University of the West of England
BRISTOL

CORPORATE AND ACADEMIC SERVICES

MODULE SPECIFICATION

Part 1: Basic Data						
Module Title	Anatomy and Physiology (Premedical Sciences)					
Module Code	USSJYD-30-1		Level	1	Version	1
Owning Faculty	Health and Life Sciences		Field	Applied Sciences		
Contributes towards	Cert HE Premedical Sciences					
UWE Credit Rating	30	ECTS Credit Rating	15	Module Type	Standard	
Pre-requisites	None		Co- requisites	None		
Excluded Combinations	None		Module Entry requirements	n/a		
Valid From	September 2013		Valid to	Current/ongoing		

CAP Approval Date	30/12/2012

Part 2: Learning and Teaching	
Learning Outcomes	On successful completion of this module students will be able to (Assessment intended for each learning outcome designated by [*] corresponding to assessment section): • Use and understand basic anatomical terminology [A1, B3] • Explain the principles of homeostasis and recognise homeostatic control mechanisms, [A2, B3] • Describe the differences between connective tissue types at the cellular and tissues levels [A2, B3] • Identify major bones of the human skeleton, including key surface landmarks [A1, A2, B3] • To be able to relate the position, orientation, and gross anatomy of major organs to their respective systems [A1, A2, B3] • Describe the structure and function of the endocrine and nervous systems, [A1, A2, B2, B3] • To relate the function and location of key systems to one another, [A2, B2, B3] • Understand the sensory and locomotor aspects of the nervous system, [A2, B2, B3] • Describe the principles of diagnostic imaging and show a working knowledge of simple interpretation [A1, B2, B3] • Demonstrate practical skills in data observation, collection, handling and report writing [B1]
Syllabus Outline	• Anatomical terminology as it relates to body posture and describing orientation of organs/limbs in a clinical setting • Major skeletal structure, including an introduction to bone growth and

	development • Connective tissues: Introduction into cell types that make up the various connective tissues, and the function of connective tissue in the human body • Major muscle groups, including their relationship to connective tissues • Histological structure of endocrine, nerve and muscle tissues • Endocrinology; structure and function of the key endocrine organs and its relationship to homeostasis and normal function • Introduction to the Nervous System to include gross anatomy of the brain and spine. The electrochemical nature of nervous signals. Membrane and action potentials, nerve conduction, synaptic transmission. • An introduction to the pharmacological nature of the autonomic nervous system. The neurotransmitters and receptors involved in autonomic function. • Structure of the heart and its associate with major blood vessels, including lung structure and its relationship to the heart • The structure of the organs that make up the GI system, with focus on adaptations of each to carry out specific functions relating to stages of digestion • The structure of the kidneys and bladder, including nervous control of micturition • Structure and function of the male and female reproductive system. • The process of human development from fertilisation to adulthood • An introduction to the technologies of diagnostic imaging including x-ray, MRI, and ultrasound. Interpretation of MRI imaging in particular to understand spatial relationships of cross sectional anatomy and structure recognition
Contact Hours/Scheduled Hours	• 72hrs • Typically lectures will alternate with a practical or tutorial session of 2 hrs each week and during timetabled in class assessments (6hr) in the form of MCQ tests. • The module will be supported through Blackboard.
Teaching and Learning Methods	• Theoretical material within the module will be presented to the students in the form of weekly lectures throughout each of the semesters in the academic year. The learning of lecture content will be reinforced through time spent in independent learning by the directed reading of recommended texts and through the use of technology enhanced learning resources that will be provided online. A number of relevant practical sessions will be incorporated at appropriate junctures and will be used to highlight important aspects of both anatomy and physiology as applied in a medical context. Practical sessions will both drive hands on learning and the acquisition of technical skills at both an individual and group working level. • Students undertaking this module can expect to receive 16 x 2hr lectures, and 10 x 1hr tutorials. In addition the students will undertake fortnightly 30min in class assessments that comprise online MCQs. • The module also encompasses 12 x 2hr practical sessions and the students should expect to spend the same time again in reading around the subject before and after each of these sessions. • The remainder of the independent learning time allocated to the module should be spent preparing written assessments for submission and undertaking revision for both continuous assessment sessions and for interim (EX1) and final exams (EX2).

