

# ZBIO C3101: Sport and Exercise Biomechanics 2

| Module Title:<br>Language of Instruct               | tion:      | Sport and Exercise Biomechanics 2<br>English  |  |  |
|---|------------|---|--|--|
|   | tion:      | English   |  |  |
| Credits:  |            |   |  |  |
|   | 5          |   |  |  |
| NFQ Level:  | 8          |   |  |  |
| NFQ Level:  | 0          |   |  |  |
| Module Delivered In                                 |            | 2 programme(s)  |  |  |
| Teaching & Learning<br>Strategies:                  | I          | This module will be delivered in two one-hour lectures and one two-hour laboratory class per week. Any course-related issues or questions that may arise will be discussed in lectures. Course lecture summaries, course calendar, announcements and other course-related material will be available on Blackboard, a virtual learning environment. Students can contact the lecturer outside of class hours to discuss formative feedback given on written reports and group project work. |  |  |
| Module Aim:   |            | To develop the students' knowledge and understanding of biomechanical concepts so that they can be applied to sport and exercise. To provide the student with the skills required to conduct a qualitative analysis. To enable students to become familiar with equipment and protocols in quantitative and qualitative analysis.   |  |  |
| Learning Outcomes                                   |            |   |  |  |
| On successful comple                                | tion of th | his module the learner should be able to:   |  |  |
| LO1 Develop   | the stu    | dent's knowledge of the application of biomechanical concepts in relation to sport and exercise.  |  |  |
| LO2 Collect,  | analyse    | and interpret biomechanical data of a sporting or functional movement and present a report.   |  |  |
| LO3 Explain   | the proc   | cesses involved in undertaking a qualitative analysis in sport and exercise.  |  |  |
| Pre-requisite learnin                               | g          |   |  |  |
| <i>Module Recommend</i><br>This is prior learning ( |            | ctical skill) that is recommended before enrolment in this module.  |  |  |
| No recommendations                                  | listed     |   |  |  |
| Incompatible Module<br>These are modules with       |            | e learning outcomes that are too similar to the learning outcomes of this module.   |  |  |
| No incompatible modules listed                      |            |   |  |  |
| Co-requisite Module                                 | s          |   |  |  |
| No Co-requisite modu                                | les listed |   |  |  |
| <b>Requirements</b><br>This is prior learning (     | or a prac  | ctical skill) that is mandatory before enrolment in this module is allowed.   |  |  |
| Successful completion                               | n of year  | 2 or equivalent   |  |  |



## ZBIO C3101: Sport and Exercise Biomechanics 2

## Module Content & Assessment

#### Indicative Content

#### Theory

The theoretical component will explore levers; qualitative analysis of selected human movements; fluid mechanics; muscle-tendon complex and the biomechanical assessment of various human movements.

#### Practical

Develop the student's ability to undertake qualitative analysis in sport and exercise. Expose the student to a variety of biomechanical devices in order to learn how to analyze human movement in sport and exercise.

| Assessment Breakdown             | %      |
|----------------------------------|--------|
| Continuous Assessment            | 20.00% |
| Practical                        | 40.00% |
| End of Module Formal Examination | 40.00% |

| Continuous Assessment |   |                      |               |                    |
|-----------------------|---|----------------------|---------------|--------------------|
| Assessment<br>Type    | Assessment Description  | Outcome<br>addressed | % of<br>total | Assessment<br>Date |
| Examination           | A written examination held during lecture time on topics covered in the lectures and practical classes. | 1                    | 20.00         | Week 9             |

### No Project

| Practical                      |   |                      |               |                    |
|--------------------------------|---|----------------------|---------------|--------------------|
| Assessment Type                | Assessment Description  | Outcome<br>addressed | % of<br>total | Assessment<br>Date |
| Practical/Skills<br>Evaluation | Conduct a qualitative analysis of a skill and present the analysis using a powerpoint presentation and respective software to the lecturer. | 2,3                  | 40.00         | Week 5             |

| End of Module Formal Exam | ination                       |                      |               |                 |
|---------------------------|-------------------------------|----------------------|---------------|-----------------|
| Assessment Type           | Assessment Description        | Outcome<br>addressed | % of<br>total | Assessment Date |
| Formal Exam               | A 2 hour written examination. | 1,3                  | 40.00         | End-of-Semester |

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



## ZBIO C3101: Sport and Exercise Biomechanics 2

### Module Workload

| Workload: Full Time     |                       |                                       |  |  |
|-------------------------|-----------------------|---------------------------------------|--|--|
| Workload Type           |                       | Average Weekly<br>Learner<br>Workload |  |  |
| Lecture                 | 12 Weeks<br>per Stage | 2.00                                  |  |  |
| Practicals              | 12 Weeks<br>per Stage | 2.00                                  |  |  |
| Estimated Learner Hours | 15 Weeks<br>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 | 5        | Mandatory |
| CW_SASAC_B          | Bachelor of Science (Honours) in Strength and Conditioning  | 5        | Mandatory |