Republic of Yemen

Ministry of Higher Education & Scientific Research

21 SEPTEMBER UNIVERSITY for MEDICALS & APPLIED SCIENCES

Faculty of Medicine

Bachelor Program of Medicine and Surgery

Course Specification of

Musculoskeletal system

Course Code. (A21P216)

2023

T4: This Template is Developed and Approved by CAQA-Yemen, 2023

Prepared by:	Reviewed by:	Head of department	Quality Unit:	Dean of Medicine Faculty	Center of Development and Quality Assurance Dean
Assoc. prof. Sadeq Saad Abdulmogni	Dr. Aref Abdulmogni	Dr. Aref Abdulmogni	Dr. Fadhl Shujaa Al-deen	Dr. Salwa Al-Ghomeri	

I. General Information:

1.	**Course Title:**	**Musculoskeletal system**				
2.	**Course Code:**	A21P216				
3.	**Credit Hours:**	**Credit Hours**	**Theory Contact Hours**		**Practical Contact Hours**	
			Lecture	**Tutorial/ Seminar**	**Lab**	**Clinical**
		8	6	--	4	--
4.	**Level/ Semester at which this Course is offered:**	2nd Level / 1st Semester				
5.	**Pre –Requisite (if any):**	Physiology, Biochemistry, Anatomy Histology, Pathology and Pharmacology.				
6.	**Co –Requisite (if any):**	None				
7.	**Program (s) in which the Course is Offered:**	Bachelor of Medicine and surgery				
8.	**Language of Teaching the Course:**	English				
9.	**Location of Teaching the Course:**	Faculty of Medicine				
10.	**Prepared by:**	Assoc. prof. Sadeq Saad Abdulmogni				
11	**Date and Number of Approval by Council:**	2023				

II. Course Description:

This block aims to provide students with the basic, practical and some clinical knowledge, attitudes and skills concerning musculoskeletal system. Students will be exposed to fundamental concepts and practical issues in Anatomy, Embryology, Histology, Physiology, pathology, pharmacology and clinical skills in an integrated approach; they will apply such concepts to understand common disorders in these systems. Also, students will be exposed to important diseases in Medicine and Surgery that are closely linked to these systems.

III. Course Intended Learning Outcomes (CILOs): Upon successful completion of the course, students will be able to:		Referenced PILOs		
A. Knowledge and Understanding:		**I, P or M/A**		
a1	Describe the anatomical and histological structures as well as physiological functions of the bones ,muscles and joints in the normal and common pathological conditions	**I**	**A1**	Describe the general and basic sciences related to human body structure and functions with emphasis on normal and abnormal conditions.
a2	Recognize the infectious and non-infectious etiology, risk factors, pathogenesis, clinical features, complications, diagnosis, management, prevention and control of musculoskeletal disorders.	**A**	**A3**	Explain the pathological and pathogenesis changes in various diseases, and their etiological triggers including genetic, developmental, infectious, metabolic, endocrinal, autoimmune, neoplastic, traumatic, degenerative and occupational factors.
B. Intellectual Skills:				
b1	Distinguish between physiological and pathological performance of body cells.	**P**	**B2**	Analyze and interpret the finding from history, clinical examination and investigations to propose a diagnosis and develop a shared management plan for common acute, chronic and urgent physical
b2	Appraise medical history, clinical features and laboratory/radiologic findings for the differential diagnosis of musculoskeletal diseases			

				and mental health presentations.
	C. Professional and Practical Skills:			
c1	Practice medical history taking, physical/clinical examination and laboratory investigations for the diagnosis of musculoskeletal diseases	**P**	**C1**	Perform complete clinical examination and precise investigations to reach the final diagnosis.
c2	Perform on a model some routine technical and therapeutic procedures needed in musculoskeletal problems such as management of fractures, dislocation.	**A**	**C3**	Carry out routine medical procedure and demonstrate the ability of using common medical tools required for diagnosis and management with highly qualified competency.
	D. Transferable Skills:			
d1	Use the information technology and internet resources efficiently for self-learning and gaining up-to-date information in the areas of interest.	**P**	**D1**	Communicate with professionals, patients, their families and the community through verbal, written and other non-verbal means.
d2	Act independently or collaboratively as a member of teamwork and communicate effectively with others.	**A**	**D2**	Work individually or in a team and develop lifelong learning using up to date technology that help in understanding the diseases and its control and prevention.
I= Introduced, P=Practiced or M/A= Mastered/Advanced				