	Scheduled learning includes lectures, tutorials, practical classes and in class MCQ tests. **Independent learning** includes hours engaged with essential reading, case study preparation, assignment preparation and completion etc.
Key Information Sets Information	**Key Information Set - Module data** *Number of credits for this module* 30 Hours to be allocated: 300 | Scheduled learning and teaching study hours: 72 | Independent study hours: 228 | Placement study hours: 0 | Allocated Hours: 300 The table below indicates as a percentage the total assessment of the module which constitutes a - **Written Exam**: Unseen written exam **Coursework**: Written assignment or essay, report, in MCQ class tests **Practical Exam**: Practical exam of anatomical specimens Please note that this is the total of various types of assessment and will not necessarily reflect the component and module weightings in the Assessment section of this module description: Total assessment of the module: Written exam assessment percentage: 20% Coursework assessment percentage: 60% Practical exam assessment percentage: 20% 100%
Reading Strategy	• All students will be encouraged to make full use of the print and electronic resources available to them through membership of the University. These include a range of electronic journals and a wide variety of resources available through web sites and information gateways. The University Library's web pages provide access to subject relevant resources and services, and to the library catalogue. Many resources can be accessed remotely. Students will be presented with opportunities within the curriculum to develop their information retrieval and evaluation skills in order to identify such resources effectively. • 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 or sold a print study pack or be referred to texts that are available electronically, etc. This guidance will be available either in the module handbook, via the module information on Blackboard or through any other vehicle deemed appropriate by the module/programme leaders. • If **further reading** is expected, this will be indicated clearly. If specific texts are listed, a clear indication will be given regarding how to access them and, if appropriate, students will be given guidance on how to identify relevant sources for themselves, e.g. through use of bibliographical databases.

Indicative Reading List	**Latest editions of the following:** **Core texts** • Clinically Oriented Anatomy by Keith L. Moore MSc PhD FIAC FRSM FAAA, Arthur F. Dalley PhD and Anne M.R. Agur B.Sc. (OT) M.Sc. PH.D (Feb 9, 2009) • Anatomy & Physiology by Kevin T. Patton PhD and Gary A. Thibodeau PhD (2012) **Additional Reading** • Grant's Atlas of Anatomy 13th Edition. Anne M. R. Agur, Arthur F. Dalley**.** (Feb, 2012) • Marieb E.N. (2011) Human Anatomy & Physiology. Ninth edition. Pearson • Martini Ober (2011) Visual Anatomy & Physiology. Benjamin Cummings. • Stanfield CL (2009) Principles of Human Physiology. Fourth Edition. Pearson Education Ltd. • Silverthorn D (2010) Human Physiology an Integrated Approach. Fifth edition. Pearson Education Ltd. • Tortora GJ & Derrickson B (2010) Essentials of Anatomy & Physiology. Eighth edition. Wiley.

Part 3: Assessment	
Assessment Strategy	The nature of this module, and the program to which it relates, necessitates continuous assessment throughout. Summative assessment for this module will be provided using a number of approaches. The nature of the premedical sciences programme to which this module contributes requires continuous, interim and final assessment of student learning and a measure of their acquisition of written presentation skills of analysed data. • Continuous assessment within component B will be provided by the use of frequent multiple choice question tests throughout the module and following blocks of learning provided in the form of lectures. These tests will be provided online, marked automatically and the results provided to the module leader. Feedback at this level will also be provided online and will be by review of the tests after they have been completed and will include the correct answers and the rationale behind these. • The ability of the students to write scientifically and analyse data will be assessed under component B in the form of 2000 word practical reports. These will be marked and feedback provided in the form of written comments. An additional essay based coursework element will be included within component B Interim (end of semester 1) summative assessment for this module will involve an anatomical spot test carried out under exam conditions, where students are expected to identify anatomical structures and systems from anatomical pots, models, and imaging modalities (photographs, MRIs, Radiographs). Final assessments under component A will take the form of Final (end of semester 2) examinations that comprise short answer and multiple choice questions.

Identify final assessment component and element		
% weighting between components A and B (Standard modules only)	**A:** **40**	**B**: **60**

First Sit	
Component A (controlled conditions) **Description of each element**	**Element weighting** **(as % of component)**
1. EX1 Practical Examination – exam period 45mins	50%
2. EX2 Written Examination – exam period 45mins FINAL ASSESSMENT	50%
Component B **Description of each element**	**Element weighting** **(as % of component)**
1. CW1 – Written practical report	25%
2. CW2 – Essay based report	25%
3. CW3 - Frequent in class MCQ assessment	50%

Resit (further attendance at taught classes is not required)	
Component A (controlled conditions) **Description of each element**	**Element weighting** **(as % of component)**
1. EX3 Written Examination – exam period 3 (90mins)	100%
Component B **Description of each element**	**Element weighting** **(as % of component)**
1. CW1 – Practical report	50%
2. CW2 – Extended essay based report	50%

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.