c  a n d	K	KH	Lecture, Small group discussion	Written/ Viva voce		

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<b>Topic: Surgical Audit and Research</b>							د مهند الشلاه
<b>Number of objectives : (02)</b>							
<b>Number of lecture 1</b>							
SU9.1	Describe the Planning and conduct of Surgical audit	K	KH	Lecture, Small group discussion	Written/ Viva voce	Community Medicine	
<b>Number</b>	<b>Learning objectives The student should be able to:</b>	<b>Domain K/S/A/C</b>	<b>Level K/KH/ SH/P</b>	<b>Suggested Teaching Learning method</b>	<b>Suggested Assessment method</b>	<b>Vertical Integration</b>	<b>Horizontal Integration</b>
SU9.2	Describe the principles and steps of clinical research in General Surgery	K	KH	Lecture, Small group discussion	Written/ Viva voce	Community Medicine	
<b>Topic: Surgical ethics and law</b>							د مهند الشلاه
<b>Number of objectives : (03)</b>							
<b>Number of lecture 2</b>							
SU10.1	Describe the importance of autonomy in good surgical practice and recognize the moral and legal boundaries and practical difficulties of informed consent	K	KH	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment	Forensic Medicine, AEC	

SU10.2	in practice good Demonstrate the about decisions making sustaining-life of withdrawal treatment importance the Demonstrate of boundaries and surgical in confidentiality practice	A/C	SH	Lecture, Small group discussion, DOAP session	Written/ Viva voce/ Skill assessm ent	Forensic Medicine, AEC	
SU10.3	<ul style="list-style-type: none"> <li>Discuss the importance of appropriate regulation in surgical research and be familiar with the importance of rigorous training and maintenance of good practice standards</li> </ul>	A/C	KH	Lecture, Small group discussion	Written/ Viva voce/ Skill assessm ent	Forensic Medicine, AEC	
<div> <div> Topic: Preoperative preparation Number of objectives (02) د امانی علاء </div> <div> Number of lecture 2 </div> </div>							
SU11.1	Be able to understand Surgical, medical and anaesthetic aspects of preoperative assessment	K	KH	Lecture, Small group Discussion	Written/ Viva voce		

SU11.2	Understand how to: Optimise the patient's condition Take a consent Organise an operating list	K	KH	Lecture, Small group Discussion	Written/ Viva voce		
<b>Number</b>	<b>Learning objectives The student should be able to:</b>	<b>Domain K/S/A/C</b>	<b>Level K/KH/ SH/P</b>	<b>Suggested Teaching Learning method</b>	<b>Suggested Assessment method</b>	<b>Vertical Integration</b>	<b>Horizontal Integration</b>
<p><b>Topic: Postoperative care</b></p> <p><b>Number of objectives : (02)</b></p> <p><b>Number of lecture 2</b></p> <p>داركان محمد</p>							
SU12.1	To understand: • What is required to deliver immediate postoperative care • What are the common postoperative problems seen in the immediate postoperative period • How to predict and prevent common postoperative complications	K	KH	Lecture, Small group Discussion	Written/ Viva voce		

SU12.2	To understand: • How to recognise and treat common postoperative complications • The principles of enhanced recovery • A system for discharging patients	K	KH	Lecture, Small group Discussion	Written/ Viva voce		
<b>Topic: Transplantation</b> <b>Number of objectives : (03)</b> <b>Number of lecture 2</b> د كاظم جلوب							
SU13.1	Describe the immunological basis of organ transplantation	K	KH	Lecture, Small group discussion	Written/ Viva voce	Microbiology	
SU13.2	Discuss the Principles of immunosuppressive therapy. Enumerate Indications, describe surgical principles, management of organ transplantation	K	KH	Lecture, Small group discussion	Written/ Viva voce	Microbiology , Pharmacology	
SU13.3	Discuss the legal and ethical issues concerning organ donation	K	KH	Lecture, Small group discussion	Written/ Viva voce	AEC	
<b>Topic: Basic Surgical Skills</b> <b>Number of objectives : (04)</b> <b>Number of lecture 2</b> د صلاح الجنابي							
SU14.1	Describe Aseptic techniques, sterilization and disinfection.	K	KH	Lecture, Small group discussion	Written/ Viva voce	Microbiology	

Number	Learning objectives The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Suggested Teaching Learning method	Suggested Assessment method	Vertical Integration	Horizontal Integration
SU14.2	Describe Surgical approaches, incisions and the use of appropriate instruments in Surgery in general.	K	KH	Lecture, Small group discussion	Written/ Viva voce		
SU14.3	Describe the materials and methods used for surgical wound closure and anastomosis (sutures, knots and needles)	K	KH	Lecture, Small group discussion	Written/ Viva voce		
SU14.4	Demonstrate the techniques of asepsis and suturing in a simulated environment	S	SH	DOAP session	Skill assessment/ Log book		
<p><b>Topic: Biohazard disposal</b></p> <p><b>Number of objectives : (01)</b></p> <p><b>Number of lecture 1</b></p> <p>د محمود المختار</p>							
SU15.1	Describe classification of hospital waste and appropriate methods of disposal.	K	KH	Lecture, Small group discussion	Written/ Viva voce	Microbiology	

Topic: Minimally invasive General Surgery		Number of objectives : (01) Number of lecture 1 د محمود المختار					
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SU16.1	Minimally invasive General Surgery: Describe indications advantages and disadvantages of Minimally invasive General Surgery	K	K	Lecture, Demonstration, Bedside clinic, Discussion	Theory/ Practical / Orals /Written/ Viva voce		
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# Clinical training

Number of objectives : (09)

Number	Learning objectives The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Suggested Teaching Learning method	Suggested Assessment method	Vertical Integration	Horizontal Integration
	Demonstrate ability to communicate to patients in a patient , respectful, non threatening, non judgmental and empathic manner	C	SH	Lecture, Small group discussion	Written/ Viva voce	AEC	
	Demonstrate respect to patient privacy and maintain confidentiality	C	SH	Lecture, Small group discussion	Written/ Viva voce	AEC	
	Be able to take a concise, structured patient history	C	SH	Lecture, Small group discussion	Written/ Viva voce		

SU5.2	Elicit, document and present a history in a patient presenting with abdominal pain.	C	SH	Lecture, Small group discussion	Written/ Viva voce		
SU5.2	Elicit, document and present a history in a patient presenting with lump or ulcer.	C	SH	Lecture, Small group discussion	Written/ Viva voce		
SU2.3	Communicate and counsel patients and families about the treatment and prognosis of shock demonstrating empathy and care	A/C	SH	DOAP session	Skill assessment	AEC	
SU3.2	Observe blood transfusions.	S	SH	Small group discussion, DOAP session	Skills assessment/ Log book		
SU3.3	Counsel patients and family/ friends for blood transfusion and blood donation.	A/C	SH	DOAP session	Skills assessment	AEC	
SU6.4	Communicate and counsel patients and families on the outcome and rehabilitation demonstrating empathy and care.	A /C	SH	Small group discussion, Role play, Skills assessment	Viva voce	AEC	
SU14.4	Demonstrate the techniques of asepsis and suturing in a simulated environment	S	SH	DOAP session	Skill assessment/ Log book		

**Syllabus of Surgery**

**Grade 4**

# Course 1

## Grade 4 / course 1

Number	Learning objectives The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Suggested Teaching Learning method	Suggested Assessment method	Vertical Integration	Horizontal Integration
Topic: Diseases of the neck , tongue and oral cavity		Number of objectives : (03) Number of lectures ( 2 )					اد عبد الغني الدباغ
SU17.1	Describe the relevant anatomy, physiology, disease processes and investigations of the neck mass	K	KH	Lecture, Small group discussion	Written/ Viva voce	Human Anatomy	
SU17.2	Describe etiopathogenesis of oral cancer symptoms and signs of oropharyngeal cancer.	K	KH	Lecture, Small group discussion	Written/ Viva voce	ENT	

SU17.3	Enumerate the appropriate investigations and discuss the Principles of treatment.	K	K	Lecture, Small group discussion	Written/ Viva voce		
<b>Topic: Disorders of salivary glands</b>		<b>Number of objectives : (02)</b> <b>Number of lectures ( 2 )</b>					ا د عبد الغنى الدباغ
Number	Learning objectives The student should be able to	Domain K/S/A/C	Level K/KH/SH/P	Suggested Teaching Learning method	Suggested Assessment method	Vertical Integration	Horizontal Integration
SU18.1	Describe surgical anatomy of the salivary glands, pathology, and clinical presentation of disorders of salivary glands	K	KH	Lecture, Small group discussion	Written/ Viva voce		
Number	Learning objectives The student should be able to	Domain K/S/A/C	Level K/KH/SH/P	Suggested Teaching Learning method	Suggested Assessment method	Vertical Integration	Horizontal Integration
SU18.2	Enumerate the appropriate investigations and describe the Principles of treatment of disorders of salivary glands	K	KH	Lecture, Small group discussion	Written/ Viva voce		
<b>Topic: Endocrine General Surgery: Thyroid</b>		<b>Number of objectives : (05)</b> <b>Number of lectures ( 3 )</b>					ا م د صلاح الجنابي

SU19.1	Understand the development and anatomy of the thyroid gland	K	KH	Lecture, Small group discussion	Written/ Viva voce	Human Anatomy	
SU19.2	Know the physiology and investigation of thyroid function	K	KH	Lecture, Small group discussion	Written/ Viva voce	Pathology	
SU19.3	To be able to select appropriate investigations for thyroid swellings	K	KH	Lecture, Small group discussion	Written/ Viva voce		
SU19.4	Know when to operate on a thyroid swelling	K	KH	Lecture, Small group discussion	Written/ Viva voce		
SU19.5	Know the risks and complications of thyroid surgery	K	KH	Lecture, Small group discussion	Written/ Viva voce		
<b>Topic: Endocrine General Surgery: Parathyroid</b>		<b>Number of objectives : (02)</b> <b>Number of lectures ( 1 )</b>					<b>ام د صلاح الجنابي</b>
SU20.1	Describe the applied anatomy of parathyroid	K	KH	Lecture, Small group discussion	Written/ Viva voce	Human Anatomy	
SU20.2	Describe and discuss the clinical features of hypo - and hyperparathyroidism and the principles of their management	K	KH	Lecture, Small group discussion	Written/ Viva voce		General Medicine

Topic: Adrenal glands and other abdominal endocrine disorder		Number of objectives (04) Number of lectures ( 4 )					ام د صلاح الجناي
SU21.1	Describe the applied anatomy and function of adrenal glands	K	KH	Lecture, Small group discussion	Written/ Viva voce	Human Anatomy	
Number	Learning objectives The student should be able to	Domain K/S/A/C	Level K/KH/SH/P	Suggested Teaching Learning method	Suggested Assessment method	Vertical Integration	Horizontal Integration
SU21.2	Describe the etiology, clinical features and principals of diagnosis of adrenal gland disorders	K	KH	Lecture, Small group discussion	Written/ Viva voce		General Medicine
SU21.3	Describe the principles of management and the role of surgery in the management of disorders of adrenal gland	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce		

