UNSW Course Outline

PSYC3051 Physiological Psychology - 2023

Course Code : PSYC3051
Year : 2023
Term : Term 2
Teaching Period : T2
Delivery Mode : In person
Delivery Format : Standard
Delivery Location : Kensington

General Course Information

Course Code : PSYC3051
Year : 2023
Term : Term 2
Teaching Period : T2
Is a multi-term course? : No
Faculty : Faculty of Science
Academic Unit : School of Psychology
Delivery Mode : In person
Delivery Format : Standard
Delivery Location : Kensington
Campus : Sydney
Study Level : Undergraduate
Units of Credit : 6

Useful Links

Handbook Class Timetable

Course Details & Outcomes

Course Description

This course provides an overview of the neuroscience of learning and memory. Emphasis is

placed on contemporary theories and approaches including the role of interactions between environmental events, synapses and genes. Topics include: appetitive and aversive motivation in learning, behaviour and psychopathology; Pavlovian conditioning; instrumental conditioning; how goals are represented and how they drive behaviour; and the development of habitual and compulsive behaviours; how animal models of human psychopathologies inform treatment and drug development. Learning activities include lectures, online collaborative learning sessions with lecturers and tutors, and face to face laboratory practicals. The laboratory component of the course provides hands-on experience in various aspects of research in physiological psychology. As such, a significant component of the course will involve handling and experimentation on animal subjects (rats).

Please note: Neuroscience major (NEURS1) students are exempt from the prerequisite of PSYC2001 Research Methods 2 as long as they have completed NEUR2201 Neuroscience Fundamentals. Note, however, that this condition does not apply to any students who are undertaking a Psychology major (PSYCA1 or PSYCB1) in addition to a Neuroscience major.

Course Aims

The overall aim of this course is to provide students with an overview of elementary learning processes and their neurobiological substrates. Emphasis is 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.

Relationship to Other Courses

Prerequisites for this course are PSYC2001 (Research Methods 2) and PSYC2081 (Learning and Physiological Psychology).

Course Learning Outcome

Course Learning Outcomes
CLO1 : Demonstrate an advanced level of knowledge and understanding of the theoretical perspectives, and empirical research relating to the physiological basis of learning and behavior.
CLO2 : 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.
CLO3 : Apply advanced critical thinking skills in order to evaluate processes and phenomena in physiological psychology from multiple theoretical perspectives and methodological approaches.
CLO4 : Understand values and professional ethics in research.
CLO5 : Communicate scientific material effectively in verbal and written formats.
CLO6 : Apply principles of learning and physiological psychology to broader issues, including their role in understanding human mental disorders.

Course Learning Outcomes	Assessment Item
CLO1 : Demonstrate an advanced level of knowledge and understanding of the theoretical perspectives, and empirical research relating to the physiological basis of learning and behavior.	• Brief description of future experiments • Research proposal presentation and poster • Final exam
CLO2 : 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.	• Brief description of future experiments • Research proposal presentation and poster • Final exam
CLO3 : Apply advanced critical thinking skills in order to evaluate processes and phenomena in physiological psychology from multiple theoretical perspectives and methodological approaches.	• Brief description of future experiments • Research proposal presentation and poster • Final exam
CLO4 : Understand values and professional ethics in research.	• Brief description of future experiments • Research proposal presentation and poster • Final exam
CLO5 : Communicate scientific material effectively in verbal and written formats.	• Brief description of future experiments • Research proposal presentation and poster
CLO6 : Apply principles of learning and physiological psychology to broader issues, including their role in understanding human mental disorders.	• Final exam • Brief description of future experiments • Research proposal presentation and poster

Learning and Teaching Technologies

Moodle - Learning Management System | Echo 360

Learning and Teaching in this course

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.

Learning and teaching activities in this course will comprise the following:

Lectures: There will be lectures each week delivering content relating to 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 these basic learning processes contribute to more complex behaviours involved in choice, decision-making and executive control; 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.

Laboratory demonstrations (practicals): In most weeks there will be a compulsory tutorial/ laboratory class. The primary goal of laboratory component of the course is to provide practical experience in various aspects of research in physiological psychology. These will be conducted as face-to-face practical sessions wherein students will participate in demonstrations of various forms of appetitive learning. These tutorials will involve contact with laboratory rats - please contact your tutor as soon as possible if obligations of any kind prevent you from taking part in these activities. **Note: you will be required to complete an online quiz on animal ethics prior to participation in practical classes that involve animal handling**.