(A) Alignment of Course Intended Learning Outcomes (Knowledge and Understanding) to Teaching Strategies and Assessment Methods:

	Course Intended Learning Outcomes	Teaching Strategies	Assessment strategies
a1	Describe the anatomical and histological structures as well as physiological functions of the bones ,muscles and joints in the normal and common	▪ Interactive lectures ▪ Discussion ▪ Office hours ▪ Self-learning	▪ Quizzes ▪ Final written exam

	pathological conditions		
a2	Recognize the infectious and non-infectious etiology, risk factors, pathogenesis, clinical features, complications, diagnosis, management, prevention and control of musculoskeletal disorders.	▪ Interactive lectures ▪ Discussion ▪ Case studies ▪ PBL 10% ▪ Office hours ▪ Self learning	▪ Quizzes ▪ Final written exam
(B) Alignment of Course Intended Learning Outcomes (Intellectual Skills) to Teaching Strategies and Assessment Methods:			
	Course Intended Learning Outcomes	**Teaching Strategies**	**Assessment Strategies**
b1	Distinguish between physiological and pathological performance of body cells.	▪ Interactive lectures ▪ Seminars ▪ Lab experiments ▪ Discussion ▪ Case studies	▪ Quizzes ▪ Final written exam ▪ Final practical exam
b2	Appraise medical history, clinical features and laboratory/radiologic findings for the differential diagnosis of musculoskeletal diseases	▪ Interactive lectures ▪ Seminars ▪ Lab experiments ▪ Discussion ▪ Case studies	▪ Quizzes ▪ Final written exam ▪ Final practical exam
(C) Alignment of Course Intended Learning Outcomes (Professional and Practical Skills) to Teaching Strategies and Assessment Methods:			
	Course Intended Learning Outcomes	**Teaching Strategies**	**Assessment Strategies**
c1	Practice medical history taking, physical/clinical examination and laboratory investigations for the diagnosis of musculoskeletal diseases	▪ Lab experiments ▪ Training ▪ Case studies ▪ PBL 10%	▪ Final practical exam ▪ OSPE
c2	Perform on a model some routine technical and therapeutic procedures needed in musculoskeletal problems such as management of	▪ Interactive lectures ▪ Case studies ▪ PBL 10%	▪ Final practical exam ▪ OSPE

	fractures, dislocation.		

(D) Alignment of Course Intended Learning Outcomes (Transferable Skills) to Teaching Strategies and Assessment Methods:

	Course Intended Learning Outcomes	Teaching Strategies	Assessment Strategies
d1	Use the information technology and internet resources efficiently for self-learning and gaining up-to-date information in the areas of interest.	▪ Seminars ▪ Discussion ▪ Case studies ▪ Self-learning ▪ PBL 10%	▪ Oral discussion ▪ Homework ▪ Teamwork
d2	Act independently or collaboratively as a member of teamwork and communicate effectively with others.	▪ Seminars ▪ Discussion ▪ Case studies ▪ Self-learning ▪ PBL 10%	▪ Oral discussion ▪ Homework ▪ Teamwork

IV. Course Contents:

A. Theoretical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
1	**Anatomy**	I. Head & Neck Skull & cervical vertebrae (General identification) Scalp & temple Face Posterior triangle Anterior triangle Suboccipital triangle Infratemporal region Midline structures of the neck Cervical sympathetic trunk Parasympathetic supply of head & neck Sphenoplatine fossa	10	40	a1,a2,a3, b1,b2, d1,d2

