



## Module Descriptor

|                            |  |   |           |
|----------------------------|--|---|-----------|
| <b>Title</b>               | <b>Biomedical Science Quality Management</b> |   |           |
| <b>Session</b>             | 2025/26                                      | <b>Status</b>                                 | Published |
| <b>Code</b>                | BIOL11026                                    | <b>SCQF Level</b>                             | 11        |
| <b>Credit Points</b>       | 20   | <b>ECTS (European Credit Transfer Scheme)</b> | 10        |
| <b>School</b>              | <b>Health and Life Sciences</b>              |   |           |
| <b>Module Co-ordinator</b> | Fraser Craig                                 |   |           |

### Summary of Module

This module provides an understanding of principles of quality assurance and management systems utilised within biomedical science laboratories or similar facilities.

Themes covered include quality controls and frameworks, audits, creation of standard operating procedures, calibration, validation, verification, batch acceptance, Internal and External Quality assurance schemes and reference materials etc. Areas also addressed are quality management aims, laboratory Information management systems, introduction to UKAS, laboratory accreditation, and relevant ISO. Broader themes of interlaboratory comparison, shared services and internal/external training will also be explored. Content may be modified in-line with changing regulatory guidance.

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).

This module will work to develop a number of the key “I am UWS” Graduate Attributes including being Work Ready (e.g. knowledgeable and motivated for the ever-changing work environment); Universal (e.g. analytical and collaborative); and Successful (e.g. autonomous and resilient).

Module is run in both Campus and Distance Learning methods.

To suit IBMS requirements the below note has been added to the “Summary of Module” section of the module descriptor.

Students undertaking an IBMS-accredited degree are required to complete the class test for this module under closed-book, invigilated conditions. For distance learning students, this may be arranged either on campus or through pre-approved workplace invigilation. If neither option is possible, students may sit the test in their own space. However, in such cases, they must subsequently participate in an Integrity Check (a live oral discussion with the assessment team to verify the integrity of their test performance). If the assessment team determines that the oral explanations do not adequately support the written submission, the matter will be referred to the Academic Integrity Panel, and disciplinary action may follow.

Please contact the IBMS-accredited programme lead with any queries.

|   |   |  |  |   |                 |                          |
|---|---|--|--|---|-----------------|--------------------------|
| <b>Module Delivery Method</b>                     | <b>On-Campus<sup>1</sup></b><br><input checked="" type="checkbox"/> | <b>Hybrid<sup>2</sup></b><br><input type="checkbox"/>  | <b>Online<sup>3</sup></b><br><input checked="" type="checkbox"/>   | <b>Work -Based Learning<sup>4</sup></b><br><input type="checkbox"/> |                 |                          |
| <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) |   |                 |                          |
| <b>Terms for Module Delivery</b>                  | Term 1  | <input checked="" type="checkbox"/>  | Term 2   | <input 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>         | Demonstrate an extensive knowledge of key quality assurance and management concepts. |
| <b>L2</b>         | Critically evaluate quality management strategies and their implementation.          |
| <b>L3</b>         | Critically apply techniques of quality management for continuous improvement.        |
| <b>L4</b>         |  |
| <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>Demonstrate a critical awareness of the principles of quality assurance and management and approaches to continuous improvement. |
| <b>Practice: Applied Knowledge and Understanding</b>                | <b>SCQF 11</b><br>Apply informed approaches to establishing and developing quality management systems.   |
| <b>Generic Cognitive skills</b>                                     | <b>SCQF 11</b><br>Apply critical analysis and generate creative solutions to different quality management challenges.                              |

<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>Communication, ICT and Numeracy Skills</b>           | <b>SCQF 11</b><br>Critically evaluation of a wide range of numerical and graphical data report. |
| <b>Autonomy, Accountability and Working with Others</b> | <b>SCQF 11</b><br>Exercise substantial autonomy and initiative in professional activities.      |

|                      |                    |                     |
|----------------------|--------------------|---------------------|
| <b>Prerequisites</b> | <b>Module Code</b> | <b>Module Title</b> |
|                      | <b>Other</b>       |                     |
| <b>Co-requisites</b> | <b>Module Code</b> | <b>Module Title</b> |

| <b>Learning and Teaching</b>  |  |
|---|--|
| <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>Students will have access to module content and resources via VLE. These may include prerecorded (mini) lecture content, written notes, links to external resources etc. ICT will be used to analyse and present data.</p> <p>DL students will learn fully online at a self-determined time/pace (but will be expected to meet set summative coursework deadlines). These students will have directed learning tasks aided by asynchronous online sessions and asynchronous discussion forums.</p> |  |
| <b>Learning Activities</b>  | <b>Student Learning Hours</b>  |
| 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   | 6  |
| Laboratory / Practical Demonstration / Workshop   | 8  |
| Independent Study   | 164  |
| n/a   |  |
| n/a   |  |
| <b>TOTAL</b>  | <b>200</b>   |

| <b>Indicative Resources</b>   |
|---|
| <p><b>The following materials form essential underpinning for the module content and ultimately for the learning outcomes:</b></p> <p>Essential:</p> <p>Resources provided, or directed to, via VLE.</p> <p>Recommended:</p> <p>An introduction to biomedical science in professional and clinical practice. Pitt SJ &amp; Cunningham JM. WileyBlackwell, 2009.</p> |

Biomedical Science Practice (Fundamentals of Biomedical Science. Ahmed N, Glencross H & Wang Q. OUP Oxford, 2016.

Oakland, J.S., Oakland, R.J. and Turner, M.A. Total quality management and operational excellence: text with cases. Routledge, 2020.

**(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, tutorials and practicals), completion of asynchronous activities, and submission of assessments to meet the learning outcomes of the module. Attendance at synchronous sessions not required for NHS-based students undertaking distance learning version of 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>                        | Gail McGarvie   |
| <b>External Examiner</b>                | A Khan  |
| <b>Accreditation Details</b>            | IBMS  |

|                                 |   |
|---------------------------------|---|
| Module Appears in CPD catalogue | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Changes / Version Number        | 1.04  |

|   |
|---|
| <b>Assessment (also refer to Assessment Outcomes Grids below)</b>   |
| <b>Assessment 1</b>   |
| Class test (written)  |
| <b>Assessment 2</b>   |
| Review/ Article/ Critique/ Paper  |
| <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><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> |
| Class test (written)   | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 30   | 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> |
| Review/ Article/ Critique/ Paper | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 70   | 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>   |
| Changed to reflect new EE | 21/11/2024  | Fraser Craig |
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|                           |             |              |
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