# COGS2250

## Cognitive and Brain Sciences Laboratory

Session 2, In person-scheduled-weekday, North Ryde 2022

*School of Psychological Sciences*

## Contents

**Disclaimer**

# General Information

Unit convenor and teaching staff
Unit convenor and lecturer
Bianca De Wit
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Contact via During office hours or email
AHH 3.812
Wednesdays 2-3pm

Tutor
Samantha Curtis
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Credit points
10

Prerequisites
Admission to BCogBrainSc and COGS2000 or COGS202

Corequisites

Co-badged status

Unit description
This unit will help students develop the knowledge and skills required to conduct research in the cognitive and brain sciences. Students will have the opportunity to participate in all stages of the research process including experimental design, experiment programming, data collection, data analysis, and reporting results. A primary focus of this unit will be to foster the development of practical laboratory skills including appropriate research notetaking and scientific record keeping, professional conduct in laboratory and research settings, and effective scientific communication in both oral and written 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:

**ULO1:** Demonstrate and apply research and problem solving skills.

**ULO2:** Design and program a simple experiment.

**ULO3:** Perform appropriate statistical analyses on collected research data.

**ULO4:** Work professionally, safely, and ethically in a research environment.

**ULO5:** Display effective scientific communication in written and oral form.

# General Assessment Information

Grade descriptors and other information concerning grading are contained in the Macquarie University Assessment Policy.

All final grades are determined by a grading committee, in accordance with the Macquarie University Assessment Policy, and are not the sole responsibility of the Unit Convenor.

Students will be awarded a final grade and a mark which must correspond to the grade descriptors specified in the Assessment Procedure (clause 128).

To pass this unit, you must demonstrate sufficient evidence of achievement of the learning outcomes, meet any ungraded requirements, and achieve a final mark of 50 or better.

Further details for each assessment task will be available on iLearn.

## Late Submissions

Unless a Special Consideration request has been submitted and approved, a 5% penalty (OF THE TOTAL POSSIBLE MARK) will be applied each day a written assessment is not submitted, up until the 7th day (including weekends). After the 7th day, a grade of '0' will be awarded even if the assessment is submitted. Submission time for all written assessments is set at 11.55pm. A 1-hour grace period is provided to students who experience a technical concern.

For example:

| Number of days (hours) late | Total Possible Marks | Deduction | Raw mark | Final mark |
|---|---|---|---|---|
| 1 day (1-24 hours) | 100 | 5 | 75 | 70 |
| 2 days (24-48 hours) | 100 | 10 | 75 | 65 |
| 3 days (48-72 hours) | 100 | 15 | 75 | 60 |
| 7 days (144-168 hours) | 100 | 35 | 75 | 40 |
| >7 days (>168 hours) | 100 | - | 75 | 0 |

Late submission of time sensitive tasks, such as scheduled tests/exams, performance assessments/presentations, and/or scheduled practical assessments/labs, students need to submit an application for Special Consideration.

## Special Consideration

If you are unable to complete an assessment task on or by the specified date due circumstances

that are unexpected, unavoidable, significantly disruptive and beyond your control, you may apply for special consideration in accordance with the special consideration policy. Applications for special consideration must be supported by appropriate evidence and submitted via ask.mq.edu.au.

# Assessment Tasks

| Name | Weighting | Hurdle | Due |
|------|-----------|--------|-----|
| Problem sets | 35% | No | Throughout session, see iLearn for exact dates |
| Research poster presentation | 35% | No | Week 13 |
| Research participation | 10% | No | Throughout session, see iLearn for exact dates |
| Registration report | 20% | No | Monday 26 September (start of Week 8) |

## Problem sets

Assessment Type [1]: Problem set
Indicative Time on Task [2]: 25 hours
Due: **Throughout session, see iLearn for exact dates**
Weighting: **35%**

Problem sets distributed throughout the session that give students the opportunity to program experiments and comment on code.

On successful completion you will be able to:
- Demonstrate and apply research and problem solving skills.
- Design and program a simple experiment.
- Perform appropriate statistical analyses on collected research data.
- Display effective scientific communication in written and oral form.

## Research poster presentation

Assessment Type [1]: Presentation
Indicative Time on Task [2]: 35 hours
Due: **Week 13**
Weighting: **35%**

Research poster presenting the student-led research project.

On successful completion you will be able to:

- Demonstrate and apply research and problem solving skills.

- Perform appropriate statistical analyses on collected research data.

- Work professionally, safely, and ethically in a research environment.

- Display effective scientific communication in written and oral form.

# Research participation

Assessment Type [1]: Participatory task
Indicative Time on Task [2]: 5 hours
Due: **Throughout session, see iLearn for exact dates**
Weighting: **10%**

Participation in and running of experiments for student-led research projects.

On successful completion you will be able to:

- Work professionally, safely, and ethically in a research environment.

# Registration report

Assessment Type [1]: Report
Indicative Time on Task [2]: 20 hours
Due: **Monday 26 September (start of Week 8)**
Weighting: **20%**

Highly scaffolded and structured report that outlines the plan for the student-led research project (max. 1000 words).

On successful completion you will be able to:

- Demonstrate and apply research and problem solving skills.

- Design and program a simple experiment.

- Work professionally, safely, and ethically in a research environment.

- Display effective scientific communication in written and oral form.

