

Module code: MOD006290	Version: 2 Date Amended: 14/May/2024
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1. Module Title
Applied Pathophysiology

2a. Module Leader
Rudolph Schutte

2b. School
School of Allied Health and Social Care

2c. Faculty
Faculty of Health, Medicine and Social Care

3a. Level
5

3b. Module Type
Standard (fine graded)

4a. Credits
30

4b. Study Hours
300

5. Restrictions			
Type	Module Code	Module Name	Condition
Pre-requisites:	None		
Co-requisites:	None		
Exclusions:	None		
Courses to which this module is restricted:			

LEARNING, TEACHING AND ASSESSMENT INFORMATION

6a. Module Description

Building upon your anatomy and physiology knowledge from Level 4, you'll gain a deeper understanding of the pathophysiology of the various systems including the cardiovascular-, respiratory-, urinary-, gastrointestinal-, endocrine-, and nervous system. As you explore the causes, pathophysiological changes, and clinical diagnosis associated with these systems, you'll gain a profound insight into the mechanisms underlying human health and disease.

We'll help you acquire transferable, professional, and scientific skills through student-centred, problem-based learning using medical case studies. This not only deepens your understanding of human pathophysiology but also equips you with transferable, professional, and scientific skills crucial for your future endeavours. Through the case study approach, you'll have the opportunity to develop essential skills such as teamwork, delegation, problem-solving, and reasoning. These skills are not only valuable in a medical context but are also transferable to various professional settings.

We'll deliver this module through a mix of lectures, seminars, and tutorials, providing a diverse and comprehensive learning experience. Additionally, self-directed learning and problem-based learning are integral components of the module, encouraging you to take ownership of your education and develop critical thinking skills.

6b. Outline Content

- Haematopoietic function – disorders of white blood cells and lymphoid tissue; disorders of haemostasis; disorders of white blood cells
- Circulatory function – control of cardiovascular function; disorders of blood flow and pressure; disorders of cardiac function; heart failure and circulatory shock
- Respiratory function – control of respiratory function; disorders of ventilation and gas exchange
- Kidney and urinary tract function – structure and function of the kidney; disorders of renal function; chronic kidney disease
- Gastrointestinal and hepatobiliary function – structure and function of the gastrointestinal system; disorders of gastrointestinal function; disorders of hepatobiliary and pancreas function
- Nervous system – organisation and control of neural function; somatosensory function, pain and headache; disorders of neuromuscular function; disorders of brain function; disorders of special sensory function: vision, hearing, and vestibular function
- Endocrine system – Mechanisms of endocrine control; disorders of endocrine control of growth and metabolism; diabetes mellitus and the metabolic syndrome

6c. Key Texts/Literature

The reading list to support this module is available at: <https://readinglists.aru.ac.uk/>

6d. Specialist Learning Resources

Laboratory, Canvas

7. Learning Outcomes (threshold standards)		
No.	Type	On successful completion of this module the student will be expected to be able to:
1	Knowledge and Understanding	Explain normal physiological functioning and disturbances that results in common pathological conditions in named physiological systems.
2	Knowledge and Understanding	Evaluate clinical data and apply problem solving and reasoning skills to explore possible causes of pathophysiological conditions.
3	Intellectual, practical, affective and transferrable skills	Apply relevant laboratory skills to investigate certain physiological systems.
4	Intellectual, practical, affective and transferrable skills	Demonstrate critical concise writing skills with appropriate and accurate referencing.

8a. Module Occurrence to which this MDF Refers				
Year	Occurrence	Period	Location	Mode of Delivery
2026/7	ZZF	Template For Face To Face Learning Delivery		Face to Face

8b. Learning Activities for the above Module Occurrence			
Learning Activities	Hours	Learning Outcomes	Details of Duration, frequency and other comments
Lectures	24	1-3	2 h per week combining lectures and seminars
Other teacher managed learning	18	1-4	Practical sessions, tutorials and workshops
Student managed learning	258	1-4	Self-directed learning and preparation for assessment
TOTAL:	300		

9. Assessment for the above Module Occurrence

The assessment for some modules includes a presentation (see below for details on how this particular module is assessed). We recognise that presenting, especially to a large group, can cause significant anxiety or distress for some students. If this may affect you, please contact your Module Leader or the Disability and Neurodiversity Service as early as possible. We will work with you to consider appropriate reasonable adjustments. Depending on your individual needs, these might include, for example, presenting to a smaller group or presenting only to a member of academic staff.

Assessment No.	Assessment Method	Learning Outcomes	Weighting (%)	Fine Grade or Pass/Fail	Qualifying Mark (%)
010	Coursework	1-4	50 (%)	Fine Grade	30 (%)

Case report based on laboratory results (3000 words)

Assessment No.	Assessment Method	Learning Outcomes	Weighting (%)	Fine Grade or Pass/Fail	Qualifying Mark (%)
011	Examination Chelmsford	1-2	50 (%)	Fine Grade	30 (%)

2 h examination equivalent to 2000 words

In order to pass this module, students are required to achieve an overall mark of 40% (for modules at levels 3, 4, 5 and 6) or 50% (for modules at level 7*).

In addition, students are required to:

- (a) achieve the qualifying mark for each element of fine graded assessment as specified above
- (b) pass any pass/fail elements

[* the pass mark of 50% applies for all module occurrences from the academic year 2024/25 – see Section 3a of this MDF to check the level of the module and Section 8a of this MDF to check the academic year]