BBE 303
Independent Research Project in Brain, Behaviour and Evolution
S1 Day 2013
Biological Sciences

Contents

General Information 2
Learning Outcomes 2
Assessment Tasks 3
Delivery and Resources 4
Unit Schedule 5
Policies and Procedures 5
Graduate Capabilities 6

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General Information

Unit convenor and teaching staff
Unit Convenor
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Other Staff
Sharyon O'Donnell
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Credit points
6

Prerequisites
39cp and BBE200 and (one of BIOL235 or PSY222 or STAT270 or STAT271) and a GPA of 2.5 and permission of Executive Dean of Faculty

Corequisites

Co-badged status

Unit description
In this highly selective individualised unit, students carry out one research project in the laboratory of a staff member. Students are individually supervised, as part of the research community, and are expected to put in much effort, with the unit being worth double the usual credit points. The unit provides an excellent opportunity to do hands-on research. Laboratory and/or field projects may be conducted.

Important Academic Dates
Information about important academic dates including deadlines for withdrawing from units are available at https://students.mq.edu.au/important-dates

Learning Outcomes
On successful completion of this unit, you will be able to:

1. Learn an advanced understanding of a chosen area of behavioural research
2. Critique and integrate information from primary research papers
3. Master practical skills for conducting behavioural research
4. Conduct a long-term independent scientific study
5. Generate hypotheses, and design new experiments to test hypotheses
6. Present experimental findings as a paper written in the style of a recognised scientific journal
7. Present a research project orally
8. Contribute as part of a research team

**Assessment Tasks**

<table>
<thead>
<tr>
<th>Name</th>
<th>Weighting</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>research proposal</td>
<td>5%</td>
<td>TBA</td>
</tr>
<tr>
<td>oral presentation</td>
<td>20%</td>
<td>TBA</td>
</tr>
<tr>
<td>supervisor assessment</td>
<td>15%</td>
<td>TBA</td>
</tr>
<tr>
<td>project report</td>
<td>60%</td>
<td>TBA</td>
</tr>
</tbody>
</table>

**research proposal**
Due: **TBA**
Weighting: **5%**

*A one page outline of your chosen research project*

On successful completion you will be able to:
- 1. Learn an advanced understanding of a chosen area of behavioural research
- 5. Generate hypotheses, and design new experiments to test hypotheses

**oral presentation**
Due: **TBA**
Weighting: **20%**

*An oral presentation of the research project*

On successful completion you will be able to:
- 7. Present a research project orally

**supervisor assessment**
Due: **TBA**
Weighting: **15%**

*The project supervisor evaluates a student’s performance, lab participation and...*
engagement with the research project.

On successful completion you will be able to:
- 3. Master practical skills for conducting behavioural research
- 4. Conduct a long-term independent scientific study
- 8. Contribute as part of a research team

**project report**

Due: TBA

Weighting: 60%

A written report of the research project in the form of a scientific paper

On successful completion you will be able to:
- 1. Learn an advanced understanding of a chosen area of behavioural research
- 2. Critique and integrate information from primary research papers
- 6. Present experimental findings as a paper written in the style of a recognised scientific journal

**Delivery and Resources**

Unit outline, workshop notes and course notices will be distributed via Moodle

[http://ilearn.mq.edu.au](http://ilearn.mq.edu.au)

Moodle is a web-based computer mediated communication package and can be accessed by most web browsers from inside or outside the University. Moddle and email via the official Macquarie Student e-mail address will be the principle method of communication in this subject.

You must use Moodle for:
- Regularly checking subject announcements;
- Downloading course materials;
- Downloading reference materials;
- Checking your grades.

The URL for the Moodle log-in page is: [http://ilearn.mq.edu.au/](http://ilearn.mq.edu.au/). You will need to log in to Moodle each time you use it. Your user name is your student number. If you are having trouble accessing your online unit due to a disability or health condition, please go to the Student Services Website at [http://sss.mq.edu.au/equity/about](http://sss.mq.edu.au/equity/about) for information on how to get assistance. If you are having problems logging on, If you cannot log in after ensuring you have entered your username and password correctly, you should contact Student IT Help.
Unit Schedule

BBE 303 differs from most undergraduate units in that there are minimal contact hours, instead students are expected to invest about 15 h per week on their research project. The schedule will depend entirely on the nature of the research undertaken and should be discussed with project supervisors. Seminars are held in Andrew Barron’s office in W19F at 10 am on Thursdays.

