

## Liverpool John Moores University

Title: ADVANCED EXERCISE PHYSIOLOGY AND EXERCISE PRESCRIPTION  
Status: Definitive  
Code: **7102SPOSCI** (124276)  
Version Start Date: 01-08-2021  
Owning School/Faculty: Sport and Exercise Sciences  
Teaching School/Faculty: Sport and Exercise Sciences

Team	Leader
Keith George	Y

**Academic Level:** FHEQ7  
**Credit Value:** 20  
**Total Delivered Hours:** 40  
**Total Learning Hours:** 200  
**Private Study:** 160

### Delivery Options

Course typically offered: Semester 2

Component	Contact Hours
Lecture	20
Practical	10
Tutorial	10

**Grading Basis:** 50 %

### Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Presentation	AS1	Case study presentation	50	
Essay	AS2	Essay (2000 words).	50	

### Aims

*The basic aims of this module are to extend and deepen the students' knowledge and understanding related to the acute and chronic physiological responses to exercise. This will focus on cardiovascular responses to exercise but will also touch upon neuron-endocrine and metabolic responses.*

*Based upon this advanced knowledge students will critically reflect on the importance, role and practicalities of exercise prescription in a range of diseased populations. Again the emphasis will be on cardiovascular diseases and associated risk factors but will also touch upon other major disease groups such as cancer and respiratory disease.*

## **Learning Outcomes**

After completing the module the student should be able to:

- 1 Analyse how advanced developments in technology have improved our understanding of the structure and function of the cardiovascular system.
- 2 Critically evaluate the impact of acute and chronic exercise upon the cardiovascular system.
- 3 Appraise the nature and value of exercise prescription in a range of special populations and clinical scenarios.

## **Learning Outcomes of Assessments**

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

Case study presentation	2	3	
Essay	1	2	3

## **Outline Syllabus**

*The cardiovascular system: structure, function and electrical activity – Recap and extension of current knowledge.*

*Methods of assessment of the cardiovascular system: New technical developments*

*Cardiovascular responses to acute and chronic exercise*

*Exercise in a cardiovascular rehabilitation setting*

*New developments in exercise prescription in clinical groups*

## **Learning Activities**

Lectures, tutorials and laboratory demonstrations.

## **Notes**

This module provides the opportunity to apply current theoretical and practical approaches in advanced exercise physiology and exercise prescription. Current issues will be explored through a combination of contact lectures, workshops, seminars and private study journal reading. Guest speakers will be invited to contribute to a theory and practice workshops to supplement the depth and currency of the modular content.