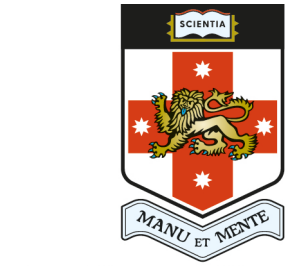

UNSW SYDNEY

Course Outline

PSYC3211

Cognitive Science

School of Psychology

Faculty of Science

T1, 2021

1. Staff

Position	Name	Email	Consultation times & locations	Contact Details
Course Convenor	Prof Mike Le Pelley	m.lepelley@unsw.edu.au	By appointment Mathews 1003	9065 1458
Lecturers	Prof Ben Newell	ben.newell@unsw.edu.au	By appointment Mathews 701	
	Prof Brett Hayes	b.hayes@unsw.edu.au	By appointment Mathews 713	9065 9459
	A/Prof Chris Donkin	c.donkin@unsw.edu.au	By appointment Mathews 706	
Tutors	Mr Joel Holwerda Ms Sandra Lagator	j.holwerda@unsw.edu.au s.lagator@student.unsw.edu.au		

2. Course information

Units of credit: 6

Pre-requisite(s): PSYC2001 and PSYC2071

Teaching times and locations: PSYC3211 Timetable

2.1 Course summary

This course will provide you with an advanced-level understanding of the current theories, methods and controversies in four key areas of cognitive psychology: 1) *Judgment and Decision-making*; 2) *Theory and Models*; 3) *Categorisation and Reasoning*; and (4) *Intelligence and Thinking*. The *Judgment and Decision-making* strand asks and answers questions like: Do we make rational decisions? Are we constrained to fall prey to systematic biases when we make judgments? Are we risk averse and if so what does that mean? It will also cover the burgeoning field of "behavioural insights" and the tools to 'nudge' people to change their behaviour. The *Theory and Models* strand focuses on the development and testing of computational models of cognitive processes, with an emphasis on models of working memory and long-term memory. The component is focused on how quantitative instantiations of models are necessary to provide a rigorous test of psychological theories. The *Categorisation and Reasoning* strand examines how and why people organise things in their physical and social environment into groups (e.g., dogs vs. cats, male vs. female, left-wing politician vs. right-wing politician?), and how they use such knowledge to reason and make predictions. The *Intelligence and Thinking* strand will address questions like: What is intelligence? Do IQ tests really measure intelligence (and if not, what DO they measure)? How do people use their past experience to solve new problems?

2.2 Course aims

This course aims to provide you with an advanced-level understanding of the current theories, methods and controversies in four key areas of cognitive psychology: 1) Judgment and Decision-making; 2) Theory and Models; 3) Categorisation and Reasoning; and (4) Intelligence and Thinking. It will equip you with a broad understanding of the core principles of cognition, and give you the tools to think about how to improve reasoning, decision and memory processes across a range of applied areas (e.g., medical, legal, environmental and financial).

2.3 Course learning outcomes (CLO)

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

1. Demonstrate an advanced understanding of historical perspectives, key topics and empirical research in cognitive science.
2. Describe, apply and evaluate research methods used in cognitive science.
3. Apply critical thinking skills in order to intellectually engage with literature, differentiate quality empirical evidence from speculation, develop an argument and critique those of others.
4. Demonstrate effective scientific communication skills and collaborate ethically and efficiently in a group.
5. Demonstrate knowledge of how key topics in cognitive science are linked and how they can be integrated to solve applied problems.

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, tutorials, online modules, revision quizzes	Lectures, tutorials, online modules, revision quizzes					Mid-session exam, Final exam
2.	Lectures, tutorials, online modules, revision quizzes	Lectures, tutorials, online modules, revision quizzes	Lectures, tutorials, online modules, revision quizzes		Tutorials, presentations, online activities	Lectures, tutorials, online modules, revision quizzes	Mid-session exam, Research Report, Final exam
3.	Lectures, tutorials, online modules, revision quizzes	Lectures, tutorials, online modules, revision quizzes	Lectures, tutorials, online modules, revision quizzes		Tutorials, presentations, online activities		Mid-session exam, Research Report, Final exam
4.					Tutorials, presentations, online activities		Research Report
5.	Lectures, tutorials, online modules, revision quizzes			Lectures, tutorials, online modules, revision quizzes		Lectures, tutorials, online modules, revision quizzes	Mid-session exam, Research Report, Final exam

3. Strategies and approaches to learning

3.1 Learning and teaching activities

This course provides an advanced treatment of cognitive psychology. It follows on, and assumes knowledge, from PSYC2071 Perception and Cognition.

Lectures: The primary objective of the lecture course is to investigate cognition in depth and to relate different areas of cognition to each other. You should come away from the course with a good understanding of the main issues in current research on categorisation, reasoning, memory, intelligence and decision making. The main aim is to provide a conceptual understanding of the issues. The mid-session and final exam will test this understanding. We shall attempt to pose questions in these exams that test your conceptual understanding rather than your ability to reproduce the lecture notes.

Tutorials: The tutorials will be a combination of demonstrations of 'classic' experimental phenomena, hands-on implementation of computational tools, and the opportunity to devise a research proposal for a new experiment. As such the tutorials teach specific skills that are of central importance to cognitive scientists. These are: 1) to critically evaluate empirical findings and journal articles; 2) to design novel tests of existing theories and to understand how those tests might be implemented in laboratory-based experiments.

3.2 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.

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

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.

The final exam for this course will be run online. Students should not arrange periods in which they will be unavailable during the UNSW exam period until the date of the final exam has been released. Students who arrange conflicting events prior to the release of the final exam date will not be granted consideration in the event they are scheduled to be unavailable when the final exam is to occur.

Students registered with Disability Support Services must contact the course co-ordinator 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 must be emailed to the course coordinator as soon as they are made available.

4. Course schedule and structure

Each week this course typically consists of 2-3 hours of lecture material, 2 hours of tutorials, and 8 hours of online modules and/or self-determined activities (i.e. reading, work on assessments, exam preparation and revision).

In the table below, **"Live lectures"** will be delivered live by the lecturers in the scheduled lecture slot (Monday 1-2pm, Friday 9-10am) via Blackboard Collaborate – a link will be provided on the PSYC3211 Moodle page. We plan to record these "live" lectures so that students can re-access them for revision purposes; please note, however, that we cannot guarantee that recording will be successful, so you should plan to listen to the live lectures as they are delivered.

"Pre-recorded" lectures will be made available on the PSYC3211 Moodle page. You should listen to these lectures in your own time, at the appropriate place in the lecture series. For example, you should listen to the pre-recorded Categorisation & Reasoning (3) lecture after the live Categorisation & Reasoning (2) lecture and before the live Categorisation & Reasoning (4) lecture.

Week	Live lectures	Pre-recorded lectures	Revision quizzes	Tutorial topics	Online modules	Self-determined activities
Wk 1	*Mon 15/02:* Judgment & Decision Making 1 *Fri 19/02:* Judgment & Decision Making 2		Lecturer-created revision quizzes	No tutorial	–	Assigned readings
Wk 2	*Mon 22/02:* Judgment & Decision Making 3 *Fri 26/02:* Judgment & Decision Making 4		Lecturer-created revision quizzes	Research proposal: Background, design & methods	Judgment & Decision Making Online Module	Assigned readings; revision; mid-session exam prep
Wk 3	*Mon 01/03:* Judgment & Decision Making 5 *Fri 05/03:* Categorisation & Reasoning 1	Judgment & Decision Making 6	Lecturer-created revision quizzes	Categorisation & Reasoning practical	–	Assigned readings; revision; mid-session exam prep; work on research report
Wk 4	*Mon 08/03:* Categorisation & Reasoning 2 *Fri 12/03:* Categorisation & Reasoning 3	Categorisation & Reasoning 4	Lecturer-created revision quizzes	Mid-session exam on Decision Making (online, held in tutorial time)	–	Assigned readings; revision; work on research report
Wk 5	*Mon 15/03:* Categorisation & Reasoning 5 *Fri 19/03:* Theory & Models 1		Lecturer-created revision quizzes	Research proposal: Discussion of report writing	–	Assigned readings; revision; work on research report
Wk 6	–		–	–	–	–

