FACULTY OF SCIENCE

SCHOOL OF PSYCHOLOGY

PSYC2071

PERCEPTION & COGNITION

SEMESTER 2, 2018

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1. Information about the Course

FACULTY	Science
SCHOOL OR DEPARTMENT	Psychology
COURSE CODE	PSYC2071
COURSE NAME	Perception & Cognition

SEMESTER	Semester 2	**YEAR**	2018
UNITS OF CREDIT	6	**LEVEL OF COURSE**	Stage 2 core course

ASSUMED KNOWLEDGE, PREREQUISITES OR CO-REQUISITES	PSYC1001, PSYC1011
SUMMARY OF THE COURSE	Introduces the fundamental principles underlying human perception and cognition such as sensory coding, perceptual organisation, perception of spatial layout, perceptual learning, object recognition, attention, memory storage and retrieval, and decision making. The practical program will provide an introduction to the use of psychophysical methods, experimental approaches to the study of cognitive processes, and the application of findings in society.

2. Staff Involved in the Course

COURSE COORDINATOR

Name	Phone	Email	Office	Contact Time & Availability
Damien Mannion	9385-0372	psyc2071@unsw.edu.au	Mathews 1014	By appointment

LECTURERS

Name	Phone	Email	Office	Contact Time & Availability
Branka Spehar	9385-1463	b.spehar@unsw.edu.au	Mathews 715	By appointment
Damien Mannion	9385-0372	d.mannion@unsw.edu.au	Mathews 1014	By appointment
Dani Navarro	9385-3526	d.navarro@unsw.edu.au	Mathews 1001	By appointment
Marcus Taft	9385-3026	m.taft@unsw.edu.au	Mathews 714	By appointment

TUTORS & DEMONSTRATORS

Name	Phone	Email	Office	Contact Time & Availability
Anthony Harrison		anthony.harrison@student.unsw.edu.au		By appointment
Sonny Li		sonny.li@unsw.edu.au		By appointment
Sol Libesman		s.libesman@student.unsw.edu.au		By appointment
Leena Nguyen		leena.nguyen@student.unsw.edu.au		By appointment
Daniel Pearson		d.pearson@unsw.edu.au		By appointment
Lindsay Peterson		lindsay.peterson@student.unsw.edu.au		By appointment
Ed Stewart		ed.stewart@unsw.onmicrosoft.com		By appointment
Yonatan Vanunu		y.vanunu@student.unsw.edu.au		By appointment
Catherine Viengkham		c.viengkham@unsw.edu.au		By appointment

3. Course Timetable				
Component	**Staff**	**Day**	**Time**	**Location**
Lecture 1		Tuesday	15:00 – 16:00	Mathews A
Lecture 2		Thursday	14:00 – 15:00	Mathews A
Tutorial	Lindsay Peterson	Monday	09:00 – 11:00	Mathews 419
Tutorial	Leena Nguyen	Monday	11:00 – 13:00	Mathews 419
Tutorial	Sol Libesman	Monday	13:00 – 15:00	Mathews 419
Tutorial	Lindsay Peterson	Tuesday	11:00 – 13:00	Mathews 419
Tutorial	Ed Stewart / Sonny Li	Tuesday	13:00 – 15:00	Mathews 419
Tutorial	Ed Stewart / Sonny Li	Tuesday	16:00 – 18:00	Mathews 419
Tutorial	Yonatan Vanunu	Wednesday	09:00 – 11:00	Mathews 419
Tutorial	Daniel Pearson	Wednesday	11:00 – 13:00	Mathews 419
Tutorial	Yonatan Vanunu	Wednesday	16:00 – 18:00	Mathews 419
Tutorial	Sol Libesman	Thursday	09:00 – 11:00	Mathews 419
Tutorial	Sol Libesman	Thursday	11:00 – 13:00	Mathews 419
Tutorial	Catherine Viengkham	Thursday	15:00 – 17:00	Mathews 419
Tutorial	Anthony Harrison	Friday	09:00 – 11:00	Mathews 419
Tutorial	Leena Nguyen	Friday	11:00 – 13:00	Mathews 419
Tutorial	Catherine Viengkham	Friday	13:00 – 15:00	Mathews 419

NB. Course timetables are subject to change without notice. Students are advised to check regularly for updates on the Moodle course site.

Students will have registered for specific tutorial/practical classes when they enrolled. If circumstances necessitate an unavoidable change to your assigned class, submit your request (with detailed justification and other possible tutorial times) to psyc2071@unsw.edu.au by Friday 3 August, 5pm. You will then be informed if a transfer can be made.