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
		Cervical fascia, carotid & jugular system Cranial nerves Lymph drainage of head & neck Surface, radiological and clinical anatomy II. Lower Limb Bones of lower limb Superficial structures & Saphenous system Femoral triangle Femoral vessels & nerves Anterior compartment of thigh Medial compartment of thigh Adductor canal Obturator vessels & nerves Gluteal region Sciatic foraminae & sciatic nerve Posterior compartment of thigh Popliteal fossa Popliteal vessels & nerves Anterior compartment of leg & extensor retinaculum Lateral compartment of leg & peroneal retinacula Posterior compartment of leg & flexor retinacula Arches of foot & its congenital anomalies Segmental & cutaneous innervation Lymph drainage Surface anatomy of arteries Nerve injuries of lower limb – Joints & their injuries			
2	**Physiology**	Introduction to the nervous system Resting membrane potential of nerve	8	16	a1,a2,a3, b1,b2, d1,d2

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
		Nerve action potential Physiologic anatomy of skeletal muscle General & molecular mechanisms of muscle contraction Neuromuscular junction Excitation contraction coupling			
3	**Histology**	Skeletal muscles Cartilage Bone Joints Skin Breast	4	8	a1,a2, b1,b2, d1
4	**Pathology**	Bone Pathology: Hereditary & metabolic disorders Osteoporosis Fractures Osteomyelitis Bone tumors Joint Disorders: Osteoarthritis, Infectious arthritis, Rheumatoid arthritis Soft tissues Tumours: Classification, Etiology, Pathogenesis Diseases of Skeletal Muscles: Muscle atrophy, Muscle dystrophy, Myasthenia gravis Pathology of the skin: Disorders of Melanocytes Premalignant & Malignant disorders of epidermis Pathology of Breast: Developmental disorders Inflammatory conditions: Acute	10	20	a1,a2,a3, b1,b2, d1,d2

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
		mastitis, Fat necrosis & Duct ectasia Fibrocystic changes Proliferative breast disorders Benign tumours of breast Breast carcinoma • Disorders of male breast -			
5	**Microbiology:**	Definition, cause, pathogenesis, lab. Diagnosis of: Bacteria causing skin infections (Staphylococci, Streptococci (impetigo, Cellulitis) Closterdium perfringens (gas gangrene). Osteomyelitis Artheritis (Septic arthritis and rheumatoid arthritis) Leprosy and other Mycobacterial skin disease Mycobacterium marinum, Mycobacterium ulcerans Fungal infections of the skin: Superficial and cutaneous mycosis Malasia furfur (Pityriasis versicolor) Cutaneous dermatophytes of skin, hair and nails: Tinea (Ring warm), Tinea pedis, Tinea capitis, tinea imbricata, Tinea corporis, etc. Mucocutaneous lesions caused by viruses: Papilloma virus infection Pox virus cuases Molluscum	5	10	a1,a2,a3, b1,b2, d1,d2

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
		contagiosum Herpes simplex type 1 Coxsackie virus Human parvovirus (B19) Measles Rubella Varicella-Zoster virus Actinomyces Parasitic infections of muscle of the skin Leishmaniasis (Cutaneous & mucocutaneeous) Trypanosoma cruzi (Chaga's disease) Parasitic infections of muscle: Trichinella spiralis infection – Teania solium			
6	**Pharmacology**	Nonsteroidal anti-inflammatory drugs (NSAIDs) Antigout agents Skeletal muscle relaxants Local anesthetics	5	10	a1,a2, b1,b2,d1, d2
7	**Biochemistry**	Chemical constituent of skeletal muscles Molecular events in muscle contraction Sources of energy Synthesis of Heme & Myoglobin Metabolism of calcium & phosphorus	2	4	a1,a2, b1,b2,d1, d2
8	**Medicine**	Clinical picture, diagnosis, treatment	4	8	a1,a2,

