

**Musculo-Skeletal System and Skin**  
*Lectures and Laboratory Sessions Outline*  
 Course number: 500282  
 Second Semester 2021/2022  
 5 Credit hours

Subject	Number	Topic
Physiology	1	Action potential and neuromuscular junction
	2	Excitation – contraction coupling
	3	Skeletal muscle contraction-1
	4	Skeletal muscle contraction-2
Pathology	1	Basic structure and function of the bone
	2	Congenital diseases of bone and cartilage
	3	Metabolic disorders of bone
	4	Paget disease of bone
	5	Fractures
	6	Osteonecrosis
	7	Osteomyelitis
	8	Bone tumors and tumor-like conditions
	9	Arthritis
	10	Joint tumors and tumor-like conditions/ Soft tissue tumors
Microbiology	1	Viral skin lesions
	2	Fungal skin lesions
	3	Bacterial skin lesions
	4	Diabetic foot
	5	Osteomyelitis
	6	Muscle infections
	7	Septic arthritis
Pharmacology	1	Drugs For Skin Disease-1
	2	Drugs For Skin Disease-2
	3	Skeletal Muscle Relaxant-1
	4	Skeletal Muscle Relaxant-2
	5	Antiinflammatory Drugs-1
	6	Antiinflammatory Drugs-2
	7	Drugs For Gout
Anatomy	1	Skull-1 (Norma frontalis, lateralis, occipitalis and verticalis)
	2	Skull-2 (Norma basalis externa and interna)
	3	General concepts of head and neck anatomy
	4	Scalp 1 (Layers, innervations and blood supply)
	5	Scalp 2 (Layers, innervations and blood supply)
	6	Face (Muscles of facial expression, innervations and blood supply)
	7	Cranial cavity-1 (Meninges, dural folds and sinuses)
	8	Cranial cavity-2 (Meninges, dural folds and sinuses)
	9	Orbit-1 (Orbital walls and extraocular muscles)
	10	Orbit-2 (Nerves and blood vessels of the orbit, eyelids and lacrimal apparatus)
	11	Eyeball-1 (Coats and contents)
	12	Eyeball-2 (Histology of cornea and retina)
	13	Ear-1 (External and middle ear)
	14	Ear-2 (Inner ear)
	15	Temporal and infratemporal fossa-1
	16	Temporal and infratemporal fossa-2
	17	Neck-1 (Muscles and cervical plexus)
	18	Neck-2 (Fascial layers of the neck, compartments and spaces Lymphatic drainage of head and neck)
	19	Neck-3 (Triangles, borders and contents)

	20	Extracranial course of cranial nerves/ Clinical case presentations
	21	Vertebral column
	22	Diaphragm
	23	Thoracic cage
	24	Muscles of the back
<b>Embryology</b>	1	Craniofacial development/ Branchial arches
	2	Craniofacial development/ Face and palate
<b>Histology</b>	1	Skin histology 1
	2	Skin histology 2
<b>Clinical</b>	1	Spine disorders
	2	Extra and intracranial hematoma
<b>Physiology lab</b>	<b>Lab 1</b>	Simple muscle twitch, Summation, Treppe phenomenon, Tetanization and Fatigue
<b>Anatomy lab</b>	<b>Lab 1</b>	Norma frontalis, lateralis, occipitalis, verticalis and basalis interna of skull
	<b>Lab 2</b>	Norma basalis externa of skull Mandible Foramina for cranial nerves Temporal and infratemporal fossae
	<b>Lab 3</b>	Muscles of Face Dural folds and sinuses Vertebral column Diaphragm
	<b>Lab 4</b>	Orbital walls, foramina and fissures Extra ocular muscles Eyeball dissection
	<b>Lab 5</b>	Muscles of the neck Muscles of Mastication Ear Thoracic cage (ribs and sternum)

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### Recommended books

**Anatomy:**

- 1- Clinical Anatomy by Snell, R., 7<sup>th</sup> edition.
- 2- Gray's Anatomy for Students, 3<sup>rd</sup> edition, by Richard Drake, A. Wayne Vogl, Adam W. M. Mitchell

**Physiology:**

Guyton and Hall Textbook of medical physiology, 13th edition, Hall.

**Pathology:**

Robbins Basic Pathology by Vinay Kumar, Abul Abbas, and Jon Aster, 10<sup>th</sup> edition.

**Histology:**

Junqueira's Basic Histology: Text and Atlas, by Anthony L. Mescher, 15<sup>th</sup> edition.

**Microbiology:**

- 1- Harrison's Infectious Diseases, Third Edition 3rd Edition by Dennis Kasper and Anthony Fauci
- 2- Review of Medical Microbiology & Immunology: A Guide to Clinical Infectious Diseases by Warren Levinson

**Pharmacology:**

- 1- Basic and Clinical Pharmacology, 13th edition, Katzung, Trevor.
- 2- Modern Pharmacology with clinical applications by Craig & Stitzel, 6<sup>th</sup> edition.

**Embryology:**

Langman's Medical Embryology by Sadler, 12<sup>th</sup> edition.