

Module Specification

Module Title

Module Code

Credit Value

Level

Mode of Delivery

Pre-requisite modules	Co-requisite modules	Overlapping modules
Module restricted to B990 Students		

1) Content Description

Provide a description of the module, as it will appear in the Module Directory and on the Student Information System (approx. 70-80 words).

This module will explore the human cardiovascular and respiratory systems; normal physiology and abnormal physiology (pathophysiology) will be covered. Students will be introduced to a variety of pathologies to facilitate a better understanding of how these systems are impacted by disease. The module will also integrate cardiorespiratory knowledge by considering cardiorespiratory adaptations to exercise and examining cardiorespiratory responses to different environments.

2) Module Aims

Specify the aims of the module, i.e. the broad educational purposes for offering this module.

The aim of this module is to provide a physiological complement to a previous anatomy module. The module examines the initiation of the heartbeat, the pumping of the heart, the circulation and the regulation of these, together with the processes of ventilation and gas exchange and transport. In considering these processes, the module examines abnormalities of function such as conduction and valvular failure, response to haemorrhage and hypoxia. It includes essential cardiovascular and respiratory calculations. The final section of the module aims to examine integrated cardiovascular/respiratory responses to exercise.

3) Learning Outcomes

Identify the learning outcomes for this module, i.e. knowledge, skills and attributes to be developed through completion of this module. Outcomes should be referenced to the relevant [QAA benchmark statements](#) and the [Framework for Higher Education Qualifications in England, Wales and Northern Ireland \(2008\)](#). The [SEEC Credit Level Descriptors for Further and Higher Education 2003](#) and [Queen Mary Statement of Graduate Attributes](#) should also be used as a guiding framework for curriculum design.

Academic Content:	
A 1	Students should have an understanding of the mechanisms underlying the functioning of the heart, the main principles of blood circulation, and the mechanisms of ventilation
A 2	They should have acquired basic clinical skills for some essential cardiovascular and respiratory investigations
A 3	They should have an understanding of the essential cardiovascular and respiratory calculations

Disciplinary skills - able to:

B1	The module will encourage students to consider integrated responses in both circulatory and respiratory systems, under normal conditions, and under some exercise conditions
B2	It will foster the beginning of critical approaches to the diagnosis of symptoms of malfunction (pathophysiology).

Attributes:	
C1	The module will extend students' integrative abilities. It will also develop their writing skills, and their abilities to analyse and present data
C2	Laboratory work will not only encourage team formation and interpersonal skill development, but also time management

4) Reading List

Provide an indicative reading list for the module. This should include key texts and/or journals but **should not** be an exhaustive list of materials.

Physiology Reading:

Sherwood, Lauralee. (2014). Human Physiology: from cells to systems. 9th Ed.
 Bruce M. Koeppen, Bruce A. Stanton. (2017). Berne & Levy Physiology. 6th Ed.
 Elaine Marieb, Katja Hoehn. (2016). Human Anatomy & Physiology. 10th Ed.
 Cindy L. Stanfield. (2017). Principles of Human Physiology. 6th Ed.
 Eric Widmaier, Hershel Raff, Kevin Strang. (2016). Vander's Human Physiology: The Mechanisms of Body Function. 14th Ed.
 Levick, J.R. (2009). An Introduction to Cardiovascular Physiology 5th Ed.
 West, J.B and Luks, A. (2016). West's respiratory physiology: the essentials. 10th Ed.

William D. McArdle, Franck I. Katch, Victor L. Katch. (2015). Exercise Physiology: Energy, Nutrition, and Human Performance. 8th Ed.

Larry Kenney, W., Wilmore, J.H., Costill, D.L. and Wilmore, J.H. (2012). Physiology of Sport and Exercise. 5th Ed.

Clinical Reading:

Fox, Stuart Ira. (2016). Human physiology. 14th Ed.
 Parveen Kumar, Michael L Clark. (2012). Kumar & Clark's clinical medicine. 8th Ed.
 Guyton, A.C. and Hall, J.E. (2006). Guyton and Hall Textbook of Medical Physiology. 11th Ed.
 Boron, W.F. and Boulpaep, E.L. (2017). Medical Physiology. 3rd Ed.

5) Teaching and Learning Profile

Provide details of the method of delivery (lectures, seminars, fieldwork, practical classes, etc.) used to enable the achievement of learning outcomes and an indicative number of hours for each activity to give an overall picture of the workload a student taking the module would be expected to undertake. This information will form the Key Information Set for each undergraduate programme and will be used to populate the KIS widget found on the QMUL programme information pages. More information can be found [online](#) about KIS. You may also wish to refer to the [QAA guidance on contact hours](#) when completing this section.

Activity Type	KIS Category	Time Spent (in hours)
Lecture	Scheduled	22
Laboratory / Workshop		12
Total		34

Specify the total module notional study hours. This should be a total of the hours given for each activity. The notional study hours for each academic credit point is 10. A 15 credit point module therefore represents 150 notional study hours.

Activity Type	Total Time Spent (in hours)	Percentage of Time Spent
Scheduled learning and teaching	34	22.7
Placement	0	0
Independent Study	116	77.3
Total	150	100

Use the information provided in the box above to specify the total time spent and the percentage time spent in each category of teaching and learning activity.

6) Assessment Profile

Provide details of the assessment methods used to assess the achievement of learning outcomes.

Description of Assessment	Assessment Type	KIS Category	Duration/Length	Percentage Weighting	Final element of assessment	Qualifying Mark
Examination	Exam	Examination	2 Hours	50%	Yes	
Practical Report	Report	Coursework	1,750 words	30%	No	
In Class Test		Coursework	1 Hour	15%	No	
Peer marking of lab reports		Coursework		5%	No	

Final element of assessment: The assessment that takes place last. **There should normally be only one element of assessment marked as final unless two assessment or submission dates occur on the same day.**

Qualifying mark: A specified minimum mark that must be obtained in one or more elements of assessment in order to pass a module. **This is in addition to, and distinct from, the requirement to achieve a pass in the module mark to pass the module.**

Reassessment

Provide details of the reassessment methods used, specifying whether reassessment is either standard reassessment or synoptic reassessment.

- Standard Reassessment
 Synoptic Reassessment

Synoptic reassessment details (if you have indicated synoptic reassessment above, please give details)		
Brief Description of Assessment	Assessment Type	Duration/Length of Examination/ Coursework
Examination	Exam	2 Hours