

<b>Module Title:</b>	Sport and Exercise Biomechanics 1
<b>Language of Instruction:</b>	English
<b>Credits:</b>	5
<b>NFQ Level:</b>	6
<b>Module Delivered In</b>	<a href="#">2 programme(s)</a>
<b>Teaching &amp; Learning Strategies:</b>	The module will comprise two one-hour lectures and one two-hour practical class for 12 weeks. Lecture notes and announcements will be available on Blackboard, a virtual learning environment. Practical classes will be delivered in the Human Performance Laboratory and practical notes will be available on Blackboard.
<b>Module Aim:</b>	To develop the student's knowledge and understanding of biomechanics when applied to sport and exercise. To introduce the student to equipment and protocols related to quantitative analysis of human movement.
<b>Learning Outcomes</b>	
<i>On successful completion of this module the learner should be able to:</i>	
LO1	Explain concepts in relation to linear and angular kinetics and kinematics; work, power, and energy when applied to human movement.
LO2	Develop the ability to employ experimental biomechanical techniques to assess human movement.
LO3	Collect, analyze and interpret biomechanical data of a human movement and present the findings.
<b>Pre-requisite learning</b>	
<b>Module Recommendations</b> <i>This is prior learning (or a practical skill) that is recommended before enrolment in this module.</i>	
No recommendations listed	
<b>Incompatible Modules</b> <i>These are modules which have learning outcomes that are too similar to the learning outcomes of this module.</i>	
No incompatible modules listed	
<b>Co-requisite Modules</b>	
No Co-requisite modules listed	
<b>Requirements</b> <i>This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.</i>	
Successful completion of year 1 or equivalent.	

## Module Content & Assessment

### Indicative Content

#### Theory

Literature and related equations for the following topics: linear and angular kinetics and kinematics; projectiles; work, power, and energy.

#### Practical

The practical classes will develop the student's ability to collect and assess quantitative biomechanical data using appropriate equipment and protocols. The student will learn how to undertake a quantitative analysis of human movement.

Assessment Breakdown	%
Continuous Assessment	60.00%
Project	40.00%

### Continuous Assessment

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Examination	Two written examinations to be held during lecture time. Each examination will weigh 30% of the total continuous assessment weight.	1,2	60.00	n/a

### Project

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Project	A 2000 word typed project on a topic covered during practical class time.	2,3	40.00	n/a

No Practical

No End of Module Formal Examination

SETU Carlow Campus reserves the right to alter the nature and timings of assessment

**Module Workload**

<b>Workload: Full Time</b>		
<i>Workload Type</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>
Lecture	12 Weeks per Stage	2.00
Practicals	12 Weeks per Stage	2.00
Independent Learning	15 Weeks per Stage	5.13
Total Hours		125.00

**Module Delivered In**

Programme Code	Programme	Semester	Delivery
CW_SASPS_B	<a href="#">Bachelor of Science (Honours) in Sport and Exercise Science</a>	4	Mandatory
CW_SASAC_B	<a href="#">Bachelor of Science (Honours) in Strength and Conditioning</a>	4	Mandatory