



## Module Descriptor

Title	Core Biomedical Science		
Session	2025/26	Status	Published
Code	BIOL08019	SCQF Level	8
Credit Points	20	ECTS (European Credit Transfer Scheme)	10
School	Health and Life Sciences		
Module Co-ordinator	Fraser Craig		
<b>Summary of Module</b>			
<p>Core Biomedical Science allows students to gain an insight into the major disciplines that make up biomedical science and the role of professional and regulatory bodies in monitoring and accrediting biomedical scientists and the laboratories they work in. Students will gain an understanding of expectations of professional behaviour and how they are met. This module will form the focus in Year 2/Level 8 for the training and education of students intending to have a career in biomedical science.</p> <p>A key component of the course is to introduce the IBMS portfolio, the production of evidence to show HCPC Standards of Proficiency are met. Through studying the biomedical science disciplines in conjunction with selected organ systems students will gain experience in generating evidence for biomedical investigations. Initially, students will cover the basic concepts of biomedical tests in clinical medicine including, reference ranges, accuracy and precision, specificity and sensitivity.</p> <p>The roles of clinical biochemistry and pathology in biomedical science are introduced through the study of function and disease of the gastrointestinal tract, renal system and respiratory system. Through engaging in lectures, practical work, tutorials and problem students will understand the integrated role of disciplines in diagnosis and management of disease.</p> <p>This module will work to develop a number of the key “I am UWS” Graduate Attributes:</p> <p>Critical thinker</p> <p>Analytical</p> <p>Inquiring</p> <p>Knowledgeable</p> <p>Digitally literate</p> <p>Problem-solver</p>			

<b>Module Delivery</b>	<b>On-Campus<sup>1</sup></b>	<b>Hybrid<sup>2</sup></b>	<b>Online<sup>3</sup></b>	<b>Work -Based</b>
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<sup>1</sup> 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

<b>Method</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Learning<sup>4</sup></b> <input type="checkbox"/>
<b>Campuses for Module Delivery</b>	<input type="checkbox"/> Ayr <input type="checkbox"/> Dumfries	<input checked="" type="checkbox"/> Lanarkshire <input type="checkbox"/> London <input type="checkbox"/> Paisley	<input type="checkbox"/> Online / Distance Learning <input type="checkbox"/> Other (specify)	
<b>Terms for Module Delivery</b>	Term 1	<input checked="" type="checkbox"/>	Term 2	<input type="checkbox"/>
<b>Long-thin Delivery over more than one Term</b>	Term 1 – Term 2	<input type="checkbox"/>	Term 2 – Term 3	<input type="checkbox"/>

Learning Outcomes	
<b>L1</b>	Understand the role of the regulatory and professional bodies in the training, accreditation and monitoring of biomedical science and biomedical scientists.
<b>L2</b>	Understand the importance of conduct, performance and ethics in meeting HCPC standards of proficiency.
<b>L3</b>	Describe the role of clinical biochemistry in the diagnosis and management of disease.
<b>L4</b>	Describe the role of pathology in the diagnosis and management of disease.
<b>L5</b>	Describe changes in cellular function in immunological responses.

Employability Skills and Personal Development Planning (PDP) Skills	
<b>SCQF Headings</b>	<b>During completion of this module, there will be an opportunity to achieve core skills in:</b>
<b>Knowledge and Understanding (K and U)</b>	<b>SCQF 8</b> Demonstrate a broad knowledge of core biomedical science disciplines and their application in disease diagnosis and management.
<b>Practice: Applied Knowledge and Understanding</b>	<b>SCQF 8</b> Use the theoretical knowledge gained to perform experiments and interpret the results.
<b>Generic Cognitive skills</b>	<b>SCQF 8</b> Use a range of approaches to formulate appropriate responses to problems in biomedical science.
<b>Communication, ICT and Numeracy Skills</b>	<b>SCQF 8</b> Communicate effectively orally and in writing. Analyse and interpret

opportunities including learning materials, resources, and opportunities provided via the virtual learning environment. On-campus contact hours will be clearly articulated to students.

<sup>2</sup> 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.

<sup>3</sup> 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.

<sup>4</sup> 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

	data where appropriate.
<b>Autonomy, Accountability and Working with Others</b>	<b>SCQF 8</b> Working in teams to perform practical work will require time management, organisational skills and awareness of professional practice.

