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# Module details for Medical Physiology

## Module Details

**SCQF Level:**

08

**Module Code:**

LSC204

**Credit Value:**

20

**Year:**

2020/1

**Term:**

Term 1

**School:**

School of Applied Sciences

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## **Description**

This module builds on the fundamental physiological processes studied in LSC102. A more in depth exploration of key systems will be used to investigate the pathophysiology of key diseases with a focus on deviation from healthy physiology; medical approaches to interventions and/or treatment will be discussed. There will be a strong focus on the genetic inheritability of these disorders as well as a key focus on the role of genetic mutations.

## **Aims**

The aim of this Module is to provide the student with : a deeper understanding of key physiological systems and how genetics can play an important part in health and disease. Whilst studying the core material, the module also aims to focus on developing key scientific writing skills including, literature searches, paper reading and scientific writing.

## **Learning Outcomes**

By the end of this module the student should be able to:

1. Explain the function of key physiological systems
2. Relate knowledge of key physiological systems above to the underlying pathophysiology of key disorders.
3. Explain the interventions used in the treatment of these disorders.
4. Develop skills in scientific literature searches, scientific writing skills and independent learning.
5. Explain the fundamental processes of metabolism.

## **Indicative Content**

### **1 Cardiac physiology**

A focus on the electrical regulation of heart beat. Consideration of genetic aspects of arrhythmias.

### **2 Advanced reproductive physiology**

Consideration of gametogenesis, sperm function and fertilisation. Energy production and metabolism in gametes. A focus on infertility, the underlying pathophysiology and treatments.

### **3 Physiology of blood pressure regulation**

Systemic regulation of blood pressure including the role of the central nervous system, vasculature and kidneys. Pharmacological regulation of high blood pressure.

## 4 An introduction to scientific writing

will focus on literature searches, paper reading and scientific writing skills.

### Teaching and Learning Work Loads

For session 2020/21 the expectation is that the teaching and learning hours stated in this descriptor will form a mix of synchronous and asynchronous student/staff activity, with the majority of this being online. The exact pattern of this activity is likely to vary from the standard face-to-face hours listed below but the overall student effort remains the same. Up-to-date information on the delivery of the module can be found on the relevant module MLS site and on your student timetable.

TEACHING AND LEARNING METHOD	HOURS
Lecture	24
Tutorial/Seminar	6
Practical Activity	18
Assessment	50
Independent	102
<b>Total</b>	<b>200</b>

### Guidance notes

SCQF Level - The Scottish Credit and Qualifications Framework provides an indication of the complexity of award qualifications and associated learning and operates on an ascending numeric scale from Levels 1-12 with SCQF Level 10 equating to a Scottish undergraduate Honours degree.

Credit Value – The total value of SCQF credits for the module. 20 credits are the equivalent of 10 ECTS credits. A full-time student should normally register for 60 SCQF credits per semester.

### Disclaimer

We make every effort to ensure that the information on our website is accurate but it is possible that some changes may occur prior to the academic year of entry. The modules listed in this catalogue are offered subject to availability during academic year 2020/21, and may be subject to change for future years.

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