Students must attend their assigned tutorial for the whole of the session. If you are unable to attend one of your tutorials for medical reasons, please ensure that you go to another tutorial during the week (you will need to have pre-arranged this with the tutor of the class you will attend, to ensure there is adequate space) and let that tutor know which tutorial you normally go to. You will also need to show your regular tutor a medical certificate.

4.	Aims of the Course

This course introduces students to those areas of Psychology that are more closely concerned with "the mind". These are Perception and Cognition. Perception is concerned with the processes and mechanisms which allow us to respond to our immediate environment, and to know its properties. These range from how far things are away from us or each other to the trajectory of a ball in a game of cricket to a facial expression. It is often a surprise to students to realise how unlike an image on the retina our rich perceptual experience is and how much interesting processing (using about half of the entire cortex of the brain) underlies what seems effortless and immediate. We shall consider a range of issues in this section of the course including the reasons for illusions, perceptual organisation and the way in which we learn to perceive. The cognition part of the course introduces students to theories and methods of investigating the fundamental cognitive processes that underlie attention, memory and thought. Cognitive psychologists study a range of phenomena that include such diverse topics as the factors that influence efficient memory storage and retrieval; the variables that contribute to "information overload"; and the methods people use to solve problems and make decisions. Understanding the perceptual and cognitive processes that underlie human behaviour has a number of important benefits. For example, consider an air traffic controller monitoring plane movements, a driver trying to avoid a pedestrian, a witness in a court case trying to recall past events, or a student studying for an exam. All of these tasks have significant consequences, yet people who perform them are constrained by a number of limitations. In this course we identify these constraints (that are rarely recognised by the people performing the task) and consider their implications.

Broadly, all of these phenomena depend on understanding how people process information and are often described as the study of "human information processing". This subject is primarily concerned with the behaviour of humans, but analogies are often drawn between human information processing and information processing by machines - the domain of "artificial intelligence". Working out how a computer can be programmed to perform particular perceptual or cognitive tasks contributed to thinking about how people do these tasks. It turns out that the engineering problems that we solve when we see, walk, plan, and make it through the day are far more challenging than landing on the moon or sequencing the human genome. Computers are still very poor at recognising scenes and objects because the complexity of biological perceptual processing cannot yet be replicated. The complementary approaches of cognitive psychologists and computer scientists to understanding mental processes, and their interactions with other disciplines such as philosophy and neuroscience that are also concerned with understanding the mind, have led to the development of the discipline known as "cognitive science".

5.	Student Learning Outcomes

By the end of this course, you should have advanced your research, inquiry and analytical thinking skills by developing:

1.	A knowledge and understanding of psychology at an intermediate level with regard to:	1.1.	Perception and cognition as disciplines and their major objectives.
		1.2.	Advanced knowledge and understanding of the major concepts, theoretical perspectives, empirical findings, and historical trends in perception, cognition, information processing, and language.
		1.3.	Major contemporary themes in perception and cognition.
2.	An intermediate knowledge of research methods in psychology, enabling you to:	2.1.	Describe, apply, and evaluate the different research methods used in perception and cognition.
		2.2.	Demonstrate practical skills in research methods in perception and cognition.
		2.3.	Locate, evaluate, and use information appropriately in the research process.
		2.4.	Critically analyse theoretical and empirical studies, formulate testable hypotheses, and choose an appropriate methodology.
		2.5.	Use basic web-search, word processing, database, email, spreadsheet, and data analysis programs.
3.	Intermediate critical thinking skills in	3.1.	Apply knowledge of the scientific method in thinking about problems related to perceptual and cognitive processes.

