SPRT: Human Performance and Athletic Assessment

Module Title:	Human Performance and Athletic Assessment
Language of Instruction:	English

Credits:	5

NFQ Level:	8

Module Delivered In	1 programme(s)

Teaching & Learning Strategies:	This module will be delivered through two one-hour lectures and one two-hour practical each week. Lectures will explore laboratory conduct, measurement and data handling, game/event demands, methods and protocols of physiological and biomechanical assessment of the athlete, normative data and performance characteristics, interpretation and analysis of test data, setting performance targets and evidence-based interventions to improve performance. The practical component will allow students to develop laboratory skills, problem solving abilities and gain skills essential for working in a performance/health testing environment. The classes are designed to promote deep learning via investigation of a problem, application of prior knowledge, analysis of results, synthesis of literature and reflection, thus, generating new knowledge. The practical work will comprise demonstration and instruction in testing methods, and data interpretation and analysis, and reporting. The primary focus, however, will be on developing students' practical skills, competence and confidence in conducting age- and competitive level appropriate sport-specific tests, interpreting the data and providing an evidence-based programme for improving performance. Independent learning will involve data analysis tasks, reading, and report writing.

Module Aim:	This module aims to develop the student's knowledge and practical skills, through the use of a multi-disciplinary approach, to complete an appropriate physiological assessment of the athlete, evaluate the data and prescribe an evidence-based programme to develop the athlete and improve athletic performance.

Learning Outcomes	
On successful completion of this module the learner should be able to:	
LO1	Perform graded incremental/maximal cardiorespiratory tests on the athlete, determine thresholds (ventilatory/lactate) and prescribe training for improved performance
LO2	Select and perform the appropriate methods and protocols for physiological assessment from a variety of field and laboratory based assessments of aerobic capacity, speed, power and agility, including various strength and power test protocols on a force plate and analyse the force time data.
LO3	Analyse, present and communicate (orally/written report) test data and evidence based recommendations to improve performance upon completion of the analysis.

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 3 or equivalent

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Module Content & Assessment

Indicative Content
Human performance and athletic assessment in sports The role of the sport scientist, commonly used assessments, sport specific assessments
Laboratory Practice Quality control, laboratory practices, Preparation of the testing environment, preparation of the athlete,
Test validity and reliability Test protocols, reliability and validity of test protocols, determining and reporting validity, typical error and reliability.
Needs Analysis How to conduct a needs analysis for sport/event, the role of normative data, test and game data in prescription of training recommendations, and training monitoring.
Test Protocols Conducting tests and recording data
Interpretation, analysis and reporting of test results Analysis of data, displaying data, generating the report, setting targets, using the data to monitor the athlete
Provision of recommendations Researching, writing and programming for improved performance
Practical 1. Lactate threshold testing, prescribing exercise programmes using lactate thresholds 2. Isokinetic and biomechanical assessments for sports 3. Strength assessment 4. Power assessment 5. Speed and agility 6. Field based physiological assessments

Assessment Breakdown	%
Project	50.00%
Practical	50.00%

Special Regulation
Students must achieve a minimum grade (35%) in both project and practical assessments

No Continuous Assessment

Project				
Assessment Type	*Assessment Description*	*Outcome addressed*	*% of total*	*Assessment Date*
Project	A detailed case study outlining engagement with an athlete for the identification and development of practical recommendations to improve performance.	1,2,3	50.00	End-of-Semester

Practical				
Assessment Type	*Assessment Description*	*Outcome addressed*	*% of total*	*Assessment Date*
Practical/Skills Evaluation	Conduct of appropriate sport/event specific physiological assessment protocols on an athlete demonstrating due consideration for good laboratory practice and communication of results	2,3	50.00	Week 14

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
Laboratory	12 Weeks per Stage	2.00
Estimated Learner Hours	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	7	Mandatory