BBE 304
Contemporary Issues in Brain, Behaviour and Evolution

S1 Day 2013

Biological Sciences

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General Information

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9-5

Unit Convenor
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Credit points
3

Prerequisites
39cp including BBE200

Corequisites

Co-badged status

Unit description
This unit consists of a series of seminars discussing a range of contemporary issues by way of selected readings of current research and opinion. Students get the opportunity to lead a part of a seminar session, and to learn to integrate different perspectives, and think broadly and critically.

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

1. Be familiar with a substantial body of literature on BBE.
2. Understand the importance of integrative, multidisciplinary approaches to hypothesis testing and general behavioural research.
3. Be proficient at generating new hypotheses and predictions based on the literature you read.
4. Be proficient at designing empirical studies of animal behaviour.
5. Be familiar with the process of writing and publishing a scientific paper.
6. Have improved oral presentation skills.
7. Be proficient at critiquing, reviewing and discussing primary scientific papers.
8. Have an improved understanding of your career path and your career options.

### Assessment Tasks

<table>
<thead>
<tr>
<th>Name</th>
<th>Weighting</th>
<th>Due</th>
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<tr>
<td>Participation</td>
<td>10%</td>
<td>Weekly</td>
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<td>Oral presentation</td>
<td>30%</td>
<td>TBA</td>
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<tr>
<td>Popularisation of science</td>
<td>10%</td>
<td>TBA</td>
</tr>
<tr>
<td>Paper review</td>
<td>15%</td>
<td>TBA</td>
</tr>
<tr>
<td>Animal personality</td>
<td>15%</td>
<td>TBA</td>
</tr>
<tr>
<td>Job application</td>
<td>20%</td>
<td>TBA</td>
</tr>
</tbody>
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**Participation**

Due: **Weekly**  
Weighting: **10%**

Participation is key to success in this course. There will be a sign-in sheet each time we meet (until I learn your names!). You get 3% for attendance, 5% for successfully answering questions on reading assignments (handed in at start of class) and 2% for participating in class discussions.

This Assessment Task relates to the following Learning Outcomes:
- Be familiar with a substantial body of literature on BBE.
- Understand the importance of integrative, multidisciplinary approaches to hypothesis testing and general behavioural research.

**Oral presentation**

Due: **TBA**  
Weighting: **30%**

You will give a 20 min presentation, followed by group discussion

This Assessment Task relates to the following Learning Outcomes:
- Have improved oral presentation skills.
- Be proficient at critiquing, reviewing and discussing primary scientific papers.

**Popularisation of science**

Due: **TBA**  
Weighting: 10%  
This will be a blog.

This Assessment Task relates to the following Learning Outcomes:
- Be familiar with a substantial body of literature on BBE.
- Understand the importance of integrative, multidisciplinary approaches to hypothesis testing and general behavioural research.
- Be familiar with the process of writing and publishing a scientific paper.
- Have improved oral presentation skills.
- Be proficient at critiquing, reviewing and discussing primary scientific papers.
- Have an improved understanding of your career path and your career options.

**Paper review**

Due: **TBA**  
Weighting: 15%  
Submit via iLearn

This Assessment Task relates to the following Learning Outcomes:
- Be familiar with a substantial body of literature on BBE.
- Understand the importance of integrative, multidisciplinary approaches to hypothesis testing and general behavioural research.
- Be proficient at generating new hypotheses and predictions based on the literature you read.
- Be proficient at designing empirical studies of animal behaviour.
- Be familiar with the process of writing and publishing a scientific paper.
- Be proficient at critiquing, reviewing and discussing primary scientific papers.

**Animal personality**

Due: **TBA**  
Weighting: 15%  
You will collect data from video footage presented in the pracs. You will write a report (10%; as an individual) and give a brief presentation as part of a group (5%).
This Assessment Task relates to the following Learning Outcomes:

- Understand the importance of integrative, multidisciplinary approaches to hypothesis testing and general behavioural research.
- Be proficient at generating new hypotheses and predictions based on the literature you read.
- Be proficient at designing empirical studies of animal behaviour.
- Be familiar with the process of writing and publishing a scientific paper.
- Be proficient at critiquing, reviewing and discussing primary scientific papers.

Job application

Due: TBA
Weighting: 20%
Submit via iLearn: job ad, CV, cover letter.

This Assessment Task relates to the following Learning Outcomes:

- Have improved oral presentation skills.
- Have an improved understanding of your career path and your career options.

Delivery and Resources

CLASSES

Timetable

- Lecture (2 h): Wednesdays 09:00 – 11:00 W5A 203
- Practical (2 h): Tuesday 13:00 – 15:00 W19-104

All lectures are 2 h (2 x 50 mins with a break between) Because this is a Capstone Unit based on readings and discussion, we are inherently flexible. While we will cover general themes in BBE, I have opted not to break the course down on a week-by-week basis. In part, this is also because you will have some say about themes based on the topics you wish to present and because we will have several guest lectures. There will also be updates on iLearn

Practical sessions There will be no practical in Week 1. Some of the practicals will involve observing animals in the field while others will involve measuring behaviour from video clips, in the context of hypothesis testing and experimental design. These practicals will also give you an opportunity to see research projects in action (carried out by postgrads and postdocs). The remaining practicals will be tutorials and some may be used to work on your assignments (see below) and give you an opportunity to conduct literature searches and refine your presentations. I will be available for any questions you have (as will the TA).
UNIT WEBSITE AND TECHNOLOGY USED AND REQUIRED

Website
Unit outline, workshop notes and course notices will be distributed via iLearn
http://learn.mq.edu.au

iLearn is a web-based computer mediated communication package and can be accessed by most web browsers from inside or outside the University. Blackboard and email will be the principle method of communication in this subject.

