Course Specifications

General Information

Course name	Skin and Locomotor System
Course number	MDCN3624
Faculty	
Department	
Course type	Major Needs
Course level	3
Credit hours (theoretical)	6
Credit hours (practical)	0
Course Prerequisites	

Course Objectives

1 - Understand the anatomy, physiology, and histology of the musculoskeletal system and skin

2 - Describe the structure and function of bones, joints, muscles, and skin layers

3 - Explain the processes involved in musculoskeletal and skin development

Intended Learning Outcomes

Knowledge and Understanding

* Demonstrate a solid understanding of the anatomical structures, physiological functions, and histological features of the musculoskeletal system and skin
* Recognize and describe common musculoskeletal and skin conditions encountered in clinical practice, including their signs, symptoms, and underlying pathophysiology.
* Recognize the characteristics of microorganisms that cause infections of the locomotor system and skin, their pathogenicity and methods of identification

Course Contents

1 - Anatomy of Bones and joints of Shoulder girdle
2 - Histology of Skin and Muscle Histology of Cartilage & Bones
3 - Structure and Function of different components in the Skin-Physiology
4 - The Role of the Skin in Thermoregulation and Water Regulation-physiology
5 - Brachial plexus anatomy
6 - Cubital fossa, Bones of forearm and hand Muscles, vessels and nerves of forearm Elbow, wrist, carpus and fingers joints The Hand -Palm and dorsum of the hand Pelvis/ innominate bones of the lower limb, The thigh compartments, muscles and nerves, Lumbo-sacral plexus and vascular structures of lower limb Popliteal fossa, Muscles, vessels and nerves of the leg, The region of the Ankle, The foot bones, joints and muscles The foot as functional unit The Vertebral Column, Bones & Joints The spinal Muscles, Blood Vessels, & Nerves, The Spinal Cord
7 - Development of Skeletal Muscles Development of Limbs and Vertebra
8 - Biochemical & Metabolic basis of diseases related to Collagen & Elastin Metabolism Biochemistry of Melanin & effect of UV Radiation (Characteristic of Melanin) --- (Tyrosine Metabolism Albinism)
9 - Calcification, Bone turn over, Vitamin D effect, Osteoporosis, Rickitts. Glycogen Storage Diseases
10 - Diseases with Abnormal Matrix Osteomyelitis and Paget Disease
11 - Arthritis. Bone Tumors
12 - Diseases of Skeletal Muscles. Soft Tissue Tumors
13 - NSAIDs & Paracetamol (Acetaminophen). Disease modifying Anti-Rheumatic Drugs. Drugs used for Gout Skeletal Muscle Relaxants
14 - Acute and Chronic Inflammatory Dermatoses, Blistering Diseases Skin Tumors
15 - Bacterial Infections of Skin Parasitic Infections of Skin Viral Infections of Skin Fungal Infections of Skin
16 - Pharmaceutical preparations of Skin disorders: Drugs for Eczema, Acne, Seborrheic dermatitis, Vitiligo & Psoriasis. Drugs used for Leprosy and Leishmania
17 - Immunological diseases of Skin and Locomotor system

Teaching and Learning Methods

1 - Theoretical sessions
2 - Practical sessions

Students Assessment

Assessment Method	TIME	MARKS
First paper- Normal	End of module	45
Practical Exam	End of module	25
Second paper- Abnormal	End of module	30

Books and References

Recommended books
- Clinical anatomy by systems, R.S. Snell, (latest edition)
- Human Physiology (An Integrated Approach), D U Silverthorn (latest edition)
- Lehninger Principles of Biochemistry, Lehninger, Nelson and Cox (latest edition)
- Pharmacology, Lippincott's Illustrated Review, (latest edition)
- Basic Histology, by L.Carlos Junqueira, Jose Carneiro, Bobert O. Kelley, (latest edition)
- Basic Pathology, Kumar, W.B. Saunders, (latest edition)
- Review of Medical Microbiology and Immunology, Levinson, W. (latest edition)