Formative quizzes: Online quizzes will be made available each week (one for lecture and one for tutorial content), each comprising 10 multiple-choice questions pertaining to that week's material. These quizzes include the sort of questions that will appear in the final examination, and offer students the opportunity to test their knowledge and understanding of the course content. These quizzes will remain available throughout the duration of the course to allow for revision. Feedback in the form of a numeric score and correct answers will be available online immediately upon completion. Quizzes can be taken multiple times and marks do not contribute towards the final grade. This formative assessment provides students with the opportunity to gauge their performance in the course prior to census.

Readings: Each week there will be assigned readings that relate to lecture and tutorial content. These readings take the place of a textbook, and are assessable.

Online Activities: Some weeks will have online tutorial exercises of Q and A sessions in place of on-campus lab practicals. Please refer to the course schedule for more detail of which weeks these will take place.

Additional Course Information

Expectations of Students

It is expected that students are aware of UNSW Assessment policy and understand how to apply for special consideration if they are unable to complete an assignment/exam due to illness and/or misadventure.

All news updates and announcements will be made on the 'Announcements' forum on the Moodle page and/or by email. It is the student's responsibility to check Moodle and their student emails regularly to keep up to date.

Students registered with Equitable Learning Services must contact the course convenor immediately if they intend to request any special arrangements for later in the course, or if any special arrangements need to be made regarding access to the course material. Letters of support and details of educational adjustments must be emailed to the course convenor as soon as they are made available.

It is expected that students take responsibility for noting requirements and deadlines for all assessments and exams, including coming prepared with a fully charged laptop if required for the final exam.

Psychology Student Guide: The School of Psychology Student Guide contains School policies and procedures relevant for all students enrolled in undergraduate or Masters psychology courses, such as:

- Attendance requirements
- Assignment submissions and returns
- Assessments
- Special consideration
- Student code of conduct
- Student complaints and grievances
- Equitable Learning Services
- Health and safety

It is expected that students familiarise themselves with the information contained in this guide

Assessments

Assessment Structure

Assessment Item	Weight	Relevant Dates
Brief description of future experiments Assessment FormatIndividual	10%	Start DateWeek 1 Due DateMonday Week 3
Research proposal presentation and poster Assessment FormatIndividual	45%	Start DateWeek 3 Due DateWeeks 4 (presentation), 7 (peer review), 9 (poster)
Final exam Assessment FormatIndividual	45%	Due DateExam Period

Assessment Details

Brief description of future experiments

A published journal article will be presented in tutorials that describes an experiment in behavioural neuroscience of the sort that might form the basis for your research proposal and poster presentation. Your task will be to write a brief description of an aspect of the article's findings that you found interesting, and how one might follow-up on this finding with a further study (400-word maximum). You will have time to work on this during tutorials with the assistance of your tutor and will be required to submit your work to Turnitin by the start of Week 3. Marks and feedback will be returned via Turnitin within 10 working days of the due date.

Assessment Length

400 words

Submission notes

Must be submitted as a word document

Assessment information

Marks will be strictly deducted for exceeding the word limit: 3% [of 10% available] for anything between 400 and 500 words, and a further 3% [of the remaining 7% available] for 500-600 words, and all marks [10% of 10%] for >600 words – brevity is the key to the exercise. You will receive a late penalty of 5% of the total mark each day beyond the deadline in week 3. If you submit your response more than 5 days (i.e. 120 hours) after the deadline and do not have special consideration or an extension through an Enhanced Learning Plan, you will receive an automatic grade of 0 for this task.

Assignment submission Turnitin type

This assignment is submitted through Turnitin and students do not see Turnitin similarity reports.

Research proposal presentation and poster

You are expected to conceive, design, and propose a research project in Behavioural Neuroscience. You will be required to systematically review the relevant literature in a topic area of your choice, identify an outstanding question of interest, and design an experiment that will address this question. This is a cumulative assessment comprised of three parts. Part 1 is an initial 5 minute oral presentation to outline your proposal (5%, due in tutorials Week 4 or 5). Part 2 is provision of anonymous feedback (approx. 150 words each) on the initial proposal presentation of three fellow students (10%, due Week 7). In your peer reviews you will be expected to write focused comments and grade the presentation using a rubric provided. You will be assessed on the quality of the feedback you provide. For Part 3 of the assessment, you will prepare and present a poster in the style of an academic conference presentation. Based on the feedback that you receive from your initial presentation, you will prepare your poster, and then record a 10-minute (maximum) video presentation which will be submitted online at the end of Week 8. Marks and written feedback will be returned within 10 days of the due date.

Assessment Length

Varied for each section

Assessment information

Completion of the initial oral presentation is a condition of completing the entire assessment. If you do not complete the presentation, then you will receive 0 for the whole assignment.

For all parts of the assessment, you will receive a late penalty of 5% of the total mark each day beyond the deadline. If you submit your response more than 5 days (i.e. 120 hours) after the deadline and do not have special consideration or an extension through an Enhanced Learning Plan, you will receive an automatic grade of 0 for this task.

