BIOL1320

Biological Basis of Behaviour

Session 2, Online with attendance for exam, North Ryde 2020

Department of Biological Sciences

Contents

Notice

As part of Phase 3 of our return to campus plan, most units will now run tutorials, seminars and ot her small group learning activities on campus for the second half-year, while keeping an online ver sion available for those students unable to return or those who choose to continue their studies onli ne.

To check the availability of face-to-face and onlin e activities for your unit, please go to timetable vi ewer. To check detailed information on unit asses sments visit your unit's iLearn space or consult yo ur unit convenor.

General Information

Unit convenor and teaching staff
Ken Cheng
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Kate Barry
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Credit points
10

Prerequisites

Corequisites

Co-badged status

Unit description
BIOL1320 is a suitable introductory science course of interest for all students, designed for the 'free' zone. Canvassing a range of topics relevant to today's society in a manner accessible to all students, this journey teaches students the skills to communicate to a general audience. In contents, it offers an integrative approach to the amazing world of behaviour. Basic mechanisms are covered, together with function and evolution. Lecture topics include explanations of behaviour, evolution, evolutionary origins of behaviour, basic neuroscience, perception, learning, brain and behaviour, and topics in animal behaviour. Lectures culminate with some reflections on the lives of humans in our modern world and the role of culture in human evolution.

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:

ULO1: Describe the basic functioning of the nervous system in animals, including the senses

ULO2: Explain the principles of evolution by natural selection and sexual selection

ULO3: Demonstrate an understanding of basic concepts and principles in genetics, epigenetics, perception, learning, human evolution, explanations in animal behaviour,

and the topics on the nature of science, ethics, study skills, animal behaviour and on evolution and human behaviour presented in the unit

ULO4: Apply knowledge and skills to collect, analyse, and interpret scientific data including those presented in graphic form

ULO5: Extract key points from scientific papers and other forms of presentation and accurately communicate these to a general audience

ULO6: Comment critically on scientific papers and other forms of presentation with regard to life on our planet today

Assessment Tasks

Name	Weighting	Hurdle	Due
final examination	35%	No	exam period
Essay	29%	No	Week 5; Midsemester week 1; Week 10
Participation in pracs	5%	No	Week 5; Midsemester week 1; Week 10
Lab 2 quiz	2%	No	Week 11
quizzes in textbook	27%	Yes	Various weeks
brief comments	2%	No	Week 3

final examination

Assessment Type [1]: Examination
Indicative Time on Task [2]: 30 hours
Due: **exam period**
Weighting: **35%**

examination in the final exam period

On successful completion you will be able to:

- Describe the basic functioning of the nervous system in animals, including the senses
- Explain the principles of evolution by natural selection and sexual selection
- Demonstrate an understanding of basic concepts and principles in genetics, epigenetics, perception, learning, human evolution, explanations in animal behaviour, and the topics on the nature of science, ethics, study skills, animal behaviour and on evolution and

human behaviour presented in the unit

Essay

Assessment Type [1]: Essay
Indicative Time on Task [2]: 40 hours
Due: **Week 5; Midsemester week 1; Week 10**
Weighting: **29%**

You will develop an essay summarising a scientific article. The essay will be developed and submitted in steps, with feedback given at each step. You will be expected to incorporate the feedback into the next draft.

On successful completion you will be able to:

- Apply knowledge and skills to collect, analyse, and interpret scientific data including those presented in graphic form
- Extract key points from scientific papers and other forms of presentation and accurately communicate these to a general audience
- Comment critically on scientific papers and other forms of presentation with regard to life on our planet today

Participation in pracs

Assessment Type [1]: Participatory task
Indicative Time on Task [2]: 0 hours
Due: **Week 5; Midsemester week 1; Week 10**
Weighting: **5%**

Submitting certain tasks in pracs, tasks that are not graded for quality, that is, assessed as done (gaining all allotted marks) or not done (no allotted marks at all).