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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

As a student enrolled in this unit, you will engage in a range of **face-to-face learning activities that require on-campus attendance**, including lectures and practicals (both on Wednesdays, Week 1 - Week 13, inclusive). Lectures and tutorials are on Tuesdays (Week 1 - Week 13, inclusive). Details on what is covered during these activities as well as your expected readings for the unit, can be found on the iLearn site for this unit. For now, make an extra special note that you are **required to attend the lecture and tutorial in Week 13 to present your research poster**. Due to restrictions on the availability of resources in the laboratory and in line with health and safety regulations you should attend the tutorial to which you have been assigned. Although students might be able to occasionally attend a different tutorial, most classes are likely to be full, in which case those not attending their assigned tutorial will be asked to leave. If you cannot attend your regular tutorial, please let the unit convenor know as soon as possible.

To do well in COGS2250, and keep up with the learning material, it is strongly encouraged that you **attend** both lectures and practicals. These learning activities have been designed to give you the opportunity to ask questions, interact with the fast-paced learning material, and interact with your peers. The practicals consist of a variety of active tasks that will support your understanding of important aspects of experimental design and practice, including the creating of experiments and processing of EEG data. Importantly, your participation in these activities will help you on your way to completing your assessment tasks, and every practical will have time dedicated to provide support for your assessment tasks. You will receive feedback regularly throughout the Session both verbally and in relation to your submitted assessment tasks. If you feel like anything is unclear, or you wish further feedback on your individual performance, please get in touch with the unit convenor (bianca.dewit@mq.edu.au).

**Technology used**

In this unit, we will be using iLearn to access learning material, submit assessment tasks and provide feedback and marks. We will also be using PsychoPy to create experiments, R to manipulate our datasets, and EEGLAB (run through Matlab) to process EEG data. You are welcome to use the computers provided in the teaching room, but it is recommended to bring your personal laptop to class, and install the required software as you will need to continue to use the software in your own time for completion of assessment tasks. Students who do not own their own laptop computer may borrow one from the university library (if this applies to you, please in touch with the unit convenor (bianca.dewit@mq.edu.au) as soon as possible.

**Questions about the assessment tasks?**

We will spend time during lectures and tutorials discussing the expectations for the assessment tasks. There is also time dedicated to providing in-class support. If you do still have questions about any of the assessment, please email the unit convenor (bianca.dewit@mq.edu.au)

# Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central (https://policies.mq.edu.au). 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
- Assessment Procedure
- Complaints Resolution Procedure for Students and Members of the Public
- Special Consideration Policy

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

To find other policies relating to Teaching and Learning, visit Policy Central (https://policies.mq.edu.au) and use the search tool.

## Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/admin/other-resources/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

# Academic Integrity

At Macquarie, we believe academic integrity – honesty, respect, trust, responsibility, fairness and courage – is at the core of learning, teaching and research. We recognise that meeting the expectations required to complete your assessments can be challenging. So, we offer you a range of resources and services to help you reach your potential, including free online writing and maths support, academic skills development and wellbeing consultations.

# Student Support

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

## The Writing Centre

The Writing Centre provides resources to develop your English language proficiency, academic writing, and communication skills.

- Workshops
- Chat with a WriteWISE peer writing leader
- Access StudyWISE
- Upload an assignment to Studiosity
- Complete the 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

Macquarie University offers a range of Student Support Services including:

- IT Support
- Accessibility and disability support with study
- Mental health support
- Safety support to respond to bullying, harassment, sexual harassment and sexual assault
- Social support including information about finances, tenancy and legal issues

# Student Enquiries

Got a question? Ask us via AskMQ, or contact Service Connect.

# 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.

# Inclusion and Diversity

Social inclusion at Macquarie University is about giving everyone who has the potential to benefit from higher education the opportunity to study at university, participate in campus life and flourish in their chosen field. The University has made significant moves to promote an equitable, diverse and exciting campus community for the benefit of staff and students. It is your responsibility to contribute towards the development of an inclusive culture and practice in the

areas of learning and teaching, research, and service orientation and delivery. As a member of the Macquarie University community, you must not discriminate against or harass others based on their sex, gender, race, marital status, carers' responsibilities, disability, sexual orientation, age, political conviction or religious belief. All staff and students are expected to display appropriate behaviour that is conducive to a healthy learning environment for everyone. **The Unit Convenor is an active supporter of equity and diversity at Macquarie University, including being a member of the Ally network, and is happy to provide additional support if needed.**

# Professionalism

In the Faculty of Medicine, Health and Human Sciences, professionalism is a key capability embedded in all our courses.

As part of developing professionalism, students are expected to attend all small group interactive sessions including clinical, practical, laboratory, work-integrated learning (e.g., PACE placements), and team-based learning activities. Some learning activities are recorded (e.g., face-to-face lectures), however you are encouraged to avoid relying upon such material as they do not recreate the whole learning experience and technical issues can and do occur. As an adult learner, we respect your decision to choose how you engage with your learning, but we would remind you that the learning opportunities we create for you have been done so to enable your success, and that by not engaging you may impact your ability to successfully complete this unit. We equally expect that you show respect for the academic staff who have worked hard to develop meaningful activities and prioritise your learning by communicating with them in advance if you are unable to attend a small group interactive session.

Another dimension of professionalism is having respect for your peers. It is the right of every student to learn in an environment that is free of disruption and distraction. Please arrive to all learning activities on time, and if you are unavoidably detained, please join the activity as quietly as possible to minimise disruption. Phones and other electronic devices that produce noise and other distractions must be turned off prior to entering class. Where your own device (e.g., laptop) is being used for class-related activities, you are asked to close down all other applications to avoid distraction to you and others. Please treat your fellow students with the utmost respect. If you are uncomfortable participating in any specific activity, please let the relevant academic know.