SU21.4	Describe the applied anatomy and function of other abdominal endocrine glands, the diagnosis and management of these endocrine disorders and the role of surgery in the management of these Endocrine disease	K	KH	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment	Human Anatomy	
<b>Topic: Pancreas</b>		<b>Number of objectives : (05)</b> <b>Number of lectures ( 3 )</b>				اد مهند الشلاه	
SU22.1	Describe the anatomy and physiology of the pancreas	K	KH	Lecture, Small group discussion	Written/ Viva voce	Human Anatomy	
SU22.2	Describe Congenital abnormalities of the pancreas	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment	Embryology	
SU22.3	Describe the clinical features, principles of investigation, prognosis and management of pancreatitis.	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment		
SU22.4	Describe the Diagnosis and treatment of chronic pancreatitis	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment		

SU22.5	Describe the Diagnosis and treatment of pancreatic cancer	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce		
<b>Topic: Breast</b>		<b>Number of objectives : (03)</b> <b>Number of lectures ( 4 )</b>				إدريس الأعرابي	
SU23.1	Describe applied anatomy and appropriate investigations for breast disease	K	KH	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment	Human Anatomy	
<b>Number</b>	<b>Learning objectives The student should be able to</b>	<b>Domain K/S/A/C</b>	<b>Level K/KH/SH/P</b>	<b>Suggested Teaching Learning method</b>	<b>Suggested Assessment method</b>	<b>Vertical Integration</b>	<b>Horizontal Integration</b>
SU23.2	Describe the etiopathogenesis, clinical features and principles of management of benign breast disease including infections of the breast	K	KH	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment		
SU23.3	Describe the etiopathogenesis, clinical features, Investigations and principles of treatment of benign and malignant tumours of breast.	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment	Radiodiagnosis	

Topic:Oesophagus		Number of objectives : (03) Number of lectures ( 3 )					اد مهند الشلاه
SU24.1	Describe the applied anatomy and physiology of esophagus	K	K	Lecture, Small group discussion, Demonstration	Written/ Viva voce	Human Anatomy, Physiology	
SU24.2	Describe the clinical features, investigations and principles of management of benign and malignant disorders of esophagus	K	K	Lecture, Small group discussion, Demonstration	Written/ Viva voce		
SU24.3	Describe the clinical features, pathology, investigations and principles of management of motility disorder of esophagus	K	K	Lecture, Small group discussion, Demonstration	Written/ Viva voce		

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## **Topic: Urinary System**

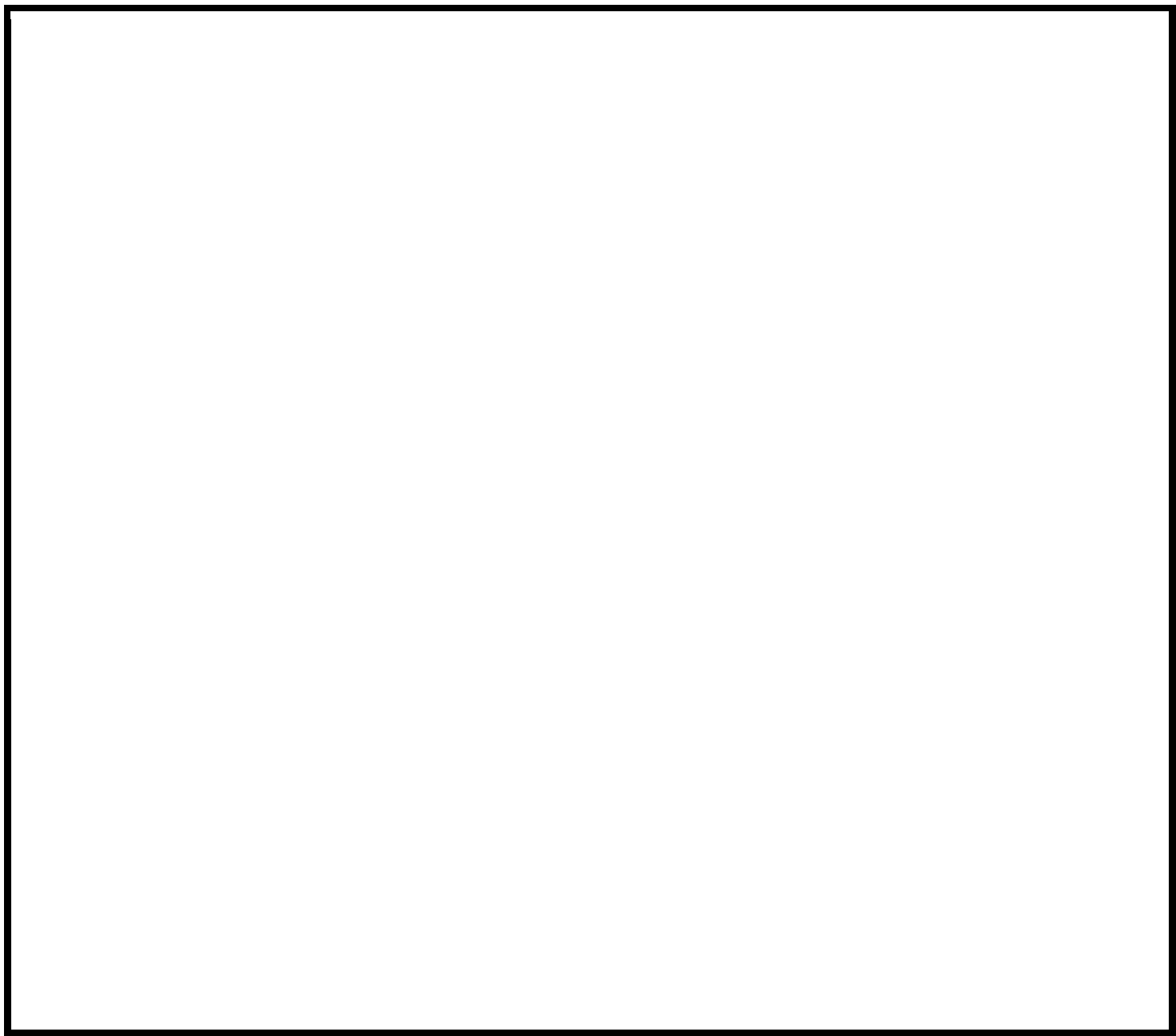
**Number of objectives : (11)**

Topic: Urinary System Number of objectives : (11)							
Number	Learning objectives The student should be able to	Doma in K/S/A/ C	Level K/KH/ SH/P	Suggested Teaching Learning method	Suggested Assessment method	Vertical Integratio n	Horizo ntal Integr ation

SU25.1	Describe the causes, investigations and principles of management of Hematuria	K	KH	Lecture, Small group discussion	Written/ Viva voce		
SU25.2	Describe the clinical features, investigations and principles of management of congenital anomalies of genitourinary system	K	KH	Lecture, Small group discussion	Written/ Viva voce	Human Anatomy	
SU25.3	Describe the Clinical features, Investigations and principles of management of urinary tract infections	K	KH	Lecture, Small group discussion	Written/ Viva voce	Microbiology	
SU25.4	Describe the clinical features, investigations and principles of management of hydronephrosis	K	KH	Lecture, Small group discussion	Written/ Viva voce		
SU25.5	Describe the clinical features, investigations and principles of management of renal calculi	K	KH	Lecture, Small group discussion	Written/ Viva voce		

SU25.6	Describe the clinical features, investigations and principles of management of renal tumours	K	KH	Lecture, Small group discussion	Written/ Viva voce		
SU25.7	Describe the principles of management of acute and chronic retention of urine	K	KH	Lecture, Small group discussion	Written/ Viva voce		
SU25.8	Describe the clinical features, investigations and principles of management of bladder cancer	K	KH	Lecture, Small group discussion	Written/ Viva voce		
SU25.9	Describe the clinical features, investigations and principles of management of disorders of prostate	K	KH	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment		
SU25.10	Demonstrate a digital rectal examination of the prostate in a mannequin or equivalent	S	SH	DOAP session	Skill assessment		

SU25.1 1	Describe clinical features, investigations and management of urethral strictures	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment		
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# Clinical training

Number of objectives : (09)

Number	Learning objectives The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Suggested Teaching Learning method	Suggested Assessment method	Vertical Integration	Horizontal Integration
SU26.1	<ul style="list-style-type: none"> <li>To be able to do honest communication with the patient which is the key in establishing and maintaining the doctor-patient relationship.</li> </ul>	S	SH	Bedside clinic, Small group discussion, DOAP session	Skill assessment		
SU26.2	To understand the basis for a systematic general examination of the patient.	S	SH	Bedside clinic, Small group discussion, DOAP session	Skill assessment		
SU26.3	To know the methods for taking a manual blood pressure reading.	S	SH	Bedside clinic, Small group discussion, DOAP session	Skill assessment		
SU26.4	To be able to do examination and systematically describe a patient presenting with a lump.	S	SH	Bedside clinic, Small group discussion, DOAP session	Skill assessment		

SU26.5	<ul style="list-style-type: none"> <li>To be able to undertake examination of an ulcer.</li> </ul>	S	SH	Bedside clinic, Small group discussion, DOAP session	Skill assessment		
SU26.6	Demonstrate and document the correct clinical examination of thyroid swellings and discuss the differential diagnosis and their management	S	SH	Bedside clinic	Skill assessment		
SU26.7	Demonstrate and document the correct clinical examination of the breast						
SU26.8	Counsel the patient and obtain informed consent for treatment of malignant conditions of the breast	A/ C	SH	DOAP session	Skill assessment		

SU26.9	<ul style="list-style-type: none"> <li>To understand the differences between a sinus and a fistula and the pathophysiology and types of each.</li> </ul>	S	SH	Bedside clinic, Small group discussion, DOAP session	Skill assessment		
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# Curriculum of surgery

## Syllabus of Grade 4

### Course 2

## Year 4 / course 2

Number	Learning objectives The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Suggested Teaching Learning method	Suggested Assessment method	Vertical Integration	Horizon tal Integrat ion
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Topic : Hernia		Number of objectives : (4) Number of lectures: 3					د مهند الشلاه
SU27.1	Describe the basic anatomy of the abdominal wall and causes of abdominal hernia	K	KH	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment	Human Anatomy	
SU27.2	Describe types of hernia, classifications , clinical history and examination findings in hernia	K	KH	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment		
SU27.3	Discuss the complications of abdominal hernia Understand the Non-surgical and surgical management of hernia – complications of hernia surgery including mesh	K	KH	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment		
SU27.4	Be familiar with Other abdominal wall conditions	K	KH	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment		
Topic : The peritoneum, omentum, mesentery and retroperitoneal space		Number of objectives : (4) Number of lectures: 3					د كاظم جلوب

SU28.1	Recognize the causes , clinical features and complications of localised and generalised peritonitis Understand the principles of surgical management in patients with peritonitis and intraperitoneal abscess	K	K	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce		
SU28.2	Recognize the causes and pathophysiology of ascites	K	K	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce		
SU28.3	Discuss the pathophysiology and complications of adhesion formation	K	K	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce		
SU28.4	Understand the spectrum of mesenteric and retroperitoneal conditions	K	K	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce		
Number	Learning objectives The student should be able to	Domain K/S/A/C	Level K/KH/SH/P	Suggested Teaching Learning method	Suggested Assessment method	Vertical Integration	Horizontal Integration
Topic : Stomach and duodenum		Number of objectives : (4) Number of lectures: 4				د مهند الشلاه	

