COGS701

Research Frontiers in Cognitive Science

S1 Day 2016

Department of Cognitive Science

Contents

General Information

Unit convenor and teaching staff
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Credit points
4

Prerequisites
Admission to MRes

Corequisites

Co-badged status

Unit description
This unit will engage students in critical research issues in cognitive science. We examine the assumptions and methodological issues of the main techniques used across the different fields of cognitive science (e.g., neuroimaging, behavioural, and neuropsychological techniques). The unit will include seminars by experts in the various techniques and student-led analyses of recently published papers. The aim is to provide students with the tools to critically appraise published studies and the inferences made on the basis of experimental data. Activities are based on seminar attendance, directed reading of research articles, and critical discussion of research in both written and oral form.

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:

Acquire a coherent and advanced knowledge of current research in cognitive science.

Identify and discuss complex problems with intellectual independence.

Articulate clearly a coherent argument in written and oral form to a variety of audiences.

Synthesize and analyze information from a variety of sources.

Develop a high level of oral, written, and technological communication skills, with

specialisation for the specific needs of cognitive science.

General Assessment Information

Requirements to pass the unit

A passing grade is contingent on completion and submission of **all** assessments. *Failure to submit any assessments will automatically result in a fail grade and any subsequent pieces of work will not be assessed.*

Late Penalties

Late submission of an assignment will attract a penalty of 10% of the maximum mark for every day that the assignment is late (including weekend days). For example, if the assignment is worth 40 marks and your assignment is submitted 2 days late, a penalty of 2x10%x40 = 8 marks will be applied and subtracted from the awarded mark for the assignment. Work submitted more than 7 days after the submission deadline will not be marked and will receive a mark of 0. Please note that it is the student's responsibility to notify the University of a disruption to their studies and that requests for extensions for assignments must be made via the University's Ask MQ System (as outlined in the Disruption to Studies Policy).

Final Grade

Your final grade is determined by your performance in meeting the learning outcomes for the unit. The Standard Numerical Grade (SNG) reflects the extent to which your performance matches the grade descriptors, as outlined in the Macquarie University Grading Policy. Please note that your final mark may be scaled and therefore may not necessarily be a raw sum of the marks received for the individual assessment tasks.

Questions about the assessment tasks?

Please email the unit convenors for clarification or questions about any of the assessments - we are happy to discuss essay directions in advance of submission if necessary.

Assessment Tasks

Name	Weighting	Due
Participation	10%	Throughout course
Leading journal club	10%	Depends on topic signed up for
Critical Analysis Of A Paper	30%	2 weeks after leading paper
Critical issues in CogSci	50%	TBA

Participation

Due: **Throughout course**

Weighting: **10%**

The course alternates between lectures given by experts and student-led journal club discussions. In both sections there is ample opportunity for students to ask questions, contribute thoughts and participate. For the journal club weeks, all students need to read the selected paper critically and think about the issues, then contribute to the discussion within the group on the day.

On successful completion you will be able to:

- Acquire a coherent and advanced knowledge of current research in cognitive science.
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Leading journal club

Due: **Depends on topic signed up for**
Weighting: **10%**

Each student nominates a topic for which s/he will lead a paper discussion. This involves selecting a paper using the specific technique for the other students in the group to read, reading it critically and preparing, and then leading the student discussion on the day.

On successful completion you will be able to:

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Critical Analysis Of A Paper

Due: **2 weeks after leading paper**
Weighting: **30%**

This essay is a summary of the critical review of a particular article (usually the one analysed for the presentation, but can be different if the student so chooses).

We will be looking for evidence of:

[1] understanding of the goal, methods, analyses & results of the study

[2] critical and reflective thinking regarding potential issues with the study

[3] writing, clarity, and argument of the essay

On successful completion you will be able to:

- Identify and discuss complex problems with intellectual independence.
- Articulate clearly a coherent argument in written and oral form to a variety of audiences.

- Develop a high level of oral, written, and technological communication skills, with specialisation for the specific needs of cognitive science.

