Liverpool John Moores University

Title: PATHOPHYSIOLOGY OF CARDIOVASCULAR DISEASE
Status: Definitive
Code: **7000SPOSCI**   (114296)
Version Start Date: 01-08-2014

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

Team	emplid	Leader
Ellen Dawson		Y
Dick Thijssen		
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Academic Level: FHEQ7	**Credit Value:** 20.00	**Total Delivered Hours:**	38.00
Total Learning Hours: 200	**Private Study:** 162		

Delivery Options
Course typically offered: Semester 2

Component	Contact Hours
Lecture	12.000
Practical	10.000
Tutorial	10.000
Workshop	4.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	Exam	Unseen exam	100.0	2.00

Aims

This unit will primarily focus on the causes of atherosclerotic vascular disease in humans. Detailed consideration will be given to the pathophysiology of macrovascular manifestations of atherosclerosis including heart disease and stroke, the largest causes of mortality and morbidity in developed and developing countries.

Microvascular disease and associated morbidities such as retinopathy, nephropathy and neuropathy will also be considered. Finally, the role of exercise in amelioration of cardiovascular diseases and risk factors will be considered.

Learning Outcomes

After completing the module the student should be able to:

1   Evaluate the data describing pathological basis for major cardiac diseases (myocardial infarction, heart failure).
2   Synthesise the data describing the incidence, diagnosis, treatment and prevention of major cardiac diseases.
3   Analyse the data examining the effects of exercise on physiological responses and pathophysiological processes in patients with cardiovascular diseases.
4   Critically evaluate the research evidence concerning exercise in the secondary prevention of cardiovascular diseases.

Learning Outcomes of Assessments

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

EXAM   1   2   3   4

Outline Syllabus

Incidence of CV disease and pathophysiological basis of atherosclerotic diseases.
Impact or risk factors on cardiovascular disease
Impact of exercise training on primary and secondary cardiovascular disease development
Effects of exercise training on physiological and pathophysiological mechanisms.
Exercise and interventional management of cardiovascular diseases.

Learning Activities

Students are expected to attend timetabled lectures. Analysis of current theory in the pathophysiology of cardiovascular disease will be central to this module and application of theory to practice will be debated. Students will be required to think critically and integrate multiple disciplines when evaluating the role of exercise in a variety of cardiovascular diseases. Students should complete the required work related learning tasks as well as the recommended reading to widen their critical knowledge and understanding. The integration of theoretical and practical knowledge should be evidenced in the assessment tasks.

References

Course Material	Book
Author	American College of Sports Medicine

Publishing Year	2000
Title	ACSMs Guidelines for Exercise Testing and Prescription
Subtitle	
Edition	6th
Publisher	Williams and Wilkins
ISBN	

Course Material	Book
Author	Myers, J.N.
Publishing Year	1996
Title	Essentials of Cardiopulmonary Exercise Testing
Subtitle	
Edition	
Publisher	Human Kinetics
ISBN	

Course Material	Book
Author	Ehrman, J.K. et al.
Publishing Year	2003
Title	Clinical Exercise Physiology
Subtitle	
Edition	
Publisher	Human Kinetics
ISBN	

Course Material	Book
Author	Pollock, M.L. and Schmidt, D.H.
Publishing Year	1995
Title	Heart Disease and Rehabilitation
Subtitle	
Edition	
Publisher	Human Kinetics
ISBN	

Notes

This module will focus on cardiovascular disease examining the role of exercise in their treatment and the interactive effect of the disease and pharmacotherapy on exercise capacity and prescription. The module will draw together current theory and practice to provide the student with a broad understanding of cardiovascular disease for the clinical exercise physiologist.