Module Descriptor

Title	Human Biology		
Session	2026/27	**Status**	Published
Code	BIOL08003	**SCQF Level**	8
Credit Points	20	**ECTS (European Credit Transfer Scheme)**	10
School	**Health and Life Sciences**		
Module Co-ordinator	Fiona Menzies		

Summary of Module

The major organ systems are introduced and their control via hormonal and neural inputs discussed. Pathological conditions that affect these organ systems will be presented to underpin this material.

Principal endocrine organs/tissues will be discussed with specific consideration to role of homeostasis and its disturbance in pathology. The anatomy of the reproductive systems will introduced, and hormonal control of these systems presented in the context of the reproductive cycle and conception and then extended to fetal development and parturition.

Functional anatomy of the CVS will be developed further to consider the conducting system of the heart, including discussion of ECG. The cardiac cycle will be presented. Blood vessel structure will be discussed specifically with reference to the functional classification of the different vessel types. Cell growth and the molecular changes associated with the neoplastic process will be presented. The concept of programmed cell death will be introduced.

The general arrangement of the nervous system will be introduced. Action potential generation/propagation and structure and function of the special senses will be presented. Structure and function of skeletal, cardiac and smooth muscle will be described. Students will be introduced to the field of toxicology.

Laboratory sessions will complement the lectures, reinforcing theoretical concepts while providing hands-on experience in histological analysis of specimens, clinical detection of hormones, including associated quality assurance and quality control (QA/QC) practices and the applications of cell culture in human health research. Students will also investigate Point-of-Care Testing (PoCT), examining how its effectiveness compares to traditional laboratory-based methods.

This module will work to develop a number of the key 'I am UWS' Graduate Attributes to make those who complete this module: Universal, Critical Thinker, Ethically-minded, Research-minded, Work Ready, Knowledgeable, Effective Communicator, Ambitious, Successful, Autonomous, Resilient, Driven.

Module Delivery Method	On-Campus[1] ☒	Hybrid[2] ☐	Online[3] ☐	Work -Based Learning[4] ☐
Campuses for Module Delivery	☐ Ayr ☐ Dumfries	☒ Lanarkshire ☐ London ☐ Paisley	☐ Online / Distance Learning ☐ Other (specify)	

Terms for Module Delivery	Term 1	☒	Term 2	☐	Term 3	☐
Long-thin Delivery over more than one Term	Term 1 – Term 2	☐	Term 2 – Term 3	☐	Term 3 – Term 1	☐

Learning Outcomes	
L1	Describe the major endocrine systems, their control by homeostasis and the effect of their hormones on target organs.
L2	Describe the anatomy, hormonal control of the male and female reproductive systems and their role in conception and fetal development.
L3	Describe the structure and function of the CNS, special senses and muscle.
L4	Describe the major components of the CVS, the conducting system, cardiac cycle, blood vessel types and blood.
L5	Describe changes in cellular function in neoplasia.

Employability Skills and Personal Development Planning (PDP) Skills	
SCQF Headings	**During completion of this module, there will be an opportunity to achieve core skills in:**
Knowledge and Understanding (K and U)	**SCQF 8** Demonstrate a broad knowledge of major physiological systems in humans, including the principles and concepts of homeostasis and its role in control of physiological processes
Practice: Applied Knowledge and Understanding	**SCQF 8** Trained to apply skills and techniques important in monitoring basic and routine physiological parameters e.g. blood pressure, hormone levels, ECG, and introductory histology.
Generic Cognitive skills	**SCQF 8**

[1] Where contact hours are synchronous/ live and take place fully on campus. Campus-based learning is focused on providing an interactive learning experience supported by a range of digitally-enabled asynchronous learning opportunities including learning materials, resources, and opportunities provided via the virtual learning environment. On-campus contact hours will be clearly articulated to students.

[2] The module includes a combination of synchronous/ live on-campus and online learning events. These will be supported by a range of digitally-enabled asynchronous learning opportunities including learning materials, resources, and opportunities provided via the virtual learning environment. On-campus and online contact hours will be clearly articulated to students.

[3] Where all learning is solely delivered by web-based or internet-based technologies and the participants can engage in all learning activities through these means. All required contact hours will be clearly articulated to students.

[4] Learning activities where the main location for the learning experience is in the workplace. All required contact hours, whether online or on campus, will be clearly articulated to students

	Undertake critical analysis, evaluation, of ideas and concepts. Analysing data from; immunological assays and interpreting information based on known endocrinological responses, CVS and respiratory monitoring and histology sections.
Communication, ICT and Numeracy Skills	**SCQF 8** Data analysis and tabular/graphical presentation of data for production of word processor produced laboratory reports.
Autonomy, Accountability and Working with Others	**SCQF 8** Co-operate in sharing laboratory equipment and resources. Learn to work both individually and in pairs depending on exercise. Take responsibility for generating data for use in reports.

