

Liverpool John Moores University

Title: PHYSIOLOGICAL FOUNDATIONS
Status: Definitive
Code: **4013SPOSCI** (117532)
Version Start Date: 01-08-2014

Owning School/Faculty: Sports Sciences
Teaching School/Faculty: Sports Sciences

Team	Leader
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Academic Level: FHEQ4 **Credit Value:** 24.00 **Total Delivered Hours:** 43.00

Total Learning Hours: 240 **Private Study:** 197

Delivery Options

Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	36.000
Practical	4.000
Seminar	1.000
Tutorial	1.000

Grading Basis: 40 %

Assessment Details

Category	Short	Description	Weighting	Exam
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	Description		(%)	Duration
Exam	mcq		20.0	1.00
Report	cardiovasc		60.0	
Test	mcq		20.0	1.00

Aims

To provide the student with a basic knowledge and understanding of the structure and function of the cardio-respiratory system, the thermoregulatory control systems and skeletal muscle structure, function and metabolism so as to facilitate understanding of their role in human health and performance.

Learning Outcomes

After completing the module the student should be able to:

- 1 Describe resting cardiovascular structure and function in normal healthy humans and compare this data to elite athletes and people with cardiovascular disease.
- 2 Describe the homeostatic control of thermoregulation, respiratory function and neural control in human health and exercise performance'
- 3 Describe the basic metabolic processes by which skeletal muscles metabolize carbohydrates, fats and proteins to fuel muscle contraction.

Learning Outcomes of Assessments

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

exam	3
lab report	1
mcq test	2

Outline Syllabus

*Structure and function of the cardio-respiratory system
 Laboratory Practical - Cardiovascular physiology
 Laboratory Practical - Respiratory physiology
 Structure and function of the thermoregulatory control systems
 Laboratory Practical - Thermoregulatory measurements
 Impact of time on physiological functioning
 Structure and function of skeletal muscle
 Carbohydrate, lipid and protein muscle metabolism during exercise*

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.

References

Notes

This module is designed to develop the students basic knowledge and understanding of the structure and function of a number of the body's physiological systems in relation to their role in 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.