

## Liverpool John Moores University

Title: PHYSIOLOGICAL FOUNDATIONS  
Status: Definitive  
Code: **4008SPOSCI** (114194)  
Version Start Date: 01-08-2011

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

Team	Leader
Ben Edwards	Y

**Academic Level:** FHEQ4  
**Credit Value:** 12.00  
**Total Delivered Hours:** 29.00  
**Total Learning Hours:** 120  
**Private Study:** 91

### Delivery Options

Course typically offered: Semester 2

Component	Contact Hours
Lecture	22.000
Practical	6.000

**Grading Basis:** 40 %

### Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	AS1	Multiple choice exam questions	50.0	1.00
Essay	AS2	Essay/laboratory report.	50.0	

### Aims

*To provide to the student a basic understanding and knowledge of the structure and function of the physiological systems, so as to facilitate understanding of their role in homeostasis.*

### Learning Outcomes

After completing the module the student should be able to:

- 1 Describe cardiorespiratory, renal, endocrine, and neural physiological function and control.
- 2 Explain the concept of homeostasis and the role physiological systems play in it's maintenance.
- 3 Describe and explain how to conduct, interpret and present in written and/or oral format, basic physiological laboratory experiments.

### Learning Outcomes of Assessments

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

EXAM	1	2	
CW	1	2	3

### Outline Syllabus

*Energy Systems*  
*Cardiovascular function and control*  
*Pulmonary function and control.*  
*Gas Transport and exchange*  
*Integration and control: Endocrine.*  
*Integration and control: Neural.*  
*Renal function and control*  
*Acid base regulation*

### Learning Activities

Students are provided with lectures and demonstrations to develop their understanding of the material. Laboratory practicals are also an important feature, where students have the opportunity to engage in their own learning of the foundational concepts discussed.

### References

<b>Course Material</b>	Book
<b>Author</b>	Zao, P., Stabler, T. and Peterson, G.
<b>Publishing Year</b>	2004
<b>Title</b>	PhysioEx™ 5.0:
<b>Subtitle</b>	Laboratory Simulations In Physiology CD-ROM Version
<b>Edition</b>	
<b>Publisher</b>	Benjamin-Cummings
<b>ISBN</b>	0805357238

<b>Course Material</b>	Book
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<b>Author</b>	Germann, W. and Stanfield, C
<b>Publishing Year</b>	2004
<b>Title</b>	Principles of Human Physiology
<b>Subtitle</b>	
<b>Edition</b>	2 nd
<b>Publisher</b>	Benjaim-cummings
<b>ISBN</b>	0321248627

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### **Notes**

This module provides an introduction to basic physiological function and control systems for the sports scientist. Students are empowered to acquire and apply basic physiological concepts and principles through a variety of learning strategies. As such it establishes basic knowledge that will be expanded at level 2 and 3.