



# BBE 304

## Contemporary Issues in Brain, Behaviour and Evolution

S2 Day 2016

*Dept of Biological Sciences*

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#### **Disclaimer**

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## General Information

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By appointment.

Matthew Bulbert

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Credit points

3

Prerequisites

39cp including BBE200

Corequisites

Co-badged status

BBE304 & BIOL391

### Unit description

In this capstone unit students consolidate their learning across a diversity of units within their programs of study and prepare themselves for appropriate transition to the next stage of their careers. This involves active reflection on prior learning, building and articulating a positive self-understanding, exploring opportunities, clarifying goals, acquiring adequate employability and workplace skills, and building linkages with professional communities and industries. A major objective in this course is to get students to think about, and help students assess, their future career path and the skills required to meet their career aspirations. A series of guest speakers will talk about their own career paths and offer advice on future study, career and employment options. The course also covers key topics such as communicating science, the publication and review process, research ethics, and career pathways.

## Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at <https://www.mq.edu.au/study/calendar-of-dates>

## Learning Outcomes

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

Reflect and articulate key learning's and skills gained throughout program of study

Evaluate strategies for transitioning from university to the workforce and apply learning's to prepare an effective job search strategy and create a competitive portfolio.

Appraise work ready soft skills and apply to key activities that will help to maximise a graduate's contribution to their chosen field of work and to build positive workplace experience.

Assess effective communication strategies for the workplace and apply key understandings to delivering biological information to both scientific and lay audiences using a variety of oral and written approaches.

Appraise strategies for working effectively both as an individual and as part of a team, with knowledge of ethical principles and professional conduct.

Unite skills gained throughout program of study to devise creative strategies to sell ideas for promoting scientific-based goals through a variety of media

## Assessment Tasks

Name	Weighting	Due
<a href="#">Individual presentation</a>	5%	Week 2
<a href="#">Portfolio</a>	30%	Week 5

Name	Weighting	Due
<a href="#"><u>Interview</u></a>	5%	Week 6 and 7
<a href="#"><u>Communication</u></a>	20%	Week 8
<a href="#"><u>Research and Ethics Proposal</u></a>	40%	Week 9, 13

## Individual presentation

Due: **Week 2**

Weighting: **5%**

You will be required to create a 3 min presentation on information obtained from an interview with an individual in a profession of interest. You will need to source your own subject to interview. A useful event for this exercise could be the Careers Fair in the first week of semester, the 3rd of August. See ilearn for details. You will need to produce 2 slides or so to use as visual aide to illustrate your points.

On successful completion you will be able to:

- Evaluate strategies for transitioning from university to the workforce and apply learning's to prepare an effective job search strategy and create a competitive portfolio.

## Portfolio

Due: **Week 5**

Weighting: **30%**

A brief personal career statement (max. 1 page) summarising your reflection on your biological learning/training to date, specific skills and knowledge acquired for the career you are pursuing, your personal traits/strengths, values, interests, general skills, suitable fields of work and work environment, what you identified as potential work choices and any future professional development plan. (10%)

Supply a job ad or job description/reference material of work that you are interested in applying for (note will also be the job you will be addressing for your interview):

Cover letter addressing job criteria (max. 1 page) (10%),

CV (max. 2 page) tailored for the work description/job application above. (10%)

On successful completion you will be able to:

- Reflect and articulate key learning's and skills gained throughout program of study
- Evaluate strategies for transitioning from university to the workforce and apply learning's

to prepare an effective job search strategy and create a competitive portfolio.

- Appraise work ready soft skills and apply to key activities that will help to maximise a graduate's contribution to their chosen field of work and to build positive workplace experience.

## Interview

Due: **Week 6 and 7**

Weighting: **5%**

Attend a 5 min job interview simulation with a panel for a position that you apply for in assignment 2 - i.e. Portfolio 1.

On successful completion you will be able to:

- Reflect and articulate key learning's and skills gained throughout program of study
- Evaluate strategies for transitioning from university to the workforce and apply learning's to prepare an effective job search strategy and create a competitive portfolio.
- Appraise work ready soft skills and apply to key activities that will help to maximise a graduate's contribution to their chosen field of work and to build positive workplace experience.
- Unite skills gained throughout program of study to devise creative strategies to sell ideas for promoting scientific-based goals through a variety of media

## Communication

Due: **Week 8**

Weighting: **20%**

Convincing someone of the merit of science (or your ideas for that matter) is a challenge you will confront in any profession. We read popular articles and watch Attenborough documentaries with much joy (well I hope you do). It is relatively easy to write or present on something you understand and enjoy. Where it begins to become difficult is where you need to convince others of the merit of a particular topic. This is particularly difficult when the end goal is to have the listener act on your information i.e. you have an agenda. Maybe you want the listener to become a global citizen and change the ways they conduct their daily activities, maybe you have recognised your school needs microscopes and you need to convince the principal to buy more, or you have read of a new treatment to an ailment and feel it would be a good approach to take. In all of these cases you need to communicate clearly, concisely and convincingly.

