Course Outline

PSYC5005

Graduate Diploma of Psychology

Behavioural Neuroscience

School of Psychology

Faculty of Science

1. Staff

Position	Name	Email	Consultation times and locations	Contact Details
Course Convenor			Email	Email

2. Course information

Units of credit: 6

Pre-requisite(s): Program Pre-requisite: Bachelor's Degree of any kind (Australian Qualification standard or equivalent). PSYC5001 and PSYC5002 (or equivalent with advanced standing) and PSYC5003.

Teaching times and locations:

2.1 Course summary

This course examines the elementary processes of learning and memory and the neurobiological mechanism that underpin them. These include: learning about relations between events (Pavlovian conditioning), learning about relations between one's behaviour and events (Instrumental conditioning), and how these forms of learning control behaviours. There will be an emphasis on the current experimental and theoretical research, including the role of neural systems in supporting behaviour, the role of molecular signalling cascades and neuronal encoding in learning and memory.

2.2 Course aims

This course aims to provide students with an understanding of the neurobiological mechanisms that explain a range of behaviours. There will be a focus on current research and techniques in this area. Most of the research will focus on non-human animal studies, but the implications of this research for clinical applications will be explored for each topic.

2.3 Course learning outcomes (CLO)

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

1. Demonstrate knowledge and understanding of the major concepts of behavioural neuroscience, with a focus on the principles of associative learning, theneurobiological mechanisms of fear, habits and addiction, and memory andforgetting.
2. Develop an advanced understanding of current empirical and theoretical evidence and research methods with a focus on behavioural neuroscience allowing you to describeand evaluate different experimental methodologies used in physiological psychology for both human and animal research.

3. Develop advanced critical thinking skills with a focus on behavioural neuroscience enabling you to evaluate issues using different theoretical and empirical evidence, in both animal and human research, allowing you to develop and evaluate arguments.
4. Develop an understanding of the values, research and professional ethics of psychology, including the ethics of animal research, allowing you to understand and evaluate the ethical issues involved in animal and human research. Including the importance of ethical guidelines in animal research.
5. Develop effective communication skills, including the ability to demonstrate effective interpersonal skills including: listening to peers, providing feedback in a sensitiveand effective manner in the context of team work and writing in a scientific manner.
6. Demonstrate and apply concepts, theories and research findings from the field of behavioural neuroscience to understand and explain mental health issues, such as anxiety, addiction and schizophrenia.

2.4 Relationship between course and program learning outcomes and assessment

	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 Tutorials Online activities Readings Formative revision quizzes	Tutorials Online activities Readings	Tutorials Online activities Readings		Tutorials Study Group Forum		"Secured" Quiz (Week 2-6) Research Proposal Clinical Applications oral presentation
2.	Tutorials Online activities Formative revision quizzes	Tutorials Online activities Formative revision quizzes	Tutorials Online activities Formative revision quizzes		Tutorials Study Group Forum	Tutorials Online activities Study Group Forum	"Secured" Quiz (Week 2-6) Research Proposal Clinical Applications oral presentation
3.			Lectures Tutorials Online activities Readings Formative revision quizzes	Tutorials Online activities Readings	Tutorials Study Group Forum	Tutorials Study Group Forum	"Secured" Quiz (Week 2-6) Research Proposal Clinical Applications oral presentation

4.		Tutorials Online activities Readings Formative revision quizzes	Tutorials Online activities Readings	Lectures Tutorials Online activities Readings Formative revision quizzes		Tutorials Online activities Study Group Forum	"Secured" Quiz (Week 2-6) Research Proposal Clinical Applications oral presentation
5.					Tutorials Study Group Forum		Research Proposal Clinical Applications oral presentation
6.		Tutorials Online activities Readings Formative revision quizzes	Tutorials Online activities Readings Formative revision quizzes			Lectures Tutorials Online activities Readings Formative revision quizzes	"Secured" Quiz (Week 2-6) Research Proposal Clinical Applications oral presentation

3. Strategies and approaches to learning

3.1 Learning and teaching activities

The course web page is available through the e-learning Moodle site: https://moodle.telt.unsw.edu.au/login/index.php. Login with your student number and password, and follow the links to the PSYC page.

The course will be delivered over six weeks, covering six major topic areas. The major topics will be delivered in Weeks 1 to 6, with a new topic presented each week. Students are expected to engage with all materials delivered each week. There will be a combination of formative and summative assessments throughout the course. The expected level of engagement is 18-19 hours per week, including preparation for the "secured" quizzes and written assessments.

