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## MODULE DESCRIPTOR

### Module Title

Exercise Physiology

Reference	HS1116	Version	2
Created	March 2017	SCQF Level	SCQF 7
Approved	September 2015	SCQF Points	30
Amended	August 2017	ECTS Points	15

### Aims of Module

The aim of this module is to examine the structure and function of the major physiological systems of the human body and its acute responses to exercise.

### Learning Outcomes for Module

On completion of this module, students are expected to be able to:

- 1 Describe the structure of the human body's major physiological systems.
- 2 Explain the function of the human body's major physiological systems.
- 3 Describe the acute responses of the human body to exercise.
- 4 Explain the mechanisms behind the acute responses of the human body to exercise.

### Indicative Module Content

The structure and function of the key physiological systems including: cardiovascular, respiratory, muscular, nervous, endocrine, digestive and urinary systems; the acute physiological responses to exercise focusing on cardiorespiratory variables (e.g. heart rate, stroke volume, cardiac output, redistribution of blood, extraction of oxygen [ $\dot{V}O_2$  difference], blood pressure, respiratory frequency, tidal volume, pulmonary ventilation), hormone production and release, mechanisms of fatigue, the body's main energy systems and their relative contribution to exercise (in relation to intensity and duration).

### Module Delivery

Fundamental content primarily driven by directed study supported with tutorial sessions. Practical sessions further consolidate the students learning.

**Indicative Student Workload**

	Full Time	Part Time
Contact Hours	75	N/A
Non-Contact Hours	225	N/A
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	300	N/A
<i>Actual Placement hours for professional, statutory or regulatory body</i>		

**ASSESSMENT PLAN**

If a major/minor model is used and box is ticked, % weightings below are indicative only.

**Component 1**

Type:	Examination	Weighting:	100%	Outcomes Assessed:	1, 2, 3, 4
Description:	Examination to be sat in two parts. Part 1 at the end of semester 1 and part 2 at the end of semester 2.				

**MODULE PERFORMANCE DESCRIPTOR****Explanatory Text**

Final module grade will be obtained by taking the average mark from part 1 and part 2 examinations, then applying the criteria below. Re-sits will only be available for parts which are awarded E, F or NS grades.

Module Grade	Minimum Requirements to achieve Module Grade:
<b>A</b>	≥70%
<b>B</b>	60-69%
<b>C</b>	50-59%
<b>D</b>	40-49%
<b>E</b>	30-39%
<b>F</b>	≥29%
<b>NS</b>	Non-submission of work by published deadline or non-attendance for examination

**Module Requirements**

Prerequisites for Module	None, in addition to course entry requirements
Corequisites for module	None.
Precluded Modules	None.

**INDICATIVE BIBLIOGRAPHY**

- 1 KENNEY, W.L., WILMORE, J. H. & COSTILL, D. L., 2022. Physiology of sport and exercise. 8th ed. Champaign, IL: Human Kinetics.
- 2 MCARDLE, W. D., KATCH, F. I. & KATCH, V. L., 2023. Exercise physiology, energy, nutrition and human performance. 9th ed. London: Lippincott Williams & Wilkins.
- 3 MARTINI, J.L., NATH, J.L. & BARTHOLOMEW, E.F., 2018. Fundamentals of Anatomy and Physiology. 11th ed. Harlow: Pearson Education.
- 4 POWERS, S.K., HOWLET, E.T & QUINDRY, J. 2021. Exercise physiology : theory and application to fitness and performance. 11th ed. New York: McGraw Hill
- 5 TORTORA, G. J. & DERRICKSON, B. H., 2019. Introduction to the Human Body 11th ed. New York: Wiley.