



Australia's
Global
University

Faculty of Medicine
School of Medical Sciences

NEUR3211

Neuroscience Research Seminars

COURSE OUTLINE

TERM 3, 2020

CRICOS Provider Code 00098G

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Please read this manual/outline in conjunction with the following pages on the [School of Medical Sciences website](#):

- [Advice for Students](#)
- [Learning Resources](#)

(or see "STUDENTS" tab at medicallsciences.med.unsw.edu.au)

Course Convenors

Course Convenor	A/Prof Gila Moalem-Taylor Neuropathic Pain Research Group Translational Neuroscience Facility School of Medical Sciences Wallace Wurth Building, Level 3W, Room 355B E-mail: gila@unsw.edu.au
Co-Convenor	A/Prof Pascal Carrive Nerve, Brain & Behaviours, Department of Anatomy, School of Medical Sciences, Wallace Wurth Building, Level 3E, Room 328 E-mail: p.carrive@unsw.edu.au

Course Details

Unit of Credits: 6

Undergraduate course: Year 3, Term 3

Prerequisites: ANAT3411 or NEUR3121 or another equivalent (please submit requisite waiver web form via <http://unsw.to/webforms>)

Seminar Time: Monday 2pm to 5pm

Course will be delivered Live Online and, depending on COVID-19 situation, some potential Face-to-Face activities (Venue: Wallace Wurth Building LG03; BioSci G07; Mat 228) and Face-to-Face Internship in a research lab.

Course Aims and Learning Outcomes

The aim of NEUR3211 is to provide third year students a rewarding learning experience that will prepare them for SoMS or Neuroscience Honours year and beyond. Blended learning will be used to provide the students with an opportunity to gain insight into current research problems and to experience the workings of a research lab.

Upon completion of this course, students should be able to:

1. Critically evaluate, and communicate neuroscience research.
2. Demonstrate professional behaviour and an understanding of laboratory practice.
3. Demonstrate an ability to reflect on their research experience during their lab internship and its impact on their future career plans.
4. Understand and integrate key concepts related to the different fields of neuroscience.

Course Structure

The course is delivered weekly in a seminar format with single 3-hour sessions.

- These sessions commence with an informal introduction to a guest lecturer, who is an expert in their respective field of research (e.g., background, education, interests in neuroscience, etc). Guest lecturers are researchers within the School and its affiliated centres who will contribute with their special expertise to the topics proposed. They will give a one-hour lecture from which students will gain knowledge regarding key concepts in neuroscience.
- For the remainder of the session, students will individually present a research paper they will have chosen from a number of papers selected by the guest lecturer of the session. Question time will follow each presentation. There will be 2-4 presentations per session, depending on the number of students in the course. Participation during these sessions is essential (i.e., asking questions and participating in the discussion).
- **As this is a key component of the course, attendance at all of these online sessions is compulsory.** Non-attendance will require appropriate documentation to be submitted to the course convenor. Unjustified absences may result in ineligibility to sit the final exam.

As a 'signature' component of the course, students will spend a minimum of 10 hours in one of the host laboratories within SoMS and affiliated research centres.

- Although students may not be allowed to be hands on during these laboratory sessions due to Health & Safety issues, they will familiarise themselves with how experiments related to the research theme(s) of the host laboratory are planned and conducted. It is likely that students will team up in small groups (up to 3 students) for this component of the course.
- The outcome of these experiments will be presented by each group of students during a poster session in the last week of the course.

The course Moodle page and Microsoft Teams will be used to provide up-to-date course information, such as the guest lecture schedule, required resources, and online presentations.

Assessment Tasks

1. Oral presentation 20%

Students will individually present a research paper chosen from a selection of papers provided by the guest lecturer of the session (weeks 2-3, 5, 7- 9). Question time will follow each presentation. Participation during these sessions is essential (i.e. asking questions and participating in the discussion). Student presentations will be assessed by the lecturer of the day, the course coordinator and a subgroup of students using a marking rubric. Feedback from the marking rubric will be collated by the course convenor and distributed to the students in the week after their presentation.

This assessment task addresses course learning outcome 1.

2. Internship 30%

This assessment task has two main components: Engagement & Reflection and Poster.

This assessment consists of Engagement (host Lab supervisor mark on student involvement = 5%) and Reflection (a reflective report on the internship experience = 5%) and a Poster presentation on the internship research project (= 20%).

- Engagement and Reflection: Students, in groups of 1-3, will spend time with one host research group within SoMS and its affiliated research centres. While students will not be able to conduct experiments due to Health & Safety regulations, they will gain valuable insight into how experiments are designed and conducted.

Students will be required to reflect on their experiences with the host research group. At the completion of the internship, students will submit a reflective report on their personal experience and academic development during the internship.

The Internship will take place between week 3 to 8 and the Reflective Report will be due in week 10. Feedback will be provided using a marking rubric.

- Poster: The experimental outcome from the internship will be presented by each group in the form of a poster. Posters are expected to summarise the rationale, methods, results, conclusion and significance of the experiments that they observed. The posters will be on display or presented online as virtual posters in the last week of the course. The posters will be assessed (using a rubric) by the course convenor, lecturers, and students.

The Poster Session will take place in week 10.

This assessment task addresses course learning outcomes 1, 2 and 3.

3. Essay 20%

Students will write a 1,000 ($\pm 10\%$) word Essay on translational neuroscience topics drawing on novel technology and discoveries that led to translation of basic research into clinical applications (e.g. pharmacotherapy, devices, diagnosis and biomarker identification). Students will be required to summarise and critically evaluate the primary literature and provide references to justify their points. Feedback on content, critical thinking and professional expression will be provided. Essay will be due in week 7.