In this activity you will be asked to create a vlog - a video based article on a particular topic. The vlog though serves an agenda, you must not only educate the listener but convince them of the merit of investing in understanding the topic. The catch here is that you will have a short time frame to make your case.

Requirements:

- Short summary on a particular topic (5%)
- Script with directions (e.g. storyboard) (5%)
- Video (10%)

How you create your video will be up to you and we will go through a variety of options in class and work up some scenarios in tutorials.

On successful completion you will be able to:

- Appraise work ready soft skills and apply to key activities that will help to maximise a graduate's contribution to their chosen field of work and to build positive workplace experience.
- Assess effective communication strategies for the workplace and apply key understandings to delivering biological information to both scientific and lay audiences using a variety of oral and written approaches.
- Unite skills gained throughout program of study to devise creative strategies to sell ideas for promoting scientific-based goals through a variety of media

## Research and Ethics Proposal

Due: **Week 9, 13**

Weighting: **40%**

You will work in a group to create a solution to a major biological issue present in society today.

Presubmission: your task is to work out a solution as a group and make a pitch (10%). (Half of the 10% mark will be peer-assessed)

Your second (individual) task is to write a short grant proposal explaining how you will tackle your issue and why your solution should be funded. (20%).

Your third (individual) task is to write an ethics proposal for the implementation of your solution (10%)

On successful completion you will be able to:

- Appraise work ready soft skills and apply to key activities that will help to maximise a graduate's contribution to their chosen field of work and to build positive workplace experience.
- Assess effective communication strategies for the workplace and apply key understandings to delivering biological information to both scientific and lay audiences using a variety of oral and written approaches.
- Appraise strategies for working effectively both as an individual and as part of a team, with knowledge of ethical principles and professional conduct.

- Unite skills gained throughout program of study to devise creative strategies to sell ideas for promoting scientific-based goals through a variety of media

## Delivery and Resources

### Course structure

The course consists of a two-hour lecture (voluntary) and a two-hour tutorial each week (compulsory). Although lecture attendance is not mandatory you are expected to attend lectures to get the full learning experience. A sense of professional courtesy is an important attribute for any given workplace so why not practice now! This is particularly important for guest lecturers. The unit will have outside contributors to lectures that represent workplaces outside the university. In attending the lectures you will not only be there for your own benefit but you will also be ambassadors for the university. Participation and attendance in tutorials is essential to be successful in this course. Note that there are no tutorials in week 1.

### Unit description

Please note that this course is cross-listed as a BBE (Brain, Behaviour and Evolution) and Biological Sciences capstone and students can elect to allocate it to either major. BIO391/BBE304 is a capstone unit in which students consolidate their learning across a diversity of units within their programs of study and prepare themselves for appropriate transition to the next stage of their careers. This involves active reflection on prior learning, building and articulating a positive self-understanding, exploring opportunities, clarifying goals, acquiring adequate employability and workplace skills, and building linkages with professional communities and industries.

A major objective in this course is to get you to think about, and help you assess, your future career path and the skills you will need to develop to meet your career aspirations. The second major objective is to have you apply what you have learned during your studies in a deeper way, preparing you to tackle biological problems in the wider world.

### Unit completion requirements

**To pass this subject you must achieve all of the following:**

Unit completion requirements

To pass this subject you must achieve all of the following:

- Receive a final overall mark of >50%.
- Attend a minimum of 8 out of 12 tutorials. Note it is expected that you will attend all tutorials. Core skills are acquired during the tutorials that will provide the basis for tackling the challenging assignments so attendance should equate to success.
- Submit all assignments.

### Technology

Unit outline, workshop notes and course notes will be distributed via iLearn. <http://ilearn.mq.edu>

## u.au

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

- You must use iLearn for
- Regularly checking subject announcement - particularly with regard to the pracs and class readings;
- Downloading course materials;
- Downloading some of the reference material;
- Using the discussion board.

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).

## Career Resources

Young, S. P. (1984) Careers in the Biological Sciences: Finding Your Niche. In *The American Biology Teacher*. 46(1), pp. 12-17+64.

