

PSYC3013 – Perceptual Systems

Unit of Study Code:	PSYC3013
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Format of Unit:	2 x 1 hour lectures/week x 13 weeks 1 x 2 hour tutorial/week x 10 weeks
Credit Point Value:	6 Credit Points
	Prerequisite: Intermediate Year Psychology units including PSYC (2011 or 2111) and at least one other Intermediate Psychology Unit from PSYC (2012 or 2112), PSYC (2013 or 2113), PSYC (2014 or 2114).
Assessment:	Class work: Class Report, max 2500 words (20% of the total mark of the unit) -includes a Plan Worksheet worth 3% due week 5 at end of tute -includes the final write-up worth 17% due week 8 Friday 18 September Group presentation (10% of the total mark of the unit) Done Week 11, during tutorial 12-16 October Tutorial Quiz (20%) Done Week 13, during tutorial 26- 30 October. Tute attendance contributes 5% Examination (50%): 50% Multiple choice questions, 50% short answers of up to 1 page each

Unit of study general description:

The unit covers at an advanced level selected topics in perception from the psychophysical, physiological and neuropsychological perspectives. Students are expected to gain an understanding of some of the major theoretical issues motivating current perceptual research, to appreciate the significance of basic perceptual research for understanding normal perceptual functioning, and to be able to evaluate the empirical and conceptual worth of research contributions.

Evidence of learning:

Assessment of work completed in tutorials will take the form of a quiz. Group class presentation and the report will assess understanding of the topics of selected readings and the ability to design and critically evaluate research. At the end of semester, an examination (short answer and multiple choice) will assess knowledge of the entire unit including tutorial work, lecture material, recommended reading and all the stated teaching outcomes.

Lecture Program

Alex Holcombe (Lectures 1-12):

- Filling in blindspots
- Touch and proprioception
- Spatial resolution of vision and attention
- Temporal resolution of vision and attention
- Object-based visual processing
- Multiple object tracking
- Noticing visual events
- Perception and action
- Perception on the pitch
- Perceptual disorders

Colin Clifford (Lectures 13-17):

- Visual cortex: structure & function
- Modularity & binding
- Computational approaches to vision
- Motion processing

David Alais (Lectures 18-22):

- Combining audition and vision: neural structures & functions
- Audiovisual interactions in attention and perception
- Fusing audiovisual information and dealing with discrepancy
- Early vs. late integration; time perception
- 'Virtual' auditory space and auditory localisation

John Cass (Lectures 23-25):

- Peripheral vision
- Temporal processing and time perception
- Visual context

NOTE: some changes in lecture program are likely, for notice see webpage at WebCT

Tutorial Program:

Tutorials are a mixture of class demonstrations and discussions and self-directed computer-based tutorials followed by discussion.

Week. Lecture dates	Tutorials	Lectures
1. 27, 29 July	<i>No tute</i>	Holcombe
2. 3, 5 Aug	Blindspot and filling in	Holcombe
3. 10, 12 Aug	Touch - tactile acuity, rubber hand	Holcombe
4. 17, 19 Aug	Work on blindspot project	Holcombe
5. 24, 26 Aug [ECVP]	Work on blindspot project PLAN DUE	Holcombe
6. 31 Aug, 2 Sep	Proprio. / Visual persistence	Holcombe
7. 7, 9 Sep	<i>No tute: work on your project</i>	Clifford
8. 14, 16 Sep	Motion perception PROJECT DUE FRI!	Clifford
9. 21, 23 Sep	Signal Detection Theory	Clifford, then Alais

AVCC COMMON VACATION WEEK, NO CLASS OR TUTORIAL

10. 7 Oct	<i>No tutorials (prepare presentations)</i>	Alais
11. 12, 14 Oct	Perceptual disorders PRESENTATIONS	Alais
12. 19, 21 Oct	Audition (and USE survey)	Alais, then Cass
13. 26, 28 Oct	Tutorial Quiz	Cass

READINGS

1. Blake R & Sekuler R. *Perception*, Fifth edition. McGraw-Hill.
(see also: http://www.psy.vanderbilt.edu/faculty/blake/214_F2005/BlakeSekuler.html)
2. Journal articles and chapters from selected books (to be announced in lectures, often on library electronic reserve).

Graduate Attributes and Learning Outcomes for Perceptual Systems (Psyc3013)

This course is structured around the graduate attributes associated with the scientist-practitioner model, the basis for the training of psychologists in Australia and internationally. Graduate Attributes are the generic skills, abilities and qualities that students should acquire during their university experience and the School of Psychology is committed to providing an environment to promote these skills. In addition, this unit of study will provide students with generalised and transferable skills that will also be useful in careers outside psychology.

The following graduate attributes and student learning outcomes will be developed through lectures, tutorial and assessment activities. They will be assessed in the laboratory report, group presentation, tutorial quiz, and final examination.

1: Knowledge and Understanding of Perceptual Systems

Display basic knowledge and understanding of the major concepts, basic facts, and developing understanding of biological perceptual systems. Human visual processing will be the most emphasised aspects, but other senses will also be included.