SU29.1	Describe the gross and microscopic anatomy and pathophysiology of the stomach in relation to disease	K	KH	Lecture, Small group discussion	Written/ Viva voce	Human Anatomy	
SU29.2	Describe the most appropriate techniques to use in the investigation of patients with complaints relating to the stomach and duodenum	K	KH	Lecture, Small group discussion	Written / Viva voce/ Skill assessment		
SU29.3	Recognize The critical importance of gastritis and Helicobacter pylori in upper gastrointestinal disease	K	KH	Lecture, Small group discussion	Written/ Viva voce		
SU29.4	of presentation the Recognize the understand and cancer gastric treatment its in involved principles duodenal of causes the Discuss presentation the and obstruction tumours alduoden of	K	KH	Lecture, Small group discussion	Written/ Viva voce		
<b>Topic : Bariatric and metabolic surgery</b>		<b>Number of objectives : (2)</b> <b>Number of lectures: 1</b>				د مهند الشلاه	
SU30.1	Recognize what severe and complex obesity is and understand the rationale for surgery and the concept of metabolic surgery Recognize eligibility and NICE guidelines	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce		

SU30.2	Understand Multidisciplinary assessment and common operations and how they work Understand How to assess , treat perioperative complications , follow-up, nutritional supplements and biochemical monitoring	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce		
<b>Topic : The liver</b>		<b>Number of objectives : (4)</b> <b>Number of lectures: 3</b>				د كاظم جلوب	
SU31.1	Describe the anatomy of the liver and the signs of acute and chronic liver disease	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce	Human Anatomy	
SU31.2	Describe The investigation of liver disease Describe the management of liver trauma	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce		
SU31.3	Describe the principles of management of liver infections including liver abscess and hydrated disease	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce		
SU31.4	Describe the management of colorectal liver metastases The management of hepatocellular carcinoma	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce		

Number	Learning objectives The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Suggested Teaching Learning method	Suggested Assessment method	Vertical Integration	Horizo ntal Integr ation
<b>Topic : The spleen</b>		<b>Number of objectives : (4)</b> <b>Number of lectures: 2</b>					د كاظم جلوب
SU32.1	Describe the applied anatomy of spleen. Describe the function of the spleen Recognize the common pathologies involving the spleen	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce	Human Anatomy	
SU32.2	Describe the clinical features, investigations and principles of management of splenic injuries.	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce		
SU32.3	Recognize the principles and potential complications of splenectomy	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce		
SU32.4	Recognize the potential advantages of laparoscopic splenectomy and the benefits of splenic conservation Recognize the importance of prophylaxis against infection following splenectomy	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce		
<b>Topic : The gallbladder and bile ducts</b>		<b>Number of objectives : (3)</b> <b>Number of lectures: 3</b>					د صلاح الجنابي

SU33.1	Describe the anatomy and physiology of the gallbladder and bile ducts	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce	Human Anatomy, Physiology	
SU33.2	Be familiar with the pathophysiology and management of gallstones and recognize the unusual disorders of the biliary tree	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce	Pathology	
SU33.3	Be aware of the malignant disease of the gallbladder and bile ducts	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce		
<b>Topic : Obstructive jaundice</b>		<b>Number of objectives : (1)</b> <b>Number of lectures: 2</b>				د صلاح الجنابي	
SU34.1	Define jaundice and recognize the classification , investigations, complications , preparation , medical and surgical management of surgical jaundice	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce		
<b>Topic : The small and large intestine</b>		<b>Number of objectives : (4)</b> <b>Number of lectures: 4</b>				د صلاح الجنابي	

SU35.1	Describe the basic anatomy and physiology of the small intestine Recognize the range of conditions that may affect the small intestine Describe the aetiology and pathology of common small intestinal conditions Recognize the principles of investigation of small intestinal symptoms	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce	Human Anatomy, Physiology, Pathology	
<b>Number</b>	<b>Learning objectives</b> The student should be able to	<b>Domain</b> K/S/A/C	<b>Level</b> K/KH/SH/P	<b>Suggested Teaching Learning method</b>	<b>Suggested Assessment method</b>	<b>Vertical Integration</b>	<b>Horizontal Integration</b>
SU35.2	Describe the importance of non-surgical management of small intestinal problems Recognize the principles of small intestinal surgery Recognize that complex intestinal problems are best managed by a multidisciplinary team Describe the management of acute surgical problems of the intestines	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce		

SU35.2	Describe the basic anatomy and physiology of the large intestine Recognize the range of conditions that may affect the large intestine Describe aetiology and pathology of common large intestinal conditions	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce	Human Anatomy, Physiology, Pathology	
SU35.3	Recognize the principles of investigation of large intestinal symptoms and the importance of non-surgical management of large intestinal problems Recognize the principles of colonic surgery Recognize that complex intestinal problems are best managed by a multidisciplinary team Describe the management of acute surgical problems of the intestines	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce		
<b>Topic : The rectum</b>		<b>Number of objectives : (2)</b>  <b>Number of lectures: 2</b>				د مهند الشلاه	
SU36.1	the of anatomy the Describe to relationship its and rectum treatment its and disease surgical clinical pathology, the Describe investigation, ion,presentat and diagnosis differential affect that diseases of treatment rectum the	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce	Human Anatomy, Pathology	

SU36.2	the of carcinoma that Appreciate nca and common is rectum to similar symptoms with present Careful disease. benign required is evaluation involved principles the Recognize rectal of management the in pathologies	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce		
<b>Topic : Intestinal obstruction</b>		<b>Number of objectives : (1)</b> <b>Number of lectures: 2</b>				د مهند الشلاه	
SU37.1	of pathophysiology The Describe intestinal adynamic and dynamic features cardinal The obstruction, The examination, and history on bowel large and small of causes indications The and obstruction treatment other and surgery for obstruction bowel in options	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce		
<b>Topic : The vermiform appendix</b>		<b>Number of objectives : (1)</b> <b>Number of lectures: 2</b>				د مهند الشلاه	
SU38.1	Describe the applied anatomy , clinical features, investigations and principles of management of diseases of Appendix including appendicitis and its complications.	K	KH	Lecture, Small group discussion, Demonstration	Written / Viva voce/ Skill assessment	Human anatomy	
<b>Topic : The anus and anal canal</b>		<b>Number of objectives : (1)</b> <b>Number of lectures: 2</b>				د مهند الشلاه	

SU39.1	Describe the applied anatomy, clinical features, investigations and principles of management of common anorectal diseases	K	KH	Lecture, Small group discussion, Demonstration	Written / Viva voce/ Skill assessment	Human Anatomy	
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<b>Topic: Penis, Testis and scrotum</b> <b>Number of objectives : (06)</b>							
Number	Learning objectives The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Suggested Teaching Learning method	Suggested Assessment method	Vertical Integration	Horizontal Integration
SU40.1	Describe the clinical features, investigations and principles of management of phimosis, paraphimosis and carcinoma penis.	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment		
SU40.2	Describe the applied anatomy clinical features, investigations and principles of management of undescended testis.	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment	Human Anatomy	
SU40.3	Describe the applied anatomy clinical features, investigations and principles of management of epididymo-orchitis	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment	Human Anatomy	

SU40.4	Describe the applied anatomy clinical features, investigations and principles of management of varicocele	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment	Human Anatomy	
SU40.5	Describe the applied anatomy, clinical features, investigations and principles of management of Hydrocele	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment	Human Anatomy	
SU40.6	Describe classification, clinical features, investigations and principles of management of tumours of testis	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment		

# Clinical Sessions

Number	Learning objectives The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Suggested Teaching Learning method	Suggested Assessment method	Vertical Integration	Horizontal Integration
SU41.1	Demonstrate ability to communicate to patients in a patient, respectful, non- threatening, non-judgmental and empathetic manner	S	SH	Bedside clinic, Small group discussion	Skill assessment		
SU41.2	Demonstrate the techniques of abdominal examination through inspection, auscultation, percussion and palpation Describe symptoms and signs and create a differential diagnosis for common presenting symptoms of <b>non-acute abdominal conditions</b>	S	SH	Bedside clinic, Small group discussion	Skill assessment		
SU41.3	Demonstrate ability to examine <b>common abdominal masses</b>	S	SH	Bedside clinic, Small group discussion	Skill assessment		
SU41.4	Recognize <b>stigmata of chronic liver disease</b>	S	SH	Bedside clinic, Small group discussion	Skill assessment		

SU41.5	Describe <b>Common abdominal scars</b>	S	SH	Bedside clinic, Small group discussion	Skill assessment		
SU41.6	Demonstrate ability to examine , differentiate between different types of <b>stoma</b> and recognize the complications	S	SH	Bedside clinic, Small group discussion, DOAP session	Skill assessment		
SU41.7	Demonstrate understanding the characteristics and pathophysiology of abdominal pain Demonstrate ability to examine the patient with an <b>acute abdomen</b> Discuss the disease processes that present with acute abdominal pain and be able to develop an appropriate differential diagnosis Identify patients with acute surgical abdomen who need surgical intervention	S	SH	Bedside clinic, Small group discussion	Skill assessment		
SU41.8	Demonstrate ability to understand the characteristics and pathophysiology examination of patient with <b>intestinal obstruction</b> Identify patients with intestinal obstruction who need surgical intervention	S	SH	Bedside clinic, Small group discussion	Skill assessment		

SU41.9	Understand the key elements of the <b>anorectal examination</b> , with particular attention to patient positioning and be able to describe common and uncommon pathology of the anorectum, and the unique aspects of physical examination that aid in diagnosis	S	SH	Bedside clinic, Small group discussion	Skill assessment		
SU41.10	Demonstrate the correct technique to examine the patient with <b>hernia</b> and identify different types of hernias.	S	SH	Bedside clinic, Small group discussion	Skill assessment		
SU41.11	Elicit an accurate urological diagnosis from physical examination	S	SH	Bedside clinic, Small group discussion	Skill assessment		
SU41.12	Demonstrate a digital rectal examination of the prostate in a mannequin or equivalent	S	SH	Bedside clinic, Small group discussion	Skill assessment		
SU41.13	Demonstrate ability to <b>Examine the genitourinary system</b>	S	SH	Bedside clinic, Small group discussion	Skill assessment		
SU41.14	Demonstrate ability of Examination of a <b>testicular lump</b> and give differential diagnosis depending on physical examination	S	SH	Bedside clinic, Small group discussion	Skill assessment		
SU41.15	Advising patients on how to collect a mid-stream urine specimen	S	SH	Bedside clinic, Small group discussion	Skill assessment		

SU41.16	Understand how to do male and female urinary catheterization	S	SH	Bedside clinic, Small group discussion	Skill assessment		
SU41.17	Demonstrate ability to Communicate diagnostic and therapeutic options to patient and family in a simulated environment	S	SH	Bedside clinic, Small group discussion	Skill assessment		
SU41.18	Identify, discuss and defend, medico-legal, socio-cultural and ethical issues as they pertain to consent for surgical procedures	S	SH	Bedside clinic, Small group discussion	Skill assessment		
SU41.19	Understand the importance of routine dipstick urinalysis and Demonstrate ability to request appropriate radiological investigations to confirm and further characterize a clinical condition			Bedside clinic, Small group discussion			
SU41.20	Demonstrate the correct technique of examination of a patient with disorders of the stomach and duodenum	S	SH	Bedside clinic, Small group discussion	Skill assessment		

