Special Topics in Medical Sciences

Course Outline

Unit 1: Anatomy and Biomechanics

Lecture 1: Bony structure

Lecture 2: Soft tissue

Lecture 3: the intervertebral disc

Lecture 4: Biomechanics

Quiz

Unit 2: Assessment of the lumbar spine

Lecture 1: History taking

Lecture 2: Observation

Lecture 3: Palpation

Lecture 4: Examination

Quiz

Unit 3: Common pathologies of the lumbar spine

Lecture 1: Intervertebral disc pathology

Lecture 2: Spondylosis

Lecture 3: Spondylolysis

Lecture 4: Spondylolisthesis

Quiz

Unit 4: Treatment techniques for the lumbar spine

Lecture 1: Vertebral mobilization

Lecture 2: Stretching exercise

Lecture 3: McKenzie approach

Lecture 4: Neurodynamics

Quiz

Unit 5: Defining Pain

Lecture 1: Current and Proposed Definitions of Pain

Lecture 2: Acute and Chronic Pain

Quiz

Unit 6: Pain Stories

Lecture 1: Amazing Stories

Lecture 2: Pain and Context

Lecture 3: Pain and Expectations

Quiz

Unit 7: Pain Theories

Lecture 1: Gate Control Theory

Lecture 2: Neuromatrix Theory

Lecture 3: The Cortical Body Matrix Theory

Quiz

Unit 8: Why does pain persist?

Lecture 1: Biology of persistent pain and Nociception

Lecture 2: Peripheral Sensitization

Lecture 3: Central Sensitization

Quiz

Unit 9: Principles of Management

Lecture 1: Explaining Pain

Lecture 2: Managing expectations and beliefs

Lecture 3: Graded Motor Imagery

Quiz

Unit 10: Anatomy and biomechanics of cervical spine

Lecture 1: Osteology of cervical spine

Lecture 2: Myology of cervical spine

Lecture 3: Bony landmarks

Lecture 4: Biomechanics of cervical spine

Quiz

Unit 11: Clinical features of cervical spine disorders

Lecture 1: Clinical Classifications of Neck Pain

Quiz

Unit 12: Cervical spine assessment

Lecture 1: Cervical Spine Assessment

Quiz

Unit 13: Evidence-based treatment

Lecture 1: Cervical Spine Treatment

Quiz