Each week students can expect the following:

Lectures will be digitally recorded. Links to the lecture recordings will be available on the course web page. Lecture slides will be also available on the Moodle course page. This will be broken down into 6 x 20-minute lectures covering the main concepts for each sub-topic of the week

Online Tutorials will be held in weeks 1-6. There are six (6), two (2) hour tutorials delivered through Blackboard Collaborate on the Moodle course page each week. All tutorials will be live streamed for synchronous participation and recorded for asynchronous participation, should a student be unable to join the synchronous tutorial at the designated time. Students will be able access the recorded tutorials, for the remainder of the course. Tutorial discussions are based on lecture content and readings. In order to participate in class discussions, you will need to prepare for tutorials by reviewing the available materials.

Online activities: Each week there will be a range of online activities, including formative revision quizzes and interactive learning modules using a range of adaptive learning platforms. These activities will allow students to explore the topics of the week in greater depth and provide formative assessment for the students and revision opportunities.

Readings: There will be assigned readings each week that cover the major topic of the week. Students will need to complete the readings in order to prepare for the online tutorials. In addition, as part of this preparation students are encouraged to post one comment/discussion point on the Study Group Forum and reply to the comment of at least two other students in the course (**4.5 hours**).

The General Discussion Forum connects students in the course to encourage discussion of weekly content, revision, or topics of interest with each other. Regular engagement in the Forum will help students gain an understanding of the material, critique the contributions of fellow students, and help develop written communication skills.

The Q and A Discussion Forum provides students with an opportunity to question and clarify the concepts and ideas mentioned in the lectures. Students are strongly encouraged to engage with this forum by posting questions or comments, and reading, answering, or replying to other student's posts to enhance understanding of the content, critical thinking, and written communication skills.

Formative topic revision quizzes are available for students that provide an opportunity to evaluate understanding of course material on a weekly basis. Timely completion of the weekly quizzes will assist students in gaining a proper understanding of each topic so that this knowledge can be built on in future content. The formative revision quizzes will be available through the MindTap section available on the Moodle course page. **NB: These formative quizzes do not contribute to the student's final grade and are not to be confused with the "secured weekly quizzes".**

3.2 Expectations of students

Moodle contains lectures, tutorials, content topic materials, assessment materials, and any updated information. You are expected to check Moodle regularly. You are also expected to regularly check your UNSW email. 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.

Given that the course content and all assessable components are delivered online, it is the responsibility of the student to ensure that they have access to a computer with a stable internet connection and a browser capable of handling the features of the Moodle eLearning website and any of its content. There will be no special consideration granted due to internet connection or computer issues arising from personal technical issues. If an internet disconnection takes place during an assessment/exam, there will be no way of changing a mark and these will be allocated according to the progress that was saved. To help students establish whether or not their computer/internet access is suitable for the online exam/s, a test quiz is available. This quiz will not contribute to final marks and will be able to be completed multiple times in order to test computer/internet connection prior to assessments/exams.

NOTE: THIS COURSE REQUIRES SIGNIFICANT WEEKLY ASSESSABLE ENGAGEMENT THROUGH MOODLE. Students are expected to engage with all materials delivered each week. There will be a combination of formative and summative assessments throughout the course. **The expected level of engagement is on average 18-19 hours per week** (in the 6-week term). Average engagement levels are as follows (a) **2 hours** of engagement with the lecture content (6 x 20-minute lectures per week); (b) Tutorial attendance, **3 hours** per week including preparation for the tutorial discussion. Note we recommend that you complete the synchronous tutorial, however completion of the recorded asynchronous tutorial will also be accepted; (c) **4.5 hours** to complete the assigned activities, including revision modules; (d) **4.5 hours** to complete the assigned weekly readings; (e) **4-5 hours** to complete the weekly assessments (secured quizzes) and prepare for the major assessments.

Under no circumstances will employment be accepted as an excuse not to meet expectations for class participation or assessments. Remember, the term times are very short, so it is your responsibility to ensure that you do not fall behind with the ongoing assessment demands of the course.

Tutorial Attendance: Attendance and participation in tutorials is compulsory. All tutorials will be delivered in an online mode, through Blackboard Collaborate, given that this is a fully online course, it is understood that some students may be unavailable at the designated live tutorial time. Therefore, students will be required to participate in the tutorial in either a synchronous (as the tutorial is streamed live) or asynchronous (a recorded version of the tutorial).