# Syllabus of Surgery

## Grade 5 / Course 1 / Orthopedics curriculum

Number	Learning objectives The student should be able to:	Domain K/S/A/C	Level K/KH/ SH/P	Suggested Teaching Learning method	Suggested Assessment method	Vertical Integration	Hori zont al Inte grati on
<b>Orthopedics</b>							
<b>Topic: Skeletal Trauma, Poly trauma</b>				<b>Number of objectives : (06)</b>			
OR1.1	Describe and discuss the Principles of pre-hospital care and Casualty management of a trauma victim including principles of triage	K/S/A/C	K/KH	Lecture with video, Small group discussion	Written/ Viva voce/ OSCE/ Simulation		General Surgery, Anaesthesiology
OR1.2	Describe and discuss the aetiopathogenesis, clinical features, investigations, and principles of management of shock	K/S	K/KH	Lecture	Written/ Viva voce/ OSCE/ Simulation		General Surgery
OR1.3	Describe and discuss the aetiopathogenesis, clinical features, investigations, and principles of management of soft tissue injuries	K	KH/SH	Lecture, Small group discussion	Written/ OSCE		General Surgery

OR1.4	Describe and discuss the Principles of management of soft tissue injuries	K	K/KH	Lecture, Small group discussion	Written/ Assesment/ Viva voce		General Surgery
OR1.5	Describe and discuss the aetiopathogenesis, clinical features, investigations, and principles of management of dislocation of major joints, shoulder, knee, hip	K	K/KH	Lecture, Small group discussion, Bed side clinic	Written/ Viva voce/ OSCE/ Simulation		
OR1.6	Participate as a member in the team for closed reduction of shoulder dislocation / hip dislocation / knee dislocation	K/S/A/C	SH	Simulation, DOAP session	OSCE/ Simulation		
<b>Topic: Fractures</b> <span style="float: right;"><b>Number of objectives : (16)</b></span>							
OR2.1	Describe and discuss the mechanism of Injury, clinical features, investigations and plan management of fracture of clavicle	K/S	KH/SH	Lecture, Small group discussion, Bed side clinic	Written/ Viva voce/ OSCE	Human Anatomy	
OR2.2	Describe and discuss the mechanism of Injury, clinical features, investigations and plan management of fractures of proximal humerus	K	K/KH / SH	Lecture, Small group discussion, Bed side clinic	Written/ Viva voce/ OSCE	Human Anatomy	
OR2.3	Select, prescribe and communicate appropriate medications for relief of joint pain	K	KH/SH	Lecture, Small group discussion, Bed side clinic	Written/ Viva voce/ OSCE	Human Anatomy	

OR2.4	Describe and discuss the mechanism of injury, clinical features, investigations and principles of management of fracture of shaft of humerus and intercondylar fracture humerus with emphasis on neurovascular deficit	K/S	K/KH	Lecture, Small group discussion, Bed side clinic	Written/ Viva voce/ OSCE	Human Anatomy	
OR2.5	Describe and discuss the aetiopathogenesis, clinical features, mechanism of injury, investigation & principles of management of fractures of both bones forearm and Galeazzi and Monteggia injury	K	K/KH	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce/ OSCE	Human Anatomy	
OR2.6	Describe and discuss the aetiopathogenesis, mechanism of injury, clinical features, investigations and principles of management of fractures of distal radius	K	KH	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce/ OSCE	Human Anatomy	
OR2.7	Describe and discuss the aetiopathogenesis, mechanism of injury, clinical features, investigations and principles of management of pelvic injuries with emphasis on hemodynamic instability	K	K/KH / SH	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce/ OSCE	Human Anatomy	
OR2.8	Describe and discuss the aetiopathogenesis, mechanism of injury, clinical features, investigations and principles of management of spine injuries with emphasis on mobilisation of the patient	K	K/KH	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce/ OSCE	Human Anatomy	
OR2.9	Describe and discuss the mechanism of injury, Clinical features, investigations and principle of management of acetabular fracture	K	K/KH	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce/ OSCE	Human Anatomy	

OR2.10	Describe and discuss the aetiopathogenesis, mechanism of injury, clinical features, investigations and principles of management of fractures of proximal femur	K/S/A/C	KH	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce/ OSCE	Human Anatomy	
OR2.11	Describe and discuss the aetiopathogenesis, mechanism of injury, clinical features, investigations and principles of management of Fracture patella (b) Fracture distal femur (c) Fracture proximal tibia with special focus on neurovascular injury and compartment syndrome	K	K/KH	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce/ OSCE	Human Anatomy	
OR2.12	Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of Fracture shaft of femur in all age groups and the recognition and management of fat embolism as a complication	K	K/KH	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce/ OSCE	Human Anatomy	
OR2.13	Describe and discuss the aetiopathogenesis, clinical features, Investigation and principles of management of: Fracture both bones leg (a) Calcaneus (b) Small bones of foot (c)	K	K/KH	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce/ OSCE	Human Anatomy	
OR2.14	Describe and discuss the aetiopathogenesis, clinical features, Investigation and principles of management of ankle fractures	K/S/C	K/KH	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce/ OSCE	Human Anatomy	
OR2.15	Plan and interpret the investigations to diagnose complications of fractures like malunion, non-union, infection, compartmental syndrome	K/S	SH	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce/ OSCE	Human Anatomy	

OR2.16	Describe and discuss the mechanism of injury, clinical features, investigations and principles of management of open fractures with focus on secondary infection prevention and management	K	K/KH	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce/ OSCE	Human Anatomy	
<b>Topic: Musculoskeletal Infection</b> <b>Number of objectives : (03)</b>							
OR3.1	Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of Bone and Joint infections a) Acute Osteomyelitis b) Subacute osteomyelitis c) Acute Suppurative arthritis d) Septic arthritis & HIV infection e) Spirochaetal infection f) Skeletal Tuberculosis	K/S	K/KH / SH	Lecture, Small group discussion, Video assisted lecture	Written/ Viva voce/ OSCE	Pathology, Microbiology	General surgery
OR3.2	Participate as a member in team for aspiration of joints under supervision	K/S/A/C	SH	Small group Discussion. DOAP session	Viva voce/ OSCE/ Skills assessment	—	
OR3.3	Participate as a member in team for procedures like drainage of abscess, sequestrectomy/ saucerisation and arthrotomy	K/S/A/C	SH	DOAP session, Video demonstration	Viva voce/ OSCE/ Skills assessment		General Surgery
<b>Topic: Skeletal Tuberculosis</b> <b>Number of objectives : (01)</b>							
OR4.1	Describe and discuss the clinical features, Investigation and principles of management of Tuberculosis affecting major joints (Hip, Knee) including cold abscess and caries spine	K	K/KH	Lecture, Small group discussion, Case discussion	Written/ Viva voce/ OSCE	Pathology	General surgery

<b>Topic: Rheumatoid Arthritis and associated inflammatory disorders</b> <b>Number of objectives : (01)</b>							
OR5.1	Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of various inflammatory disorder of joints	K	K/KH	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce/ OSCE		General Medicine
<b>Topic: Degenerative disorders</b> <b>Number of objectives : (01)</b>							
OR6.1	Describe and discuss the clinical features, investigations and principles of management of degenerative condition of spine (Cervical Spondylosis, Lumbar Spondylosis, PID)	K	K/KH	Lecture, Small group discussion, Case discussion	Written/ Viva voce/ OSCE		
<b>Topic: Metabolic bone disorders</b> <b>Number of objectives : (01)</b>							
OR7.1	Describe and discuss the aetiopathogenesis, clinical features, investigation and principles of management of metabolic bone disorders in particular osteoporosis, osteomalacia, rickets, Paget's disease	K	K/KH	Lecture, Small group discussion, Case discussion	Written/ Viva voce/ OSCE		
<b>Topic: Poliomyelitis</b> <b>Number of objectives : (01)</b>							
OR8.1	Describe and discuss the aetiopathogenesis, clinical features, assessment and principles of management a patient with Post Polio Residual Paralysis	K	K/KH	Lecture, Small group discussion, Case discussion	Written/ Viva voce/ OSCE		

<b>Topic: Cerebral Palsy</b>							
<b>Number of objectives : (01)</b>							
OR9.1	Describe and discuss the aetiopathogenesis, clinical features, assessment and principles of management of Cerebral palsy patient	K	K/KH	Lecture, Small group discussion	Written/ Viva voce/ OSCE		
<b>Topic: Bone Tumors</b>							
<b>Number of objectives : (01)</b>							
OR10.1	Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of benign and malignant bone tumours and pathological fractures	K	K/KH	Lecture, Small group discussion, Video assisted interactive lecture	Written/ Viva voce/ OSCE	Pathology	General surgery, Radiotherapy
<b>Topic: Peripheral nerve injuries</b>							
<b>Number of objectives : (01)</b>							
OR11.1	Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of peripheral nerve injuries in diseases like foot drop, wrist drop, claw hand, palsies of Radial, Ulnar, Median, Lateral Popliteal and Sciatic Nerves	K	K/H	Lecture, Small group discussion, case discussion	Written/ Viva voce/ OSCE	Human Anatomy	General Medicine, General surgery
<b>Topic: Congenital lesions</b>							
<b>Number of objectives : (01)</b>							

OR12.1	Describe and discuss the clinical features, investigations and principles of management of Congenital and acquired malformations and deformities of: a. limbs and spine - Scoliosis and spinal bifida b. Congenital dislocation of Hip, Torticollis, c. congenital talipes equino varus	K	KH	Lecture, Small group discussion	Written/ Viva voce/ OSCE	Human Anatomy	
<b>Topic: Procedural Skills</b> <b>Number of objectives : (02)</b>							
OR13.1	Participate in a team for procedures in patients and demonstrating the ability to perform on mannequins / simulated patients in the following: i. Above elbow plaster ii. Below knee plaster iii. Above knee plaster iv. Thomas splint v. splinting for long bone fractures vi. Strapping for shoulder and clavicle trauma	S/A	KH / S H	Case discussion, Video assisted Lecture, Small group discussion, Teaching, Skill lab sessions	OSCE with Simulation based assessment		
OR13.2	Participate as a member in team for Resuscitation of Polytrauma victim by doing all of the following : (a) I.V. access central - peripheral (b) Bladder catheterization (c) Endotracheal intubation (d) Splintage	S/A	KH / S H	Case discussion, Video assisted Lecture, Small group discussion, Teaching, Skill lab sessions	OSCE with Simulation based assessment		Anaesthesiology
<b>Topic: Counselling Skills</b> <b>Number of objectives : (03)</b>							

OR14.1	Demonstrate the ability to counsel patients regarding prognosis in patients with various orthopedic illnesses like a. fractures with disabilities b. fractures that require prolonged bed stay c. bone tumours d. congenital disabilities	K/S/A/C	KH / S H	Case discussion, Video assisted lecture, Small group discussion, Teaching, Skills lab sessions	OSCE with Simulation based assessment		AEC
OR14.2	Demonstrate the ability to counsel patients to obtain consent for various orthopedic procedures like limb amputation, permanent fixations etc..	K/S/A/C	KH / S H	Case discussion, Video assisted Lecture, Small group discussion, Teaching, Skills lab sessions	OSCE with Simulation based assessment		AEC
OR14.3	Demonstrate the ability to convince the patient for referral to a higher centre in various orthopedic illnesses, based on the detection of warning signals and need for sophisticated management	K/S/A/C	KH / S H	Case discussion, Video assisted Lecture, Small group discussion, Teaching, Skills lab sessions	OSCE with Simulation based assessment		AEC