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
		& prognosis of: Osteoarthritis Septic arthritis Osteoporosis & osteomalacia – Crystal deposition disease (Gout)			b1,b2,d1, d2
9	**Surgery**	… Clinical picture, diagnosis, treatment & prognosis of: Fractures: Types & treatment (including 1st aid) Upper & Lower limb fractures Complications of fractures Dislocation: Types, treatment & complications Dislocation of shoulder & elbow joints Congenital diseases: Club foot & CDH Orthopedic infections (osteomyelitis) ACL & Meniscus tears • Ligaments injuries Perths disease Casts: Advantages & disadvantages, complications & its treatment First aid of polytrauma	6	12	a1,a2, b1,b2,d1, d2
10	**Final Theoretical Exam**		7th	2	a1,a2, b1,b2
Number of Weeks /and Units Per Semester				**126**	

B. Case Studies and Practical Aspect:

No.	Tasks/ Experiments	Week Due	Contact Hours	Learning Outcomes (CILOs)
1	**Anatomy** Skull & cervical vertebrae (General identification) Scalp & temple Posterior triangle Anterior triangle Suboccipital triangle Infratemporal region Midline structures of the neck Cervical sympathetic trunk Cervical fascia, carotid & jugular system Cranial nerves Bones of lower limb Femoral triangle Anterior compartment of thigh Adductor canal Gluteal region Anterior compartment of leg & extensor Posterior compartment of leg & flexor retinacula Arches of foot & its congenital anomalies	**10**	20	b1,b2,c1,c2, d1,d2
2	**Pathology** **Osteomyelitis** **Bone tumors** **Soft tissues Tumours:** Classification, Etiology, Pathogenesis	**10**	20	b1,b2,c1,c2, d1,d2

No.	Tasks/ Experiments	Week Due	Contact Hours	Learning Outcomes (CILOs)
	Pathology of the skin: Disorders of Melanocytes Premalignant & Malignant disorders of epidermis Pathology of Breast: Developmental disorders Inflammatory conditions: Acute mastitis, Fat necrosis & Duct ectasia Fibrocystic changes Proliferative breast disorders Benign tumours of breast Breast carcinoma Disorders of male breast			
3	**Microbiology** Leprosy and other Mycobacterial skin disease Mycobacterium marinum, Mycobacterium ulcerans Actinomyces Parasitic infections of muscle: Trichinella spiralis infection Teania solium	**First 5 weeks**	10	**b2,c1,c2, d1,d2**
4	**Basic clinical skills** History taking and examination of a patient with urogenital problem	**Last 5 weeks**	10	**b2,c1,c2, d1,d2**
5	- **Final practical exam**	6th	2	b1,b2,c1,c2
Number of Weeks /and Units Per Semester			**62**	

V. Teaching Strategies of the Course:

- Interactive lectures
- Discussion
- Case studies

- Seminars
- PBL
- Office hours
- Self-learning
- Lab experiments

VI. Assessment Methods of the Course:

- Quizzes
- Final written exam
- Final practical exam
- OSPE
- Oral discussion & Homework

VIII. Schedule of Assessment Tasks for Students During the Semester:

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes
1	**Quizzes**	3rd	5	5%	a1,a2, b1,b2
2	**Oral discussion & Homework**	5th	15	15%	d1,d2
3	**Final Practical Exam & OSPE**	6th	30	30%	b1,b2,c1,c2
4	**Final Theoretical Exam**	7th	50	50%	a1,a2, b1,b2
Total			**100**	**100%**	

IX. Learning Resources:

1- Required Textbook(s):

1- S Standing, 2016, Gray's Anatomy: The Anatomical Basis of Clinical Practice, 41st Edition, Elsevier.

2- K E Barrett, S M Barman, S Boitano, H L Brooks, 2015, Ganong's Review of Medical Physiology, 25th Edition, New York, McGraw-Hill Medical Education.

3- L Junqueira, J Carneiro, 2005, Basic Histology. Text and Atlas, 11th Edition, New York, McGraw-Hill Medical.

4- R Goering, H Dockrell, M Zuckerman, P Chiodini, 2019, Mims' Medical Microbiology and Immunology, 6th Edition, Edinburgh, Elsevier.