Critical issues in CogSci

Due: **TBA**

Weighting: **50%**

The essay should contain an introductory overview and presentation of a number (perhaps 3-4) of issues that arose during the course across the techniques. Shows understanding of the important issues, why they are important, perhaps examples of papers that have these flaws & what problems this raises for the authors' interpretation.

(3000 words plus reference list)

We will be looking for evidence of:

[1] critical thinking and understanding of the selected issues

[2] writing, clarity, and argument

On successful completion you will be able to:

- Acquire a coherent and advanced knowledge of current research in cognitive science.
- Identify and discuss complex problems with intellectual independence.
- Articulate clearly a coherent argument in written and oral form to a variety of audiences.
- Synthesize and analyze information from a variety of sources.
- Develop a high level of oral, written, and technological communication skills, with specialisation for the specific needs of cognitive science.

Delivery and Resources

Delivery

Seminars are held weekly, starting in Week 1 of Session 1 on Fridays from 10-11.30am in the Australian Hearing Hub, Level 3, room 3.610.

We expect 100% attendance to the weekly seminars. If there are any issues with attendance, please email the unit convenors in advance of the class. We require students to participate in the discussion in the journal club seminars, which requires thorough reading of the assigned papers.

Resources

The required readings for this unit will be nominated by students.

Recommended readings will be given by lecturers after each lecture.

Slides and readings from each lecture will be available on this unit's iLearn page.

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

New Assessment Policy in effect from Session 2 2016 http://mq.edu.au/policy/docs/assessment/policy_2016.html. For more information visit http://students.mq.edu.au/events/2016/07/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

Disruption to Studies Policy 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/

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.

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 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

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.

Graduate Capabilities

PG - Discipline Knowledge and Skills

Our postgraduates will be able to demonstrate a significantly enhanced depth and breadth of knowledge, scholarly understanding, and specific subject content knowledge in their chosen fields.

This graduate capability is supported by:

Learning outcomes

- Acquire a coherent and advanced knowledge of current research in cognitive science.
- Identify and discuss complex problems with intellectual independence.
- Develop a high level of oral, written, and technological communication skills, with specialisation for the specific needs of cognitive science.

Assessment tasks

- Participation
- Leading journal club
- Critical Analysis Of A Paper
- Critical issues in CogSci

PG - Critical, Analytical and Integrative Thinking

Our postgraduates will be capable of utilising and reflecting on prior knowledge and experience, of applying higher level critical thinking skills, and of integrating and synthesising learning and knowledge from a range of sources and environments. A characteristic of this form of thinking is the generation of new, professionally oriented knowledge through personal or group-based critique of practice and theory.

This graduate capability is supported by:

Learning outcomes

- Articulate clearly a coherent argument in written and oral form to a variety of audiences.
- Synthesize and analyze information from a variety of sources.

Assessment tasks

- Critical Analysis Of A Paper
- Critical issues in CogSci

PG - Research and Problem Solving Capability

Our postgraduates will be capable of systematic enquiry; able to use research skills to create new knowledge that can be applied to real world issues, or contribute to a field of study or practice to enhance society. They will be capable of creative questioning, problem finding and problem solving.

This graduate capability is supported by:

Learning outcomes

- Identify and discuss complex problems with intellectual independence.
- Synthesize and analyze information from a variety of sources.

Assessment task

- Critical issues in CogSci

PG - Effective Communication

Our postgraduates will be able to communicate effectively and convey their views to different social, cultural, and professional audiences. They will be able to use a variety of technologically supported media to communicate with empathy using a range of written, spoken or visual formats.

This graduate capability is supported by:

Learning outcomes

- Identify and discuss complex problems with intellectual independence.
- Articulate clearly a coherent argument in written and oral form to a variety of audiences.
- Develop a high level of oral, written, and technological communication skills, with specialisation for the specific needs of cognitive science.

Assessment tasks

- Participation
- Leading journal club

- Critical Analysis Of A Paper
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