	Psychology, enabling you to:	3.2.	Question claims about perceptual and cognitive processes that arise from myth, stereotype, pseudo-science, or untested assumptions.
		3.3.	Demonstrate an attitude of critical thinking that includes persistence, open-mindedness, and intellectual engagement.
		3.4.	Evaluate the quality of information, including differentiating empirical evidence from speculation.
		3.5.	Recognise and defend against the major fallacies of human thinking.
		3.6.	Use reasoning and evidence to recognise, develop, defend, and criticise arguments and persuasive appeals.
		3.7.	Demonstrate creative and pragmatic solving of problems in the area of perception and cognition.
4.	An intermediate appreciation of values in Psychology, including the ability to:	4.1.	Use information in an ethical manner (e.g. acknowledge and respect the work and intellectual property rights of others through appropriate citations in oral and written communication).
		4.2.	Recognise the limitations of one's psychological knowledge and skills, and value life-long learning.
		4.3.	Display high standards of personal and professional integrity in relationships with others.
		4.4.	Exhibit a scientific attitude in critically thinking about and learning about human behaviour, and in creative and pragmatic problem solving.
		4.5.	Promote evidence-based approaches to understanding and changing human behaviour.
5.	Effective communication skills in Psychology, including the ability to:	5.1.	Demonstrate effective oral communication skills in various formats (e.g. debate, group discussion, presentation) and for various purposes.
		5.2.	Write effectively in a variety of formats and for a variety of purposes.
6.	Come to understand and apply psychological principles derived from an understanding of perception and cognition in a broader framework, including the ability to:	6.1.	Apply psychological concepts, theories, and research findings in the area of perception and cognition to solve problems in everyday life and in society.
		6.2.	Demonstrate a capacity for independent learning to sustain personal and professional development in the changing world of the science and practice of psychology.
		6.3.	Reflect on one's experiences and learn from them in order to identify and articulate one's personal, sociocultural, and professional values.
		6.4.	Demonstrate insightful awareness of one's feelings, motives, and attitudes based on psychological principles.

6. Graduate Attributes

School of Psychology Graduate Attributes*	Level of Focus 0 = No focus 1 = Minimal 2 = Minor 3 = Major	Activities/Assessment
1. Core knowledge and understanding	3	Activities include demonstrations in lectures and tutorials and discussions in tutorials. Assessed primarily in exams.
2. Research methods in psychology	3	Activities include demonstrations and discussions in tutorials. Assessed in perception and cognition assignments and in exams.
3. Critical thinking skills	3	Activities include demonstrations in lectures and discussions in tutorials. Assessed in perception and cognition assignments and in exams.
4. Values, research and professional ethics	1	Activities include demonstrations and discussions in tutorials.
5. Communication skills	2	Activities include participation in group discussions in tutorials. Assessed in assignments and written components of exams.
6. Learning and application of psychology	2	Demonstrations and discussions within lectures and tutorials. Assessed in perception assignment.

7. Rationale for the Inclusion of Content and Teaching Approach

The course provides intermediate level coverage of topics in perception and cognition. It follows and assumes knowledge from PSYC1001 and PSYC1011. The course provides a foundation for advanced study in visual perception (PSYC3221) and cognitive science (PSYC3211).

8. Teaching Strategies

In addition to the traditional lecture format, the smaller group tutorials will include interactive exercises, hands on experience in measuring perceptual and cognitive functioning like perceptual illusions, visual search efficiency, memory, and decision making.

The assignments for the course should not be seen only as a form of assessment. They are also meant to be provide an opportunity for developing important skills. The assignments are designed to tap into a range of skills, and the preparation required to carry them out should be seen as a learning experience. Feedback is provided not only to justify the mark, but also, and importantly, for the purposes of optimising an understanding of the issues underlying the assignment.

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9. Course Schedule			
Week	**Lecture Topic & Lecturer**	**Tutorial/Lab Content**	**Suggested Readings**
1 (23/7)	First steps in vision (Spehar)	*No tutorial*	Wolfe: Ch. 2
2 (30/7)	Cortical visual processing (Spehar) Object perception (Spehar)	*No tutorial*	Wolfe: Ch. 3 Wolfe: Ch. 4
3 (6/8)	Colour perception (Spehar)	Neural processing (1)	Wolfe: Ch. 5
4 (13/8)	Space perception (Mannion)	Neural processing (2)	Wolfe: Ch. 6
5 (20/8)	Motion perception (Mannion)	Lightness & Colour	Wolfe: Ch. 8
6 (27/8)	Scene perception (Mannion) --- Attention (Navarro)	Motion & measuring perception *(Online)*	Wolfe: Ch. 12 EK: Ch. 5
7 (3/9)	Attention (Navarro) Categorisation & reasoning (Navarro)	Spatial vision	EK: Ch. 5
8 (10/9)	**Mid-session exam** --- Categorisation & reasoning (Navarro)	Measuring the mind	EK: Ch. 14
9 (17/9)	Categorisation & reasoning (Navarro) Integration & summary (Navarro)	Reasoning	EK: Ch. 1
Mid-session break			
10 (1/10)	Semantic memory (Taft) Propositions and scripts (Taft)	*No tutorial*	EK: pp. 276-286
11 (8/10)	Imagery (Taft) Lexical memory (Taft)	Propositional networks	EK: pp. 435-444 EK: pp. 357-371
12 (15/10)	Working memory (Taft) Long-term episodic memory (Taft)	Decision-making *(Online)*	EK: pp. 214-229 EK: pp. 229-242

