

Summary Information

Module Code	6104SPOSCI
Formal Module Title	Cardiovascular and Environmental Physiology
Owning School	Sport and Exercise Sciences
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 6
Grading Schema	40

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Benjamin Buckley	Yes	N/A

Module Team Member

Contact Name	Applies to all offerings	Offerings
Keith George	Yes	N/A
David Low	Yes	N/A
Helen Jones	Yes	N/A
David Oxborough	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings
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Teaching Responsibility

LJMU Schools involved in Delivery
Sport and Exercise Sciences

Learning Methods

Learning Method Type	Hours
Lecture	22
Practical	7
Workshop	9

Module Offering(s)

Offering Code	Location	Start Month	Duration
JAN-CTY	CTY	January	12 Weeks

Aims and Outcomes

Aims	The module aims to provide students with the critical thinking skills necessary to evaluate and understand the appropriate application of key cardiovascular measurement techniques and to equip students with the applied knowledge necessary to interpret data collected via these techniques. In addition, the module aims to promote critical awareness of the limitations to human health and performance under various physiological stressors, and how these limitations can be overcome with appropriate adaptation strategies and interventions.
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Learning Outcomes

After completing the module the student should be able to:

Code	Description
MLO1	Evaluate cardiovascular data and recognise when there are abnormalities present.
MLO2	Discuss the validity, reliability and utility of cardiovascular measurement techniques.
MLO3	Critically analyse the limitations to performance and health, and form coping strategies when individuals and athletes are confronted with common physiological, behavioural and environmental stressors

Module Content

Outline Syllabus

Cardiac electrophysiology and measurement using ECG
Assessment of cardiac structure and function
Assessment of vascular structure and function
Exercise in the heat/cold/altitude: Performance, adaptation and interventions
Behavioural thermoregulation
Circadian adaptations and interventions: Trans-meridian travel
Hormones and exercise

Module Overview

This module aims to provide you with thinking skills necessary to evaluate and understand the appropriate application of key cardiovascular measurement techniques and to equip you with the applied knowledge necessary to interpret data collected via these techniques. In addition, the module aims to promote critical awareness of the limitations to human health and performance under various physiological stressors and how these limitations can be overcome with appropriate adaptation strategies and interventions.

Additional Information

This module is designed to critically examine key cardiovascular measurement techniques, and to understand their application in healthy and athletic populations, as well as in the diagnosis and management of cardiovascular disease. tasks. The module also aims to develop critical awareness of the limitations to health and performance under various modifiable and non-modifiable stressors, and will examine how these limitations can be ameliorated with appropriate adaptation strategies and exercise interventions. This will be evaluated by the completion of the relevant assessment tasks. On going feedback will be provided throughout the module to support completion of assessments.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Learning Outcome Mapping
Centralised Exam	ECG interpretation	50	2	MLO2, MLO1
Presentation	Group presentation and viva	50	0	MLO3