# Syllabus of Surgery

## Grade 5

## Course 2

Topic: Neurosurgery		Number of objectives : (10)					
Number	Learning objectives The student should be able to :	Domain K/S/A/C	Level K/KH/ SH/P	Suggested Teaching Learning method	Suggested Assessment method	Vertical Integration	Horizon tal Integrat ion
	The physiology of cerebral blood flow and the pathophysiology of raised intracranial pressure	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	The classification and assessment of head injury	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	Management and sequelae of minor and mild traumatic brain injury	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	Medical and surgical management of moderate and severe traumatic brain injury	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	Recognise the features of raised intracranial pressure, hydrocephalus and infection typical to acute neurosurgical presentations.	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	Be familiar with aneurysmal subarachnoid haemorrhage and other causes of intracranial haemorrhage.	K	KH	Lecture, Small group discussion	Written/ Viva voce		

	Recognise common brain tumours, their presentation, investigation and treatment.	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	Be aware of common developmental and other pathologies encountered in paediatric neurosurgical practice.	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	The indications and approaches available for the management of epilepsy, pain syndromes and movement disorders.	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	Note key practical and ethical issues relating to consent and risks, precautions and diagnosis of brainstem death.	K	KH	Lecture, Small group discussion	Written/ Viva voce		
Topic: Pediatric Surgery		Number of objectives : (14)					
Number	Learning objectives The student should be able to :	Domain K/S/A/C	Level K/KH/ SH/P	Suggested Teaching Learning method	Suggested Assessment method	Vertical Integration	Horizontal Integration
	Describe clinically important differences between adults and children	K	KH	Lecture, Small group discussion	Written/ Viva voce		Pediatric

	Explain the principles of trauma management in children	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	Safely prescribe perioperative fluids in children	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	Avoid the pitfalls that often delay the diagnosis of common emergency conditions Including acute appendicitis	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	Outline some congenital malformations managed by neonatal surgeons that may present later to general surgeons	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	Recognise common safeguarding issues in children and know how to proceed if abuse is suspected	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	Describe differential diagnosis , presentation and management of Inguinoscrotal disorder	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	Describe the pathology, presentation and management of congenital diaphragmatic hernia and omphalomesentric disorder	K	KH	Lecture, Small group discussion	Written/ Viva voce		

	Describe the pathology, presentation and management of Infantile hypertrophic pyloric stenosis (IHPS)	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	Describe the pathology, presentation and management of Intussusception	K	KH	Lecture, Small group discussion	Written/ Viva voce		
<b>Number</b>	<b>Learning objectives The student should be able to :</b>	<b>Domain K/S/A/C</b>	<b>Level K/KH/ SH/P</b>	<b>Suggested Teaching Learning method</b>	<b>Suggested Assessment method</b>	<b>Vertical Integration</b>	<b>Horizon tal Integrat ion</b>
	Describe the pathology, presentation and management of Oesophageal , Intestinal and Biliary atresia	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	Describe the management of Swallowed or inhaled foreign bodies	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	Describe the pathology, presentation and management of Abdominal wall defects	K	KH	Lecture, Small group discussion	Written/ Viva voce		

	Describe the common causes, clinical presentation and management of Anorectal problems	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	Describe the pathology, presentation and management of Hirschsprung's disease	K	KH	Lecture, Small group discussion	Written/ Viva voce		
<b>Topic: Plastic and reconstructive surgery</b>		<b>Number of objectives : (8)</b>					
	The spectrum of plastic surgical techniques used to restore bodily form and function	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	The relevant anatomy and physiology of tissues used in reconstruction	K	KH	Lecture, Small group discussion	Written/ Viva voce	Anatomy	
	The various skin grafts and how to use them appropriately	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	The principles and use of flaps	K	KH	Lecture, Small group discussion	Written/ Viva voce		

	How to use plastic surgery to manage difficult and complex tissue loss	K	KH	Lecture, Small group discussion	Written/ Viva voce		
<b>Number</b>	<b>Learning objectives</b> The student should be able to understand :	<b>Domain</b> K/S/A/C	<b>Level</b> K/KH/SH/P	<b>Suggested Teaching Learning method</b>	<b>Suggested Assessment method</b>	<b>Vertical Integration</b>	<b>Horizontal Integration</b>
	The aetiology and classification of developmental abnormalities of the face, mouth and jaws	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	The principles of reconstruction of cleft lip and palate and The key features of perioperative care	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	The management of complications associated with cleft lip	K	KH	Lecture, Small group discussion	Written/ Viva voce		
<b>Topic: Cardio thoracic and vascular</b>		<b>Number of objectives : (13)</b>					

	The anatomy and physiology of the thorax	K	KH	Lecture, Small group discussion	Written/ Viva voce	Human Anatomy, Physiology	
	Investigation of chest pathology	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	The role of surgery in pleural disease	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	The assessment of patients requiring lung surgery	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	Surgical oncology as applied to chest surgery	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	The nature , associated features , investigation and treatment options of occlusive peripheral arterial disease	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	Describe the Venous anatomy and pathophysiology of venous return and venous hypertension	K	KH	Lecture, Small group discussion	Written/ Viva voce	Human Anatomy	

Number	Learning objectives The student should be able to :	Domain K/S/A/C	Level K/KH/ SH/P	Suggested Teaching Learning method	Suggested Assessment method	Vertical Integration	Horizon tal Integrat ion
	Discuss the clinical significance and management of superficial venous reflux, venous ulceration and venous thrombosis	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	Understand the main functions of the lymphatic system and describe the aetiology, clinical features, investigations and treatment of lymphoedema	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	The important role of surgery in cardiac disease	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	The role of investigation in planning surgery and the management of coronary heart disease	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	The role of surgery in valvular heart disease	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	The special role of surgery in congenital heart disease and the management of aortic vascular and pericardial disease	K	KH	Lecture, Small group discussion	Written/ Viva voce		

Topic: Anesthesia		Number of objectives : (9)					
Perioperative management of the high-risk surgical patient							
	Discuss factors that place patients at a high risk of complications	K	KH	Lecture, Small group discussion	Written/ Viva voce		Medicine
	Understand the importance of identifying the high-risk patient and the role of preoptimisation in minimising risk	K	KH	Lecture, Small group discussion	Written/ Viva voce		Medicine
	Understand the importance of critical care in the management	K	KH	Lecture, Small group discussion	Written/ Viva voce		
Care in the operating room							
Number	Learning objectives The student should be able to :	Domain K/S/A/C	Level K/KH/SH/P	Suggested Teaching Learning method	Suggested Assessment method	Vertical Integration	Horizontal Integrat ion

	Understand how to reduce intraoperative risks of positioning, venous thromboembolism, infection and hypothermia, by using appropriate monitoring and equipment.	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	Describe how to prepare a patient for theatre and understand the importance of the World Health Organization checklist and its components	K	KH	Lecture, Small group discussion	Written/ Viva voce		
<b>Anaesthesia and pain relief</b>							
	Describe the techniques of anaesthesia and airway maintenance	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	Discuss the Key features of commonly used intravenous anaesthetic agents and describe the general anesthesia triad	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	Describe Local and regional anaesthesia techniques	K	KH	Lecture, Small group discussion	Written/ Viva voce		
	Discuss the management of chronic pain and pain from malignant disease	K	KH	Lecture, Small group discussion	Written/ Viva voce		

Method of delivery	Name of Activity	Decision of faculty and Rating Not Completed : 0 Below expectations. : 1 Meets expectations. : 2 Exceeds expectations : 3	Faculty's Name, signature and Date
<b>Seminar</b> <b>SGD</b> + <b>Bed side session</b>	Describe and discuss the management of acute appendicitis		
<b>Seminar</b> <b>SGD</b> + <b>Bed side session</b>	Describe and discuss the cardinal features on history and examination of intestinal obstruction		

<b>Seminar SGD</b> + <b>Bed side session</b>	Demonstrate the ability to recognize complicated and uncomplicated presentations and correct technique to examine the patient with hernia and identify different types of hernias.		
<b>Seminar SGD</b>	Demonstrate ability to outline management strategies for patients presenting with upper and lower GI bleeding .		
<b>Seminar SGD</b> + <b>Bed side session</b>	Recognize the sources of fever in postoperative patients and become familiar with diagnostic and treatment strategies for these patients.		
<b>Method of delivery</b>	<b>Name of Activity</b>	<b>Decision of faculty and Rating</b> Not Completed : 0 Below expectations. : 1 Meets expectations. : 2 Exceeds expectations : 3	<b>Faculty's Name, signature and Date</b>

<b>Seminar SGD + Skill lab</b>	Demonstrate Airway maintenance. Recognize and manage tension pneumothorax, hemothorax and flail chest in simulated environment.		
<b>Seminar SGD</b>	Describe and discuss the aetiopathogenesis, clinical features, investigations, and principles of management of shock		
<b>Seminar SGD + Bed side session</b>	Demonstrate the ability to recognize the priorities and principles in the treatment of patients with multiple injuries, including blunt chest injuries, abdominal trauma, TBI, orthopedic injuries, and possible spinal cord injury.		
<b>Seminar SGD + Bed side session</b>	Describe the diagnostic and therapeutic strategies for patients presenting with gallstone diseases.		
<b>Seminar SGD + Bed side session</b>	Be familiar with the diagnosis and management of patients with acute pancreatitis.		

Method of delivery	Name of Activity	Decision of faculty and Rating Not Completed : 0 Below expectations. : 1 Meets expectations. : 2 Exceeds expectations : 3	Faculty's Name, signature and Date
<b>Bed side session</b>	Demonstrate and document the correct clinical examination of neck mass including thyroid swellings and discuss the differential diagnosis and their management		
<b>Seminar SGD</b> + <b>Bed side session</b>	Describe the relationship between benign breast changes, borderline malignant changes, and malignant disease and the management principles and options based on individual's cancer risk profile.		
<b>Seminar SGD</b> + <b>Bed side session</b>	Learn the diagnosis and staging of breast cancer.  Learn the locoregional and systemic treatment options for patients with breast cancers.		

<b>Seminar SGD</b> + <b>Bed side session</b>	Learn the differential diagnosis, approach and treatment for anorectal pain and common anorectal complaints.		
<b>Seminar SGD</b> + <b>Bed side session</b>	for ability the Demonstrate and injury head of management brain secondary of prevention injury		
<b>Method of delivery</b>	<b>Name of Activity</b>	<b>Decision of faculty and Rating</b> Not Completed : 0 Below expectations. : 1 Meets expectations. : 2 Exceeds expectations : 3	<b>Faculty's Name, signature and Date</b>
<b>Seminar SGD</b> + <b>ICU visit</b>	Observe and describe the management of an unconscious patient		
<b>Seminar SGD</b> + <b>Shadow doctor program</b>	Participate as a member in the team for closed reduction of shoulder dislocation / hip dislocation		

<b>Bed side sessions + Seminar SGD + Shadow doctor program</b>	Describe and discuss the mechanism of injury, clinical features, investigations and principles of management of fracture of shaft of humerus and supracondylar fracture in children with emphasis on neurovascular deficit		
<b>Bed side sessions + Seminar SGD + Shadow doctor program</b>	Describe and discuss the aetiopathogenesis, mechanism of injury, clinical features, investigations and principles of management of fractures of proximal femur		
<b>Method of delivery</b>	<b>Name of Activity</b>	<b>Decision of faculty and Rating</b> Not Completed : 0 Below expectations. : 1 Meets expectations. : 2 Exceeds expectations : 3	<b>Faculty's Name, signature and Date</b>