Final exam

The final examination will be held in the usual end of session examination period, and will assess material from lectures, laboratory practicals, and all associated content. This will take the format of a 75-question multiple choice examination over 2 hours. There will be 60 questions that cover the content (lectures and associated readings) delivered by the different lecturers in this course. The number of questions will be proportional to the number of lectures given by that lecturer. There will also be 15 questions derived from the practicals, online demonstration packs, online ethics class and associated readings.

Assessment Length

75 MCQ

General Assessment Information

Special Consideration: Students who experience circumstances outside of their control that prevent them from completing an assessment task by the assigned due date due can apply for Special Consideration. Special Consideration applications should include a medical certificate or other documentation and be submitted via myUNSW within 3 days of the sitting/due date.

Important note: UNSW has a “fit to sit/submit” rule, which means that if you sit an exam or submit a piece of assessment, you are declaring yourself fit to do so and cannot later apply for Special Consideration. This is to ensure that if you feel unwell or are faced with significant circumstances beyond your control that affect your ability to study, you do not sit an examination or submit an assessment that does not reflect your best performance. Instead, you should apply for Special Consideration as soon as you realise you are not well enough or are otherwise unable to sit or submit an assessment.

Once your application has been assessed, you will be contacted via your student email address and advised of the official outcome. If the special consideration application is approved, you may be given an extended due date, or an alternative assessment/supplementary examination may be set. For more information about special consideration, please visit: https://student.unsw.edu.au/special-consideration.

Alternative assessments: will be subject to approval and implemented in accordance with UNSW Assessment Implementation Procedure and Psychology Student Guide.

Supplementary examinations: will be made available for students with approved special consideration application and implemented in accordance with UNSW Assessment Policy and

Psychology Student Guide.

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

The APA (7th 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 7th edition**.

Grading Basis

Standard

Requirements to pass course

Students must attain a final grade of at least 50/100 to pass this course.

Course Schedule

Teaching Week/Module	Activity Type	Content
Week 1 : 29 May - 2 June	Lecture	Neurobiology of Addiction - Dr Kelly Clemens 2 x live, in-person lectures
	Tutorial	ONLINE tutorial: 2 x introductory videos
	Other	Weekly readings Weekly formative quiz Work on Assessment 1
Week 2 : 5 June - 9 June	Lecture	Neurobiology of Addiction - Dr Kelly Clemens 2 x live, in-person lectures
	Tutorial	IN-PERSON tutorial: Intro to the course; Development of a research question
	Other	Weekly readings

		Weekly formative quizzes Work on Assessment 1
Week 3 : 12 June - 16 June	Lecture	Neurobiology of Addiction - Dr Kelly Clemens 2 x live, in-person lectures
	Tutorial	NO tutorial: Optional online Q & A session for Assessment 2
	Other	Weekly readings Weekly formative quizzes Work on Assessment 2: Proposal presentation
	Assessment	**Assessment 1 due Monday**
Week 4 : 19 June - 23 June	Lecture	Complex Learned Associations - Dr Stephanie Roughley 6-part ONLINE lecture series (2 hrs total)
	Tutorial	IN-PERSON tutorial: Group 1 Proposal Presentations
	Other	Weekly readings Weekly formative quizzes Work on Assessment 2: Peer Review
	Assessment	**Assessment 2: Proposal Presentation slides due Monday**
Week 5 : 26 June - 30 June	Lecture	Complex Learned Associations - Dr Stephanie Roughley 6-part ONLINE lecture series (2 hrs total)
	Tutorial	IN-PERSON tutorial: Group 2 Proposal Presentations; Animal ethics discussion

	Other	Weekly readings Weekly formative quizzes **- Must complete ethics quiz** Work on Assessment 2: Peer Review
Week 6 : 3 July - 7 July	Other	FLEX WEEK
Week 7 : 10 July - 14 July	Lecture	Animal Models of Mental Disorders - Dr Kirsten Abbott 2 x live, in-person lectures
	Tutorial	IN-PERSON tutorial: Animal practical 1
	Other	Weekly readings Weekly formative quizzes Work on Assessment 2: Poster Presentation
	Assessment	**Assessment 2: Peer Review due Monday**
Week 8 : 17 July - 21 July	Lecture	Neural circuits of appetitive and aversive motivation - Prof Gavan McNally 2 x live, in-person lectures
	Tutorial	IN-PERSON tutorial: Animal Practical 2
	Other	Weekly readings Weekly formative quizzes Work on Assessment 2: Poster Presentation
Week 9 : 24 July - 28 July	Lecture	Neural circuits of appetitive and aversive motivation - Prof Gavan McNally 2 x live, in-person lectures

	Tutorial	IN-PERSON tutorial: Animal Practical 3 Poster Gallery Viewing
	Other	Weekly readings Weekly formative quizzes Work on Assessment 2: Poster Presentation
	Assessment	**Assessment 2: Poster Presentation due Sunday**
Week 10 : 31 July - 4 August	Lecture	Neural circuits of appetitive and aversive motivation - Prof Gavan McNally 2 x live, in-person lectures
	Tutorial	NO tutorial this week
	Other	Weekly readings Weekly formative quizzes Prep for final exam (revisit formative quizzes)

Attendance Requirements

Students are strongly encouraged to attend all classes and review lecture recordings.