Prerequisites	**Module Code**	**Module Title**
	BIOL07022	Fundamentals of Life
	BIOL07023	Chemistry for Environmental & Biosciences
	Other	
Co-requisites	**Module Code**	**Module Title**

Learning and Teaching	
In line with current learning and teaching principles, a 20-credit module includes 200 learning hours, normally including a minimum of 36 contact hours and maximum of 48 contact hours. The learning activities undertaken to achieve the module learning outcomes will include interactive lectures and tutorials, laboratory demonstrations and activities, consideration of case studies and independent study. VLE- based support materials will be available.	
Learning Activities During completion of this module, the learning activities undertaken to achieve the module learning outcomes are stated below:	**Student Learning Hours** (Note: Learning hours include both contact hours and hours spent on other learning activities)
Lecture / Core Content Delivery	29
Tutorial / Synchronous Support Activity	8
Laboratory / Practical Demonstration / Workshop	11
Independent Study	152
n/a	
n/a	
TOTAL	200

Indicative Resources
The following materials form essential underpinning for the module content and ultimately for the learning outcomes: Anatomy & Physiology (Openstax - Free online textbook) (https://openstax.org/details/books/anatomy-and-phsyiology-2e)

Cell Structure and Function (Fundamentals of Biomedical Science).Guy, O. (2015) Oxford University Press.

Essentials of Anatomy & Physiology, 8th Ed. Martini F. H. & Bartholomew E. F. (2020) Pearson Education Inc. ISBN 978-0135203804

Histopathology 2e (Fundamentals of Biomedical Science). Guy, O (2017) Oxford University Press.

Human Biology (16th Edn) Mader, S. (2019) McGraw-Hill Higher Education. ISBN 978-1260547603

Principles of Anatomy & Physiology (16th Ed). Tortora, G (2023) Wiley. ISBN: 9781394212835

(N.B. Although reading lists should include current publications, students are advised (particularly for material marked with an asterisk*) to wait until the start of session for confirmation of the most up-to-date material)

Attendance and Engagement Requirements

In line with the Student Attendance and Engagement Procedure, Students are academically engaged if they are attending and participating in all timetabled programme activities including on-campus and online teaching sessions, asynchronous online learning activities, placement, work-based elements, course-related learning resources, and complete assessments and submit these on time.

For the purposes of this module, academic engagement equates to the following:

The university is committed to providing a supportive learning environment that actively facilitates student success. In this module, there is a high degree of student-led flexibility. You are academically engaged if you are regularly engaged with scheduled live sessions on-campus and online, including engaging with online learning activities in your own time, course-related learning resources, and with timely completion and submission of assessments.

Whilst we understand that there may be times when conflicting priorities make participation challenging, for you to gain the most from this module it is recommended that you participate in all scheduled live classes and complete your self-directed learning activities in a timely manner.

It may be difficult to pass the assessment associated with this module if you are not regularly engaging with the module work and live classes. We may reach out to check how things are going and offer support if we observe that you have not been attending sessions or completing online activities.

Equality and Diversity

The University's Equality, Diversity and Human Rights Procedure can be accessed at the following link: UWS Equality, Diversity and Human Rights Code.

In line with current legislation (Equality Act, 2010) and the UWS Equality, Diversity, and Human Rights Code, our modules are accessible and inclusive, with reasonable adjustment for different needs where appropriate. Module materials comply with University guidance on inclusive learning and teaching, and specialist assistive equipment, support provision and adjustment to assessment practice will be made in accordance with UWS policy and regulations. Where modules require practical and/or laboratory based learning or assessment required to meet accrediting body requirements the University will make reasonable adjustment such as adjustable height benches or assistance of a ‘buddy’ or helper.

(N.B. Every effort will be made by the University to accommodate any equality and diversity issues brought to the attention of the School)

Supplemental Information

Divisional Programme Board	**Biological Sciences Health**
Overall Assessment Results	☐ **Pass / Fail** ☒ **Graded**
Module Eligible for Compensation	☒ **Yes** ☐ **No** **If this module is eligible for compensation, there may be cases where compensation is not permitted due to programme accreditation requirements. Please check the associated programme specification for details.**
School Assessment Board	Biology
Moderator	Richard Thacker
External Examiner	S Haliti
Accreditation Details	IBMS/ HCPC/ RSB
Module Appears in CPD catalogue	☐ **Yes** ☒ **No**
Changes / Version Number	2

Assessment (also refer to Assessment Outcomes Grids below)
Assessment 1
Class Test: constitutes 50% of the module mark
Assessment 2
Coursework: constitutes 50% of the module mark.
Assessment 3
(N.B. (i) Assessment Outcomes Grids for the module (one for each component) can be found below which clearly demonstrate how the learning outcomes of the module will be assessed. (ii) An indicative schedule listing approximate times within the academic calendar when assessment is likely to feature will be provided within the Student Module Handbook.)

Component 1							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
Class test (written)	☒	☒	☒	☒	☒	50	2

Component 2							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
Laboratory/ Clinical/ Field notebook	☒	☒	☒	☒	☒	50	8

Component 3							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
	☐	☐	☐	☐	☐		
Combined total for all components						100%	10 hours

Change Control

What	**When**	**Who**
Module Summary and Indicative Resources updated	July 2025	F Menzies
External Examiner updated Version Number updated	Nov 2024	F Menzies