



# Course Outline

PSYC3051

Physiological Psychology

School of Psychology

Faculty of Science

T2, 2019

# 1. Staff

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Position	Name	Email	Consultation times and locations	Contact Details
Course Convenor /Lecturer	Prof. Simon Killcross	<a href="mailto:s.killcross@unsw.edu.au">s.killcross@unsw.edu.au</a>	By appointment Mathews 1609	

## **2.3 Course learning outcomes (CLO)**

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

1. Demonstrate an advanced level of knowledge and understanding of the theoretical perspectives, and empirical research relating to the physiological basis of learning and behavior.
2. Apply an advanced level of understanding of research methods used in physiological psychology in order to conduct basic experiments and evaluate methodologies used in the field.
- 3.

## 2.4 Relationship between course and program learning outcomes and assessments

Program Learning Outcomes							
CLO	1. Knowledge	2. Research Methods	3. Critical Thinking Skills	4. Values and Ethics	5. Communication, Interpersonal and Teamwork	6. Application	Assessment
1.	Lectures, practicals, online activities	Lectures, practicals, online activities	Lectures, practicals, online activities				Assessment 1, Research proposal and poster, quizzes, final exam
2.		Lectures, practicals, online activities	Lectures, practicals, online activities			Lectures, practicals, online activities	Assessment 1, Research proposal and poster, quizzes, final exam
3.	Lectures, practicals, online activities	Lectures, practicals, online activities	Lectures, practicals, online activities				Assessment 1, Research proposal and poster, quizzes, final exam

## 3. Strategies and approaches to learning

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### 3.1 Learning and teaching activities

This course provides an advanced treatment of the neuroscience of learning, memory, and motivation. It follows on, and assumes knowledge, from PSYC2081 Learning and Physiological Psychology. This course is complementary to PSYC3241 Psychobiology of Memory and Motivation in the sense that both courses provide an advanced perspective on issues in biological psychology.

**Lectures:** This course deals with elementary learning processes and their neurobiological substrates. These include: learning about relations between stimuli (e.g., Pavlovian conditioning); learning about relations between actions and outcomes (e.g., instrumental conditioning); how goals are represented and how they drive behaviour; and the development of habitual and compulsive behaviours. There will be an overview of the role of appetitive and aversive motivation in learning, behaviour and psychopathology. Emphasis will be placed on contemporary theories and approaches, including discussion of the role of molecular signalling cascades and neuronal coding in learning and memory, the role of neural systems in supporting behaviour, and examples of where changes in such systems are thought to underpin human mental disorders. The course is divided into four sections (not necessarily in the following order): 1) McNally: Neural circuits of appetitive and aversive motivation 2) Clemens: Neurobiology of addiction and animal models of mental disorder 3) Westbrook: Behavioural studies of learning 4) Killcross: Neural basis of action and choice.

**Lab practicals:** The primary goal of laboratory component of the course is to provide “hands on” experience in various aspects of research in physiological psychology. As such, a significant component of the course will involve handling and observation of animal subjects (rats). Given the “hands on” approach in this tutorial course, it is imperative that you contact your lecturer as soon as possible if obligations of any kind prevent you from taking part in these activities.

**Formative quizzes:** These questions will be based on a range of lectures across the whole course (So you may not be able to answer them all when they are first released – but they will be ordered by lecturer, so the initial questions will be based around those from Dr. Kelly Clemens’ course), and will take the form of a selection of MCQs of the sort that will appear in the final examination. These questions will be presented on Moodle; when, how, and if you choose to complete them is up to you. There will be no formal assessment of your performance in this task – it is entirely to allow you to judge your own performance in, and understanding of, the course at this time, and to help you to prepare for the final examination. It is strongly recommended that you make use of this opportunity to prepare for the final examination, and seek feedback from tutors regarding the correct answers (and the reasons behind them).

**Mini quizzes:** are released 9am Monday in weeks 4, 5, 7, 8, & 9. Quizzes are open for one week, and are due by 9am the following Monday. There are journal article readings that accompany each of the animal practicals. These are available through the Moodle website from Week 1. Prior to each lab practical (weeks 5, 6, 9 & 10) you are required to read these articles and a short 10-question quiz will be made available on Moodle b1 (he Mo)-uid en 9.1 (hr)-6.4 (o) wee (n-1.1 (he f12.3 (u ar4 (o) )-128al)3.1 ( pr)-6.4 (ac



## 4. Course schedule and structure

Each week this course typically consists of 2 hours of lecture material, 2 hours of face to face tutorials/lab practicals, and 1 hours of online activities. Students are expected to take an additional 7 hours each week of self-determined study to complete assessments, readings, and exam preparation.

Week	Lecture topic/s	Tutorial/lab topics	Online activities	Self-determined activities
<b>Week 1</b> 03/06/2019	Neurobiology of addiction and animal models of mental disorders (Clemens 2 & 3)	Introduction to research proposal and poster presentation	Neurobiology of addiction and animal models of mental disorders (Clemens 1)	

**Week 2\***  
10/06/2019

Neurobiology of addiction and animal models of mental disorders (Clemens 4)

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		s of appetitive and aversive (McNally 3 & 4)	Research proposal and poster presentation 2		Mini-quiz for Ethics
		s of appetitive and aversive (McNally 5 & 6)	Group-based peer feedback on posters. poster Q&A.		Mini-quiz for lab practical 3
		of action and choice (3)	lab practical 3		lab practical 4

**Week 10** Neural basis of action and choice

No labs

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05/08/2019



## 5. Assessment

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### 5.1 Assessment tasks

All assessments in this course have been designed and implemented in accordance with UNSW Assessment Policy.

Assessment task	Length	Weight	Mark	Due date
<b>Assessment 1:</b> Brief description of future experiments	400 words	10%	/10	End of Week 6 12/07/19
<b>Assessment 2:</b> Research proposal presentations and poster	6 mins + poster	45%		

present an original idea to the tutorial group (i.e. it is pass/fail with a fixed award of 5%). The

## 5.4. Feedback on assessment

Feedback on all pieces of assessment in this course will be provided in accordance with UNSW Assessment Policy.

Assessment	When	Who	Where	How
Brief description of future experiments	Within 10 days of due date	Tutor	Online	Moodle
Research proposal presentation and poster	Within 10 days of due date	Tutor	On campus	Verbal
Mini-quizzes	As taken	Tutor	Online	Moodle
Final exam	N/A	N/A	N/A	N/A

## 6. Academic integrity, referencing and plagiarism

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The APA (6<sup>th</sup> edition) referencing style is to be adopted in this course. Students should consult the publication manual itself (rather than third party interpretations of it) in order to properly adhere to APA style conventions. Students do not need to purchase a copy of the manual, it is available in the library or online. This resource is used by assessment markers and should be the only resource used by students to ensure they adopt this style appropriately:

[APA 6th edition.](#)

**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.

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. 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 site <https://student.unsw.edu.au/plagiarism>, and
- The training site <http://subjectguides.library.unsw.edu.au/elise/presenting>

The provides further resources to assist you to understand your conduct obligations as a student: <https://student.unsw.edu.au/conduct>.

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



## 9. Additional support for students

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- The Current Students Gateway: <https://student.unsw.edu.au/>
- Academic Skills and Support: <https://student.unsw.edu.au/academic-skills>
- Student Wellbeing, Health and Safety: <https://student.unsw.edu.au/wellbeing>
- Disability Support Services: <https://student.unsw.edu.au/disability->