Prerequisites	Module Code	Module Title
	BIOL07022 BIOL07023	Chemistry for Environmental and Biosciences  Fundamentals of Life
	<b>Other</b> Only Available for students on the Programmes BSc (Hons) Applied Biomedical Science), BSc (Hons) Biomedical Science and BSc (Hons) Science.	
Co-requisites	Module Code	Module Title

Learning and Teaching	
<p>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.</p> <p>It is anticipated that the delivery of this module will include formal lectures, tutorials focused on problem solving and application of theoretical knowledge and practical laboratory work. The module is intended to give students the necessary knowledge and practical underpinning to understand the processes used to diagnose, investigate and manage pathological conditions. Being an introductory course it deals with the role major disciplines of biomedical science looking at selected organ systems. These will be expanded up and extended to other organ systems in later years. The module is also designed to progress the professional training of the students towards becoming professionally accredited Biomedical Scientists. Teaching will involve lectures, tutorials, problem-based learning and laboratory sessions. External speakers from IBMS approved laboratories will contribute to the course.</p>	
Learning Activities	Student Learning Hours
During completion of this module, the learning activities undertaken to achieve the module learning outcomes are stated below:	(Note: Learning hours include both contact hours and hours spent on other learning activities)
Lecture / Core Content Delivery	24
Laboratory / Practical Demonstration / Workshop	16
Tutorial / Synchronous Support Activity	8
Independent Study	152
n/a	
n/a	
<b>TOTAL</b>	<b>200</b>

Indicative Resources
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**The following materials form essential underpinning for the module content and ultimately for the learning outcomes:**

Biomedical Science Practice: Experimental and Professional Skills (Fundamentals of Biomedical Science) 3rd Edition. Glencross H., Ahmed N. & Wang Q. (2022), OUP, ISBN: 978-0198831228

Clinical Biochemistry (Fundamentals of Biomedical Science) 2nd Edition : Ahmed N. (2016), OUP, 978-0199674442 (new version to be published September 2025)

Immunology (Fundamentals of Biomedical Science): Hall A. & Yates C. (2016) OUP, 978-0199657650

Haematology (Fundamentals of Biomedical Science) 3rd Edition: Moore G., Knight G. & Blann A. (2021) 978-0198826095

Histopathology (Fundamentals of Biomedical Science) 2nd Edition: Orchard G. & Nation B. (2017) 978-0198717331

HCPC Guidance on Conduct and Ethics for Students.

**(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 regularly attending and participating in timetabled on-campus and online teaching sessions, asynchronous online learning activities, course-related learning resources, and complete assessments and submit these on time.

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

Attendance at synchronous sessions (lectures, practicals, workshops, and tutorials), completion of asynchronous activities, and submission of assessments to meet the learning outcomes of the module.

### 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

<b>Divisional Programme Board</b>	<b>Biological Sciences Health</b>
<b>Overall Assessment Results</b>	<input type="checkbox"/> Pass / Fail <input checked="" type="checkbox"/> Graded
<b>Module Eligible for</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

<b>Compensation</b>	<b>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.</b>
<b>School Assessment Board</b>	Biology
<b>Moderator</b>	Amelie Juin
<b>External Examiner</b>	S Haliti
<b>Accreditation Details</b>	IBMS/ HCPC
<b>Module Appears in CPD catalogue</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>Changes / Version Number</b>	3.12

<b>Assessment (also refer to Assessment Outcomes Grids below)</b>
<b>Assessment 1</b>
In order to meet IBMS accreditation requirements, to pass students must achieve an aggregate mark of at least 40%, with no component of assessment lower than 40%.  Two x Class test (written)
<b>Assessment 2</b>
Workbook/Laboratory notebook/ Diary/Training log/Learning log
<b>Assessment 3</b>
(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.)

<b>Component 1</b>							
<b>Assessment Type</b>	<b>LO1</b>	<b>LO2</b>	<b>LO3</b>	<b>LO4</b>	<b>LO5</b>	<b>Weighting of Assessment Element (%)</b>	<b>Timetabled Contact Hours</b>
Class test (written)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	40	3

<b>Component 2</b>							
<b>Assessment Type</b>	<b>LO1</b>	<b>LO2</b>	<b>LO3</b>	<b>LO4</b>	<b>LO5</b>	<b>Weighting of Assessment Element (%)</b>	<b>Timetabled Contact Hours</b>
Workbook/ Laboratory notebook/ Diary/ Training log/ Learning log	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	60	0

<b>Component 3</b>							
<b>Assessment Type</b>	<b>LO1</b>	<b>LO2</b>	<b>LO3</b>	<b>LO4</b>	<b>LO5</b>	<b>Weighting of</b>	<b>Timetabled</b>

						<b>Assessment Element (%)</b>	<b>Contact Hours</b>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<b>Combined total for all components</b>						100%	3 hours

### Change Control

<b>What</b>	<b>When</b>	<b>Who</b>
Module Coordinator		J McLean
Moderator		J McLean
Indicative Resources	July 2025	F Menzies
Compensation information	July 2025	F Menzies