Student learning outcomes:

- (i) Knowledge of several of the perceptual problems the brain must solve (such as combining information from distinct senses)
- (ii) Appreciation of common processing principles for how the brain solves perceptual problems (such as adaptation)

- (iii) Conceptual understanding of the limits on human perception and how they relate to the underlying mechanisms (such as acuity)
- (iv) Understanding of specific perceptual phenomena and how they arise as a consequence of processing architecture, especially in vision and audition
- (v) Basic knowledge of the methods and measures commonly used in perception research
- (vi) Ability to understand and evaluate empirical studies in perception

2: Research Methods in Perceptual Systems

Understand, apply and evaluate basic research methods in Perceptual Systems, including research design, data analysis and interpretation, and the appropriate use of technologies.

Student learning outcomes:

- (i) To develop an understanding of the major methods of perceptual research
- (ii) Critically assess research findings and related theories in these areas
- (iii) Design and conduct basic studies to address perceptual questions: frame research questions; undertake literature searches; critically analyse theoretical and empirical studies; formulate testable hypotheses; operationalise variables; choose an appropriate methodology; make valid and reliable measurements; analyse data and interpret results; and write research reports.

3: Critical Thinking Skills in Perceptual Systems

Respect and use critical and creative thinking, sceptical inquiry, and the scientific approach to solve problems related to perception.

Student learning outcomes:

- (i) Demonstrate an attitude of critical thinking that includes persistence, open-mindedness, and intellectual engagement.
- (ii) Evaluate the quality of information, including differentiating empirical evidence from speculation.
- (iii) Think about how perception might be achieved mechanistically
- (iii) Evaluate issues using different theoretical and methodological approaches.
- (iv) Use reasoning and evidence to recognise, develop, defend, and criticise arguments.

5: Communication Skills in Perceptual Systems

Communicate effectively in a variety of formats and in a variety of contexts

Student learning outcomes:

- (i) Write a standard research report using American Psychological Association (APA) structure and formatting conventions.
- (ii) Write effectively.
- (iii) Demonstrate effective oral communication skills.
- (iv) Collaborate effectively, demonstrating an ability to: work with groups to complete projects within reasonable timeframes; manage conflicts appropriately and ethically.

6: Learning and the Application of Perceptual Systems

Understand and apply psychological principles to personal and social issues.

Student learning outcomes:

- (i) Develop an awareness of the applications of the theories and findings in the area.
- (ii) Apply psychological concepts, theories, and research findings to problems in everyday life and in society.
- (iii) Understand major areas of applied **Perceptual** Psychology

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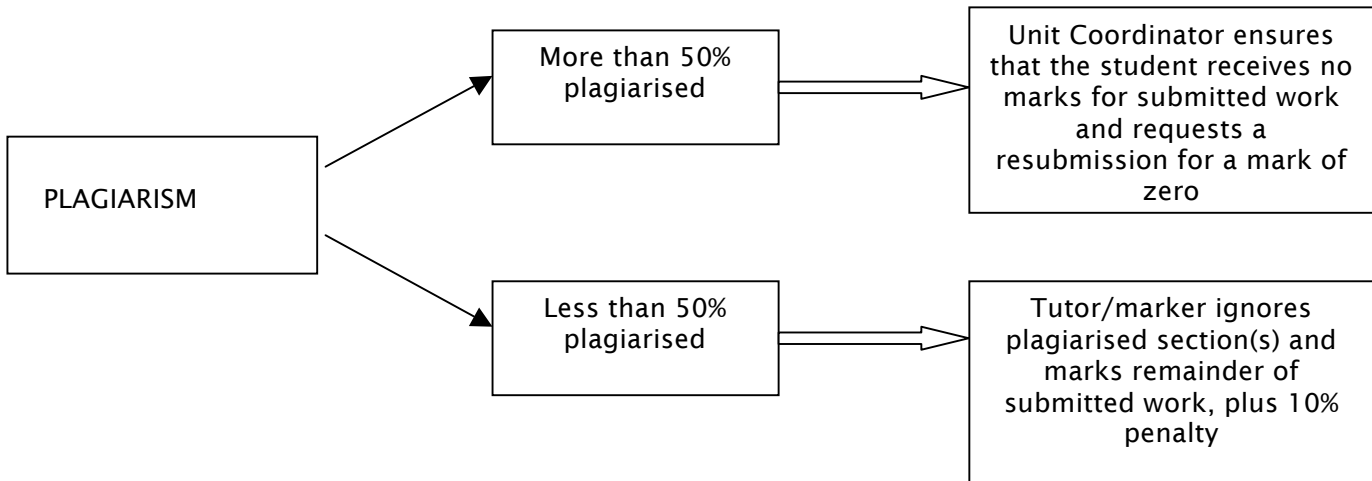
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ii) The School of Psychology will penalise **all** submitted work that is plagiarised;

iii) The School of Psychology is using software to detect **all** forms of plagiarism.



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Poppy Prezios is your Psychology Faculty Liaison Librarian. You can find her at Badham Library Ground Floor, Badham Building Science Rd, Camperdown Campus. You can phone her on 0434 606 913 or email at p.prezios@library.usyd.edu.au.

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Psychology Guide

includes links to Psychology databases, internet resources, information on tests and more.

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