Wk 7	*Mon 29/03:* Theory & Models 2 *NO FRIDAY LECTURE*	Theory & Models 3	Lecturer-created revision quizzes	Research proposal: Group discussion about research proposals and presentations	–	Assigned readings; revision; work on research report; work on group presentation.
Wk 8	*NO MONDAY LECTURE* *Fri 09/04:* Theory & Models 5	Theory & Models 4	Lecturer-created revision quizzes	Theory & Models: Discussion of a paper (to be assigned).	–	Assigned readings; revision; work on research report; final exam prep.
Wk 9	*Mon 12/04:* Intelligence & Thinking 1 *Fri 16/04:* Intelligence & Thinking 3	Intelligence & Thinking 2	Lecturer-created revision quizzes	Research proposal: Group presentations	–	Assigned readings; revision; work on research report; final exam prep.
Wk 10	*Mon 19/04:* Intelligence & Thinking 4 *Fri 23/04:* Intelligence & Thinking 6	Intelligence & Thinking 5	Lecturer-created revision quizzes	No tutorial	Intelligence & Thinking Online Module	Assigned readings; revision; work on research report; final exam prep.
Study period 24/04/2021						Exam preparation, revision
Exam period 30/04 to 13/05 2021						Exam preparation, revision

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
Assessment 1: Topic revision quizzes (MCQ)	3-5 MCQ	0% (formative)	N/A	N/A
Assessment 2: Mid-session exam	1 hour	15%	/100	Week 4 tutorial
Assessment 3: Experimental research proposal and group presentation.	1750 Words	40%	/100	22/04/2021
Assessment 4: Final exam	2 hours	45%	/100	Exam period

Assessment 2: A mid-session exam in Week 4 will be worth 15% of the total mark. The exam will run online, and will be conducted during the Week 4 tutorial session. This will assess the course content from the lectures on the first topic taught in the course (*Judgment and Decision Making*). You will be required to answer two short-answer essay questions.

Assessment 3: The Written Assignment will begin in the tutorial in Week 3 and will be due by midnight on Thursday 22rd April, Week 10. In this assignment you will work in groups to design an experiment, and will write up an INDIVIDUAL research proposal in which you describe the experiment, the results that you would expect (and how you would analyse them), and the implications of the expected findings. This assignment has a limit of 1750 words. You will also give an oral presentation on your proposal in groups, during the Week 9 tutorial. The report is worth 30% of the total mark and the presentation is worth 10%.

Assessment 4: The final exam will be worth 45% of the total mark – it will assess content from topics not assessed by the Mid-session exam. You will be required to answer two short-answer essay questions for each lecture topic (*Categorisation and Reasoning*; *Theory and Models*; *Intelligence and Thinking*). The exam will be run online during the UNSW Exam Period.

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

Research proposal: In accordance with UNSW Assessment Policy this must be submitted online via Turnitin. No paper or emailed copies will be accepted.

Group presentation of research proposal: This will be delivered either in-person or through live online presentation, depending on whether your tutorial session is in-person or online.

Late penalties: deduction of marks for late submissions will be in accordance with School policy (see: Psychology Student Guide).

Special Consideration: Students who are unable to complete an assessment task by the assigned due date can apply for special consideration. Students should also note that UNSW has 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 and are unable to subsequently apply for special consideration. If a student becomes ill on the day of the exam, they must provide evidence dated within 24 hours of the exam, with their application.

Special consideration applications must be submitted to the online portal along with Third Party supporting documentation. 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. Except in unusual circumstances, the duration of circumstances impacting academic work must be more than 3 consecutive days, or a total of 5 days within the teaching period. If the special consideration application is approved, students may be given an extended due date, or an alternative assessment/supplementary examination may be set. For more information see https://student.unsw.edu.au/special-consideration.

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

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

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
Topic revision quizzes	Immediate	Lecturers	Online	Moodle
Mid-session exam	26/03/2021	Le Pelley	Online	Moodle
Research proposal	07/05/2021	Tutors	Online	Moodle
Final exam	N/A	N/A	N/A	N/A

6. Academic integrity, referencing and plagiarism

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.

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

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 (suggested)	A suggested text for the Intelligence component is: Mackintosh, N. *IQ and Human Intelligence* 2e A suggested text for the Decision Making component is Newell et al. *Straight Choices: The Psychology of Decision Making* 2e
Course information	Available on Moodle
Required readings	Specific readings will be provided during the course lectures and tutorials. School of Psychology Student Guide.
Recommended internet sites	UNSW Library UNSW Learning Centre ELISE 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

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

8. Administrative matters

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
- 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