General Schedule Information

Each week this course typically consists of 2 hours of lecture material, 1-2 hours of tutorial practicals, and 1-2 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.

Course Resources

Prescribed Resources

There is no prescribed textbook for this course. There are assigned journal article readings relating to each set of lectures and tutorials that will be made available on Moodle.

Recommended Resources

UNSW Library

Academic skills

ELISE

Turnitin

Student Code of Conduct

Academic integrity and plagiarism

Email policy

UNSW Anti-racism policy statement

UNSW Equity, Diversity and Inclusion Policy

Course Evaluation and Development

At the end of term students are strongly encouraged to complete the myExperience suvery to provide feedback on the course and teaching. This feedback is used to improve the learning experience of future students.

Staff Details

Position	Name	Email	Location	Phone	Availability	Education Learning Support Contact	Primary Contact
Convenor	Stephanie Roughley	stephanie.kelly@unsw.edu.au	Mathews 915		By appointment	No	Yes
Lecturer	Kirsten Abbot	kirsten.abbott@unsw.edu.au			By appointment	Yes	No
	Kelly Clemens	k.clemens@unsw.edu.au	Mathews 909		By appointment	No	No
	Gavan McNally	g.mcnally@unsw.edu.au	Mathews 512		By appointment	No	No
Tutor	Bixuan Lin	bixuan.lin@unsw.edu.au			By appointment	No	No
	Cassie Ma	cassandra.ma@unsw.edu.au			By appointment	No	No
	Caitlin Tedesco	c.tedesco@student.unsw.edu.au			By appointment	No	No

Other Useful Information

Academic Information

Upon your enrolment at UNSW, you share responsibility with us for maintaining a safe, harmonious and tolerant University environment.

You are required to:

- Comply with the University's conditions of enrolment.
- Act responsibly, ethically, safely and with integrity.
- Observe standards of equity and respect in dealing with every member of the UNSW community.
- Engage in lawful behaviour.
- Use and care for University resources in a responsible and appropriate manner.
- Maintain the University's reputation and good standing.

For more information, visit the UNSW Student Code of Conduct Website.

Academic Honesty and Plagarism

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

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

Submission of Assessment Tasks

Penalty for Late Submissions
UNSW has a standard late submission penalty of:

- 5% per day,
- for all assessments where a penalty applies,
- capped at five days (120 hours) from the assessment deadline, after which a student cannot submit an assessment, and
- no permitted variation.

Any variations to the above will be explicitly stated in the Course Outline for a given course or assessment task.

Students are expected to manage their time to meet deadlines and to request extensions as early as possible before the deadline.

Special Consideration
If circumstances prevent you from attending/completing an assessment task, you must officially apply for special consideration, usually within 3 days of the sitting date/due date. You can apply by logging onto myUNSW and following the link in the My Student Profile Tab. Medical documentation or other documentation explaining your absence must be submitted with your application. Once your application has been assessed, you will be contacted via your student email address to be advised of the official outcome and any actions that need to be taken from there. For more information about special consideration, please visit: https://student.unsw.edu.au/special-consideration

Important note: UNSW has a "fit to sit/submit" rule, which means that if you sit an exam or submit a piece of assessment, you are declaring yourself fit to do so and cannot later apply for Special Consideration. This is to ensure that if you feel unwell or are faced with significant circumstances beyond your control that affect your ability to study, you do not sit an examination or submit an assessment that does not reflect your best performance. Instead, you should apply for Special Consideration as soon as you realise you are not well enough or are otherwise unable to sit or submit an assessment.

Faculty-specific Information

Additional support for students

- The Current Students Gateway: https://student.unsw.edu.au
- Student support: https://www.student.unsw.edu.au/support
- Academic Skills and Support: https://student.unsw.edu.au/academic-skills
- Student Wellbeing, Health and Safety: https://student.unsw.edu.au/wellbeing
- Equitable Learning Services: https://student.unsw.edu.au/els
- UNSW IT Service Centre: https://www.myit.unsw.edu.au

School Contact Information

School of Psychology

Phone: +61 2 9385 3041

E-mail: psychology@unsw.edu.au

Honours E-mail: honours.psychology@unsw.edu.au