Module Title:	Exercise Physiology 3
Language of Instruction:	English

Credits:	5

NFQ Level:	8

Module Delivered In	No Programmes

Teaching & Learning Strategies:	This module will be taught in two theory classes of one hour duration and one two hour practical/laboratory per week for 15 weeks. The theory classes will include lecture, Q&A, group discussion, digital content, and guest lecturers where appropriate. Practical work will involve demonstration, physiological assessment, group data collection, data handling, analyses and presentation, interpretation of physiological data and discussion.

Module Aim:	To provide the student with the scientific knowledge, physiological laboratory skills and experience in preparation of the athlete for performance

Learning Outcomes

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

LO1	Discuss the merits of, and acute and chronic adaptations to, various training types for developing optimal performance, including the application of the Lactate Threshold to endurance training, HIIT, MAS for team/individual athletes etc.
LO2	Explain the effects of environmental conditions (e.g. altitude, heat, cold, hyperbaric) on human physiology and, in particular, the athlete
LO3	Discuss the problems associated with exercise performance in varying environmental conditions (e.g. altitude, heat, cold, hyperbaric) and formulate recommendations for optimal athletic performance in these conditions
LO4	Critique the role of biological rhythms and sleep in the preparation of athletes for competition, and, discuss hormonal regulation of physiological processes regarding adaptation to exercise/conditions and overtraining syndrome.
LO5	Develop research and writing skills through the completion of a number of laboratory practical experiments.

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

Module Content & Assessment

Indicative Content
Training types: Lactate threshold, HIIT, MAS etc. n/a
Thermoregulation and exercise in the heat and cold n/a
Altitude, exercise at altitude and altitude training n/a
The hyperbaric environment n/a
Biological rhythms and performance n/a
Recovery from exercise n/a
Practical Determination of lactate threshold and heart rate response to incremental exercise, comparison of anaerobic capacity and power, HR response during maximal anaerobic speed training, force-velocity resistance training

Assessment Breakdown	%
Practical	40.00%
End of Module Formal Examination	60.00%

Special Regulation
Students must achieve a minimum grade (35%) in both the practical/CA and final examination

No Continuous Assessment

No Project

Practical					
Assessment Type	*Assessment Description*	*Outcome addressed*	*% of total*	*Assessment Date*	
Practical/Skills Evaluation	Laboratory Report	1,5	20.00	Sem 1 End	
Practical/Skills Evaluation	Laboratory Report Presentation	1,5	20.00	n/a	

End of Module Formal Examination				
Assessment Type	*Assessment Description*	*Outcome addressed*	*% of total*	*Assessment Date*
Formal Exam	2 hour final	1,2,3,4	60.00	End-of-Semester

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

Module Workload

Workload: Full Time

Workload Type	Frequency	Average Weekly Learner Workload
Lecture	30 Weeks per Stage	1.00
Laboratory	30 Weeks per Stage	1.00
Estimated Learner Hours	30 Weeks per Stage	1.33
	Total Hours	100.00