10. Assessment

Assessment Task	Weight	Learning Outcomes Assessed	Graduate Attributes Assessed	Date of		Feedback		
				Release	Submission	Who	When	How
Perception assignment	20%			Aug. 17 (end of Week 4)	By 23:55 Aug. 31 (end of Week 6)	Tutors	Sep. 14 (end of Week 8)	Marks and feedback via Moodle
Mid-session exam	15%			Week 8 Tuesday lecture	Week 8 Tuesday lecture			Marks via Moodle
Cognition assignment	20%			Sep. 21 (end of Week 9)	By 23:55 Oct. 5 (end of Week 10)	Tutors	Oct. 19 (end of Week 12)	Marks and feedback via Moodle
Final exam	45%			Exam period	Exam period			-

Perception assignment (20% of your final mark)

You will be given a task that can be answered based on material covered in lectures, tutorials, and in provided supplementary material.

Mid-session exam (15% of your final mark)

This exam is based on the perception material (lectures and tutorials in Weeks 1 to 6, inclusive). It will consist of 2 short-essay questions. It will be conducted in the Tuesday lecture in Week 8.

Cognition assignment (20% of your final mark)

You will be given a question that can be answered on the basis of material covered in lectures, tutorials, and in provided supplementary material.

Final exam (45% of your final mark)

This exam is based on the all the material covered in the course (lectures and tutorials in Weeks 1 to 12, inclusive). It will consist of 66 multiple choice questions (each worth 1/100 exam marks) and 2 short essay questions (each worth 17/100 exam marks). The short essay questions will relate to the cognition component of the course (lectures and tutorials in Weeks 6 to 12, inclusive), and the multiple choice questions will relate to all the material in the course (lectures and tutorials in Weeks 1 to 12, inclusive).

Assessment policy – assignments

Assignments submitted after the due date and before the feedback date will be penalised at a rate of 2% per day (including weekends). All assignments must be submitted prior to the feedback date – any assignments submitted after the feedback date will receive a mark of 0.

Requests for special consideration for the assignment must be made within three working days of the due date and must be made via Online Services (Special Consideration) on MyUNSW.

In exceptional circumstances in which an accepted special consideration request would advance the due date beyond the feedback date, the student will be provided with a supplementary assessment. This supplementary assessment will follow the same policies as the original assignment – it will be due 10 working days after being released and no submissions will be accepted 10 working days after the due date. Only one supplementary assessment will be offered.

Assessment policy – mid-session exam

Students are required to attend the lecture in Week 8 to sit the mid-session exam.

Requests for special consideration for non-attendance at the mid-session exam must be made within three working days of the exam. If the special consideration request is accepted, the student will be offered the opportunity to sit a supplementary exam in Week 9. Only one opportunity to sit a supplementary exam will be offered.

11. Expected Resources for Students	
TEXTBOOKS	Wolfe, J.M. et al. (2017). Sensation & perception (5th ed.). Oxford University Press. Eysenck, M.W., & Keane, M.T. (2015). Cognitive psychology: A student's handbook (7th ed.). Hove, UK: Psychology Press. Note that earlier editions of both textbooks are acceptable and that many copies of the textbooks are available in the library.
COURSE MANUAL	None
REQUIRED READINGS	None
RECOMMENDED INTERNET SITES	https://oup-arc.com/access/sensation-and-perception-5e-student-resources http://www.routledgetextbooks.com/textbooks/9781848724167/

12. Course Evaluation & Development

Courses are periodically reviewed and students' feedback is used to improve them. Feedback is gathered using various means including UNSW's myExperience digital survey.

13. Plagiarism & Academic Integrity

What is plagiarism?

Plagiarism is presenting someone else's thoughts or work as your own. It can take many forms, from not having appropriate academic referencing to deliberate cheating.

UNSW groups plagiarism into the following categories:

- **Copying:** using the same or very similar words to the original text or idea without acknowledging the source or using quotation marks. This also applies to images, art and design projects, as well as presentations where someone presents another's ideas or words without credit.
- **Inappropriate paraphrasing:** changing a few words and phrases while mostly retaining the original structure and information without acknowledgement. This also applies in presentations where someone paraphrases another's ideas or words without credit. It also applies to piecing together quotes and paraphrases into a new whole, without referencing and a student's own analysis to bring the material together.
- **Collusion:** working with others but passing off the work as a person's individual work. Collusion also includes providing your work to another student before the due date, or for the purpose of them plagiarising at any time, paying another person to perform an academic task, stealing or acquiring another person's academic work and copying it, offering to complete another person's work or seeking payment for completing academic work.
- **Duplication:** submitting your own work, in whole or in part, where it has previously been prepared or submitted for another assessment or course at UNSW or another university.