NB: Engagement with online tutorials and timely completion of asynchronous online tutorials is essential in accordance with UNSW Assessment Implementation Procedure.

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

It is expected that students have read through the Graduate Diploma Student Guide and the School of Psychology Student Guide.

4. Course schedule and structure

Each week this course typically consists of 2 hours of lecture material, 2 hours of face to face tutorials, and 4.5 hours of online activities. Students are expected to take an additional 5-6 hours each week of self-determined study to complete assessments, readings, and exam preparation.

Week	Lecture topic/s	Tutorial/lab topics	Online modules	Self-determined activities
Week 1	**Historical Perspectives and introduction to Associative Learning** Lecture 1 -3: Historical perspectives Lecture 4: Introduction to associative learning Lecture 5: Contingency Lecture 6: Problems for contingency: Blocking	Online tutorial discussion based on lectures and readings. Students will discuss the historical perspectives of animal learning and the basics of associative learning.	Online activities based on lectures and assigned readings	Formative revision quizzes Additional textbook readings Additional textbook resources (Mindtap)
Week 2	**Human associative Learning – attention and** Lecture 1: The Rescorla-Wagner model Lecture 2 and 3: Evaluative conditioning Lecture 4 and 5: Attention and learning Lecture 6: Schizophrenia and aberrant salience	Online tutorial discussion based on lectures and readings. Students will discuss the major concepts of associative learning, evaluative conditioning and the clinical implications of attention and learning.	Online activities based on lectures and assigned readings	Formative revision quizzes Additional textbook readings Additional textbook resources (Mindtap)

Week 3	**Neurobiological mechanisms of Pavlovian Fear Conditioning and Extinction** Lecture 1 and 2: Neural Processes of Fear Learning Lecture 3 and 4: Neural Processes of fear Expression Lecture 5 and 6: Neural processes of extinction	Online tutorial discussion based on lectures and readings. Students will discuss the neural structures involved in normal and maladaptive fear. There will be a focus on the neurobiological processes that underpin fear learning and expression Students will discuss the behavioural evidence for extinction, and the learning models which explain this process.	Online activities based on lectures and assigned readings	Formative revision quizzes Additional textbook readings Additional textbook resources (Mindtap)
Week 4	**Neurobiological mechanisms of habits and instrumental conditioning** Lecture 1 and 2: Neural Processes of instrumental learning Lecture 3 and 4: Neural Processes of habit Lecture 5 and 6: Neural processes of habit formation	Online tutorial discussion based on lectures and readings. Students will discuss the neural structures involved in instrumental conditioning and the habit circuit.	Online activities based on lectures and assigned readings	Formative revision quizzes Additional textbook readings Additional textbook resources (Mindtap)
Week 5	**Neurobiological Mechanisms of Feeding and Body Regulation** Lecture 1: Introduction to Feeding Lecture 2 and 3: Why we eat what we eat Lecture 4: How does our body regulate weight?	Online tutorial discussion based on lectures and readings. Students will discuss the neurobiological mechanism of feeding and body regulation. They will explore the neural structures and circuits involved in the these processes.	Online activities based on lectures and assigned readings	Formative revision quizzes Additional textbook readings Additional textbook resources (Mindtap)

Week 6	**Neurobiological Mechanisms of memory and forgetting** Lecture 1 and 2: Neural process of memory consolidation Lecture 3 and 4: Neural Processes of reconsolidation Lecture 5 and 6: Neural Processes of forgetting – amnesia	Online tutorial discussion based on lectures and readings. Students will discuss the neural processes which underpin normal memory, including the consolidation and reconsolidation of memories. There will be a focus on the molecular and cellular mechanisms involved in these processes.	Online activities based on lectures and assigned readings	Formative revision quizzes Additional textbook readings Additional textbook resources (Mindtap)

5. Assessment

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 (normally midnight on due date)
Assessment 1: "Secured" Quiz (Week 1-6)	20 MCQ questions per quiz	40%	40	Sunday 11:59pm week of release (Weeks 1,2,3,4,5,6)
Assessment 2: Clinical Applications oral presentation	10 minutes	20%	100	Sunday Week 4
Assessment 3: Written Research Proposal	1500 words	40%	100	Friday Week 6

Assessment 1 "Secured" Quizzes 40%: "Students will be required to complete 6 quizzes under official exam conditions. These quizzes will cover the content of the lectures and readings. The quizzes will be held in weeks 1-6 and will cover content presented in the week they are released. The "Secured" quizzes form part of a continuous assessment. The quiz will be released on Thursday of week and will remain open until Sunday 11:59pm of the same week. Each Quiz will include 30 multiple choice questions. The top five grades out of the six quizzes will be used to count towards the final secured quiz grade which accounts for 40% of the course mark.

