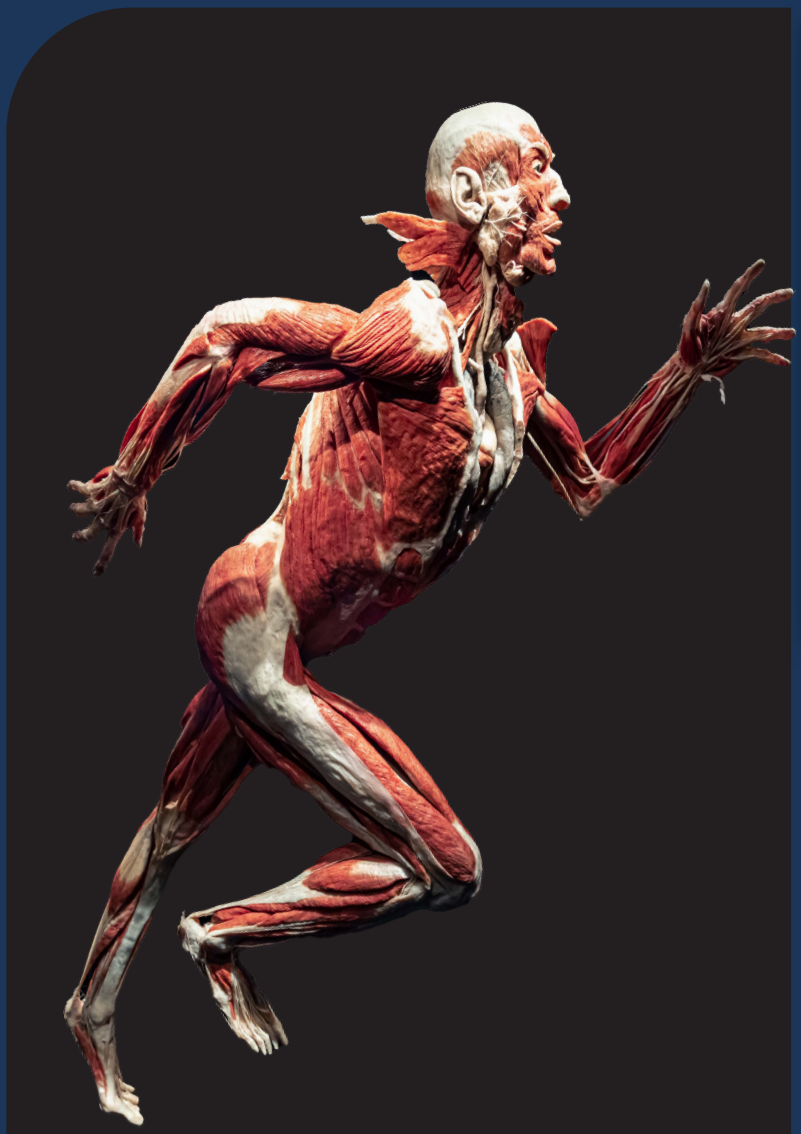

AN6021
Fundamentals of Human Motion

MODULE GOAL

To enable learners develop an understanding of the anatomical basis of the biomechanics of the musculoskeletal system in the normal anatomical state and in altered states due to injury, age and disease.

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ENABLING BETTER SAFER HEALTHCARE

MODULE CONTENT

This module will cover the biomechanics of the musculoskeletal system; articular surface geometry, muscle force orientation and mechanical ligamentous constraints. The main emphasis is on living, functional anatomy in the normal anatomical state and the changes due to injury, age or disease.

LEARNING OUTCOMES

On successful completion of this module, students should be able to:

- Identify the features of the musculoskeletal system.
- Discuss the morphology of the main joints of the human axial skeleton and limbs and of the main muscle groups and forces moving them.
- Describe the organisation of the trunk, head and neck, and of the main muscle groups and forces moving them.
- Identify the mechanisms by which these joint movements are brought about and how these may be altered due to injury, age or disease.
- Display critical thinking skills in the discussion of the module content in relation to the design and development of medical devices and technologies.

TEACHING METHOD

20 hrs Online asynchronous activities
2 hrs Online synchronous activities
2 x 3hr Lab sessions

ASSESSMENT

E-activities: 4 x MCQ / SAQ quizzes (80 Marks)
Discussion Board(s): discussion to apply module content appropriately with reference to Medical Technology Design and Development (20 Marks)

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