NEUR4411

Behavioural Perspectives in Neuroscience

Course Outline

Term 1, 2023

School of Biomedical Sciences
Faculty of Medicine & Health

School of Psychology
Faculty of Science

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1. Staff

All staff teaching in this course are from the School of Psychology. Consultation is by appointment only and may be face-to-face or via Teams.

Position	Name	Email	Consultation times and locations	Contact Details
Course Convenor	Dr Kelly Clemens	k.clemens@unsw.edu.au	By appointment	By Email
Co-convenor	A/Prof Belinda Liddell	b.liddell@unsw.edu.au	By appointment	By Email
Guest Lecturers	Dr Justine Fam	j.fam@unsw.edu.au	By appointment	By Email
	Dr Karly Turner	karly.turner@unsw.edu.au	By appointment	By Email
	Dr Zhi Yi Ong	zhiyi.ong@unsw.edu.au	By appointment	By Email
	Dr Erin Goddard	erin.goddard@unsw.edu.au	By appointment	By Email
	Prof Tom Whitford	t.whiford@unsw.edu.au	By appointment	By Email

2. Course information

Units of credit: 6

Pre-requisite(s): Enrolled in Neuroscience Honours Plan

Teaching times and locations: **Tue 10-12, MAT 307**

https://timetable.unsw.edu.au/2023/NEUR4411.html

2.1 Course summary

Neuroscience is conceived of as a core field of knowledge to which many different disciplines contribute. Neuroscience is primarily an experimental discipline and so a proper appreciation of neuroscience requires an understanding of both what is known, and of the limitations imposed by our study tools. This course exposes student to current behavioural neuroscience thought and techniques.

The lectures by discipline experts (basic scientists in animal and human research) will cover the scope and range of approaches in neuroscience and provides the student with a broad base of knowledge from which to appreciate neuroscientific developments.

The weekly seminars will engage students in critical analysis and thinking, including critical analysis of recent technical and theoretical advances in each experts' field.

2.2 Course aims

- To develop the students' theoretical knowledge base in biomedical neuroscience.
- To develop the students' capacity for critical analysis of the primary literature.
- To develop the students' ability to concisely present scientific data.
- To develop the students' ability to communicate scientific research to a lay audience.

2.3 Course learning outcomes (CLO)

At the successful completion of this course you (the student) should be able to:

1. Demonstrate knowledge and general empirical understanding of the techniques and approaches used in the study of behavioural neuroscience in humans and animals.
2. Analyse the context in which behavioural neuroscience lies, especially with respect to translation from basic science to the clinic.
3. Demonstrate the skills of critical thinking, conceptual analysis, and oral and written expression.

2.4 Relationship between course and program learning outcomes and assessments

Course Learning Outcome (CLO)	**LO Statement**	**Program Learning Outcome (PLO)**	**Related Tasks & Assessment**
CLO 1	Demonstrate knowledge and general empirical understanding of the techniques and approaches used in the study of behavioural neuroscience in humans and animals.	Demonstrate coherent and advanced knowledge of the underlying principles and concepts in one or more disciplines, and knowledge of research principles and methods	Exam
CLO 2	Analyse the context in which behavioural neuroscience lies, especially with respect to translation from basic science to the clinic.	Demonstrate a broad understanding of a body of knowledge and theoretical concepts with advanced understanding in some areas	Essay Exam
CLO 3	Demonstrate the skills of critical thinking, conceptual analysis, and oral and written expression.	Demonstrate an ability to adapt knowledge and skills in diverse contexts. Demonstrate cognitive skills that review, analyse, consolidate and synthesise knowledge	Group Presentation Essay

Note: there is 1 x Presentation, 1 x Essay and 1 x Exam

3. Strategies and approaches to learning

3.1 Learning and teaching activities

This course involves compulsory weekly 2-hour seminars that will adhere to the following format:

- 50 min - Introduction to topic, focusing on discipline-specific techniques and approaches.
    - What is the big question we are trying to answer in this field?
    - How can this question be addressed using behavioural neuroscience?
- 10 min break
- 50 min – In depth discussion of empirical paper showing application of this approach
- 10 minutes for general questions and discussion

Required readings will be posted to Moodle 1 week prior to class.