Assessment 2: Clinical Applications 20%: Students can choose any area of research discussed in the course to discuss the clinical applications of this research. Students should identify one type of animal research and discuss the basic theories which explain the phenomena. They then need to provide an example of how this research has been translated to clinical applications. This will allow students to explore the applied context of animal research in the wider and clinical community. Students will need to upload a 10-minute video to Moodle in order to present their findings to the class.

Assessment 3: Research Proposal 40%: Students will be required to write a research proposal for an experiment based on any of the areas of research presented in the course. The proposal will contain a literature review of the current research, a critique of the present research and a rationale for the proposed experiment. The final section will require students to propose one experiment, including relevant methodological information and expected results. The proposed experiment must logically follow from the literature review and contain a novel contribution to the research area.

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

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

5.2 Assessment criteria and standards

Further details and marking criteria for each assessment will be provided to students closer to the assessment release date (see 4.1: UNSW Assessment Design Procedure).

5.3 Submission of assessment tasks

Written assessments: In accordance with UNSW Assessment Policy written pieces of assessment must be submitted online via Turnitin. No paper or emailed copies will be accepted.

Late penalties: deduction of marks for late submissions will be in accordance with the Graduate Diploma in Psychology assessment policy. Students will receive a penalty of 5% per day for late submissions, including weekends. For example an assessment due on Sunday and submitted on Tuesday would be considered two days late leading to a penalty of 5% x 2 = 10% from the total assessment mark.

Special Consideration: Students who are unable to complete an assessment task by the assigned due date can apply for special consideration. Special consideration applications must be submitted through the special consideration portal available through myUNSW. *UNSW operates under a Fit to Sit/ Submit rule for all assessments. If a student wishes to submit an application for special consideration for an exam or assessment,* ***the application must be submitted prior to the start of the exam or before an assessment is submitted. If a student sits the exam/ submits an assignment, they are declaring themselves well enough to do so.***

Students who have experienced significant illness or misadventure during the assessment period may be eligible. Only circumstances deemed to be outside of the student's control are eligible for special consideration (see - https://student.unsw.edu.au/special-consideration). In the case of take-home assessment tasks, misadventure must occur for at least 3 consecutive days during the assessment period. If approved, students may be given an extended due date to complete take-home assessments

Alternative assessments: there will be no alternative assessments due to the intensive nature of the course. Please refer to the Graduate Diploma in Psychology (5331) Guide for policies and procedures relating to misadventure.

Supplementary examinations: Students may apply for a supplementary exam, providing that this is not an ongoing issue. If students are unable to engage in all aspects of the course for two weeks or longer, the will be required to submit an application to withdraw from the course without penalty. Please refer to the Graduate Diploma in Psychology (5331) Guide for policies and procedures relating to misadventure.

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
Assessment 1: "Secured" Quiz (Week 1-6)	Monday following quiz submission	Course convenor	Online	Moodle
Assessment 2: Clinical Applications oral presentation	10 days after submission	Tutor	Online	Moodle

Assessment 3 Written Research Proposal	10 days after submission	Tutor	Online	Moodle

6. Academic integrity, referencing and plagiarism

The APA (6th 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.[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 http://subjectguides.library.unsw.edu.au/elise/presenting

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

Textbook	Kalat, Biological Psychology 13th Edition, Cengage. E-book copies of the textbook will be provided to students through Moodle along with MindTap additional resources.
Course information	Available on Moodle
Recommended internet sites	UNSW Library UNSW Learning centre ELISE

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

	Turnitin Student Code of Conduct Policy concerning academic honesty Email policy UNSW Anti-racism policy statement UNSW Equity and Diversity policy statement UNSW Equal opportunity in education policy statement

8. Administrative matters

The Graduate Diploma in Psychology 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
- Disability Support Services
- Health and safety

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

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, Health and Safety: https://student.unsw.edu.au/wellbeing
- Disability Support Services: https://student.unsw.edu.au/disability-services
- UNSW IT Service Centre: https://www.it.unsw.edu.au/students/index.html