<b>Bed side sessions + Seminar SGD + Shadow doctor program</b>	Plan and interpret the investigations to diagnose complications of fractures like malunion, non-union, infection, compartmental syndrome		
<b>Shadow doctor program / Intra operative sessions</b>	Attendance to orthopedic theater to observe the common trauma and orthopedic surgery		
<b>Seminar SGD + Bed side session</b>	Demonstrate the correct examination of the vascular system and enumerate and describe the investigation of vascular disease		
<b>Seminar SGD + Bed side session</b>	physical the Interpret examination on findings associated with diabetic foot		

	pathology		
<b>Seminar SGD + Bed side session</b>	to related findings the of aware Be thrombophlebitis veins, varicose lymphoedema and		
<b>Method of delivery</b>	<b>Name of Activity</b>	<b>Decision of faculty and Rating</b> Not Completed : 0 Below expectations. : 1 Meets expectations. : 2 Exceeds expectations : 3	<b>Faculty's Name, signature and Date</b>
<b>Bed side session</b>	Elicit, present and document an appropriate history including medication history in a patient undergoing Surgery as it pertains to a preoperative anaesthetic evaluation		
<b>Seminar SGD + Intra operative sessions</b>	Observe and describe the principles and the practical aspects of induction and maintenance of anesthesia		

<b>Seminar SGD + Intra operative sessions</b>	<p>Observe and describe the principles and the steps/ techniques in maintenance of vital organ functions in patients undergoing surgical procedures</p> <p>Observe and describe the principles and the steps/ techniques in monitoring patients during anaesthesia</p>		
<b>Seminar SGD + Intra operative sessions</b>	Observe and describe the principles and the steps/ techniques involved in anaesthesia outside the operating room		
<b>Method of delivery</b>	<b>Name of Activity</b>	<b>Decision of faculty and Rating</b> Not Completed : 0 Below expectations. : 1 Meets expectations. : 2 Exceeds expectations : 3	<b>Faculty's Name, signature and Date</b>

<b>Seminar SGD</b> + <b>Intra operative sessions</b>	Describe the principles of monitoring and resuscitation in the recovery room  Visit, enumerate and describe the functions of an Intensive Care Unit  Enumerate and describe the criteria for admission and discharge of a patient to an ICU		
<b>Seminar SGD</b> + <b>Bed side session</b>	manage to ability the emonstrated the calculate and patients burn fluid of quantity and rate		
<b>Seminar SGD</b> + <b>Bed side session</b>	Describe and discuss the management of patient presented with hematuria		
<b>Seminar SGD</b> + <b>Bed side session</b>	Describe and discuss the management of patient presented with Anuria and urine retention		
<b>Seminar SGD</b> + <b>Bed side</b>	Describe and discuss the management of patient presented with acute scrotal swelling		

<b>session</b>			
<b>Method of delivery</b>	<b>Name of Activity</b>	<b>Decision of faculty and Rating</b> Not Completed : 0 Below expectations. : 1 Meets expectations. : 2 Exceeds expectations : 3	<b>Faculty's Name, signature and Date</b>
<b>Seminar SGD</b> + <b>Bed side session</b>	Describe and discuss the indication of imaging studies in surgical patients		
<b>SGD</b> + <b>side Bed session</b>	differences important Describe which children and adults between .implications clinical have		
<b>SGD</b> + <b>side Bed session</b>	trauma of principles the Describe to how and children in management fluids perioperative prescribe safely .children in		

SGD + side Bed session	of recognition a Demonstrate congenital of collection pediatric by managed malformations .surgeons		
<b>Communication skills</b>			
Seminar SGD + Active simulation	Describe the steps and obtain informed consent in a simulated environment		
Seminar SGD + Bed side session	Identify, discuss and defend, medico-legal, socio-cultural and ethical issues as they pertain to consent for surgical procedures		
Method of delivery	Name of Activity	Decision of faculty and Rating Not Completed : 0 Below expectations. : 1 Meets expectations. : 2 Exceeds expectations : 3	Faculty's Name, signature and Date

<b>Seminar SGD</b> + <b>Active simulation</b>	Counsel the patient and obtain informed consent for treatment of malignant conditions of the breast		
<b>Seminar SGD</b> + <b>Bed side session</b>	Demonstrate ability to work in a team of peers and superiors.  Demonstrate respect in relationship with patients, fellow team members, superiors and other health care workers		
<b>Seminar SGD</b> + <b>Bed side session</b>	to ability Demonstrate a in patients to communicate -non respectful, patient, and judgmental-non threatening, manner empathetic  and diagnostic Communicate and patient to options therapeutic environment simulated a in family (news bad Breaking)		

<b>Seminar SGD + Active simulation</b>	Demonstrate an understanding of the implications and the appropriate procedure and response to be followed in the event of medical errors		
<b>Method of delivery</b>	<b>Name of Activity</b>	<b>Decision of faculty and Rating</b> Not Completed : 0 Below expectations. : 1 Meets expectations. : 2 Exceeds expectations : 3	<b>Faculty's Name, signature and Date</b>
<b>Seminar SGD + Active simulation</b>	Identify, discuss and defend medico-legal, socio-cultural and ethical issues as it pertains to medical negligence in patient care		
<b>Seminar SGD + Shadow doctor program</b>	Counsel patients and family/ friends for blood transfusion and blood donation.		
<b>Procedural skills</b>			
<b>Skill lab + Shadow Doctor Program</b>	Relieving foreign body airway obstruction		

<b>Skill lab + Shadow Doctor Program</b>	Demonstrate Helmet removal		
<b>Skill lab + Shadow Doctor Program</b>	Demonstrate Head tilt - Chin lift and Jaw thrust maneuver procedure		
<b>Skill lab + Shadow Doctor Program</b>	Demonstrate insertion and maintenance of oropharyngeal airway in a mannequin or equivalent		
<b>Method of delivery</b>	<b>Name of Activity</b>	<b>Decision of faculty and Rating</b> Not Completed : 0 Below expectations. : 1 Meets expectations. : 2 Exceeds expectations : 3	<b>Faculty's Name, signature and Date</b>
<b>Skill lab + Shadow Doctor Program</b>	Demonstrate insertion and maintenance of nasopharyngeal airway in a mannequin or equivalent		
<b>Skill lab and theater</b>	Pocket mask and self-inflating bag		
	Demonstrate Logrolling maneuver		

<b>Skill lab</b>	Advising patients on how to collect a mid-stream urine specimen  Male and female urinary catheterisation		
<b>Skill lab</b>	Male and female urinary catheterisation		
<b>Skill lab</b>	General rules of the aseptic operating room		
<b>Skill lab</b>	Suturing technique ( Simple interrupted suture, Vertical Mattress suture, Horizontal Mattress suture		
<b>Shadow Doctor Program + Operation Theatre + ER</b>	Observe common surgical procedures and assist in minor surgical procedures; Observe emergency lifesaving surgical procedures.		
<b>Method of delivery</b>	<b>Name of Activity</b>	<b>Decision of faculty and Rating</b> Not Completed : 0 Below expectations. : 1 Meets expectations. : 2 Exceeds expectations : 3	<b>Faculty's Name, signature and Date</b>

<b>Skill lab + Shadow Doctor Program</b>	Procedure for venepuncture		
<b>Skill lab + Shadow Doctor Program</b>	Establish intravenous access in a simulated environment		
<b>Skill lab + Shadow Doctor Program</b>	Administration of blood transfusion		
<b>Skill lab + Shadow Doctor Program</b>	Demonstrate pelvic binder application		

Method of delivery	Name of Activity	Decision of faculty and Rating Not Completed : 0 Below expectations. : 1 Meets expectations. : 2 Exceeds expectations : 3	Faculty's Name, signature and Date
<b>Skill lab + Shadow Doctor Program</b>	Demonstrate traction and Thompson splint application		
<b>Skill lab + Shadow Doctor Program</b>	Demonstrate correct maneuver of sling application		
<b>Skill lab + Shadow Doctor Program</b>	Perform basic surgical Skills such as First aid including suturing and minor surgical procedures in simulated environment		

## OPHTHALMOLOGY (CODE: OP)

# Ophthalmology

Number	Learning objectives The student should be able to	Domain K/S/A/C	Level K/K H/ SH/ P	Suggested Teaching Learning method	Suggested Assessment method	Vertical Integration	Horizontal Integration
<b>Topic: Visual Acuity Assessment</b>		<b>Number of learning objectives : (05)</b>					
OP1.1	Describe the physiology of vision	K	KH	Lecture, Small group discussion	Written/ Viva voce	Physiology	
OP1.2	Define, classify and describe the types and methods of correcting refractive errors	K	KH	Lecture, Small group discussion	Written/ Viva voce		
OP1.3	Demonstrate the steps in performing the visual acuity assessment for distance vision, near vision, colour vision, the pin hole test and the menace and blink reflexes	S	SH	D O A P  s e s s i o n , L e	Skill assess ment/ Logboo k		

				c t u r e			
OP1.4	Enumerate the indications and describe the principles of refractive surgery	K	KH	Lecture, Small group discussion	Written/ Viva voce		
<b>Number</b>	<b>Learning objectives</b> <b>The student should be able to</b>	<b>Domain</b> <b>K/S/A/C</b>	<b>Level</b> <b>K/K</b> <b>H/</b> <b>SH/</b> <b>P</b>	<b>Suggested Teaching Learning method</b>	<b>Suggested Assessment method</b>	<b>Vertical Integration</b>	<b>Horizontal Integration</b>
OP1.5	Define, enumerate the types and the mechanism by which strabismus leads to amblyopia	K	KH	Lecture, Small group discussion	Written/ Viva voce		
<b>Topic: Lids and Adnexa, Orbit</b> <span style="float: right;"><b>Number of learning objectives (6)</b></span>							
OP2.1	Enumerate the causes, describe and discuss the aetiology, clinical presentations and diagnostic features of common conditions of the lid and adnexa including Hordeolum externum/ internum, blepharitis, preseptal cellulitis, dacryocystitis, hemangioma, dermoid, ptosis, entropion, lid lag, lagophthalmos	K	KH	Lecture, Small group discussion	Written/ Viva voce	Human Anatomy	

OP2.2	Demonstrate the symptoms & clinical signs of conditions enumerated in OP2.1	S	S	DOAP session	Skill assessment		
OP2.3	Demonstrate under supervision clinical procedures performed in the lid including: bells phenomenon, assessment of entropion/ ectropion, perform the regurgitation test of lacrimal sac. massage technique in cong. dacryocystitis, and trichiatic cilia removal by epilation	S	S H	D O A P  s e s s i o n , L e c t u r e	Skill assessment		
OP2.4	Enumerate the causes and describe the differentiating features, and clinical features and management of proptosis	K	K H	Lecture, Small group discussion	Written/ Viva voce		
OP2.5	Classify the various types of orbital tumours. Differentiate the symptoms and signs of the presentation of various types of ocular tumours	K	K H	Lecture, Small group discussion	Written/ Viva voce		
OP2.6	List the investigations helpful in diagnosis of orbital tumors. Enumerate the indications for appropriate referral	K	K H	Lecture, Small group discussion	Written/ Viva voce		

