



## Module Descriptor

|                            |                                            |                                               |           |
|----------------------------|--------------------------------------------|-----------------------------------------------|-----------|
| <b>Title</b>               | Disease: Detection, Monitoring and Therapy |                                               |           |
| <b>Session</b>             | 2025/26                                    | <b>Status</b>                                 | Published |
| <b>Code</b>                | BIOL11011                                  | <b>SCQF Level</b>                             | 11        |
| <b>Credit Points</b>       | 20                                         | <b>ECTS (European Credit Transfer Scheme)</b> | 10        |
| <b>School</b>              | Health and Life Sciences                   |                                               |           |
| <b>Module Co-ordinator</b> | Stuart Woods                               |                                               |           |

### Summary of Module

This module will provide students with an in depth understanding of the role of biomedical science in the detection, monitoring, and therapies of diseases.

Students will study the pathologies of selected systems and examine how clinical chemistry, blood sciences, bacteriology and cellular pathology integrate to aid in the diagnosis, monitoring, and treatment of disease. There will also be a critical analysis of the techniques used in biomedical science.

Using case studies and an oral presentation students will investigate the role of biomedical science in an area(s) of interest to them. Directed study and academic support will be given. The assessments will facilitate a better understanding of the application of available and developing technologies in detection, monitoring and therapy of diseases and conditions of relevance to healthcare.

The fully online/distance learning version of the module is available only to students currently employed by an appropriate UK-based healthcare provider (e.g. IBMS-approved training site).

Completion of the module allows the student to meet the following graduate attributes: critical thinker, digitally literate, analytical.

| Module Delivery Method | On-Campus <sup>1</sup>              | Hybrid <sup>2</sup>      | Online <sup>3</sup>                 | Work -Based Learning <sup>4</sup> |
|------------------------|-------------------------------------|--------------------------|-------------------------------------|-----------------------------------|
|                        | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>          |

<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 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

|                                                   |                                                                   |                          |                                                                                                                        |                                     |                                                                                                            |                          |
|---------------------------------------------------|-------------------------------------------------------------------|--------------------------|------------------------------------------------------------------------------------------------------------------------|-------------------------------------|------------------------------------------------------------------------------------------------------------|--------------------------|
| <b>Campuses for Module Delivery</b>               | <input type="checkbox"/> Ayr<br><input type="checkbox"/> Dumfries |                          | <input checked="" type="checkbox"/> Lanarkshire<br><input type="checkbox"/> London<br><input type="checkbox"/> Paisley |                                     | <input checked="" type="checkbox"/> Online / Distance Learning<br><input type="checkbox"/> Other (specify) |                          |
|                                                   | Term 1                                                            | <input type="checkbox"/> | Term 2                                                                                                                 | <input checked="" type="checkbox"/> | Term 3                                                                                                     | <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"/>            | Term 3 – Term 1                                                                                            | <input type="checkbox"/> |

| Learning Outcomes |                                                                                                                                                                          |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>L1</b>         | Discuss critically the role of biomedical science in detection, monitoring and treatment of disease, including technologies available.                                   |
| <b>L2</b>         | Demonstrate a critical understanding of the disease processes that can affect the main physiological systems.                                                            |
| <b>L3</b>         | Demonstrate a critical understanding of the integration of clinical chemistry, blood sciences, bacteriology and cellular pathology investigations in biomedical science. |
| <b>L4</b>         | Be able to integrate and critically analyse information from a range of sources through directed independent learning.                                                   |
| <b>L5</b>         |                                                                                                                                                                          |

| 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 11</b><br>A broad and integrated knowledge of the application of biomedical science, particularly clinical chemistry, in diagnosing, monitoring and treatment of disease. |
| <b>Practice: Applied Knowledge and Understanding</b>                | <b>SCQF 11</b><br>Demonstrate critical analysis of the processes in selected pathological conditions.                                                                             |
| <b>Generic Cognitive skills</b>                                     | <b>SCQF 11</b><br>Apply critical analysis, evaluation and synthesis to issues which are at the forefront of selected pathological conditions.                                     |
| <b>Communication, ICT and Numeracy Skills</b>                       | <b>SCQF 11</b><br>Undertake critical evaluations of a wide range of numerical and graphical data through the use of case studies and directed learning.                           |
| <b>Autonomy, Accountability and Working with Others</b>             | <b>SCQF 11</b><br>Take responsibility for own work and for utilising a significant range of resources.                                                                            |

| Prerequisites | Module Code                                                                                          | Module Title |
|---------------|------------------------------------------------------------------------------------------------------|--------------|
|               | <b>Other</b> Equivalent module from a Biomedical Science or Bioscience degree or appropriate APEL.22 |              |

| 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>During completion of this module, the learning activities undertaken to achieve the module learning outcomes will include formal lectures, structured seminars and tutorials, and independent study. VLE-based support materials will be available to supplement the module.</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                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 22                                                                                             |
| Tutorial / Synchronous Support Activity                                                                                                                                                                                                                                                                                                                                                                                                                                             | 14                                                                                             |
| Independent Study                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 164                                                                                            |
| n/a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                |
| n/a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                |
| n/a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                |
| <b>TOTAL</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>200</b>                                                                                     |

| Indicative Resources                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>The following materials form essential underpinning for the module content and ultimately for the learning outcomes:</b></p> <p>Clinical Biochemistry (Fundamentals of Biomedical Science): Ahmed N. (ed) OUP, 978-0199533930</p> <p>Data Handling and Analysis (Fundamentals of Biomedical Science): Blann A. OUP, 978-0199667918</p> <p>Immunology (Fundamentals of Biomedical Science): Hall A. &amp; Yates C. (eds) OUP, 978-0199534968</p> <p>Haematology (Fundamentals of Biomedical Science): Moore G., Knight G. &amp; Blann A. (eds) 978-0199568883</p> <p>Histopathology (Fundamentals of Biomedical Science): Orchard G. &amp; Nation B. (eds) 978-0199574346</p> <p>Transfusion and Transplantation (Fundamentals of Biomedical Science): Knight R. (ed) 978-0199533282</p> <p>Recommended:</p> <p>Selected journals</p> |
| <p><b>(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)</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

## 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, tutorials and practicals), completion of asynchronous activities, and submission of assessments to meet the learning outcomes of the module. Attendance at synchronous sessions is not required for students undertaking the distance learning version 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 Compensation</b> | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br><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>                        | Gary Boyd                                                                                                                                                                                                                                                                                       |
| <b>External Examiner</b>                | A Khan                                                                                                                                                                                                                                                                                          |
| <b>Accreditation Details</b>            | IBMS                                                                                                                                                                                                                                                                                            |
| <b>Module Appears in CPD catalogue</b>  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                                                                                                                                                                                                                             |
| <b>Changes / Version Number</b>         | 2.10                                                                                                                                                                                                                                                                                            |

## Assessment (also refer to Assessment Outcomes Grids below)

### Assessment 1

Case study

|                                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Assessment 2</b>                                                                                                                                                                                                                                                                                                                                                 |
| Coursework                                                                                                                                                                                                                                                                                                                                                          |
| <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.<br>(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> |
| Case study             | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 50                                         | 0                               |

| <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> |
| Presentation           | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 50                                         | 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 Assessment Element (%)</b> | <b>Timetabled 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%                                       | 0 hours                         |

#### Change Control

| <b>What</b> | <b>When</b> | <b>Who</b> |
|-------------|-------------|------------|
|             |             |            |
|             |             |            |
|             |             |            |
|             |             |            |
|             |             |            |