Blickley, J. L. et al. (2013) Graduate Student's Guide to Necessary Skills for Nonacademic Conservation Careers. In *Conservation Biology*. 27(1), pp.24-34

Career View publications are available on [http://www.victoria.ac.nz/st\\_services/careers/resources/career\\_publications/career\\_view/index.aspx](http://www.victoria.ac.nz/st_services/careers/resources/career_publications/career_view/index.aspx)

Career View: Genetics and Molecular Biology

Career View: Marine Biology, Ecology and Biodiversity

Career View: Biotechnology

Career View: Biomedical Science

Graduate Careers Australia <http://www.graduatecareers.com.au/CareerPlanningandResources/careerprofiles/index.htm>

Myfuture <http://myfuture.edu.au/Explore%20Careers.aspx>

Astor, B. (2005) What Can You Do with a Major in Biology? New Jersey: Wiley Publishing.

Bernard, T. (2005) Bernard's Pharmaceutical & Biotechnology Jobseeker's Guide 2005. Queensland: Paddington Academic Press.

Advertisements for a range of positions can be found online or in the print media. For example, the *Sydney Morning Herald* publishes *My Career* every Saturday and local newspapers generally have classifieds sections advertising jobs. More high powered or specialized jobs are often



advertised in major scientific sources such as *Science* and *Nature*.

### **Public sector positions**

The Australian Public Service - jobs within federal government departments and agencies

<http://www.apsjobs.gov.au/>

NSW Government Jobs - jobs within NSW government departments and agencies

<http://www.jobs.nsw.gov.au/>

Jobs within other state government departments and agencies

Victoria - <http://www.careers.vic.gov.au/>

Queensland - <http://jobs.qld.gov.au/>

Western Australia - <http://www.jobs.wa.gov.au/>

South Australia - <http://www.vacancies.sa.gov.au/asp/public/Home.aspx>

Northern Territory - <http://notes.nt.gov.au/dcis/RMS.nsf/NTGEmploymentHome?OpenForm>

Tasmania - <http://www.jobs.tas.gov.au/>

### **Private sector positions**

Natural Resource Management Jobs - <http://search.emailmedia.com.au/nrmjobs.php>

EnviroJobs - <http://www.envirojobs.com.au/>

SEEK - <http://www.seek.com.au/>

Job Search Australia - <http://jobsearch.gov.au/default.aspx>

## **Unit Schedule**

### **Timetable**

Lecture (2 h)	Monday	15:00 - 17:00	E7B T5
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#### ***Internals***

Tutorial (2 h)	Thursday	10:00 - 12:00	F5A 428
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12:00 - 14:00	F5A 428
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14:00 - 16:00	F5A 428
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#### ***Externals***

On campus session 1:	21st August	E8A 120
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On campus session 2:	24-25th September	E8A 120
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On campus session 3:	22nd October	E8A 120
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## 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:

Academic Honesty Policy [http://mq.edu.au/policy/docs/academic\\_honesty/policy.html](http://mq.edu.au/policy/docs/academic_honesty/policy.html)

**New Assessment Policy in effect from Session 2 2016** [http://mq.edu.au/policy/docs/assessment/policy\\_2016.html](http://mq.edu.au/policy/docs/assessment/policy_2016.html). For more information visit [http://students.mq.edu.au/events/2016/07/19/new\\_assessment\\_policy\\_in\\_place\\_from\\_session\\_2/](http://students.mq.edu.au/events/2016/07/19/new_assessment_policy_in_place_from_session_2/)

Assessment Policy prior to Session 2 2016 <http://mq.edu.au/policy/docs/assessment/policy.html>

Grading Policy prior to Session 2 2016 <http://mq.edu.au/policy/docs/grading/policy.html>

Grade Appeal Policy <http://mq.edu.au/policy/docs/gradeappeal/policy.html>

Complaint Management Procedure for Students and Members of the Public [http://www.mq.edu.au/policy/docs/complaint\\_management/procedure.html](http://www.mq.edu.au/policy/docs/complaint_management/procedure.html)

Disruption to Studies Policy [http://www.mq.edu.au/policy/docs/disruption\\_studies/policy.html](http://www.mq.edu.au/policy/docs/disruption_studies/policy.html) *The Disruption to Studies Policy is effective from March 3 2014 and replaces the Special Consideration Policy.*

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

## Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: [https://students.mq.edu.au/support/student\\_conduct/](https://students.mq.edu.au/support/student_conduct/)

## Results

Results shown in *iLearn*, or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in [eStudent](#). For more information visit [ask.mq.edu.au](http://ask.mq.edu.au).

## Student Support

Macquarie University provides a range of support services for students. For details, visit <http://students.mq.edu.au/support/>

## Learning Skills

Learning Skills ([mq.edu.au/learningskills](http://mq.edu.au/learningskills)) provides academic writing resources and study strategies to improve your marks and take control of your study.

- [Workshops](#)

- [StudyWise](#)
- [Academic Integrity Module for Students](#)
- [Ask a Learning Adviser](#)

## Student Services and 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.

## Student Enquiries

For all student enquiries, visit Student Connect at [ask.mq.edu.au](http://ask.mq.edu.au)

## IT Help

For help with University computer systems and technology, visit [http://www.mq.edu.au/about\\_us/offices\\_and\\_units/information\\_technology/help/](http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/).