3.2 Expectations of students

Students are reminded that UNSW recommends that a 6 units-of-credit course should involve about 150 hours of study and learning activities. The formal learning activities total approximately 20 hours contact-time throughout the term and students are expected (and strongly recommended) to do at least the same number of hours of additional study (outside of assessments).

Each seminar is interactive and involves discussion, therefore students are strongly encouraged to participate in-person. If unable to attend due to medical (e.g. COVID) or other necessary reasons, immediately contact the course co-ordinator and provision will be made to join via Teams or Zoom. Evidence relating to the absence must be submitted. **Sessions will not be recorded**.

Students are expected to participate through discussion in seminars and with questions in the two group presentation sessions. This will lead to a more enjoyable and richer learning experience for all involved.

4. Course schedule and structure

Week	Topic	Staff	Activity	Related CLO
Week 1 Tue. 14-2	**Introduction to NEUR4411** **Modelling mental health disorders: Addiction**	Dr Kelly Clemens	Workshop	
Week 2 Tue 21-2	**Modelling mental health disorders: Impulsivity and compulsivity**	Dr Karly Turner	Workshop	
Week 3 Tue 28-2	**Gut-brain signalling and appetite control: implications for obesity**	Dr Zhi Yi Ong	Workshop	
Week 4 Tue 7-3	**Group Presentations 1** *(groups 1-3)*	Dr Kelly Clemens/ A/Prof Belinda Liddell	Group Presentation	CLO3
Week 5 Tue 14-3	**Group Presentations 2** *(groups 4-6)*	Dr Kelly Clemens/ A/Prof Belinda Liddell	Group Presentation	CLO3
Week 6 Tue 21-3	**Flex Week – no class** *Essay due 24-3-23*			CLO2 CLO3
Week 7 Tue 28-3	**Do you hear what I see? Echolocation in the blind**	Dr Erin Goddard	Workshop	
Week 8 Tue 4-4	**Determining biomarkers of PTSD: the role of human brain imaging**	A/Prof Belinda Liddell	Workshop	
Week 9 Tue 11-4	**Exploring the basis of auditory hallucinations in schizophrenia**	Prof Tom Whitford	Workshop	
Week 10 Tue 18-4	**Oxytocin – more than just a love hormone?**	Dr Justine Fam	Workshop	
Tue 25-4	**Study Week – no class**			
Tue 2-5	**Final Exam**	Dr Kelly Clemens/ A/Prof Belinda Liddell	Exam	CLO1 CLO2

Exam Period: 28 April – 11 May

Supplementary Exam Period: 22 May 2023 - 26 May 2023

5. Assessment

5.1 Assessment tasks

Assessment task	Length	Weight	Due date and time
Assessment 1: Group Presentation	20-30 min	30%	Week 4 or 5
Assessment 2: Essay	4 pages (double spaced, not including references)	30%	End of Flex Week 5 pm Friday 24 March
Assessment 3: Exam	7-10 short answer questions, 2 hours	40%	10-12 Tuesday 2nd of May

Group Presentation (30%):

Students will be required to participate in a single 20-30 minute group presentation. 5-10 minutes will be allocated for questions and discussion.

Students will be allocated to groups (2-4 students/group, depending on class size) to present a journal article assigned by the course coordinators. This presentation will be prepared using PowerPoint and delivered in class. Group allocation and papers will be assigned in Week 1 of class with details posted on Moodle.

Essay (30%):

Students will write a 4-page (double spaced) essay on a contemporary issue in behavioural neuroscience. The exact topic will vary from year to year. Students will be required to summarise and critically evaluate the primary literature and provide references to justify their stance. The essay topic will be revealed in Week 1 of class with details posted in Moodle.

Exam (40%):

Short answer questions from the weekly seminars and assigned readings. The exam will be testing understanding, not recall. The exam will be prepared for delivery online using Inspera.

Further information

UNSW grading system: https://student.unsw.edu.au/grades

UNSW assessment policy: https://student.unsw.edu.au/assessment

5.2 Assessment criteria and standards

Group Presentation:

Students will be marked individually based on their performance. General feedback will be provided to the class and further discussion on request from the course coordinator. Marks will be allocated based on the content and clarity of each individual's presentation (visual and verbal), as well as capacity to answer questions and engage in discussion. Specific assessment criteria and a marking rubric will be posted to Moodle in Week 1.