On successful completion you will be able to:

- Describe the basic functioning of the nervous system in animals, including the senses
- Explain the principles of evolution by natural selection and sexual selection
- Demonstrate an understanding of basic concepts and principles in genetics, epigenetics, perception, learning, human evolution, explanations in animal behaviour, and the topics on the nature of science, ethics, study skills, animal behaviour and on evolution and

human behaviour presented in the unit
- Apply knowledge and skills to collect, analyse, and interpret scientific data including those presented in graphic form
- Extract key points from scientific papers and other forms of presentation and accurately communicate these to a general audience
- Comment critically on scientific papers and other forms of presentation with regard to life on our planet today

Lab 2 quiz

Assessment Type [1]: Quiz/Test
Indicative Time on Task [2]: 1 hours
Due: **Week 11**
Weighting: **2%**

quiz in iLearn on reading information from graphs in scientific articles

On successful completion you will be able to:
- Apply knowledge and skills to collect, analyse, and interpret scientific data including those presented in graphic form

quizzes in textbook

Assessment Type [1]: Quiz/Test
Indicative Time on Task [2]: 4 hours
Due: **Various weeks**
Weighting: **27%**
This is a hurdle assessment task (see assessment policy for more information on hurdle assessment tasks)

quiz questions in each chapter of the e-textbook

On successful completion you will be able to:
- Describe the basic functioning of the nervous system in animals, including the senses
- Explain the principles of evolution by natural selection and sexual selection
- Demonstrate an understanding of basic concepts and principles in genetics, epigenetics, perception, learning, human evolution, explanations in animal behaviour, and the topics

on the nature of science, ethics, study skills, animal behaviour and on evolution and human behaviour presented in the unit

brief comments

Assessment Type [1]: Essay
Indicative Time on Task [2]: 3 hours
Due: **Week 3**
Weighting: **2%**

Brief comments on a short video

On successful completion you will be able to:

- Extract key points from scientific papers and other forms of presentation and accurately communicate these to a general audience
- Comment critically on scientific papers and other forms of presentation with regard to life on our planet today

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[1] If you need help with your assignment, please contact:

- the academic teaching staff in your unit for guidance in understanding or completing this type of assessment
- the Writing Centre for academic skills support.

[2] Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation

Delivery and Resources

All lecture modules online, prerecorded, on iLearn and in Echo.

Pracs recorded, do-it-yourself style.

Unit Schedule

All lecture modules online, prerecorded, on iLearn and in Echo.

Pracs in Weeks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12.

Week 1 Course contents, the nature of science, ethics, and study skills

Week 2 Brief history, Tinbergen's 'why' questions

Week 3 Evolution: Darwin, Evolution on a small scale

Week 4 Evolution on a large scale, Evolution of behaviour

Week 5 Genetics, Epigenetics, Neuroscience

Week 6 Neuroscience, Senses

Week 7 Perception, Learning 1

Week 8 Learning 2, Animal behaviour 1

Week 9 Animal behaviour 2, Communication

Week 10 Sexual selection, Human evolution

Week 11 Human behaviour: family, sociality, behavioural economic games, gene-culture co-evolution

Week 12 Darwinian psychiatry, Guns, Germs, and Steel

Week 13 Course song!

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central (https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- Academic Appeals Policy
- Academic Integrity Policy
- Academic Progression Policy
- Assessment Policy
- Fitness to Practice Procedure
- Grade Appeal Policy
- Complaint Management Procedure for Students and Members of the Public
- Special Consideration Policy *(**Note:** The Special Consideration Policy is effective from 4 December 2017 and replaces the Disruption to Studies Policy.)*

Students seeking more policy resources can visit the Student Policy Gateway (https://students.mq.edu.au/support/study/student-policy-gateway). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

If you would like to see all the policies relevant to Learning and Teaching visit Policy Central (https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/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/study/getting-started/student-conduct

Results

Results published on platform other than eStudent, (eg. iLearn, Coursera etc.) 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 or if you are a Global MBA student contact globalmba.support@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) provides academic writing resources and study strategies to help you improve your marks and take control of your study.

- Getting help with your assignment
- Workshops
- StudyWise
- Academic Integrity Module

The Library provides online and face to face support to help you find and use relevant information resources.

- Subject and Research Guides
- Ask a Librarian

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

If you are a Global MBA student contact globalmba.support@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/.

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.

Changes from Previous Offering

All lecture modules pre-recorded and online. Do-it-yourself style with pracs that are recorded.