5- V Kumar, A Abas, J Aster, 2017, Robbins Basic Pathology, 10th Edition, Elsevier.

6- M A Clark, R Finkel, J A Rey, K Whalen, 2011, Lippincott's Illustrated Reviews: Pharmacology, 5th Edition, Philadelphia, Lippincott Williams & Wilkins.

2- Essential References:

7- R S Snell, 2000, Clinical Anatomy for Medical Students, 6th Edition, Washington, Little, Brown and Company.

8- J E Hall, 2013, Guyton and Hall Textbook of Medical Physiology, 13th Edition, Philadelphia, Saunders.

9- V Kumar, A Abas, J Aster, 2020, Robbins & Cotran Pathologic Basis of Disease, 9th Edition, Philadelphia, Saunders.

10- C Ray, K J Ryan, 2003, Sherris Medical Microbiology: An Introduction to Infectious Diseases, 4th Edition, New York, McGraw-Hill Medical Education.

11- B Katzung, 2017, Basic and Clinical Pharmacology, 14th Edition, New York, McGraw-Hill Medical Education.

3- Electronic Materials and Web Sites etc.:

Websites:

1- The Visible Body Learn Site
https://www.visiblebody.com/learn/nervous

2- Medical news today
https://www.medicalnewstoday.com/articles/307076

X. Course Policies: (Based on the Uniform Students' By law (2007)

1	**Class Attendance:** Class Attendance is mandatory. A student is considered absent and shall be banned from taking the final exam if his/her absence exceeds 25% of total classes.
2	**Tardiness:** A student will be considered late if he/she is not in class after 10 minutes of the start time of class.
3	**Exam Attendance/Punctuality:** No student shall be allowed to the exam hall after 30 minutes of the start time, and shall not leave the hall before half of the exam time has passed.

4	**Assignments & Projects:** Assignments and projects must be submitted on time. Students who delay their assignments or projects shall lose the mark allocated for the same.
5	**Cheating:** Cheating is an act of fraud that results in the cancelation of the student's exam or assignment. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
6	**Forgery and Impersonation:** Forgery/Impersonation is an act of fraud that results in the cancelation of the student's exam, assignment or project. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply**.**
7	**Other policies:** The University official regulations in force will be strictly observed and students shall comply with all rules and regulations of the examination set by the Department, Faculty and University Administration.

Faculty of Medicine

Bachelor Program of Medicine and Surgery

Course Plan (Syllabus) of

Musculoskeletal system

Course Code. (A21P216)

I. Information about Faculty Member Responsible for the Course:								
Name of Faculty Member:		Office Hours						
Location& Telephone No.:	-----							
E-mail:	--@--.--	SAT	SUN	MON	TUE	WED	THU	

2023

II. General Information:

Prepared by:	Reviewed by:	Head of department	Quality Unit:	Dean of Medicine Faculty	Center of Development and Quality Assurance Dean
Assoc. prof. Sadeq Saad Abdulmogni	Dr. Aref Abdulmogni	Dr. Aref Abdulmogni	Dr. Fadhl Shujaa Al-deen	Dr. Salwa Al-Ghomeri	

	Course Title:	**Musculoskeletal system**				
	Course Code:	A21P216				
	Credit Hours:	**Credit Hours**	**Theory Contact Hours**		**Practical Contact Hours**	
			Lecture	**Tutorial/Seminar**	**Lab**	**Clinical**
		8	6	--	4	--
	Level/ Semester at which this Course is offered:	2nd Level / 1st Semester				
	Pre –Requisite (if any):	Physiology, Biochemistry, Anatomy Histology, Pathology and Pharmacology.				
	Co –Requisite (if any):	None				
	Program (s) in which the Course is Offered:	Bachelor of Medicine and surgery				
	Language of Teaching the Course:	English				
	Location of Teaching the Course:	Faculty of Medicine				
	Prepared by:	Assoc. prof. Sadeq Saad Abdulmogni				
11	**Date and Number of Approval by Council:**	2023				

III. Course Description:

This block aims to provide students with the basic, practical and some clinical knowledge, attitudes and skills concerning musculoskeletal system. Students will be exposed to fundamental concepts and practical issues in Anatomy, Embryology, Histology, Physiology, pathology, pharmacology and clinical skills in an integrated approach; they will apply such concepts to understand common disorders in these systems. Also, students will be exposed to important diseases in Medicine and Surgery that are closely linked to these systems.

