Module Proforma

Approved, 2022.02

Summary Information

Module Code	4105SPOSCI
Formal Module Title	Physiological Responses to Acute Exercise
Owning School	Sport and Exercise Sciences
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 4
Grading Schema	40

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Gemma Miller	Yes	N/A

Module Team Member

Contact Name	Applies to all offerings	Offerings
Matthew Cocks	Yes	N/A
Ian Davies	Yes	N/A
Ian Sadler	Yes	N/A
David Oxborough	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings

Teaching Responsibility

LJMU Schools involved in Delivery
Sport and Exercise Sciences

Learning Methods

Learning Method Type	Hours
Lecture	28
Practical	5
Workshop	20

Module Offering(s)

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

Aims and Outcomes

Aims	To develop knowledge and understanding of the basic structure and function of key physiological systems and metabolic processes and discuss how these systems and processes respond to acute exercise.

Learning Outcomes

After completing the module the student should be able to:

Code	Description
MLO1	Describe the basic structure and function of key physiological systems and metabolic processes
MLO2	Describe how these physiological systems and metabolic processes respond to acute exercise

Module Content

Outline Syllabus
Basic structure and function of the central and peripheral nervous system Basic structure and function of the Cardio-Respiratory system Homeostatic regulation of body temperatureBasic understanding of how fluid balance is controlledBasic structure and function of the endocrine systemBasic organisation of skeletal muscle and how muscle fibre contractBasic knowledge of biochemistryHow proteins are formedHow carbohydrates and lipids are digested, stored and oxidisedThe main energy systems

Module Overview

This module develops your knowledge and understanding of the basic structure and function of key physiological systems and metabolic processes, and discusses how these systems and processes respond to acute exercise. The content will include both theoretical knowledge and practical skills related to a number of physiological systems and metabolic processes.

Additional Information

The content will include both theoretical knowledge and practical skills related to a number of physiological systems and metabolic processes. This will be evaluated by the completion of the relevant assessment tasks. This module will incorporate support strategies in an attempt to ensure student progression. This will include feed forward and feedback on assessment and personal tutorial support. This will be augmented with interactive resources that facilitate self-directed exploration of the human physiology in response to acute exercise.The Association for Nutrition (AfN) competencies covered in this module include: CC1a The human/ animal body and its functions, especially digestion, absorption, excretion, respiration, fluid and electrolyte balance, cardiovascular, neuro-endocrine, musculoskeletal and haematological systems, immunity and thermoregulation, energy balance and physical activity. CC1b Mechanisms for the integration of metabolism, at molecular, cellular and whole-body levels for either human or animal systems. CC1d Nature and extent of metabolic demand for nutrients. CC1m Ability to carry out sample selection and to ensure validity, accuracy, calibration, precision, replicability and highlight uncertainty during collection in accordance with the basic principles of good clinical practice. CC1n Ability to obtain, record, collate, analyse, interpret and report nutrition-related data using appropriate qualitative and quantitative research and statistical methods in the field and/or laboratory and/or intervention studies, working individually or in a group, as is most appropriate for the discipline under study. CC1o Prepare, process, interpret and present data, using appropriate qualitative and quantitative techniques, statistical programmes, spreadsheets and programs for presenting data visually.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Learning Outcome Mapping
Report	Laboratory Report	60	0	MLO2, MLO1
Centralised Exam	MCQ exam	40	1	MLO2, MLO1