# LF409-30 MBio Skills module for Industry Students

# 24/25

### **Department**

Life Sciences

Level

Undergraduate Level 4

Module leader

Katrine Wallis

Credit value

30

**Module duration** 

30 weeks

**Assessment** 

Multiple

**Study locations** 

Distance or Online Delivery Primary University of Warwick main campus, Coventry

# **Description**

# Introductory description

This module contains the skills for MBio industry students. These skills are essential for a career in science.

### Module aims

Demonstration of skills acquisition

# **Outline syllabus**

This is an indicative module outline only to give an indication of the sort of topics that may be covered. Actual sessions held may differ.

There are two elements to this module: A port folio and the writing of a research grant proposal. The portfolio will be covering journal clubs which require the students to engage with the scientific literature and present a paper to either their placement group or an academic in the department of Life Sciences. Data handling will require the students to appraise a data handling method used

inter project or alternatively ones set by an academic in Life Sciences. Technical essays will require critical appraisal of techniques used in students projects inducing the advantages and disadvantages of using this technique. The portfolio will be supported by a workshop held remotely and be interim feedback via email or the Mohara portfolio on on ongoing basis throughout the year.

The research proposal requires the students to write a research proposal akin to a research council proposal based on a research paper of the students choosing. This is supported by a lecture and a workshop on what to do as well as individual or small group writing support by academics in Life sciences.

# **Learning outcomes**

By the end of the module, students should be able to:

- Students will appraise data handling and techniques that are used in their project
- Students will learn design and present research projects
- Students will learn to critically assess research papers

# Subject specific skills

Students will learn about principles of lab techniques and data handling relating to their projects. The knowledge acquired will be individual depending on their choice of topics and papers to cover in the assessment

### Transferable skills

Critical thinking: Required for appraisal of papers, data analysis and writing of grant proposal Information Literacy: Students will need to look for information relevant to their assessments and assess whether these are of appropriate value

Digital literacy: Use of Mohara to create a port folio and appropriate software packages fro their data handling

Communication: Research proposal requires writing for different audiences. journal clubs require oral presentation

Problem solving: Required for data analysis

Intercultural awareness and self awareness: Students write a reflective account on their experience of the year in industry as part of the portfolio and this should address moving from university into the industry environments (often a culture shock for students) and address their personal development over the year.

# Study

# Study time

Type Required

Lectures 1 session of 1 hour (0%)
Seminars 3 sessions of 1 hour (1%)

Private study 196 hours (65%) Assessment 100 hours (33%)

Total 300 hours

# **Private study description**

Research into the background to the different parts of their assignments. Time spent on data analysis for the data analysis part

# Costs

No further costs have been identified for this module.

## **Assessment**

You do not need to pass all assessment components to pass the module.

# Assessment group A

|  | Weighting | Study time |
|--|-----------|------------|
| Skills portfolio for MBIo students in Industry | 60%       | 60 hours   |
| Mohara portfolio                               |           |            |
| Research Grant Proposal                        | 40%       | 40 hours   |
| Proforma for a research council grant proposal |           |            |

# Assessment group R

|                 | Weighting | Study time |
|-----------------|-----------|------------|
| No reassessment | 100%      |            |

Not reassessed

### Feedback on assessment

Written feedback on assignments

# **Availability**

# **Courses**

This module is Core for:

- Year 4 of ULFA-C1A6 Undergraduate Biochemistry with Industrial Placement (MBio)
- Year 4 of ULFA-C1A5 Undergraduate Biological Sciences with Industrial Placement (MBio)
- Year 4 of ULFA-C1A7 Undergraduate Biomedical Science with Industrial Placement (MBio)
- Year 4 of ULFA-B143 Undergraduate Neuroscience (with Industrial Placement) (MBio)