

Liverpool John Moores University

Title: TECHNIQUES IN CARDIORESPIRATORY ASSESSMENT
Status: Definitive
Code: **6005EXESCI** (114137)
Version Start Date: 01-08-2011

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

Team	Leader
Keith George	Y

Academic Level: FHEQ6 **Credit Value:** 24.00 **Total Delivered Hours:** 50.00
Total Learning Hours: 240 **Private Study:** 190

Delivery Options

Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	28.000
Practical	8.000
Tutorial	12.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Test	AS1	CWK: ECG recognition Assessment: Cat A	50.0	
Exam	AS2	EXAM: Essay style: Cat A	50.0	2.00

Aims

This module aims to provide a broad recognition and understanding of the technical skills and apparatus utilized in the assessment of the cardiovascular and respiratory systems in humans. This will serve to underpin critical awareness of the relative value of these techniques, their use and the data they generate in clinical assessments. The students should then be able to reflect on the value of these techniques in exercise testing and/or prescription in relevant clinical groups.

Learning Outcomes

After completing the module the student should be able to:

- 1 Evaluate and synthesize the validity, reliability and utility of a range of techniques and skills available in cardiovascular and respiratory assessment.
- 2 Evaluate basic ECG properties and recognize ECG abnormalities.
- 3 Critically evaluate relevant scientific literature on current developments in and clinical application of cardiovascular and respiratory assessment techniques.
- 4 Critically evaluate the role of cardiovascular and respiratory measurement techniques in exercise testing and prescription in relevant clinical populations.

Learning Outcomes of Assessments

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

ECG recognition	1	2	
EXAM	1	3	4

Outline Syllabus

1. *Cardiovascular structure and function (a recap).*
2. *Basics of ECG.*
3. *ECG interpretation.*
4. *ECG technical skills and collection.*
5. *Ultrasound in cardiac assessment.*
6. *Ultrasound in vascular assessment.*
7. *Assessment of blood pressure and blood flow.*
8. *Application of cardiovascular techniques in health and disease.*
9. *Role of cardiovascular techniques in exercise testing and prescription.*
10. *Respiratory structure and function (a recap).*
11. *Respiratory techniques (e.g. flow loops).*
12. *Assessment of respiratory diseases (e.g. asthma).*
13. *Application of respiratory techniques in health and disease.*
14. *Role of respiratory techniques in exercise testing and prescription.*

Learning Activities

Students receive lectures on all topics covered in the module. Where appropriate students will attend laboratory sessions related to testing procedures. Students should attend lectures and practical sessions and complete coursework and prescribed reading. Attendance at visiting lectures will be advised as appropriate.

References

Course Material	Book
Author	ACSM
Publishing Year	2000
Title	ACSMs Guidelines for Exercise Testing and Prescription
Subtitle	
Edition	6th
Publisher	Williams and Wilkins
ISBN	0-7817-2735-9

Course Material	Book
Author	Smith, J: Kampine, J
Publishing Year	1990
Title	Cardiovascular Physiology
Subtitle	
Edition	3rd
Publisher	Williams and Wilkins
ISBN	0-683-07775-9

Course Material	Book
Author	Hampton, JR
Publishing Year	1986
Title	The ECG made easy
Subtitle	
Edition	3rd
Publisher	Churchill and Livingstone
ISBN	0-443-03283-1

Course Material	Book
Author	Saltin, B: Boushel, R: Secher, N: Mitchell, J
Publishing Year	2000
Title	Exercise and Circulation in Health and Disease
Subtitle	
Edition	
Publisher	Human Kinetics
ISBN	0-88011-623-3

Course Material	Book
Author	West, JBB
Publishing Year	2004
Title	Respiratory Physiology: The Essentials
Subtitle	
Edition	
Publisher	Williams and Wilkins
ISBN	9780781751520

Notes

This module will provide students with a practical and theoretical appreciation of the major components of cardiorespiratory assessment. These issues will be applied to a range of subject human populations.