

<b>Module Code:</b>	FAW415 / SIR402
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<b>Module Title:</b>	Introduction to Anatomy and Physiology
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<b>Level:</b>	4	<b>Credit Value:</b>	20
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<b>Cost Centre(s):</b>	GASP	<b>JACS3 code:</b>	C600
		<b>HECoS code:</b>	100350

<b>Faculty:</b>	Social & Life Sciences	<b>Module Leader:</b>	Chelsea Moore
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Scheduled learning and teaching hours	40 hrs
Guided independent study	160 hrs
Placement	0 hrs
<b>Module duration (total hours)</b>	<b>200 hrs</b>

<b>Programme(s) in which to be offered (not including exit awards)</b>	Core	Option
BSc (Hons) Football Coaching and the Performance Specialist	✓	
BSc (Hons) Sports Coaching and Performance Development	✓	
BSc (Hons) Sport, Health and Performance Science	✓	
BSc (Hons) Sports Injury Rehabilitation (registered on SIR402)	✓	

<b>Pre-requisites</b>
None

**Office use only**

Initial approval: 30/04/2019

Version no: 2

With effect from: 23/09/2019

Date and details of revision: addition of SIR programme

Version no:

## Module Aims

This module will:

- introduce the student to applied anatomy & physiology and enhance their knowledge and understanding of the complex systems within the human body.
- develop an understanding of models that explore the critical windows of opportunity to influence sport and health.
- investigate how the body responds to sport and physical activity and explores the methods used to monitor the development of the bodily systems within a sporting context.

## Intended Learning Outcomes

Key skills for employability

- KS1 Written, oral and media communication skills
- KS2 Leadership, team working and networking skills
- KS3 Opportunity, creativity and problem solving skills
- KS4 Information technology skills and digital literacy
- KS5 Information management skills
- KS6 Research skills
- KS7 Intercultural and sustainability skills
- KS8 Career management skills
- KS9 Learning to learn (managing personal and professional development, self-management)
- KS10 Numeracy

At the end of this module, students will be able to

Key Skills

At the end of this module, students will be able to		Key Skills	
1	Demonstrate an understanding of how the various systems of the body work at rest and in relation to exercise.	KS1	KS2
		KS3	KS4
		KS6	
2	Demonstrate the ability to collect, collate and statistically analyse physiological data.	KS4	KS5
		KS10	
3	Identify and demonstrate how to conduct specific physiological tests.	KS1	KS2
		KS3	KS4
		KS6	KS10
		KS7	
4	Explain experimental data collected from laboratory based practical work	KS1	KS4
		KS6	KS10

**Transferable skills and other attributes**

Working independently, working in groups, academic writing skills, practical and laboratory skills, numeracy and the use of IT.

**Derogations**

SIR402 Sports Injury Rehabilitation students must pass both elements of assessment at 40% or above

**Assessment:**

Indicative Assessment Tasks:

**Assessment 1: MCQ**

Undertake a multiple choice examination assessing your knowledge of the anatomical structures within the body and how the body functions and rest and in response to exercise.

**Assessment 2: Laboratory Report**

Using the physiological data you have collected during your practical seminar, write a laboratory report.

Assessment number	Learning Outcomes to be met	Type of assessment	Weighting (%)	Duration (if exam)	Word count (or equivalent if appropriate)
1	1 & 3	Examination	40	2 hours	N/A
2	2 & 4	Report	60	N/A	2400

**Learning and Teaching Strategies:**

The learning and teaching strategies will include lectures, seminars, practicals, peer-led discussions, tutorials, online based quizzes/tasks.

**Syllabus outline:**

- Introduction to working in a laboratory environment/health screening
- Homeostasis
- Muscular skeletal system
- Cardiovascular system
- Cardiovascular system part 2
- Critical research skills
- Energy systems
- Energy systems part 2
- Respiratory system
- Nervous system
- Immune system
- Revision skills and tips
- Endocrine system
- Introduction to SPSS

- Analysing quantitative data
- Report writing

### **Indicative Bibliography:**

#### **Essential reading**

McArdle, W. D. Katch, F. I. and Katch, V. L. (2015), *Exercise Physiology: Energy, Nutrition & Human Performance*. 8th ed. Philadelphia: Williams and Wilkins.

Martini, F. H. (2015), *Fundamentals of Anatomy and Physiology*. 10th ed. New Jersey: Prentice Hall.

#### **Other indicative reading**

Hagens, V.G. and Lee, J. A. (2005), *Anatomy for Beginners*, Firefly Entertainment

Powers, S.K. and Howley, E.T. (2014), *Exercise Physiology. Theory and Application to Fitness and Performance*. 9th ed. Boston, Mass: McGraw-Hill.

Siegfried, D.R. (2011), *Anatomy and Physiology for Dummies*. 2nd ed. New York: Wiley.

Tortora, G.J. and Derrickson, B (2009), *Principles of Anatomy and Physiology*. New York: Wiley College Publishing.

Wirhead, R. (2006), *Athletic ability & the anatomy of motion*. 3rd ed. London: Mosby.