Essay:

Students will receive marks based on the structure, content and narrative of the essay, as well how well they use evidence to support any arguments, and their ability to show evidence of critical thinking and insight. Brief written feedback will be provided by the tutor/course coordinator. Specific assessment criteria and a marking rubric will be posted to Moodle in Week 1.

Exam:

Assessment will probe an understanding of the topics covered and will be marked by the tutor and / or course coordinator.

5.3 Submission of assessment tasks

Group Presentation: Will occur in person during the allocated class time.

Essay: Is to be submitted via Moodle and will be checked with Turnitin plagiarism detector. Turnitin will NOT be available to check for plagiarism prior to submission.

Exam: This will either be held online via Inspera during the allocated exam time. Answers will be checked automatically for plagiarism.

Late Submission

UNSW has standard late submission penalties as outlined in the UNSW Assessment Implementation Procedure, with no permitted variation. All late assignments (unless extension or exemption previously agreed) will be penalised by 5% of the maximum mark per day (including Saturday, Sunday and public holidays). For example, if an assessment task is worth 30 marks, then 1.5 marks will be lost per day (5% of 30) for each day it is late. So, if the grade earnt is 24/30 and the task is two days late the student receives a grade of 24 – 3 marks = 21 marks.

Late submission is capped at 5 days (120 hours). This means that a student cannot submit an assessment more than 5 days (120 hours) after the due date for that assessment.

Special Consideration

If you experience a short-term event beyond your control (exceptional circumstances) that impacts your performance in a particular assessment task, you can apply for Special Considerations.

You must apply for Special Consideration **before** the start of your exam or due date for your assessment, except where your circumstances of illness or misadventure stop you from doing so.

If your circumstances stop you from applying before your exam or assessment due date, you must **apply within 3 working days** of the assessment, or the period covered by your supporting documentation.

More information can be found on the Special Consideration website.

5.4. Feedback on assessment

Group Presentation: Feedback will be provided in class and via general comments.

Essay: Brief written feedback will be provided as comments on essays in Moodle.

Exam: No feedback will be provided.

6. Academic integrity, referencing and plagiarism

Referencing is a way of acknowledging the sources of information that you use to research your assignments. You need to provide a reference whenever you draw on someone else's words, ideas or research. Not referencing other people's work can constitute plagiarism.

Please use Vancouver or APA referencing style for this course.

Further information about referencing styles can be located at https://student.unsw.edu.au/referencing

Academic integrity is fundamental to success at university. Academic integrity can be defined as a commitment to six fundamental values in academic pursuits**:** honesty, trust, fairness, respect, responsibility and courage.[1] At UNSW, this means that your work must be your own, and others' ideas should be appropriately acknowledged. If you don't follow these rules, plagiarism may be detected in your work.

Further information about academic integrity and **plagiarism** can be located at:

- The Current Students site https://student.unsw.edu.au/plagiarism**,** and
- The ELISE training site https://subjectguides.library.unsw.edu.au/elise

The Conduct and Integrity Unit provides further resources to assist you to understand your conduct obligations as a student: https://student.unsw.edu.au/conduct.

7. Readings and resources

There are no assigned texts for this course. Weekly readings will be provided ahead of time by each guest lecturer.

8. Administrative matters

Student enquiries should be submitted via student portal https://portal.insight.unsw.edu.au/web-forms/

9. Additional support for students

- The Current Students Gateway: https://student.unsw.edu.au/
- Academic Skills and Support: https://student.unsw.edu.au/academic-skills
- *Student Wellbeing and Health* https://www.student.unsw.edu.au/wellbeing
- UNSW IT Service Centre: https://www.myit.unsw.edu.au/services/students
- *UNSW Student Life Hub:* https://student.unsw.edu.au/hub#main-content
- *Student Support and Development:* https://student.unsw.edu.au/support
- *IT, eLearning and Apps:* https://student.unsw.edu.au/elearning
- *Student Support and Success Advisors:* https://student.unsw.edu.au/advisors
- *Equitable Learning Services (Formerly Disability Support Unit)*: https://student.unsw.edu.au/els
- *Transitioning to Online Learning* https://www.covid19studyonline.unsw.edu.au/
- *Guide to Online Study* https://student.unsw.edu.au/online-study

[1] International Center for Academic Integrity, 'The Fundamental Values of Academic Integrity', T. Fishman (ed), Clemson University, 2013.