Module specification

When printed this becomes an uncontrolled document. Please access the Module Directory for the most up to date version by clicking on the following link: Module directory

Refer to guidance notes for completion of each section of the specification.

Module Code	SPT321
Module Title	Understanding Human Movement
Level	3
Credit value	20
Faculty	FSLS
HECoS Code	100433
Cost Code	GASP

Programmes in which module to be offered

Programme title	Is the module core or option for this programme
BSc (Hons) Applied Sport and Exercise Sciences Foundation Year	Core

Pre-requisites

N/A

Breakdown of module hours

Learning and teaching hours	20 hrs
Placement tutor support	0 hrs
Supervised learning e.g. practical classes, workshops	20 hrs
Project supervision (level 6 projects and dissertation modules only)	0 hrs
Total active learning and teaching hours	**40** hrs
Placement / work based learning	0 hrs
Guided independent study	160 hrs
Module duration (total hours)	200 hrs

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Initial approval date	08/12/2022
With effect from date	01/09/2022

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Date and details of revision	
Version number	1

Module aims

The module aims to:

- Introduce Sports Biomechanics and its underpinning theories and approaches to the student
- Establish key terminology used within the discipline
- Demonstrate the interrelationship between physiology, psychology and performance analysis
- Introduce the concepts of qualitative and quantitative approaches to biomechanics
- Introduce the relationship between physics and the sport and exercise environment
- Provide a foundation of mathematical knowledge relevant to the area

Module Learning Outcomes - at the end of this module, students will be able to:

1	Describe, using appropriate terminology, biomechanical principles relating to sports science
2	Demonstrate the use of quantitative biomechanics within a sporting environment
3	Demonstrate the use of qualitative biomechanics within a sporting environment
4	Demonstrate an ability to use basic mathematical functions to determine biomechanical concepts

Assessment

Indicative Assessment Tasks:

This section outlines the type of assessment task the student will be expected to complete as part of the module. More details will be made available in the relevant academic year module handbook.

Assessment Tasks:

In-Class Test – Students will be asked to complete a multiple-choice questionnaire designed to test the biomechanical knowledge students have gained during the lectures, seminars, workshops and independent learning opportunities.
The MCQ will be 1 hour in duration and submitted through Moodle.

Assessment number	Learning Outcomes to be met	Type of assessment	Weighting (%)
1	1, 2, 3, 4	In-class test	100

Derogations

N/A

Learning and Teaching Strategies

This module will be taught through a series of lectures, seminars, workshops and blended learning. The strategy is to allow the student to experience as closely as possible the impact biomechanics has on human movement and sporting capacity.
This will be supported through the use of the VLE, Moodle. Taught content will be made available in various formats to support student learning away from the classroom.

Indicative Syllabus Outline

- Biomechanics in sport
- The biomechanics / physiology relationship
- The biomechanics / psychology relationship
- The biomechanics / performance analysis relationship
- What are qualitative biomechanics?
- What are quantitative biomechanics?
- The effects of physics on human movement
- The use of mathematics in biomechanics

Indicative Bibliography:

Please note the essential reads and other indicative reading are subject to annual review and update.

Essential Reads

Watkins, J. (2014), *Fundamentals Biomechanics of Sport and Exercise,* London: Routledge.

Other indicative reading

Spathopoulos, V. M. (2013), *An Introduction to the Physics of Sports*, London: CreateSpace Independent Publishing Platform.

Williams, C., James, D., and Wilson, C. (2008), *Mathematics and Science for Exercise and*

Sport: The Basics, London: Routledge.
Jordan, S., Ross, S., and Murphy, P. (2012), *Maths for Science*, Oxford: Open University.

Neill, Hugh., and Johnson, T. (2018), *Mathematics: A complete Introduction: The Easy Way to Learn Maths (Teach Yourself)*, London: Teach Yourself.

McCaw, S. (2014), *Biomechanics for Dummies*, London: John Wiley and Sons.

Rea, S. (2015), *Sports Science: A complete Introduction: Teach Yourself,* Oxford: Open University.

Employability skills – the Glyndŵr Graduate

Each module and programme is designed to cover core Glyndŵr Graduate Attributes with the aim that each Graduate will leave Glyndŵr having achieved key employability skills as part of their study. The following attributes will be covered within this module either through the content or as part of the assessment. The programme is designed to cover all attributes and each module may cover different areas.

Core Attributes
Engaged
Enterprising
Creative
Ethical

Key Attitudes
Commitment
Curiosity
Resilience
Confidence
Adaptability

Practical Skillsets
Digital Fluency
Organisation
Critical Thinking
Emotional Intelligence
Communication