

Summary Information

Module Code	4103SPOSCI
Formal Module Title	Biomechanical Foundations
Owning School	Sport and Exercise Sciences
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 4
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
Sport and Exercise Sciences

Learning Methods

Learning Method Type	Hours
Lecture	24
Practical	4
Workshop	11

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
SEP-CTY	CTY	September	12 Weeks

Aims and Outcomes

Aims	The aim of this module is to introduce the basic principles of human anatomical structure and biomechanics and to illustrate applications of these principles in sport, exercise and health. The module also aims to provide an introduction to experimental methods in biomechanics and to develop skills in data handling.
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Describe human anatomical structure and function and apply these concepts to sport, exercise and health
MLO2	2	Apply concepts and techniques of biomechanics to sport and exercise

Module Content

Outline Syllabus	Anatomical terminology Tissue organisation and structure Skeletal Muscle structure and function Functional anatomy of the musculoskeletal system Linear motion Angular motion 2D video analysis Forces (Newton's Laws) Jump analysis Applications in biomechanical contexts
Module Overview	This module introduces you to the basic principles of human anatomical structure and biomechanics and illustrates applications of these principles in sport, exercise and health. The module also aims to introduce you to experimental methods in biomechanics and develops your skills in data handling.
Additional Information	Your knowledge of and understanding of structural and functional anatomy will be developed along with the mechanical principles that govern human movement. This will be evaluated by the completion of the relevant assessment tasks. You will be expected to engage with interactive resources that facilitate self directed exploration of the human body, functional movement and anatomical principles.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Test	Online anatomy test	50	0	MLO1
Centralised Exam	Biomechanics MCQ Exam	50	1	MLO2

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Richard Foster	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings