

## MODULE SPECIFICATION

Part 1: Information							
Module Title	Human Biological Systems						
Module Code	USSJRU-30-1		Level	Level 4			
For implementation from	2020-	2020-21					
UWE Credit Rating	30		ECTS Credit Rating	15			
Faculty	Faculty of Health & Applied Sciences		Field	Applied Sciences			
Department	HAS	Dept of Applied Sciences					
Module type:	Stand	Standard					
Pre-requisites		None					
Excluded Combinations		None					
Co- requisites		None					
Module Entry requirements		None					

## Part 2: Description

**Overview**: This module examines the fundamentals of human biology particularly the molecular events that occur at the cellular level and how these affect the function of tissues and organs.

**Educational Aims:** The central goal of the Human Biological Systems module is to provide forensic science students with a firm understanding of the general human anatomy and physiology, including various systems in the human body. This will be achieved through lectures, tutorial, practical sessions, online learning material, guided review sessions and self-directed learning.

**Outline Syllabus:** An examination of the organisation of the human body, including appreciation of the location, structure and function of the major tissues, organs and systems and the contribution of cells and tissues to the whole.

Homeostasis and biological processes which support life.

Communication between cells/tissues/organs: including an introduction to signalling and receptors, endocrine control, nervous control and synapses.

Structure and function of cell membranes and the structure and function of generalised prokaryotic and eukaryotic cells.

Overview of macromolecules in human cells including proteins, carbohydrates and lipids and an introduction to the biochemical processes of the cell.

The genetic material and genomes, including DNA replication, gene expression and the gene inheritance patterns in humans.

**Teaching and Learning Methods:** The theoretical material will be delivered mostly as lectures and reinforced by directed reading, practical activities and directed tasks. The practical work will support and extend lecture material and will include simulation workshops and data interpretation. Tutorials and learning support will be offered at key times.

## Part 3: Assessment

Component A is an online exam, with a 24 hour window for completion. The examination is an effective means for assessing a student's retained knowledge, as well as testing their ability to organize information logically and coherently in order to demonstrate understanding of the topic.

Component B is a Practical Portfolio which is based on the laboratory practical series. This portfolio requires the detailed recording of data followed by analysis, interpretation and discussion of these data.

Activities underpinning assessment are built into the course, through discussion of current research, the evaluation of research methods, and review of past exam papers. Students receive support from academic and technical staff in all practical classes to facilitate supported in class completion of the practical portfolio.

First Sit Components	Final Assessment	Element weighting	Description
Examination (Online) - Component A	~	50 %	Online Examination (24 hours)
Portfolio - Component B		50 %	Practical portfolio
Resit Components	Final Assessment	Element weighting	Description
Examination (Online) - Component A	✓	50 %	Online Examination (24 hours)
Portfolio - Component B		50 %	Portfolio- Practical report, data interpretation and written task.

Part 4: Teaching and Learning Methods						
Learning Outcomes	On successful completion of this module students will achieve the following learning outcomes:					
	Module Learning Outcomes	Reference				
	Describe the structure and function of the main systems of the human body.	MO1				
	Demonstrate an understanding of the relationship between tissue structure and	MO2				
	function in the human body.					
	Describe the ultrastructure and function of various human cells and their	MO3				
	organelles, in relation to their location and distribution in the human body.					
	Describe the key properties and functions of various tissues in the human body.	MO4				
	Understand the organisation, structure, regulation and expression of the genetic	MO5				
	material of the cell and their modes of inheritance.					
	Demonstrate practical skills in data observation, collection, handling and report writing .	MO6				

Contact Hours	Independent Study Hours:					
	Independent study/self-guided study	234				
	Total Independent Study Hours:	234				
	Scheduled Learning and Teaching Hours:					
	Face-to-face learning	66				
	Total Scheduled Learning and Teaching Hours:	66				
	Hours to be allocated	300				
	Allocated Hours	300				
Reading List	The reading list for this module can be accessed via the following link:					
	https://uwe.rl.talis.com/modules/ussjru-30-1.html					

## Part 5: Contributes Towards

This module contributes towards the following programmes of study: