

## MODULE DESCRIPTOR

### Module Title

Physiology of Fitness and Performance Testing

Reference	HS2118	Version	2
Created	March 2017	SCQF Level	SCQF 8
Approved	September 2015	SCQF Points	15
Amended	September 2017	ECTS Points	7.5

### Aims of Module

To examine chronic adaptations of the human body to exercise and enable students to conduct a range of fitness and performance testing protocols and justify their use.

### Learning Outcomes for Module

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

- 1 Explain the mechanisms behind the chronic responses of the human body to exercise.
- 2 Explain the underlying physiology related to various fitness and performance testing protocols.
- 3 Collect and interpret data from selected physiological tests.
- 4 Explain the strengths and weaknesses of outcome measures relevant to athletic populations.

### Indicative Module Content

The chronic adaptations of the human body to exercise, including those of the cardiorespiratory and neuromuscular systems; physiological needs analysis in a sporting context; assessment of fitness variables including: body composition assessment (ISAK level 1 proforma), aerobic power assessment (submaximal and maximal VO<sub>2</sub>max estimates) power assessment (wingate test, jump tests), muscular endurance assessment (push up test), flexibility assessment (joint range of movement), strength assessment (1RM, 5RM and 10RM), speed assessment (5m, 10m, 30m sprints), agility assessment (505, Illinois, t-test) and assessment of lactate threshold.

### Module Delivery

A combination of lectures and online study packs which are both supported by practical classes and tutorials.

**Indicative Student Workload**

	Full Time	Part Time
Contact Hours	31	N/A
Non-Contact Hours	119	N/A
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	150	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:	Coursework	Weighting:	100%	Outcomes Assessed:	1, 2, 3, 4
Description:	Observed Structured Practical Exam				

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

Fitness testing practical examination and oral defence assessed with a grading proforma. Overall grade determined as follows:

Module Grade	Minimum Requirements to achieve Module Grade:
<b>A</b>	Rows 1-5: Minimum of 3 rows at A, 1 row at B and 1 row at C Rows 6-8: Minimum of 2 rows at distinction and 1 row at pass Row 9: Pass
<b>B</b>	Rows 1-5: Minimum of 3 rows at B, 1 row at C and 1 row at D Rows 6-8: Minimum of 1 row at distinction and 2 rows at pass Row 9: Pass
<b>C</b>	Rows 1-5: Minimum of 3 rows at C and 2 rows at D Rows 6-8: Minimum of 3 rows at pass Row 9: Pass
<b>D</b>	Rows 1-5: Minimum of 4 rows at D and 1 row at E Rows 6-8: Minimum of 2 rows at pass Row 9: Pass
<b>E</b>	Rows 1-5: Minimum of 4 rows at E Rows 6-8: Minimum of 1 row at pass
<b>F</b>	Failure to achieve any of the above
<b>NS</b>	Non-submission of work by published deadline or non-attendance for examination

**Module Requirements**

Prerequisites for Module	Successful completion of Stage 1 of the BSc (Hons) Applied Sport and Exercise Science course, or equivalent.
Corequisites for module	None.
Precluded Modules	None.

**ADDITIONAL NOTES**

A pass will not normally be awarded for this module unless the student has attended a minimum of 80% of all learning opportunities. A pass will not normally be awarded for this module unless the student has engaged in course related research activities.

**INDICATIVE BIBLIOGRAPHY**

- 1 TANNER, R.K. & GORE, C.J., 2013. Physiological tests for elite athletes. 2nd ed. Champaign, IL: Human Kinetics
- 2 WINTER, E.M., 2007. Sport and exercise physiological testing guidelines. London: Routledge
- 3 BEAM, W., & ADAMS, G., 2013. Exercise physiology laboratory manual. 7th ed. London: McGraw-Hill
- 4 Liguori, G. and American College of Sports Medicine, 2020. ACSM's guidelines for exercise testing and prescription. 11th ed. Lippincott Williams & Wilkins.
- 5 McGuigan, M., 2017. Monitoring training and performance in athletes. Human Kinetics.