# **BS341-30 Research Project**

### 22/23

#### **Department**

Life Sciences

Level

**Undergraduate Level 3** 

Module leader

**Daniel Franklin** 

Credit value

30

**Module duration** 

30 weeks

**Assessment** 

Multiple

**Study location** 

University of Warwick main campus, Coventry

# **Description**

# Introductory description

The Y3 research project is a capstone module, in which students bring together all the research and practical skills they have been taught in Y1-3 teaching laboratories and the tutorial program. Students are assigned a project and have to produce a 10,000 word thesis.

#### Module aims

The aim of the module is to give students the opportunity to utilise the research and evaluation skills developed throughout years 1,2,and 3 in order to produce a substantial piece of research.

- Students complete a seminar based on their research project aimed at an educated lay audience.
- Students complete a research project which includes:
- 1. A high quality scientific literature review of their chosen research field.
- 2. Critical appraisal of source material- (including use of statistical knowledge covered during Year 1, 2 and 3 to
  - appraise and evaluate published data)
- 3. Construction of scientific arguments based on multiple sources
- 4. Production of a scientific abstract
- 5. Production of a discussion and conclusion which include evidence of independent thought

- and reasoning
- 6. Evidence of reflective practice (in the form of a longitudinal project diary

### **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.

- 1. A high quality scientific literature review of their chosen research field.
- 2. Critical appraisal of source material- (including use of statistical knowledge covered during Year 1, 2 and 3 to
  - appraise and evaluate published data)
- 3. Construction of scientific arguments based on multiple sources
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- 6. Evidence of reflective practice (in the form of a longitudinal project diary

### **Learning outcomes**

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

- O1: Plan and engage in an independent and sustained critical investigation and evaluation of a chosen research topic
- LO2: Research and present an oral seminar presentation on the project topic
- LO3: Identify and appraise relevant scientific literature using on-line literature search engines, relate this to appropriate methodologies and draw appropriate conclusions
- LO4: Critically review relevant research papers
- LO5: Demonstrate critical appraisal
- LO6: Effectively construct scientific results and arguments, using multiple sources.

#### Research element

Critical appraisal of source material- (including use of statistical knowledge covered during Year 1, 2 and 3 to

appraise and evaluate published data)

Construction of scientific arguments based on multiple sources

Production of a scientific abstract

Production of a discussion and conclusion which include evidence of independent thought and reasoning

Evidence of reflective practice (in the form of a longitudinal project diary

### Subject specific skills

Critical appraisal of source material- (including use of statistical knowledge covered during Year 1, 2 and 3 to

appraise and evaluate published data)

Construction of scientific arguments based on multiple sources

Production of a scientific abstract

Production of a discussion and conclusion which include evidence of independent thought and reasoning

Evidence of reflective practice (in the form of a longitudinal project diary

#### Transferable skills

- 1. Critical appraisal of source material
- 2. Self directed learning
- 3. Adult learning

# **Study**

# Study time

| Туре                | Required                  |
|---------------------|---------------------------|
| Lectures            | 2 sessions of 1 hour (1%) |
| Project supervision | 8 sessions of 1 hour (3%) |
| Private study       | 290 hours (97%)           |
| Total               | 300 hours                 |

# Private study description

Independent study, covering research, background reading and data analysis- work culminates in production of a 10,000 word thesis and a 15 min research seminar presentation

# **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 |
|-------------------------------|-----------|------------|
| Research Project Dissertation | 64%       |            |
| 10,000 word thesis            |           |            |
| Research Seminar              | 20%       |            |

|                             | Weighting | Study time |
|-----------------------------|-----------|------------|
| 15 min seminar presentation |           |            |
| Project performance         | 16%       |            |

### Assessment group R

|                         | Weighting | Study time |
|-------------------------|-----------|------------|
| Research Project Thesis | 100%      |            |
| 10,000 word thesis      |           |            |

#### Feedback on assessment

Individual written feedback for both seminar and dissertation.

# **Availability**

### **Courses**

This module is Core for:

- Year 3 of UBSA-C700 Undergraduate Biochemistry
- ULFA-C1A2 Undergraduate Biochemistry (MBio)
  - Year 3 of C1A2 Biochemistry
  - Year 3 of C700 Biochemistry
- Year 4 of ULFA-C702 Undergraduate Biochemistry (with Placement Year)
- Year 3 of ULFA-C1A6 Undergraduate Biochemistry with Industrial Placement (MBio)
- UBSA-3 Undergraduate Biological Sciences
  - Year 3 of C100 Biological Sciences
  - Year 3 of C100 Biological Sciences
- Year 3 of ULFA-C1A1 Undergraduate Biological Sciences (MBio)
- Year 4 of ULFA-C113 Undergraduate Biological Sciences (with Placement Year)
- Year 3 of ULFA-C1A5 Undergraduate Biological Sciences with Industrial Placement (MBio)
- UBSA-C1B9 Undergraduate Biomedical Science
  - Year 3 of C1B9 Biomedical Science
  - Year 3 of C1B9 Biomedical Science
  - Year 3 of C1B9 Biomedical Science
- ULFA-C1A3 Undergraduate Biomedical Science (MBio)
  - Year 3 of C1A3 Biomedical Science
  - Year 3 of C1B9 Biomedical Science
- Year 3 of ULFA-C1A7 Undergraduate Biomedical Science with Industrial Placement (MBio)
- ULFA-CB18 Undergraduate Biomedical Science with Placement Year
  - Year 4 of CB18 Biomedical Science with Placement Year
  - Year 4 of CB18 Biomedical Science with Placement Year

- Year 4 of CB18 Biomedical Science with Placement Year
- Year 3 of ULFA-B140 Undergraduate Neuroscience (BSc)
- Year 3 of ULFA-B142 Undergraduate Neuroscience (MBio)
- Year 3 of ULFA-B143 Undergraduate Neuroscience (with Industrial Placement) (MBio)

### This module is Core optional for:

- UIPA-C1L8 Undergraduate Life Sciences and Global Sustainable Development
  - Year 3 of C1L8 Life Sciences and Global Sustainable Development
  - Year 3 of C1LA Life Sciences and Global Sustainable Development: Biological Sciences
  - Year 3 of C1LB Life Sciences and Global Sustainable Development: Ecology
- Year 4 of UIPA-C1L9 Undergraduate Life Sciences and Global Sustainable Development (with Intercalated Year)