

Module Information

2022.02, Approved

Summary Information

Module Code	6108SPOSCI
Formal Module Title	Skeletal Muscle Physiology, Metabolism and Nutrition
Owning School	Sport and Exercise Sciences
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 6
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
Sport and Exercise Sciences

Learning Methods

Learning Method Type	Hours
Lecture	20
Practical	2
Tutorial	18

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
SEP-CTY	CTY	September	12 Weeks

Aims and Outcomes

Aims	This module aims to increase your understanding of the regulation of the metabolic processes by which muscles are provided with energy during exercise as well as examining the molecular mechanisms underpinning muscle adaptation to exercise training. Having drawn upon this theoretical knowledge, the module also aims to develop your ability to translate this information to the applied context of sports nutrition with the goal of improving sports performance, training adaptations and recovery.
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Critically evaluate the hormonal and cellular processes involved in the metabolic regulation of energy provision during exercise and the influence of pre- and during- exercise feeding on related metabolic pathways.
MLO2	2	Critically evaluate the macronutrient and hydration requirements to support optimal sports performance.
MLO3	3	Critically evaluate the metabolic responses to acute and chronic endurance, high intensity and resistance-type exercise, and the influence of inactivity and poor diet on related metabolic pathways leading to disease.

Module Content

Outline Syllabus	Methods in Skeletal Muscle Physiology, Metabolism & Nutrition Regulation of Muscle Metabolism: The Basics Regulation of Muscle Metabolism During Exercise Adaptations to Exercise Training & Inactivity/Disease States Nutrition for Optimising Exercise Performance
Module Overview	This module aims to increase your understanding of the regulation of the metabolic processes by which muscles are provided with energy during exercise as well as examining the molecular mechanisms underpinning muscle adaptation to exercise training. Having drawn upon this theoretical knowledge, the module also aims to develop your ability to translate this information to the applied context of sports nutrition with the goal of improving sports performance, training adaptations and recovery.
Additional Information	This module aims to provide you with a better understanding of the regulation of the metabolic processes by which muscles are provided with energy during exercise as well as examining the molecular mechanisms underpinning muscle adaptation to exercise training. Having drawn upon this theoretical knowledge, the module also aims to develop your ability to translate this information to the applied context of sports nutrition with the goal of improving sports performance, training adaptations and recovery.

Assessments

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

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Daniel Owens	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings
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