

COGS3040

Space and Time in the Brain

Session 1, Special circumstances 2021

Archive (Pre-2022) - Department of Cognitive Science

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Notice

As part of Phase 3 of our return to campus plan, most units will now run tutorials, seminars and other small group activities on campus, and most will keep an online version available to those students unable to return or those who choose to continue their studies online.

To check the availability of face-to-face activities for your unit, please go to <u>timetable viewer</u>. To check detailed information on unit assessments visit your unit's iLearn space or consult your unit convenor.

General Information

Unit convenor and teaching staff

Unit Convenor and Lecturer

David Kaplan

david.kaplan@mq.edu.au

Australian Hearing Hub 3.824

Wed 3-4 PM

Lecturer

Paul Sowman

paul.sowman@mq.edu.au

Lecturer

Mike Richardson

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Credit points

10

Prerequisites

130cp including COGS2000 or COGS202

Corequisites

Co-badged status

Unit description

Behaviour must be coordinated exquisitely in both space and time. A reach for the glass that is off target, results in a spill. A tennis serve that comes too early or too late, results in a miss. A poorly timed and spatially inaccurate spin of a dance partner, results in a fall. This unit explores fundamental spatial and temporal aspects of human behaviour from computational, neural, and dynamical perspectives. Topics include sensorimotor transformations, motor learning, motor timing and inhibition, and spatiotemporal coordination dynamics.

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: Explain the role of space and time in perception, action, and cognition.

ULO2: Demonstrate advanced knowledge of the structure and function of the brain with an emphasis on how space and time are represented.

ULO3: Interpret and critically evaluate the results of studies addressing how space and time are represented in the brain.

ULO4: Display effective scientific communication in written form.

Assessment Tasks

Name	Weighting	Hurdle	Due
Commentary Paper	20%	No	Week 9
Data Analysis Writeup 2	20%	No	Week 13
Final Exam	40%	No	Formal Examination Period
Data Analysis Writeup 1	20%	No	Week 6

Commentary Paper

Assessment Type 1: Report

Indicative Time on Task 2: 14 hours

Due: Week 9
Weighting: 20%

Short highly structured critical analysis of scientific paper. 700 words max.

On successful completion you will be able to:

- Explain the role of space and time in perception, action, and cognition.
- Demonstrate advanced knowledge of the structure and function of the brain with an emphasis on how space and time are represented.
- Interpret and critically evaluate the results of studies addressing how space and time are represented in the brain.
- Display effective scientific communication in written form.

Data Analysis Writeup 2

Assessment Type 1: Quantitative analysis task

Indicative Time on Task 2: 14 hours

Due: Week 13 Weighting: 20%

Data analysis and writeup of curated data set.

On successful completion you will be able to:

- Explain the role of space and time in perception, action, and cognition.
- Demonstrate advanced knowledge of the structure and function of the brain with an emphasis on how space and time are represented.
- Interpret and critically evaluate the results of studies addressing how space and time are represented in the brain.
- Display effective scientific communication in written form.

Final Exam

Assessment Type 1: Examination Indicative Time on Task 2: 30 hours Due: **Formal Examination Period**

Weighting: 40%

2 hr exam, conducted in class during official exam period. Combination of multiple choice and short answer questions.

On successful completion you will be able to:

- Explain the role of space and time in perception, action, and cognition.
- Demonstrate advanced knowledge of the structure and function of the brain with an emphasis on how space and time are represented.

Data Analysis Writeup 1

Assessment Type 1: Quantitative analysis task Indicative Time on Task 2: 14 hours

Due: Week 6
Weighting: 20%

Data analysis and writeup of curated data set.

On successful completion you will be able to:

- Explain the role of space and time in perception, action, and cognition.
- Demonstrate advanced knowledge of the structure and function of the brain with an emphasis on how space and time are represented.
- Interpret and critically evaluate the results of studies addressing how space and time are represented in the brain.
- Display effective scientific communication in written form.

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.

Delivery and Resources

Readings

All readings will be made available through iLearn and Leganto.

<u>iLearn</u>

You will need access to the internet to access the unit's iLearn page. Through iLearn you will be able to access the lecture recordings (Echo360), additional readings, and feedback and marks for the assessment tasks. You are also required to submit assessment tasks via iLearn, using the Turnitin submission tool. Please allow time to familiarise yourself with how to access iLearn and how to submit a Turnitin assignment.

Lectures

All lectures will be delivered online, starting in Week 1. The officially scheduled lecture time is **Monday 11:00 AM - 12:30 PM**. Depending on the lecturer, lectures will either be pre-recorded and uploaded through Echo360 prior to the officially scheduled lecture time or the lecture will be live-streamed via Zoom/Echo360 during the officially scheduled time. **The Zoom meeting link and password will be provided securely through the COGS3040 iLearn page.** All lectures, regardless of initial delivery mode, will be recorded and made available for asynchronous viewing through Echo360. Lecture slides will be uploaded to iLearn just before the lecture time under the lecture link in the relevant week below.

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
- Grade Appeal Policy
- Complaint Management Procedure for Students and Members of the Public
- Special Consideration Policy

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

Students seeking more policy resources can visit <u>Student Policies</u> (<u>https://students.mq.edu.au/support/study/policies</u>). 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.e du.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

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 <u>Disability Service</u> 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 <u>Acceptable Use of IT Resources Policy</u>. The policy applies to all who connect to the MQ network including students.