

Liverpool John Moores University

Title: BIOMECHANICAL ASSESSMENT IN SPORT AND EXERCISE
Status: Definitive
Code: **7115SPOSCI** (124283)
Version Start Date: 01-08-2021

Owning School/Faculty: Sport and Exercise Sciences
Teaching School/Faculty: Sport and Exercise Sciences

Team	Leader
Mark Robinson	Y
Bill Baltzopoulos	
Mark Lake	

Academic Level: FHEQ7 **Credit Value:** 20 **Total Delivered Hours:** 24

Total Learning Hours: 200 **Private Study:** 176

Delivery Options

Course typically offered: Semester 2

Component	Contact Hours
Lecture	14
Practical	10

Grading Basis: 50 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Essay	AS1	Concisely written proposal (1200 words)	50	
Report	AS2	Laboratory or field-based assessment report (1800 words)	50	

Aims

This module aims to provide the conceptual and practical knowledge base that develops and extends the understanding of biomechanical assessment. Biomechanical assessment has a role in performance evaluation, in injury prevention, and in injury rehabilitation. This module exposes students to the current

issues relating to biomechanical assessment in a theoretical and practical context and prompts self-awareness of the skills required to conduct biomechanical assessments.

Learning Outcomes

After completing the module the student should be able to:

- 1 Propose an evidence-based biomechanical assessment protocol in the context of performance enhancement, injury prevention, or injury rehabilitation.
- 2 Audit the skills required to conduct biomechanical assessments.
- 3 Conduct a biomechanical assessment and produce a suitable report.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Assessment proposal	1	2
Assessment report	3	

Outline Syllabus

Module content includes:

Biomechanical Assessment Fundamentals

Undertaking a skills audit

Injury Screening Diagnostics and Risk

Performance Enhancement

Assessment of Sports Equipment

Return to play assessment

Functional Rehabilitation of muscle strength

Guest lectures from expert practitioners

Learning Activities

The module aims at providing a theoretical and practical background that enables you to create and understand a biomechanical assessment in sport and exercise. Lectures will primarily cover the evidence-base behind certain tests, or the lack of it. These lectures will generally be complemented with a lab session to get exposed to the actual tests.

Notes

Our world-class Biomechanics laboratories house cutting edge equipment waiting for you to use. Optoelectronic cameras enable 3D movement capture, force and pressure platforms give information about global and local loads and wearable accelerometers. See our Biomechanics section on the RISES website for staff

research which feeds into your studies.