IV. Course Intended Learning Outcomes (CILOs) :

Upon successful completion of the Course, student will be able to:

	A**. Knowledge and Understanding:**
a1	Describe the anatomical and histological structures as well as physiological functions of the bones ,muscles and joints in the normal and common pathological conditions
a2	Recognize the infectious and non-infectious etiology, risk factors, pathogenesis, clinical features, complications, diagnosis, management, prevention and control of musculoskeletal disorders.
	B**. Intellectual Skills:**
b1	Distinguish between physiological and pathological performance of body cells.
b2	Appraise medical history, clinical features and laboratory/radiologic findings for the differential diagnosis of musculoskeletal diseases
	C. Professional and Practical Skills:
c1	Practice medical history taking, physical/clinical examination and laboratory investigations for the diagnosis of musculoskeletal diseases
c2	Perform on a model some routine technical and therapeutic procedures needed in musculoskeletal problems such as management of fractures, dislocation.
	D. Transferable Skills:
d1	Use the information technology and internet resources efficiently for self-learning and gaining up-to-date information in the areas of interest.
d2	Act independently or collaboratively as a member of teamwork and communicate effectively with others.

I= Introduced, P=Practiced or M/A= Mastered/Advanced

IV. Course Contents:

A. Theoretical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
1	**Anatomy**	I. Head & Neck Skull & cervical vertebrae (General identification) Scalp & temple Face Posterior triangle Anterior triangle Suboccipital triangle Infratemporal region Midline structures of the neck Cervical sympathetic trunk Parasympathetic supply of head & neck Sphenoplatine fossa Cervical fascia, carotid & jugular system Cranial nerves Lymph drainage of head & neck Surface, radiological and clinical anatomy II. Lower Limb Bones of lower limb Superficial structures & Saphenous system Femoral triangle Femoral vessels & nerves Anterior compartment of thigh Medial compartment of thigh Adductor canal Obturator vessels & nerves Gluteal region Sciatic foraminae & sciatic nerve	10	40

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
		Posterior compartment of thigh Popliteal fossa Popliteal vessels & nerves Anterior compartment of leg & extensor retinaculum Lateral compartment of leg & peroneal retinacula Posterior compartment of leg & flexor retinacula Arches of foot & its congenital anomalies Segmental & cutaneous innervation Lymph drainage Surface anatomy of arteries Nerve injuries of lower limb – Joints & their injuries		
2	**Physiology**	Introduction to the nervous system Resting membrane potential of nerve Nerve action potential Physiologic anatomy of skeletal muscle General & molecular mechanisms of muscle contraction Neuromuscular junction Excitation contraction coupling	10	20
3	**Histology**	Skeletal muscles Cartilage Bone Joints Skin Breast	4	8
4	**Pathology**	Bone Pathology: Hereditary & metabolic disorders Osteoporosis	10	40

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
		Fractures Osteomyelitis Bone tumors Joint Disorders: Osteoarthritis, Infectious arthritis, Rheumatoid arthritis Soft tissues Tumours: Classification, Etiology, Pathogenesis Diseases of Skeletal Muscles: Muscle atrophy, Muscle dystrophy, Myasthenia gravis Pathology of the skin: Disorders of Melanocytes Premalignant & Malignant disorders of epidermis Pathology of Breast: Developmental disorders Inflammatory conditions: Acute mastitis, Fat necrosis & Duct ectasia Fibrocystic changes Proliferative breast disorders Benign tumours of breast Breast carcinoma • Disorders of male breast -		
5	**Microbiology:**	**Definition, cause, pathogenesis, lab. Diagnosis of:** **Bacteria causing skin infections (Staphylococci, Streptococci (impetigo, Cellulitis) Closterdium perfringens (gas gangrene).** **Osteomyelitis** **Artheritis (Septic arthritis and rheumatoid arthritis)** **Leprosy and other Mycobacterial skin disease Mycobacterium**	6	12

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
		marinum, Mycobacterium ulcerans **Fungal infections of the skin:** **Superficial and cutaneous mycosis Malasia furfur (Pityriasis versicolor)** **Cutaneous dermatophytes of skin, hair and nails:** **Tinea (Ring warm), Tinea pedis, Tinea capitis, tinea imbricata, Tinea corporis, etc.** **Mucocutaneous lesions caused by viruses:** **Papilloma virus infection** **Pox virus cuases Molluscum contagiosum** **Herpes simplex type 1** **Coxsackie virus** **Human parvovirus (B19)** **Measles** **Rubella** **Varicella-Zoster virus** **Actinomyces** **Parasitic infections of muscle of the skin Leishmaniasis (Cutaneous & mucocutaneeous) Trypanosoma cruzi (Chaga's disease)** **Parasitic infections of muscle:**		

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
		Trichinella spiralis infection – **Teania solium**		
6	**Pharmacology**	Nonsteroidal anti-inflammatory drugs (NSAIDs) Antigout agents Skeletal muscle relaxants Local anesthetics	6	12
7	**Biochemistry**	Chemical constituent of skeletal muscles Molecular events in muscle contraction Sources of energy Synthesis of Heme & Myoglobin Metabolism of calcium & phosphorus	2	4
8	**Medicine**	**Clinical picture, diagnosis, treatment & prognosis of:** **Osteoarthritis** **Septic arthritis** **Osteoporosis & osteomalacia** – **Crystal deposition disease (Gout)**	4	8
9	**Surgery**	… **Clinical picture, diagnosis, treatment & prognosis of:** **Fractures: Types & treatment (including 1st aid)** **Upper & Lower limb fractures** **Complications of fractures** **Dislocation: Types, treatment & complications** **Dislocation of shoulder & elbow**	6	12

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
		joints **Congenital diseases: Club foot & CDH** **Orthopedic infections (osteomyelitis)** **ACL & Meniscus tears** • **Ligaments injuries** **Perths disease** **Casts: Advantages & disadvantages, complications & its treatment** **First aid of polytrauma**		
10	**Final Theoretical Exam**	MCQs and essay questions.	7th	2
Number of Weeks /and Units Per Semester				**154**

B. Case Studies and Practical Aspect:

No.	Tasks/ Experiments	Week Due	Contact Hours
1	**Anatomy** Skull & cervical vertebrae (General identification) Scalp & temple Posterior triangle Anterior triangle Suboccipital triangle Infratemporal region Midline structures of the neck Cervical sympathetic trunk Cervical fascia, carotid & jugular system Cranial nerves	**10**	20

No.	Tasks/ Experiments	Week Due	Contact Hours
	Bones of lower limb Femoral triangle Anterior compartment of thigh Adductor canal Gluteal region Anterior compartment of leg & extensor Posterior compartment of leg & flexor retinacula Arches of foot & its congenital anomalies		
2	**Pathology** **Osteomyelitis** **Bone tumors** **Soft tissues Tumours:** Classification, Etiology, Pathogenesis Pathology of the skin: Disorders of Melanocytes Premalignant & Malignant disorders of epidermis Pathology of Breast: Developmental disorders Inflammatory conditions: Acute mastitis, Fat necrosis & Duct ectasia Fibrocystic changes Proliferative breast disorders Benign tumours of breast Breast carcinoma Disorders of male breast	**10**	20
3	**Microbiology** Leprosy and other Mycobacterial skin disease Mycobacterium marinum, Mycobacterium	**First 5 weeks**	10