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central. Students should be aware of the following policies in particular with regard to Learning and Teaching:


In addition, a number of other policies can be found in the Learning and Teaching Category of Policy Central.

Student Support

Macquarie University provides a range of Academic Student Support Services. Details of these services can be accessed at: [http://students.mq.edu.au/support/](http://students.mq.edu.au/support/)

UniWISE provides:

- Online learning resources and academic skills workshops [http://www.students.mq.edu.au/support/learning_skills/](http://www.students.mq.edu.au/support/learning_skills/)
- Personal assistance with your learning & study related questions.
- The Learning Help Desk is located in the Library foyer (level 2).
- Online and on-campus orientation events run by Mentors@Macquarie.

Student Enquiry Service

Details of these services can be accessed at [http://www.student.mq.edu.au/ses/](http://www.student.mq.edu.au/ses/).

Equity Support

Students with a disability are encouraged to contact the Disability Service who can provide appropriate help with any issues that arise during their studies.
Graduate Capabilities

Discipline Specific Knowledge and Skills

Our graduates will take with them the intellectual development, depth and breadth of knowledge, scholarly understanding, and specific subject content in their chosen fields to make them competent and confident in their subject or profession. They will be able to demonstrate, where relevant, professional technical competence and meet professional standards. They will be able to articulate the structure of knowledge of their discipline, be able to adapt discipline-specific knowledge to novel situations, and be able to contribute from their discipline to inter-disciplinary solutions to problems.

This graduate capability is supported by:

Learning outcomes

- 1. Learn an advanced understanding of a chosen area of behavioural research
- 3. Master practical skills for conducting behavioural research
- 4. Conduct a long-term independent scientific study

Critical, Analytical and Integrative Thinking

We want our graduates to be capable of reasoning, questioning and analysing, and to integrate and synthesise learning and knowledge from a range of sources and environments; to be able to critique constraints, assumptions and limitations; to be able to think independently and systemically in relation to scholarly activity, in the workplace, and in the world. We want them to have a level of scientific and information technology literacy.

This graduate capability is supported by:

Learning outcomes

- 1. Learn an advanced understanding of a chosen area of behavioural research
- 2. Critique and integrate information from primary research papers
- 5. Generate hypotheses, and design new experiments to test hypotheses

Problem Solving and Research Capability

Our graduates should be capable of researching; of analysing, and interpreting and assessing data and information in various forms; of drawing connections across fields of knowledge; and they should be able to relate their knowledge to complex situations at work or in the world, in

IT Help

If you wish to receive IT help, we would be glad to assist you at [http://informatics.mq.edu.au/help](http://informatics.mq.edu.au/help).

When using the university's IT, you must adhere to the [Acceptable Use Policy](http://informatics.mq.edu.au/help). The policy applies to all who connect to the MQ network including students and it outlines what can be done.
order to diagnose and solve problems. We want them to have the confidence to take the initiative in doing so, within an awareness of their own limitations.

This graduate capability is supported by:

**Learning outcomes**

- 1. Learn an advanced understanding of a chosen area of behavioural research
- 5. Generate hypotheses, and design new experiments to test hypotheses
- 6. Present experimental findings as a paper written in the style of a recognised scientific journal
- 8. Contribute as part of a research team

**Creative and Innovative**

Our graduates will also be capable of creative thinking and of creating knowledge. They will be imaginative and open to experience and capable of innovation at work and in the community. We want them to be engaged in applying their critical, creative thinking.

This graduate capability is supported by:

**Learning outcomes**

- 4. Conduct a long-term independent scientific study
- 5. Generate hypotheses, and design new experiments to test hypotheses

**Effective Communication**

We want to develop in our students the ability to communicate and convey their views in forms effective with different audiences. We want our graduates to take with them the capability to read, listen, question, gather and evaluate information resources in a variety of formats, assess, write clearly, speak effectively, and to use visual communication and communication technologies as appropriate.

This graduate capability is supported by:

**Learning outcomes**

- 6. Present experimental findings as a paper written in the style of a recognised scientific journal
- 7. Present a research project orally

**Capable of Professional and Personal Judgement and Initiative**

We want our graduates to have emotional intelligence and sound interpersonal skills and to demonstrate discernment and common sense in their professional and personal judgement. They will exercise initiative as needed. They will be capable of risk assessment, and be able to handle ambiguity and complexity, enabling them to be adaptable in diverse and changing environments.
This graduate capability is supported by:

**Learning outcomes**

- 4. Conduct a long-term independent scientific study
- 8. Contribute as part of a research team