

Exercise Metabolism

Module Information

2022.01, Approved

Summary Information

Module Code	6103SPS
Formal Module Title	Exercise Metabolism
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	26
Online	5
Practical	2
Seminar	9

Module Offering(s)

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

Aims and Outcomes

Aims	To develop an 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.
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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 metabolic responses to acute and chronic endurance, high intensity and resistance-type exercise.

Module Content

Outline Syllabus	Methods in Exercise Metabolism Research: substrate use during exercise; muscle strength and size; muscle adaptations to training Fundamentals of Exercise Metabolism: Carbohydrate metabolism; Fat metabolism; Protein (amino acid) metabolism Metabolic Regulation During Exercise: Endurance exercise; Effect of feeding & endurance exercise; High intensity intermittent exercise Training Adaptation: How the muscle adapts to training; Endurance & high intensity (intermittent) training; Resistance training
Module Overview	
Additional Information	BUES mapped.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Report	Research paper	50	0	MLO1, MLO2
Presentation	Presentation	50	0	MLO1, MLO2

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Sam Shepherd	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings
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