Topic: Conjunctiva				Number of learning objectives (07 )			
OP3.1	Elicit document and present an appropriate history in a patient presenting with a “red eye” including congestion, discharge, pain	S	S H	DOAP session	Skill Assessment		
OP3.2	Demonstrate document and present the correct method of examination of a “red eye” including vision assessment, corneal lustre, pupil abnormality, ciliary tenderness	S	S H	DOAP session	Skill Assessment		
Number	Learning objectives The student should be able to	Domain K/S/A/C	Level K/K H/ SH/ P	Suggested Teaching Learning method	Suggested Assessment method	Vertical Integration	Horizontal Integration
OP3.3	Describe the aetiology, pathophysiology, ocular features, differential diagnosis, complications. and management of various causes of conjunctivitis	K	K H	Lecture, Small group discussion	Written/ Viva voce		
OP3.4	Describe the aetiology, pathophysiology, ocular features, differential diagnosis, complications and management of trachoma.	K	K H	Lecture, Small group discussion	Written/ Viva voce		
OP3.5	Describe the aetiology, pathophysiology, ocular features, differential diagnosis, complications and management of vernal catarrh	K	K H	Lecture, Small group discussion	Written/ Viva voce		

OP3.6	Describe the aetiology, pathophysiology, ocular features, differential diagnosis, complications and management of pterygium	K	K H	Lecture, Small group discussion	Written/ Viva voce		
OP3.7	Demonstrate the correct technique of instillation of eye drops in a simulated environment	S	S H	DOAP session	Skill assessment		
<b>Topic: Corneas</b> <span style="float: right;"><b>Number of learning objectives : (05)</b></span>							
Number	Learning objectives The student should be able to	Domain K/S/A/C	Level K/K H/ SH/ P	Suggested Teaching Learning method	Suggested Assessment method	Vertical Integration	Horizontal Integration
OP4.1	Enumerate, describe and discuss the types and causes of corneal ulceration	K	K H	Lecture, Small group discussion	Written/ Viva voce	Human Anatomy	
OP4.2	Enumerate and discuss the differential diagnosis of infective keratitis	K	K H	Lecture, Small group discussion	Written/ Viva voce		
OP4.3	Enumerate the causes of corneal edema	K	KH	Lecture, Small group discussion	Written/ Viva voce		
OP4.4	Enumerate the causes and discuss the management of dry eye	K	KH	Lecture, Small group discussion	Written/ Viva voce		
OP4.5	Enumerate the causes of corneal blindness	K	KH	Lecture, Small group discussion	Written/ Viva voce		

Number	Learning objectives The student should be able to	Domain K/S/A/C	Level K/K H/ SH/ P	Suggested Teaching Learning method	Suggested Assessment method	Vertical Integration	Horizontal Integration
<b>Topic: Sclera</b>		<b>Number of learning objectives : (02)</b>					
OP5.1	Define, enumerate and describe the aetiology, associated systemic conditions, clinical features complications indications for referral and management of episcleritis	K	KH	Lecture, Small group discussion	Written/ Viva voce		
OP5.2	Define, enumerate and describe the aetiology, associated systemic conditions, clinical features, complications, indications for referral and management of scleritis	K	K H	Lecture, Small group discussion	Written/ Viva voce	General Medicine	
<b>Topic: Iris and Anterior chamber</b>		<b>Number of learning objectives (10)</b>					
OP6.1	Describe clinical signs of intraocular inflammation and enumerate the features that distinguish granulomatous from non-granulomatous inflammation. Identify acute iridocyclitis from chronic condition	K	K H	Lecture, Small group discussion	Written/ Viva voce		
OP6.2	Identify and distinguish acute iridocyclitis from chronic iridocyclitis	K	K H	Lecture, Small group discussion	Written/ Viva voce		
OP6.3	Enumerate systemic conditions that can present as iridocyclitis and describe their ocular manifestations	K	K H	Lecture, Small group discussion	Written/ Viva voce		General Medicine

OP6.4	Describe and distinguish hyphema and hypopyon	K	K H	Lecture, Small group discussion	Written/ Viva voce		
<b>Number</b>	<b>Learning objectives</b> <b>The student should be able to</b>	<b>Domain</b> <b>K/S/A/C</b>	<b>Level</b> <b>K/K</b> <b>H/</b> <b>SH/</b> <b>P</b>	<b>Suggested</b> <b>Teaching</b> <b>Learning</b> <b>method</b>	<b>Suggested</b> <b>Assessment</b> <b>method</b>	<b>Vertical Integration</b>	<b>Horizontal</b> <b>Integra</b> <b>tion</b>
OP6.5	Describe and discuss the angle of the anterior chamber and its clinical correlates	K	K H	Lecture, Small group discussion	Written/ Viva voce		
OP6.6	Identify and demonstrate the clinical features and distinguish and diagnose common clinical conditions affecting the anterior chamber	S	S H	D O A P  s e s s i o n  , B e d s i d e  c l i n	Skill assessment		

				i c			
OP6.7	Enumerate and discuss the aetiology, the clinical distinguishing features of various glaucomas associated with shallow and deep anterior chamber. Choose appropriate investigations and treatment for patients with above conditions.	K	K H	Lecture, Small group discussion	Written/ Viva voce	Human Anatomy	
OP6.8	Enumerate and choose the appropriate investigation for patients with conditions affecting the Uvea	K	K H	Lecture, Small group discussion	Written/ Viva voce		
OP6.9	Choose the correct local and systemic therapy for conditions of the anterior chamber and enumerate their indications, adverse events and interactions	K	K H	Lecture, Small group discussion	Written/ Viva voce		
OP6.10	Counsel patients with conditions of the iris and anterior chamber about their diagnosis, therapy and prognosis in an empathetic manner in a simulated environment	A / C	S H	DOAP session	Skill assessment		

**Topic: Lens**

**Number of learning objectives : (06)**

Number	Learning objectives The student should be able to	Domain K/S/A/C	Level K/K H/ SH/ P	Suggested Teaching Learning method	Suggested Assessment method	Vertical Integration	Horizontal Integration
OP7.1	Describe the surgical anatomy and the metabolism of the lens	K	K H	Lecture, Small group discussion	Written/ Viva voce	Biochemistry, Human Anatomy	

OP7.2	Describe and discuss the aetio-pathogenesis, stages of maturation and complications of cataract	K	K H	Lecture, Small group discussion	Written/ Viva voce	Pathology	
OP7.3	Demonstrate the correct technique of ocular examination in a patient with a cataract	S	S H	DOAP session	Skill assessment		
OP7.4	Enumerate the types of cataract surgery and describe the steps, intra-operative and post-operative complications of extracapsular cataract extraction surgery.	S	K H	DOAP session, Lecture, Small group discussion	Written/ Viva voce		
OP7.5	To participate in the team for cataract surgery	S	S H	DOAP session	Skill assess ment/ Logboo k docum entatio n		
OP7.6	Administer informed consent and counsel patients for cataract surgery in a simulated environment	S	S H	DOAP session	Skill Assessment		
<b>Topic: Retina &amp; optic Nerve</b> <span style="float: right;"><b>Number of learning objectives (05)</b></span>							
OP8.1	Discuss the aetiology, pathology, clinical features and management of vascular occlusions of the retina	K	KH	Lecture, Small group discussion	Written/ Viva voce	Human Anatomy, Pathology	
<b>Number</b>	<b>Learning objectives The student should be able to</b>	<b>Domain K/S/A/C</b>	<b>Lev el K/K H/ SH/ P</b>	<b>Suggested Teaching Learning method</b>	<b>Suggested Assessment method</b>	<b>Vertical Integration</b>	<b>Horizo ntal Integra tion</b>

OP8.2	Enumerate the indications for laser therapy in the treatment of retinal diseases (including retinal detachment, retinal degenerations, diabetic retinopathy & hypertensive retinopathy)	K	K	Lecture, Small group discussion	Written/ Viva voce		
OP8.3	Demonstrate the correct technique of a fundus examination and describe and distinguish the fundoscopic features in a normal condition and in conditions causing an abnormal retinal exam	S	SH	Lecture, Small group discussion	Skill Assessment		
OP8.4	Enumerate and discuss treatment modalities in management of diseases of the retina	K	KH	Lecture, Small group discussion	Written/ Viva voce		
OP8.5	Describe and discuss the correlative anatomy, aetiology, clinical manifestations, diagnostic tests, imaging and management of diseases of the optic nerve and visual pathway	K	KH	Lecture, Small group discussion	Written/ Viva voce		
<b>Topic: Miscellaneous</b> <span style="float: right;"><b>Number of learning objectives (04)</b></span>							
OP9.1	Demonstrate the correct technique to examine extra ocular movements (Unilateral & Binocular)	S	P	DOAP session	Skill Assessment		

OP9.2	Classify, enumerate the types, methods of diagnosis and indications for referral in a patient with heterotropia/ strabismus	K	KH	Lecture, Small group discussion	Written/ Viva voce/ skill assessment		
OP9.3	Describe the role of refractive error correction in a patient with headache and enumerate the indications for referral	K	K	Lecture, Small group discussion	Written/ Viva voce		General Medicine
OP9.5	Describe the evaluation and enumerate the steps involved in the stabilisation, initial management and indication for referral in a patient with ocular injury	K	KH	Lecture, Small group discussion	Written/ Viva voce		

**Competency:** The habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values, and reflection in daily practice for the benefit of the individual and community being served. In other words: What should you have? or What should have changed?

**Objective:** Statement of what a learner should be able to do at the end of a specific learning experience. In other words: What the Iraqi Medical Graduate should know, do, or behave.

<b>Knowledge</b>	<b>Skill</b>	<b>Attitude/communicate</b>
Enumerate	Identify	Counsel
List	Demonstrate	Inform
Describe	Perform under supervision	Demonstrate understanding of
Discuss	Perform independently	
Differentiate	Document	
Define	Present	
Classify	Record	
Choose	Interpret	
Elicit		
Report		

**Note:**

1. Specified essential competencies only will be required to be performed independently at the end of the final year of the college.

2. The word ‘perform’ or ‘do’ is used ONLY if the task has to be done on patients or in laboratory practical in the pre/para-clinical phases.
3. Most tasks that require performance during undergraduate years will be performed under supervision.
4. If a certification to perform independently has been done, then the number of times the task has to be performed under supervision will be indicated in the last column.

### **Explanation of terms used in the curriculum**

Lecture	Any instructional large group method including traditional lecture and interactive lecture
Small group discussion	Any instructional method involving small groups of students in an appropriate learning context
DOAP (Demonstration- Observation - Assistance - Performance)	A practical session that allows the student to observe a demonstration, assist the performer, perform in a simulated environment, perform under supervision or perform independently
Skill assessment	A session that assesses the skill of the student including those in the practical laboratory, skills lab, skills station that uses mannequins/ paper case/simulated patients/real patients as the context demands

### **Domains of learning**

K	Knowledge
S	Skill
A	Attitude
C	Communication

### **Levels of competency**

K	Knows	A knowledge attribute - Usually enumerates or describes
KH	Knows how	A higher level of knowledge - is able to discuss or analyze
S	Shows	A skill attribute: is able to identify or demonstrate the steps
SH	Shows how	A skill attribute: is able to interpret/ demonstrate a complex procedure requiring thought, knowledge and behavior
P	Performs (under supervision or independently)	Mastery for the level of competence - When done independently under supervision a pre-specified number of times - certification or capacity to perform independently results

#### **Note:**

In the table of competency - the highest level of competency acquired is specified and implies that the lower levels have been acquired already. Therefore, when a student is able to SH - Show how - an informed consent is obtained - it is presumed that the preceding steps - the knowledge, the analytical skills, the skill of communicating have all been obtained.

It may also be noted that attainment of the highest level of competency may be obtained through steps spread over several subjects and not necessarily in the subject in which the competency has been-identified.

