ZBIO C2107: Sport and Exercise Biomechanics 1

Module Title:	Sport and Exercise Biomechanics 1
Language of Instruction:	English

Credits:	5

NFQ Level:	6

Module Delivered In	2 programme(s)

Teaching & Learning Strategies:	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 wil be available on Blackboard.

Module Aim:	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.

Learning Outcomes	
On successful completion of this module the learner should be able to:	
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.

Pre-requisite learning
Module Recommendations *This is prior learning (or a practical skill) that is recommended before enrolment in this module.*
No recommendations listed
Incompatible Modules *These are modules which have learning outcomes that are too similar to the learning outcomes of this module.*
No incompatible modules listed
Co-requisite Modules
No Co-requisite modules listed
Requirements *This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.*
Successful completion of year 1 or equivalent.

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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

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Module Workload

Workload: Full Time		
Workload Type	*Frequency*	*Average Weekly Learner Workload*
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	Bachelor of Science (Honours) in Sport and Exercise Science	4	Mandatory
CW_SASAC_B	Bachelor of Science (Honours) in Strength and Conditioning	4	Mandatory