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| 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 will 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 | |
| <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. |
| Pre-requisite learning | |
| Module Recommendations <i>This is prior learning (or a practical skill) that is recommended before enrolment in this module.</i> | |
| No recommendations listed | |
| Incompatible Modules <i>These are modules which have learning outcomes that are too similar to the learning outcomes of this module.</i> | |
| No incompatible modules listed | |
| Co-requisite Modules | |
| No Co-requisite modules listed | |
| Requirements <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% |

Special Regulation

Students must achieve a minimum grade (35%) in the project and CA.

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

| Workload: Full Time | | |
|----------------------------|--------------------|--|
| <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 | Bachelor of Science (Honours) in Sport and Exercise Science | 4 | Mandatory |
| CW_SASAC_B | Bachelor of Science (Honours) in Strength and Conditioning | 4 | Mandatory |