You must use iLearn for:

- Regularly checking subject announcements—particularly with regard to the pracs and class readings;
- Downloading course materials;
- Downloading some of the reference material;
- Using the discussion board.

The URL for the iLearn log-in page is: http://learn.mq.edu.au/. You will need to log in to iLearn 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 for information on how to get assistance. If you are having problems logging on and you cannot log in after ensuring you have entered your username and password correctly, you should contact Student IT Help, Phone: (02) 9850 4357 (in Sydney) or 1 800 063 191 (outside Sydney).

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:

- Special Consideration Policy http://www.mq.edu.au/policy/docs/special_consideration/policy.html

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
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**

- Be familiar with a substantial body of literature on BBE.
- Understand the importance of integrative, multidisciplinary approaches to hypothesis testing and general behavioural research.
- Be proficient at designing empirical studies of animal behaviour.
- Be familiar with the process of writing and publishing a scientific paper.
• Be proficient at critiquing, reviewing and discussing primary scientific papers.
• Have an improved understanding of your career path and your career options.

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**

• Be familiar with a substantial body of literature on BBE.
• Understand the importance of integrative, multidisciplinary approaches to hypothesis testing and general behavioural research.
• Be proficient at designing empirical studies of animal behaviour.
• Be proficient at critiquing, reviewing and discussing primary scientific papers.
• Have an improved understanding of your career path and your career options.

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 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**

• Be familiar with a substantial body of literature on BBE.
• Understand the importance of integrative, multidisciplinary approaches to hypothesis testing and general behavioural research.
• Be proficient at generating new hypotheses and predictions based on the literature you read.
• Be proficient at designing empirical studies of animal behaviour.
• Be familiar with the process of writing and publishing a scientific paper.
• Be proficient at critiquing, reviewing and discussing primary scientific papers.

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**

- Be familiar with a substantial body of literature on BBE.
- Be proficient at generating new hypotheses and predictions based on the literature you read.
- Be proficient at designing empirical studies of animal behaviour.
- Be proficient at critiquing, reviewing and discussing primary scientific papers.
- Have an improved understanding of your career path and your career options.

**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**

- Be proficient at designing empirical studies of animal behaviour.
- Be familiar with the process of writing and publishing a scientific paper.
- Have improved oral presentation skills.
- Be proficient at critiquing, reviewing and discussing primary scientific papers.

**Engaged and Ethical Local and Global citizens**

As local citizens our graduates will be aware of indigenous perspectives and of the nation's historical context. They will be engaged with the challenges of contemporary society and with knowledge and ideas. We want our graduates to have respect for diversity, to be open-minded, sensitive to others and inclusive, and to be open to other cultures and perspectives: they should have a level of cultural literacy. Our graduates should be aware of disadvantage and social justice, and be willing to participate to help create a wiser and better society.

This graduate capability is supported by:

**Learning outcomes**

- Be proficient at critiquing, reviewing and discussing primary scientific papers.
- Have an improved understanding of your career path and your career options.
Socially and Environmentally Active and Responsible

We want our graduates to be aware of and have respect for self and others; to be able to work with others as a leader and a team player; to have a sense of connectedness with others and country; and to have a sense of mutual obligation. Our graduates should be informed and active participants in moving society towards sustainability.

This graduate capability is supported by:

**Learning outcomes**

- Be familiar with a substantial body of literature on BBE.
- Be proficient at designing empirical studies of animal behaviour.
- Be proficient at critiquing, reviewing and discussing primary scientific papers.

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**

- Be familiar with a substantial body of literature on BBE.
- Understand the importance of integrative, multidisciplinary approaches to hypothesis testing and general behavioural research.
- Be proficient at generating new hypotheses and predictions based on the literature you read.
- Be proficient at designing empirical studies of animal behaviour.
- Be familiar with the process of writing and publishing a scientific paper.
- Have improved oral presentation skills.
- Be proficient at critiquing, reviewing and discussing primary scientific papers.
- Have an improved understanding of your career path and your career options.

Commitment to Continuous Learning

Our graduates will have enquiring minds and a literate curiosity which will lead them to pursue knowledge for its own sake. They will continue to pursue learning in their careers and as they participate in the world. They will be capable of reflecting on their experiences and relationships with others and the environment, learning from them, and growing - personally, professionally and socially.

This graduate capability is supported by:

https://unitguides.mq.edu.au/unit_offerings/9505/unit_guide/print
Learning outcomes

• Be familiar with a substantial body of literature on BBE.
• Understand the importance of integrative, multidisciplinary approaches to hypothesis testing and general behavioural research.
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