

Liverpool John Moores University

Title: BIOMECHANICS OF FOOTBALL
Status: Definitive
Code: **5103SPFOOT** (123219)
Version Start Date: 01-08-2021

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

Team	Leader
Mark Lake	Y

Academic Level: FHEQ5
Credit Value: 20
Total Delivered Hours: 48
Total Learning Hours: 200
Private Study: 152

Delivery Options

Course typically offered: Semester 2

Component	Contact Hours
Lecture	22
Off Site	8
Practical	4
Seminar	6
Workshop	6

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	Report	Analysis Report	50	
Exam	Exam	Exam	50	2

Aims

The aim of this module is examine biomechanics of football skills and risk factors for injury. The module develops the students understanding of biomechanical factors related to football skills, equipment and injury prevention.

Learning Outcomes

After completing the module the student should be able to:

- 1 Conduct an experimental analysis of a football skill and interpret the findings
- 2 Evaluate a football skill from a biomechanical perspective
- 3 Evaluate injury risk in football from a biomechanical perspective.

Learning Outcomes of Assessments

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

Analysis Report	1	
Exam	2	3

Outline Syllabus

Introduction to methods used in football biomechanics research.

Fundamental review of motion and force measurement.

Performance analysis of a football skill.

Collection of kinematic data for assessment of a football skill.

Invited speaker on biomechanical analysis of elite soccer performance.

Assessing the equipment (boots and surfaces) used in football.

Biomechanical support of elite performers in relation to performance and injury prevention.

Learning Activities

Lectures. Laboratory practicals to collect data on sports skills. Tutorials on the use motion capture software to quantify motion characteristics. Data processing with a step-by-step guide. Online tasks to explore further data analysis and processing examples and expand problem solving skills.

Notes

This module focuses on the quantification of football skills from both a performance and injury prevention perspective. They experience kinematic data collection in the laboratory and how the data is processed towards final assessment of the performance or risk factors for injury. Sports injury aspects are also expanded with taught material on football equipment (boots and surfaces).