



Module Definition Form (MDF)

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| Module code: MOD006285 | Version: 4 Date Amended: 23/Apr/2024 |
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| 1. Module Title |
| Scientific Communication and Professional Skills |

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| 2a. Module Leader |
| Christine Bryson |

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| 2b. School |
| School of Allied Health and Social Care |

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| 2c. Faculty |
| Faculty of Health, Medicine and Social Care |

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| 3a. Level |
| 4 |

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| 3b. Module Type |
| Standard (fine graded) |

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| 4a. Credits |
| 30 |

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| 4b. Study Hours |
| 300 |

| 5. Restrictions | | | |
|--|-------------|-------------|-----------|
| Type | Module Code | Module Name | Condition |
| Pre-requisites: | None | | |
| Co-requisites: | None | | |
| Exclusions: | None | | |
| Courses to which this module is restricted: | | | |

LEARNING, TEACHING AND ASSESSMENT INFORMATION

6a. Module Description

Develop essential scientific and professional skills that are required in the bioscience field in general. You'll learn the pre-laboratory work planning and preparation such as health and safety documentations and laboratory experimental design. This also includes the professional skills and training required to operate common laboratory apparatus, such as glassware, microscopy, pH meter, weighing and measuring volumes, pipetting, and spectrophotometer. We'll explore the communication of scientific information in many forms such as laboratory reports, journal articles and presentation skills and related numeracy skills such as SI units, converting between different expression of concentration, and basic statistics.

We'll deliver this module face-to-face, and you'll be expected to attend theory and practical sessions and participate in online study using the Canvas site, internet resources and on-line discussions.

6b. Outline Content

- Preparation for work in a laboratory: Health and Safety and general laboratory conduct.
- Common laboratory apparatus: (e.g. pipettes, laboratory balances, pH meters, microscopes and spectrophotometers).
- Laboratory records and documentation.
- Laboratory reports and data presentation
- Scientific communication and presentation skills
- Data analysis using appropriate summary statistics, t-tests, linear regression, contingency tables
- Generic laboratory calculations (such as different units, concentrations and logarithm)
- Citations and databases

6c. Key Texts/Literature

The reading list to support this module is available at: <https://readinglists.aru.ac.uk/>

6d. Specialist Learning Resources

Face-to-face learning – Laboratory sessions– computer sessions – referencing and library sessions

| 7. Learning Outcomes (threshold standards) | | |
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| No. | Type | On successful completion of this module the student will be expected to be able to: |
| 1 | Knowledge and Understanding | Demonstrate the skills necessary to prepare for and carry out laboratory experiments working in a safe and ethical manner. |
| 2 | Knowledge and Understanding | Acquire and present scientific information. |
| 3 | Intellectual, practical, affective and transferrable skills | Demonstrate skills in using and operating basic laboratory equipment. |
| 4 | Intellectual, practical, affective and transferrable skills | Demonstrate skills in analysing data and communication of scientific results. |

| 8a. Module Occurrence to which this MDF Refers | | | | |
|--|------------|---|----------|------------------|
| Year | Occurrence | Period | Location | Mode of Delivery |
| 2025/6 | ZZF | Template For Face To Face Learning Delivery | | Face to Face |

| 8b. Learning Activities for the above Module Occurrence | | | |
|---|-------|-------------------|---|
| Learning Activities | Hours | Learning Outcomes | Details of Duration, frequency and other comments |
| Lectures | 30 | 1-4 | 15 x 2 h lectures |
| Other teacher managed learning | 32 | 1-4 | 5 x 3 h lab skills sessions, 4 x 3 h computer sessions, 5 X 1 h tutorials |
| Student managed learning | 238 | 1-4 | Self-directed study |
| TOTAL: | 300 | | |

9. Assessment for the above Module Occurrence

| Assessment No. | Assessment Method | Learning Outcomes | Weighting (%) | Fine Grade or Pass/Fail | Qualifying Mark (%) |
|-----------------------|--------------------------|--------------------------|----------------------|--------------------------------|----------------------------|
| 010 | Practical | 2 | 0 (%) | Pass/Fail | 100 (%) |

Group presentation in semester 1 (equivalent to 2000 words)

| Assessment No. | Assessment Method | Learning Outcomes | Weighting (%) | Fine Grade or Pass/Fail | Qualifying Mark (%) |
|-----------------------|--------------------------|--------------------------|----------------------|--------------------------------|----------------------------|
| 011 | Coursework | 1, 3, 4 | 100 (%) | Fine Grade | 30 (%) |

Objective Structured Practical Examination (OSPE).

In order to pass this module, students are required to achieve an overall mark of 40% (for modules at levels 3, 4, 5 and 6) or 50% (for modules at level 7*).

In addition, students are required to:

- (a) achieve the qualifying mark for each element of fine graded assessment as specified above
- (b) pass any pass/fail elements

[* the pass mark of 50% applies for all module occurrences from the academic year 2024/25 – see Section 3a of this MDF to check the level of the module and Section 8a of this MDF to check the academic year]