Liverpool John Moores University

Title:	PHYSIOLOGICAL PRINCIPLES
Status:	Definitive
Code:	**5013SPOSCI** (117537)
Version Start Date:	01-08-2019
Owning School/Faculty:	Sport and Exercise Sciences
Teaching School/Faculty:	Sport and Exercise Sciences

Team	Leader
Helen Jones	Y
Adam Sharples	
Juliette Strauss	
Ellen Dawson	
Greg Whyte	
Keith George	
David Low	
Neil Chester	
Ben Edwards	
Dominic Doran	

Academic Level:	FHEQ5	**Credit Value:**	24	**Total Delivered Hours:**	50
Total Learning Hours:	240	**Private Study:**	190		

Delivery Options
Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	40
Practical	8

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	lab	Lab report	50	
Exam	exam	Exam	25	2
Essay	essay	Essay	25	

Aims

To develop knowledge and understanding of the cardio-respiratory, thermoregulatory, circadian physiology and muscle metabolism responses to acute and chronic exercise and discuss these in relation to human health and performance.

Learning Outcomes

After completing the module the student should be able to:

1	Explain the metabolic responses to acute and chronic endurance and high-intensity type exercise.
2	Evaluate the cardio-respiratory responses to exercise in normal subjects, athletes and patients with cardio-respiratory disease.
3	Explain the terms and principles in chronobiology and environmental physiology, including the influence of time of day, heat, cold and altitude on the responses to exercise for application to health and performance.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Lab report	1
Exam	3
Essay	2

Outline Syllabus

Cardiovascular Physiology and Health
Cardio-respiratory responses to acute and chronic exercise
Laboratory Practical - Cardiovascular responses to exercise
Computer Practical - Cardiovascular responses to exercise
Laboratory Practical - Respiratory responses to exercise
Circadian rhythms and sport performance, exercise and clinical applications
Physiological responses to exercise in the heat, cold and altitude
Cellular and hormonal regulation of muscle metabolism
Acute and chronic metabolic responses to exercise
Metabolism and health

Learning Activities

Students are expected to attend time-tabled lectures and are encouraged to utilise the available directed learning/private study time to get advice from module staff and/or conduct essential reading. Some of the teaching sessions will contain

practical based activities where students will be required to use their analytical, statistical and problem solving skills to enhance their own learning. Students should complete the required and recommended reading to widen their knowledge and understanding and their ability to apply material. Students will be required to evidence this in the production of their coursework and the module examination.

Notes

This module is designed to develop the students knowledge and understanding of the cardio-respiratory, thermoregulatory, circadian physiology and muscle metabolism responses to acute and chronic exercise and discuss these in relation to human health and performance. 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.