Where can I find out more information?

In many cases plagiarism is the result of inexperience about academic conventions. The University has resources and information to assist you to avoid plagiarism. The first place you can look is the section about referencing and plagiarism in each Course Guide, as this will also include information specific to the discipline the course is from. There are also other sources of assistance at UNSW:

- **How can the Learning Centre help me?**

  The Learning Centre assists students with understanding academic integrity and how to not plagiarise. Information is available on their website: http://www.lc.unsw.edu.au/academic-integrity-plagiarism. They also hold workshops and can help students one-on-one.

- **How can Elise help me?**

  ELISE (Enabling Library & Information Skills for Everyone) is an online tutorial to help you understand how to find and use information for your assignments or research. It will help you to search databases, identify good quality information and write assignments. It will also help you understand plagiarism and how to avoid it. All undergraduate students have to review the ELISE tutorial in their first semester and complete the quiz, but any student can review it to improve their knowledge: http://subjectguides.library.unsw.edu.au/elise.

- **What is Turnitin?**

  Turnitin is a checking database which reviews your work and compares it to an international collection of books, journals, Internet pages and other student's assignments. The database checks referencing and whether you have copied something from another student, resource, or off the Internet. Sometimes students submit their work into Turnitin when they hand it in, but academics can also use it to check a student's work when they are marking it. You can find out more about Turnitin here: https://teaching.unsw.edu.au/elearning.

What if plagiarism is found in my work?

If plagiarism is found in your work when you are in first year, your lecturer will offer you assistance to improve your academic skills. They may ask you to look at some online resources, attend the Learning Centre, or sometimes resubmit your work with the problem fixed. However more serious instances in first year, such as stealing another student's work or paying someone to do your work, may be investigated under the Student Misconduct Procedures.

Repeated plagiarism (even in first year), plagiarism after first year, or serious instances, may also be investigated under the Student Misconduct Procedures. The penalties under the procedures can include a reduction in marks, failing a course or for the most serious matters (like plagiarism in a honours thesis) even suspension from the university. The Student Misconduct Procedures are available here

https://www.gs.unsw.edu.au/policy/documents/studentmisconductprocedures.pdf

Examples of plagiarism

Using the internet appropriately

A first year student handed in an assignment where she had copied from a website. Her lecturer realised she didn't understand you have to reference websites in the same way you reference books and journal articles. The lecturer explained how to reference and sent her to a workshop at the Learning Centre to help her improve her skills.

Working together on a math assignment

A group of Mathematics students worked together on an assignment when they had been told this was not allowed. All questions where the students had worked together were given zero, and this lead to some student failing the assessment.

No referencing in an assessment

A third year student submitted a major assessment that included material from a journal article published in Canada. When his essay was submitted into Turnitin, it let the academic know that the student didn't reference the material. The student was given zero for the essay, and because it was worth 50 per cent he failed the course.

Copying design work

A final year design student used images of someone else's designs in her work and he said the designs were his own. The matter was formally investigated by his Faculty and he was found to have committed academic misconduct and failed the course.

Further information and assistance

If you would like further information or assistance with avoiding plagiarism, you can contact the Learning Centre. The Learning Centre at The University of New South Wales has two locations:

UNSW Learning Centre

Lower Ground Floor, North Wing, Chancellery Building

(C22 Kensington Campus – near Student Central)

http://www.lc.unsw.edu.au/

Phone: 9385 2060

Email: learningcentre@unsw.edu.au

Opening Hours:
Monday to Thursday: 9am - 5pm and
Friday: 9am - 2.30pm
UNSW Art & Design Learning Centre
G Block, Room G112
Phone: 9385 0739
https://www.artdesign.unsw.edu.au/current-students/student-services/learning-centre

14. Administrative Matters

The *School of Psychology Student Guide*, available on http://www.psy.unsw.edu.au/current-students/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 in the event of illness or misadventure;
- Student Code of Conduct;
- Student complaints and grievances;
- Student Equity and Disability Unit; and
- Health & Safety.

Students should familiarise themselves with the information contained in this *Guide*.