

STUDENT AND ACADEMIC SERVICES

MODULE SPECIFICATION

Part 1: Basic Data					
Module Title	Life Sciences for Paramedics				
Module Code	UZYSVA-30-1		Level	1	Version 2
Owning Faculty	Health and Applied Sciences		Field	Allied Health Professionals	
Contributes towards	BSc (Hons) Paramedic Science				
UWE Credit Rating	30	ECTS Credit Rating	15	Module Type	Standard
Pre-requisites			Co- requisites		
Excluded Combinations			Module Entry requirements		
Valid From	September 2017		Valid to	September 2020	

CAP Approval Date	20/07/2017
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Part 2: Learning and Teaching	
Learning Outcomes	<p>On successful completion of this module students will be able to:</p> <ol style="list-style-type: none"> 1. Describe the essential concepts in biological chemistry and cell biology (Component A) 2. Identify the fundamentals of human anatomy and physiology, recognising the dynamic relationships between anatomical structure and function (Component A and B) 3. Explain the principles of homeostasis and major homeostatic processes (Component A) 4. Understand basic immunology and response to infection and injury (Component A) 5. Recognise the role of nutrition in health and illness (Component A) 6. Outline the factors influencing variations in human ability and health status, including the key concepts in genetics (Component A) 7. Apply anatomical and physiological concepts to inform Paramedic practice (Component A and B) 8. Demonstrate the ability to communicate knowledge and understanding in a fluent and coherent manner (Component B)

Syllabus Outline	<p>The Human Body: Key Concepts</p> <p>Cell biology: Structure and functions, cell growth and proliferation.</p> <p>Homeostasis and major homeostatic processes.</p> <p>Biological chemistry relevant to paramedic practice.</p> <p>Microbiology: the main classes of pathogenic micro-organisms, the spread of infection and infection control.</p> <p>Tissue damage, healing and repair</p> <p>Acids, bases and buffers; properties and reactions.</p> <p>Immunology and the response to infection and injury</p> <p>The factors influencing individual variations in human ability and health status including the fundamentals of genetics.</p> <p>Nutrition and its role in health and illness.</p> <p>The Human Body: A Systems Approach</p> <p>The anatomy and physiology of the:</p> <p>Respiratory System: Including lung volumes, control of respiration, diffusion and gas exchange and pressure and gas laws.</p> <p>Cardiovascular System: Including haemodynamics and viscosity in relation to blood flow, control of blood pressure, blood groups, haemostasis, osmosis and fluid and electrolyte balance.</p> <p>Nervous System: Including the central, peripheral and autonomic nervous system and neurotransmission.</p> <p>Gastro-Intestinal System: Including digestion, absorption, structure and functions of liver, and formation and excretion of bile</p> <p>Genito-Urinary System</p> <p>Endocrine System: Including hormones; types, mechanism of action.</p> <p>Integumentary System</p> <p>Musculoskeletal System: Including bone growth and development, muscle physiology and neuromuscular control.</p>
Contact Hours	<p>Students will engage in twelve, 3-hour interactive lecture and seminar days. Students are also given access to bespoke, interactive learning resources for the module, containing audios, games and quizzes giving opportunities to develop knowledge and understanding as they progress through the module. In addition, email contact with staff is available throughout the module and during scheduled tutorial time.</p>
Teaching and Learning Methods	<p>Scheduled learning includes lectures and seminars, also tutorials.</p> <p>Independent learning includes hours engaged with essential reading, reflective, comprehensive interactive online learning materials, revision etc.</p>

Key Information Sets Information	<p>Key Information Sets (KIS) are produced at programme level for all programmes that this module contributes to, this is a requirement set by HESA/HEFCE. KIS are comparable sets of standardised information about undergraduate courses allowing prospective students to compare and contrast between programmes they are interested in applying for.</p>																																																		
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Reading Strategy	<p>Core readings</p> <p>Any essential reading will be indicated clearly, along with the method for accessing it, e.g. students may be expected to purchase a set text, be given a study pack or be referred to texts that are available electronically, or in the Library. Module guides will also reflect the range of reading to be carried out.</p>																																																		
	<p>Further readings</p> <p>Further reading is advisable for this module, and students will be encouraged to explore at least one of the titles held in the library on this topic. A current list of such titles will be given in the module guide and revised annually</p>																																																		
	<p>Access and skills</p> <p>Formal opportunities for students to develop their library and information skills are provided within the induction period. Additional support is available through the Library Services web pages, including interactive tutorials on finding books and journals, evaluating information and referencing. Sign-up workshops are also offered by the Library.</p>																																																		
	<p>Indicative reading list</p> <p>The following list is offered to provide validation panels/accrediting bodies with an indication of the type and level of information students may be expected to consult. As such, its currency may wane during the life span of the module specification. <i>Current</i> advice on additional reading will be available via the module guide or Blackboard pages.</p>																																																		

Indicative Reading List	<ul style="list-style-type: none"> Caroline, N. (2013) <i>Emergency Care in the Streets</i>. Boston, MA: Jones and Bartlett Publishing. Tortora, G. and Derrickson, B. (2011) <i>Principles of Anatomy and Physiology</i> 13th ed. London: Wiley. Waugh, A. and Grant, A. (2014) <i>Ross and Wilson Anatomy and Physiology in Health and Illness</i> 12th ed Oxford: Churchill-Livingstone.
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Part 3: Assessment	
Assessment Strategy	<p>Summative assessment</p> <p>Component A (controlled condition): an examination at the end of semester 2 will use MCQs to assess the breadth of the student's knowledge and will additionally assess learning from workshops and practicals through short answer questions.</p> <p>Rationale; to provide an opportunity to assess the student's general knowledge and understanding of all aspects of Life Sciences.</p> <p>Component B: (50%): A structured oral and practical examination to assess the students ability to identify anatomical structures and to describe function and purpose</p> <p>Rationale: To provide an opportunity for the student to demonstrate knowledge of anatomy and physiology and articulate using the correct anatomical and physiological terminology</p> <p>Formative assessment will take place through skills supervision and feedback, also tutorial support and reading by a personal tutor of draft work.</p>

Identify final assessment component and element	Component B	
% weighting between components A and B (Standard modules only)	A:	B:
	50%	50%
First Sit		
Component A (controlled conditions) Description of each element	Element weighting (as % of component)	
1. A 2 hour unseen exam	100%	
Component B Description of each element	Element weighting (as % of component)	
1. Structured oral and practical examination	100%	

Resit (further attendance at taught classes is not required)	
Component A (controlled conditions) Description of each element	Element weighting (as % of component)
1. A 2 hour unseen exam	100%
Component B Description of each element	Element weighting (as % of component)

1. Structured oral and practical examination	100%
If a student is permitted an EXCEPTIONAL RETAKE of the module the assessment will be that indicated by the Module Description at the time that retake commences.	

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First CAP Approval Date	28/03/2014			
Revision CAP Approval Date	20/07/2017	Version	2	Link to RIA 12420