## **RADIODIAGNOSIS (CODE: RD)**

Number	Learning objectives The student should be able to	Domain K/S/A/C	Level K/K H/ SH/ P	Suggested Teaching Learning method	Suggested Assessment method	Vertical Integration	Horizontal Integration
<b>Radio diagnosis</b>							
<b>Topic: Radiological investigations and Radiation safety</b>				<b>Number of learning objectives : (13)</b>			
RD1.1	Define radiation and the interaction of radiation and importance of radiation protection	K	K H	Lecture, Demonstration			
RD1.2	Describe the evolution of Radiodiagnosis. Identify various radiological equipments In the current era	S	S H	Lecture, Demonstration			
RD1.3	Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorder of ENT	K/S	S H	Lecture, Demonstration			
RD1.4	Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorder in Ob & Gy	K/S	S H	Lecture, Demonstration			

RD1.5	Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorder in internal medicine	K/S	S H	Lecture, Demonstration			
RD1.6	Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorders in surgery	K/S	S H	Lecture, Demonstration			
RD1.7	Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorder in Pediatrics	K/S	S H	Lecture, Demonstration			
RD1.8	Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to common malignancies	K/S	SH	Lecture, Demonstration			
RD1.9	Describe the role of Interventional Radiology in common clinical conditions	K	KH	Lecture, Demonstration			
RD1.10	Describe the role of Emergency Radiology, miscellaneous & applied aspects, interaction with clinical departments	K	KH	Lecture, Demonstration			
RD1.11	Describe preparation of patient for common imaging procedures	K	KH	Lecture, Demonstration			
RD1.12	Describe the effects of radiation in pregnancy and the methods of prevention/ minimization of radiation exposure	K	KH	Lecture, Demonstration			

RD1.13	Describe the components of the PC & PNDT Act and its medicolegal implications	K	KH	Lecture, Small group discussion		Obstetrics & Gynaecology, Forensic Medicine & Toxicology	
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**Column C: K- Knowledge, S - Skill, A - Attitude / professionalism, C- Communication.**

**Column D: K - Knows, KH - Knows How, SH - Shows how, P- performs independently.**

### **Column E: DOAP sess**

**Competency:** The habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values, and reflection in daily practice for the benefit of the individual and community being served. In other words: What should you have? or What should have changed?

**Objective:** Statement of what a learner should be able to do at the end of a specific learning experience. In other words: What the Iraqi Medical Graduate should know, do, or behave.

<b>Knowledge</b>	<b>Skill</b>	<b>Attitude/communicate</b>
Enumerate	Identify	Counsel
List	Demonstrate	Inform
Describe	Perform under supervision	Demonstrate understanding of
Discuss	Perform independently	
Differentiate	Document	
Define	Present	
Classify	Record	
Choose	Interpret	

Elicit		
Report		

**Note:**

1. Specified essential competencies only will be required to be performed independently at the end of the final year of the college.
2. The word ‘perform’ or ‘do’ is used ONLY if the task has to be done on patients or in laboratory practical in the pre/para-clinical phases.
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- Performance)	
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### Domains of learning

K	Knowledge
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### Levels of competency

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## OTORHINOLARYNGOLOGY (ENT) (CODE: EN)

# ENT

Learning objectives The student should be able to:	Domain K/S/A/C	Level K/K H/ SH/ P	Suggested Teaching Learning method	Suggested Assessment method	Vertical Integration	
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## Anatomy and Physiology of ear, nose, throat, head

Number of learning objectives :(02)

Describe the Anatomy & physiology of ear, nose, throat, head & neck	K	K H	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment	Human Anatomy	
Describe the pathophysiology of common diseases in ENT	K	K H	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment	Pathology	

## Clinical Skills

Number of learning objectives : (15)

Elicit document and present an appropriate history in a patient presenting with an ENT complaint	K/S/A/C	S H	Lecture, Small group discussion, Demonstration	Skill assessment		
Demonstrate the correct use of a headlamp in the examination of the ear, nose and throat	S	S H	DOAP session	Skill assessment/ OSCE		
Demonstrate the correct technique of examination of the ear including Otoscopy	K/S/A	S H	DOAP session, Bedside clinic	Skill assessment/ OSCE		
Demonstrate the correct technique of performance and interpret tuning fork tests	K/S/A	S H	DOAP session, Bedside clinic	Skill assessment/ OSCE		
Demonstrate the correct technique of examination of the nose & paranasal sinuses including the use of nasal speculum	S	S H	DOAP session, Bedside clinic	Skill assessment/ OSCE		
Demonstrate the correct technique of examining the throat including the use of a tongue depressor	S	S H	DOAP session, Bedside clinic	Skill assessment/ OSCE		
Demonstrate the correct technique of examination of neck including elicitation of laryngeal crepitus	S	S H	DOAP session, Bedside clinic	Skill assessment		

Demonstrate the correct technique to perform and interpret pure tone audiogram & impedance audiogram	K/S	SH	DOAP session, Bedside clinic	Skill assessment		
Choose correctly and interpret radiological, microbiological & histological investigations relevant to the ENT disorders	K/S	SH	Lecture, Small group discussion, DOAP session	Written/ Viva voce/ Skill assessment		
Identify and describe the use of common instruments used in ENT surgery	K	SH	DOAP session, Bedside clinic	Skill assessment		
Describe and identify by clinical examination malignant & pre- malignant ENT diseases	K/S	SH	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment		
Counsel and administer informed consent to patients and their families in a simulated environment	S/A/C	SH	DOAP session, Bedside clinic	Skill assessment		
Identify, resuscitate and manage ENT emergencies in a simulated environment (including tracheostomy, anterior nasal packing, removal of foreign bodies in ear, nose, throat and upper respiratory tract)	K/S/A	SH	DOAP session, Bedside clinic	Skill assessment		
Demonstrate the correct technique to instilling topical medications into the ear, nose and throat in a simulated environment	K/S	SH	DOAP session, Bedside clinic	Skill assessment/ OSCE		
Describe the national programs for prevention of deafness, cancer, noise & environmental pollution	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce		

#### Diagnostic and Therapeutic procedures in ENT

Number of learning objectives :(06)

Observe and describe the indications for and steps involved in the performance of Otomicroscopic examination in a simulated environment	S	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce		
Observe and describe the indications for and steps involved in the performance of diagnostic nasal Endoscopy	S	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce		
Observe and describe the indications for and steps involved in the performance of Rigid/Flexible Laryngoscopy	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce		

Observe and describe the indications for and steps involved in the removal of foreign bodies from ear, nose & throat	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce		
Observe and describe the indications for and steps involved in the surgical procedures in ear, nose & throat	K	KH	Lecture, small group discussion, Demonstration	Written/ Viva voce		
Observe and describe the indications for and steps involved in the skills of emergency procedures in ear, nose & throat	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce		

#### Management of diseases of ear, nose & throat

Number of learning objectives : (53)

Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of Otagia	K/S	SH	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment		
Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of diseases of the external Ear	K/S	SH	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment		
Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of ASOM	K/S	SH	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment		
Demonstrate the correct technique to hold visualize and assess the mobility of the tympanic membrane and its mobility and interpret and diagrammatically represent the findings	K/S/A	SH	Clinical, Demonstration	Written/ Viva voce/ Skill assessment		
Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of OME	K/S	SH	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment		
Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of Discharging ear	K/S	SH	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment		

Elicit document and present a correct history demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of CSOM	K/S	SH	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment		
Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of CSOM	K/S	SH	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment		
Demonstrate the correct technique for syringing wax from the ear in a simulated environment	S	SH	DOAP session	Skill assessment		
Observe and describe the indications for and steps involved in myringotomy and myringoplasty	S	KH	DOAP session	Written/ Viva voce		
Enumerate the mastoidectomy	K/S	KH	DOAP session	Written/ Viva voce		
Elicit document and present a correct history demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of Hearing loss	K/S	SH	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment		
Describe the clinical features, management of Otosclerosis	K	K H	Lecture, Small group discussion; Demonstrati on	Written/ Viva voce/ Skill assessment		
Describe the clinical features, investigations and management of Sudden Sensorineural Hearing Loss	K	K H	Lecture, Small group discussion, Demonstrati on	Written/ Viva voce/ Skill assessment		
Describe the clinical features, investigations management of Noise Induced Hearing Loss	K	K H	Lecture, Small group discussion, Demonstrati on	Written/ Viva voce/ Skill assessment		
Observe and describe the indications for and steps involved in the performance of pure tone audiometry	S	K H	DOAP session	Written/ Viva		
Enumerate the indications and interpret the results of an audiogram	S	S H	DOAP session	Skill assessment		
Describe the clinical features, management of Facial Nerve palsy	K	K H	Lecture, Small group discussion, Demonstrati on	Written/ Viva voce/ Skill assessment		
Describe the clinical features, investigations management of Vertigo	K	K H	Lecture, Small group discussion, Demonstrati on	Written/ Viva voce/ Skill assessment		

Describe the clinical features, management of Meniere's Disease	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment		
Describe the clinical features, management of Tinnitus	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment		
Elicit document and present a correct history demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of Nasal Obstruction	K/S	SH	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment		
Describe the clinical features, investigations and	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment		
Enumerate the indications observe and describe the septoplasty	S	KH	DOAP session	Written/ Viva voce		
Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of Nasal Polyps	K/S	SH	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment		
Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of Adenoids	K/S	SH	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment		
Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of Allergic Rhinitis	K/S	SH	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment		
Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of Vasomotor Rhinitis	K/S	SH	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment		
Elicit, document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of Acute & Chronic Rhinitis	K/S	SH	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment		
Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of Epistaxis	K/S	SH	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment		

Describe the clinical features, investigations and	K/S	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce	
Describe the clinical features, investigations and	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce	
Elicit document and present a correct history demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of Acute & Chronic Sinusitis	K/S	SH	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment	
Describe the clinical features, investigations and	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce	
Describe the clinical features, investigations and	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment	
Describe the clinical features, investigations and	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment	
Describe the clinical features, investigations and	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment	
Describe the clinical features, investigations and	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment	
Elicit document and present a correct history demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of type of dysphagia	K/S	SH	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment	
Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of Acute & Chronic Tonsillitis	K/S	SH	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment	
Observe and describe the indications for and steps involved in a tonsillectomy / adenoidectomy	S	KH	DOAP session	Written/ Viva voce	
Describe the clinical features, investigations and	K/S	KH	Lecture, Small group discussion Demonstration	Written/ Viva voce	

Elicit, document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of hoarseness of voice	K/S	SH	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment		
Describe the clinical features, investigations and	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce		
Describe the clinical features, investigations and	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce		
Describe the clinical features, investigations and	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment		
Describe the clinical features, investigations and	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment		
Describe the clinical features, investigations and	K	KH	Lecture, Small group discussion Demonstration	Written/ Viva voce/ Skill assessment		
Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of Airway Emergencies	S	SH	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment		
Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of foreign bodies in the air & food passages	S	SH	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment		
Observe and describe the indications for and steps involved in tracheostomy	S	KH	DOAP session	Written/ Viva voce		
Observe and describe the care of the patient with a tracheostomy	S	KH	DOAP session	Written/ Viva voce		
Describe the Clinical features, Investigations and	K	ENT	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment		

Describe the clinical features, investigations and	K	KH	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment	General Medicine
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**Column C: K- Knowledge, S - Skill, A - Attitude / professionalism, C- Communication.**

**Column D: K - Knows, KH - Knows How, SH - Shows how, P- performs independently.**

**Column E: DOAP session - Demonstrate, Observe, Assess, Performs**

