

Module Specification

Module Summary Information

1	Module Title	Applied Biosciences
2	Module Credits	20
3	Module Level	5
4	Module Code	PAR5011

5	Module Overview
<p>The application of physiology and pharmacology in clinical practice is fundamental in providing high quality patient centred care. Additionally, an understanding of the scientific principles that provide the basis of clinical monitoring and investigation are essential to the paramedic practitioner.</p> <p>This module builds on the knowledge you gained in the level 4 module Introduction to Bioscience. It allows you to explore the application of this knowledge in situations of injury and illness. You will have the opportunity to investigate the use of pharmacological interventions specific to Paramedicine and its use in effective care delivery, this knowledge will then continue to develop throughout the other modules you will engage in throughout the year. Pathophysiology of common conditions will be explored and compared with normal function. This will enable you to better appreciate the function and mechanisms of different disease processes and the methods employed to treat them.</p> <p>In addition, this module by nature of its content enables interdisciplinary learning and these opportunities will be maximised within this module wherever possible; thus allowing you to start to gain a greater understanding of other disciplines within the health care sector. This inter-professional learning will continue throughout your programme in many other ways and across other modules.</p> <p>The Applied Bioscience module will have its own designated Moodle page which you will have access to. This page will contain appropriate resources that are specific to the module such as lecture notes; supporting materials; assessment details and important notices. It is important that you access the site regularly as part of your learning will be to undertake weekly preparatory activities for each session followed by attempting short quizzes to help with your learning.</p>	

6	Indicative Content
<p>Haematology Endocrine system disorders Blood groups/blood glucose Laboratory Practicals Homeostasis and shock Nervous system disorders Pain and physiology Respiratory system disorders Cardiovascular system disorders (Acute and chronic) Pharmacology 1 (acute adverse effects/contraindications) Pharmacology 2- (profession specific) – JRCALC drug workbook as self-directed study Renal system disorders- Acute and chronic Urinalysis</p>	

Infection and Sepsis
Digestive system disorder (Acute and chronic)
GU system - Acute and chronic
Nutrition and Parenteral nutrition
Antibiotic therapy

7	Module Learning Outcomes		
	On successful completion of the module, students will be able to:		
	1	Examine the impact of disease processes on physiological systems.	
	2	Discuss the application of pharmacological interventions on pathophysiology.	
	3	Discuss the role of clinical investigations and monitoring in the identification and management of disease processes.	

8	Module Assessment		
Learning Outcome		Coursework	Exam
1, 2, 3		X	In-Person

9	Breakdown Learning and Teaching Activities	
Learning Activities		Hours
Scheduled Learning (SL) includes lectures, practical classes and workshops, peer group learning, Graduate+, as specified in timetable		40
Directed Learning (DL) includes placements, work-based learning, external visits, on-line activity, Graduate+, peer learning, as directed on VLE		60
Private Study (PS) includes preparation for exams		100
Total Study Hours:		200