This assessment task addresses course learning outcomes 1 and 4.

4. Final theory exam 30%

The final theory exam consists of two parts and assesses the content of all the course lectures.

- Part A: Consists of multiple-choice items.
- Part B: Consists of short answer questions.

Marks will be incorporated into a final grade and released by UNSW

Final exam period for Term 3, 2020 is 27 November to 10 December 2020. Supplementary exam period for Term 3, 2020 is 11 January to 15 January 2021.

This assessment task addresses course learning outcome 4.

Summary Assessment Tasks for 2020		Assessment Due
Presentation (20%)	Final grade based on: <ul style="list-style-type: none"> • Guest Lecturer (40%) • Other Academic Staff (40%) • Student Peers (20%) 	Each week (weeks 2 - 3, 5, 7- 9)
Internship (30%)	<ul style="list-style-type: none"> • Engagement and Reflection - host Lab supervisor mark on student involvement (5%) and one-page reflective report (5%) - Total =10% • Poster on Internship Project (20%) 	<ul style="list-style-type: none"> • Internship will take place between week 3 to 8 • Poster Session will take place in week 10 • Reflective Report will be due in week 10, 12pm Tuesday 17-Nov
Essay (20%)	<ul style="list-style-type: none"> • Writing an Essay (1,000 words \pm 10%, not including references) on a translational neuroscience topic 	<ul style="list-style-type: none"> • Essay will be due in week 7, 12pm Friday 30-Oct
Final Exam (30%)	<ul style="list-style-type: none"> • Multiple Choice Questions (10%) • Short Answer Questions (20%) 	<ul style="list-style-type: none"> • The final exam will be held during the T3 exam period

General Information

The School of Medical Sciences (SoMS) is located in the Wallace Wurth building, and is within the Faculty of Medicine. General inquiries regarding courses coordinated by SoMS should be submitted via the UNSW Student Portal Web Forms:

<http://unsw.to/webforms>.

Honours. The School of Medical Sciences and the School of Psychology jointly run the Neuroscience Honours program coordinated by Dr Natasha Kumar natasha.kumar@unsw.edu.au. In addition, the School of Medical Sciences Honours also offers a program, which is coordinated by A/Prof Cristan Herbert, c.herbert@unsw.edu.au.

Any student considering an Honours year should discuss the requirements with the coordinator. Please see:

Neuroscience:

medicallsciences.med.unsw.edu.au/students/undergraduate/neuroscience/honours

SoMS:

medicallsciences.med.unsw.edu.au/students/soms-honours/overview

Postgraduate research degrees

The School of Medical Sciences offers students the opportunity to enter a Masters (MSc) or Doctorate (PhD) program on different fields of research in neuroscience. It is available on the 'Students' menu item of the SoMS website.

<https://medicallsciences.med.unsw.edu.au/students/postgraduate-research/overview>

Relevant student support service unit, teaching technology or student system

- Transitioning to Online Learning <https://www.covid19studyonline.unsw.edu.au/>
- Guide to Online Study <https://student.unsw.edu.au/online-study>
- UNSW Student Life Online <https://student.unsw.edu.au/help#main-content>

Academic Integrity & Plagiarism

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>.

Special Consideration

If you fall ill prior to, or during, an assessment you may be eligible for Special Consideration. This is now managed centrally, so please see this link for details:

<https://student.unsw.edu.au/special-consideration>

The course convenors no longer have input into the special consideration process. If your request for consideration is granted, a supplemental assessment may be organised, or increased weighting may be applied to completed assessments. If you miss the final exam, a supplementary exam may be granted.

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

Schedule

	Seminars	Other
Week 1 14-Sept	Part 1 - A/Prof Gila Moalem-Taylor & A/Prof Pascal Carrive "Welcome & Intro to Course" Part 2 – Knowledge Transfer / Industry Related Talks and Q&A session (Qiao Qiao: Commercial Considerations of Drug Discovery Program; Jasneet Parmar: Personal experience working in Nyrada – a biotechnology company in Sydney)	Students choose presentation topics and internship projects
Week 2 21-Sept	Dr. Jason Potas (Dept of Anatomy, SoMS) + Student presentations "The dorsal column nuclei as a potential brain-machine interface target for restoring somatosensation"	
Week 3 28-Sept	Dr. John Power (Dept of Physiology, SoMS) + Student presentations "Memories in a Dish"	<i>(Internship)</i>
Week 4 5-Oct	(Public Holiday) A/Prof Gila Moalem-Taylor (Dept of Physiology, SoMS) – Pre-Recorded lecture "Neuro-immune Crosstalk in Nervous System Disorders and Pathological Pain"	<i>(Internship)</i>
Week 5 12-Oct	Prof. Caroline Rae (NeuRA) + Student presentations "Imaging in Neuroscience"	<i>(Internship)</i>
Week 6 19-Oct	Flexibility week	<i>(Internship)</i>
Week 7 26-Oct	Dr. Nicole Jones (Dept of Pharmacology, SoMS) + Student presentations "How can we enhance recovery of function after an acute brain injury"	<i>(Internship)</i> Essays are due: 12pm Friday 30-Oct
Week 8 2-Nov	Dr. Adam Walker (NeuRA) + Student presentations "Cancer and cancer treatment causes cognitive impairment"	<i>(Internship)</i>
Week 9 9-Nov	Dr. Tertia Purves-Tyson (NeuRA) + Student presentations "Advances in the Neurobiology of Schizophrenia"	
Week 10 16-Nov	Poster Session	Reflective Report is Due: 12pm Tuesday 17-Nov