MODULE DESCRIPTOR

Module Title	Anatomy and Physiology
Course Title	BSc Sports Coaching and Analysis BSc Sport and Exercise Science BSc Bioscience BSc Human Nutrition
School	☐ ASC ☐ ACI ☐ BEA ☐ BUS ☐ ENG ☐ HSC ☐ LSS
Division	Human Sciences
Parent Course (if applicable)	
Level	4
Module Code *(showing level)*	ASC_4_401
JACS Code (completed by the QA)	
Credit Value	20 credit points
Student Study Hours	Contact hours: 50 Student managed learning hours: 150 Placement hours: N/A
Pre-requisite Learning	N/A
Co-requisites	N/A
Excluded combinations	N/A
Module co-ordinator	Name: Dr John Seeley Email: seeleyj@lsbu.ac.uk
Short Description (max. 100 words)	This module will develop student knowledge and understanding of anatomical language and the anatomy of the human musculoskeletal system, as well as the physical and chemical principles that underlie physiological function and metabolic processes. The concepts of integration and control in physiology are developed, beginning with the study of cell membrane function and leading to an appreciation of human functioning through understanding of physiological systems.
Aims	The aims of this module are to: 1. Introduce the concepts of integrated body function, homeostasis and control; 2. Develop knowledge of human musculoskeletal anatomy and the functional anatomy of the performance of human movement and sports skills;

	3. Provide background in membrane and cell membrane function and an understanding of human systems physiology.
Learning Outcomes (4 to 6 outcomes in total)	Knowledge and Understanding: Develop an understanding of the anatomical and functional organisation of the human body from a variety perspectives ranging between the molecular to the integration of physiological systems Intellectual Skills: Investigate an area of study in depth Practical Skills: Assess cardiorespiratory and muscular physiology in a laboratory setting Transferable Skills: Think critically and analytically
Employability	The module is designed to provide the students with a strong background in the analysis of human movement/sporting skills and human physiology. This module maps to the following specification content of the CYQ L2 Gym Instructor course. Exercise and Fitness knowledge: The skeletal system The muscular and neuromuscular system Kinesiology theory and muscle action Cardiovascular and respiratory systems
Teaching and learning pattern	Contact hours includes the following: (please click on the checkboxes as appropriate) ☐ Lectures ☐ Group Work: ☐ Seminars ☐ Tutorial: ☐ Laboratory ☐ Workshops ☐ Practical ☐ VLE Activities
Indicative content	The anatomy of the human neuromusculoskeletal system Classification of human movement Biomolecules Organelles, cells, tissues and organs The cell membrane Physiological systems with particular emphasis on cardiovascular, respiratory and neuromuscular physiology Homeostasis, physiological regulation, signalling and control A laboratory investigation of rest and exercise
Assessment method (Please give details – of components, weightings, sequence of components, final component)	Formative assessment: Coursework will be supported by tutorials, and the examination by practice tests drawn from the same question bank as the examination itself. Summative assessment: *Coursework (*50%) Questions based on laboratory activity *Examination (50%)*

	A multiple-choice test For example: CW1: Presentation (20%) CW2: Essay (30%) Exam: 2 hour exam (50%) (The sequence of components in this section should reflect the order of submission)
Mode of resit assessment (if applicable)	Formative assessment: As above Summative assessment: As above
Indicative Sources *(Reading lists)*	Core materials: 1. Marieb, E and Hoehn, KN (2015) *Human Anatomy and Physiology*, 10th edition; Pearson Education Limited 2. Muscolino, JE (2016) *Kinesiology: The skeletal system and muscle function*, 3rd edition, Elsevier Background reading: 1. Martini, FH et al. (2015) *Visual Anatomy and Physiology*, Pearson Education Limited *2.* Tortora, GJ and Derrickson, BH (2014) *Introduction to the Human Body: The essentials of anatomy and physiology*, 6th edition, John Wiley and Sons Inc 3. Widmaier, EP, Raff, H and Strang, KT (2016) *Vander's Human Physiology: The mechanisms of body function*, 14th edition. McGraw Hill Education 4. Wirhed, R (2006) *Athletic ability and the anatomy of motion*, 3rd edition, Mosby Elsevier
Other Learning Resources	Drust, B, and Green, M (2013) *Science and football: Evaluating the influence of science on performance*, Journal of Sports Sciences, **31**(13), 1377-1382.