

Summary Information

Module Code	7154SPOSCI
Formal Module Title	Physiology of Strength and Conditioning
Owning School	Sport and Exercise Sciences
Career	Postgraduate Taught
Credits	20
Academic level	FHEQ Level 7
Grading Schema	50

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Robert Erskine	Yes	N/A

Module Team Member

Contact Name	Applies to all offerings	Offerings
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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
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Lecture	36
Practical	2

Module Offering(s)

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

Aims and Outcomes

Aims	To develop the students' knowledge and understanding related to the acute and chronic physiological responses to resistance and endurance exercise, and how these responses may be optimized by manipulating dietary behaviour and training environment.
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Learning Outcomes

After completing the module the student should be able to:

Code	Description
MLO1	Critically appraise current literature on the muscular and cardiovascular responses to acute and chronic exercise in different environments.
MLO2	Critically appraise how developments in technology have improved our understanding of the structure and function of skeletal muscle the cardiovascular system.
MLO3	Critically evaluate the impact of acute and chronic exercise upon skeletal muscle and the cardiovascular system, from molecule to whole tissue/system.

Module Content

Outline Syllabus
The muscular and cardiovascular responses to acute and chronic resistance/endurance exercise; Cellular and molecular responses to acute and chronic exercise; Nutritional requirements for optimal adaptations to chronic exercise; Acute and chronic responses to exercise in extreme conditions.

Module Overview
This module aims to develop knowledge and understanding relating to the acute and chronic physiological responses to resistance and endurance exercise, and considers how these responses may be optimised by manipulating the training environment. After completing the module, you will be able to critically appraise current literature on the muscular and cardiovascular responses to acute and chronic exercise in different environments. You will also be able to critically evaluate the impact of acute and chronic exercise on skeletal muscle and the cardiovascular system, from molecule to the whole tissue/system. You will receive three hours direct contact per week and stimulus lectures on the topics concerned.

Additional Information

This module is designed to increase the students' knowledge and understanding of the physiological processes occurring in response to acute and chronic resistance and endurance exercise. The module will explore the mechanisms underpinning these adaptations, from the molecule to the whole system. The module also aims to develop the students' ability to translate this information to the applied context of strength and conditioning practice, with the objective to improve performance. This will be evaluated by the completion of the relevant assessment tasks.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Learning Outcome Mapping
Report	Laboratory report	50	0	MLO3, MLO1, MLO2
Centralised Exam	Examination	50	2	MLO3, MLO1, MLO2