No.	Tasks/ Experiments	Week Due	Contact Hours
	ulcerans Actinomyces Parasitic infections of muscle: Trichinella spiralis infection Teania solium		
4	**Basic clinical skills** History taking and examination of a patient with urogenital problem	**Last 5 weeks**	10
5	- **Final practical exam**	6th	2
Number of Weeks /and Units Per Semester			**62**

V. Teaching Strategies of the Course:

- Interactive lectures
- Discussion
- Case studies
- Seminars
- PBL
- Office hours
- Self-learning
- Lab experiments

VI. Assessment Methods of the Course:

- Quizzes
- Final written exam
- Final practical exam
- OSPE
- Oral discussion
- Homework

VIII. Schedule of Assessment Tasks for Students During the Semester:

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment
1	Quizzes	3rd	5	5%
2	Oral discussion & homework	5th	15	15%
3	Final Practical Exam & OSPE	6th	30	30%
4	Final Theoretical Exam	7th	50	50%
Total			100	100%

IX. Learning Resources:

1- Required Textbook(s):

12- S Standring, 2016, Gray's Anatomy: The Anatomical Basis of Clinical Practice, 41st Edition, Elsevier.

13- K E Barrett, S M Barman, S Boitano, H L Brooks, 2015, Ganong's Review of Medical Physiology, 25th Edition, New York, McGraw-Hill Medical Education.

14- L Junqueira, J Carneiro, 2005, Basic Histology. Text and Atlas, 11th Edition, New York, McGraw-Hill Medical.

15- R Goering, H Dockrell, M Zuckerman, P Chiodini, 2019, Mims' Medical Microbiology and Immunology, 6th Edition, Edinburgh, Elsevier.

16- V Kumar, A Abas, J Aster, 2017, Robbins Basic Pathology, 10th Edition, Elsevier.

17- M A Clark, R Finkel, J A Rey, K Whalen, 2011, Lippincott's Illustrated Reviews: Pharmacology, 5th Edition, Philadelphia, Lippincott Williams & Wilkins.

2- Essential References:

18- R S Snell, 2000, Clinical Anatomy for Medical Students, 6th Edition, Washington, Little, Brown and Company.

19- J E Hall, 2013, Guyton and Hall Textbook of Medical Physiology, 13th Edition, Philadelphia, Saunders.

20- V Kumar, A Abas, J Aster, 2020, Robbins & Cotran Pathologic Basis of Disease, 9th Edition, Philadelphia, Saunders.

21- C Ray, K J Ryan, 2003, Sherris Medical Microbiology: An Introduction to Infectious Diseases, 4th Edition, New York, McGraw-Hill Medical Education.

22- B Katzung, 2017, Basic and Clinical Pharmacology, 14th Edition, New York, McGraw-Hill

Medical Education.
3- Electronic Materials and Web Sites etc.:
Websites: 3- The Visible Body Learn Site https://www.visiblebody.com/learn/nervous 4- Medical news today https://www.medicalnewstoday.com/articles/307076

خطأ! لم يتم العثور على مصدر المرجع.خطأ! لم يتم العثور على مصدر المرجع.
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XI. Course Policies: (Based on the Uniform Students' Bylaw (2007)

1	**Class Attendance:** Class Attendance is mandatory. A student is considered absent and shall be banned from taking the final exam if his/her absence exceeds 25% of total classes.
2	**Tardiness:** A student will be considered late if he/she is not in class after 10 minutes of the start time of class.
3	**Exam Attendance/Punctuality:** No student shall be allowed to the exam hall after 30 minutes of the start time, and shall not leave the hall before half of the exam time has passed.
4	**Assignments & Projects:** Assignments and projects must be submitted on time. Students who delay their assignments or projects shall lose the mark allocated for the same.
5	**Cheating:** Cheating is an act of fraud that results in the cancelation of the student's exam or assignment. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
6	**Forgery and Impersonation:** Forgery/Impersonation is an act of fraud that results in the cancelation of the student's exam, assignment or project. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
7	**Other policies:** The University official regulations in force will be strictly observed and students shall comply with all rules and regulations of the examination set by the Department, Faculty and University

	Administration.