When using the University's IT, you must adhere to the [Acceptable Use of IT Resources Policy](#). The policy applies to all who connect to the MQ network including students.

## Graduate Capabilities

### 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

- Evaluate strategies for transitioning from university to the workforce and apply learning's to prepare an effective job search strategy and create a competitive portfolio.
- Assess effective communication strategies for the workplace and apply key understandings to delivering biological information to both scientific and lay audiences using a variety of oral and written approaches.
- Appraise strategies for working effectively both as an individual and as part of a team, with knowledge of ethical principles and professional conduct.
- Unite skills gained throughout program of study to devise creative strategies to sell ideas for promoting scientific-based goals through a variety of media

### Assessment tasks

- Portfolio
- Communication

- Research and Ethics Proposal

## 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

- Evaluate strategies for transitioning from university to the workforce and apply learning's to prepare an effective job search strategy and create a competitive portfolio.
- Appraise work ready soft skills and apply to key activities that will help to maximise a graduate's contribution to their chosen field of work and to build positive workplace experience.
- Assess effective communication strategies for the workplace and apply key understandings to delivering biological information to both scientific and lay audiences using a variety of oral and written approaches.
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- Unite skills gained throughout program of study to devise creative strategies to sell ideas for promoting scientific-based goals through a variety of media

### Assessment tasks

- Portfolio
- Interview
- Research and Ethics Proposal

## 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:

### Learning outcomes

- Assess effective communication strategies for the workplace and apply key

understandings to delivering biological information to both scientific and lay audiences using a variety of oral and written approaches.

- Unite skills gained throughout program of study to devise creative strategies to sell ideas for promoting scientific-based goals through a variety of media

## **Assessment task**

- Communication

## **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**

- Reflect and articulate key learning's and skills gained throughout program of study
- Appraise work ready soft skills and apply to key activities that will help to maximise a graduate's contribution to their chosen field of work and to build positive workplace experience.

## **Assessment tasks**

- Individual presentation
- Portfolio
- Interview

## **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**

- Reflect and articulate key learning's and skills gained throughout program of study
- Evaluate strategies for transitioning from university to the workforce and apply learning's

to prepare an effective job search strategy and create a competitive portfolio.

- Assess effective communication strategies for the workplace and apply key understandings to delivering biological information to both scientific and lay audiences using a variety of oral and written approaches.

## **Assessment tasks**

- Portfolio
- Communication
- Research and Ethics Proposal

## **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**

- Appraise work ready soft skills and apply to key activities that will help to maximise a graduate's contribution to their chosen field of work and to build positive workplace experience.
- Appraise strategies for working effectively both as an individual and as part of a team, with knowledge of ethical principles and professional conduct.

## **Assessment tasks**

- Individual presentation
- Research and Ethics Proposal

## **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**

- Reflect and articulate key learning's and skills gained throughout program of study
- Evaluate strategies for transitioning from university to the workforce and apply learning's

to prepare an effective job search strategy and create a competitive portfolio.

- Appraise work ready soft skills and apply to key activities that will help to maximise a graduate's contribution to their chosen field of work and to build positive workplace experience.
- Assess effective communication strategies for the workplace and apply key understandings to delivering biological information to both scientific and lay audiences using a variety of oral and written approaches.
- Appraise strategies for working effectively both as an individual and as part of a team, with knowledge of ethical principles and professional conduct.
- Unite skills gained throughout program of study to devise creative strategies to sell ideas for promoting scientific-based goals through a variety of media

## **Assessment tasks**

- Individual presentation
- Portfolio
- Interview
- Communication
- Research and Ethics Proposal

## **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**

- Appraise work ready soft skills and apply to key activities that will help to maximise a graduate's contribution to their chosen field of work and to build positive workplace experience.
- Assess effective communication strategies for the workplace and apply key understandings to delivering biological information to both scientific and lay audiences using a variety of oral and written approaches.
- Appraise strategies for working effectively both as an individual and as part of a team, with knowledge of ethical principles and professional conduct.
- Unite skills gained throughout program of study to devise creative strategies to sell ideas

for promoting scientific-based goals through a variety of media

## **Assessment tasks**

- Communication
- Research and Ethics Proposal

## **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**

- Appraise work ready soft skills and apply to key activities that will help to maximise a graduate's contribution to their chosen field of work and to build positive workplace experience.
- Appraise strategies for working effectively both as an individual and as part of a team, with knowledge of ethical principles and professional conduct.
- Unite skills gained throughout program of study to devise creative strategies to sell ideas for promoting scientific-based goals through a variety of media

## **Assessment tasks**

- Communication
- Research and Ethics Proposal