



The University of Southern Queensland

## Course specification

The current and official versions of the course specifications are available on the web at <http://www.usq.edu.au/coursespecification/current>.  
Please consult the web for updates that may occur during the year.

### Description: Human Information Processing

Subject	Cat-nbr	Class	Term	Mode	Units	Campus
PSY	2040	90255	2, 2009	ONC	1.00	Toowoomba

<b>Academic group:</b>	FOSCI
<b>Academic org:</b>	FOS005
<b>Student contribution band:</b>	1
<b>ASCED code:</b>	090701

### STAFFING

Examiner: Liam Hendry  
Moderator: Andrea Lamont-Mills

### OTHER REQUISITES

Recommended Pre-requisite: PSY1020 and (PSY2100 or STA2300)

### RATIONALE

Perceptual, attentional and memory processes play a vital role in our daily life and a well functioning and well integrated perceptual and cognitive system is something that most of us take for granted. Most of us only notice these systems when they begin to fail. However, the true importance of these systems becomes very apparent when a massive breakdown is observed. For example, life is relatively difficult for people who experience partial or total blindness or deafness. Children with attentional deficits experience daily problems. Elderly people with Alzheimer's Disease show the devastating effect of breakdown in the memory system. In short, deficits in our perceptual, attentional and memory systems have severe impacts upon a normal lifestyle. This course is designed to provide a good understanding of normal perceptual and cognitive processes.

### SYNOPSIS

The course starts with an introduction to human information processing, and a revision of sensation and perception (initially covered in Foundation Psychology B). The course builds upon this material by examining visual and auditory perceptual processes and associated brain structures. Following sensation and perception, attention and attentional theories are also covered (and examined in the mid-semester CMA test). The course then deals with memory over short retention intervals, working memory and factors involved in producing long-term memories, as well as reasoning and the influence of emotion on cognition (examined in end of semester exam). In addition, the course allows students to build skills in the analysis of simple datasets, graphing of results and the writing of APA-style Results sections (examined in Assignments 1 and 2).

### OBJECTIVES

On completion of this course students will be able to:

1. demonstrate knowledge of research, structures and functions in the areas of cognition, sensation & perception, attention, memory, reasoning and emotional influences (CMA Test & Exam);
2. demonstrate skills in conducting and reporting experimental research in these areas (Assignments 1 and 2).

## TOPICS

	Description	Weighting (%)
1.	Foundations of human information processing - cognition - mind & brain methodology - information theory.	10.00
2.	Visual Processes - Iconic memory, coding, masking - thresholds - conscious and unconscious - signal detection theory	10.00
3.	Perception: Familiarity, recency & expectancy, illusions, Gestalt	10.00
4.	Theories of perception: simplicity & Likelihood - auditory, visual	10.00
5.	Attention: Theories, attentional resources, controlled processing, Dual task paradigms and capacity sharing	10.00
6.	Human Memory: Overview, organisation, levels of processing, short and long term	10.00
7.	Memory Failures: Eyewitness, misleading information, false memory	10.00
8.	Semantic memory and Object Recognition	10.00
9.	Reasoning	10.00
10.	Influence of emotions on cognition and information processing	10.00

## TEXT and MATERIALS required to be PURCHASED or ACCESSED

ALL textbooks and materials are available for purchase from USQ BOOKSHOP (unless otherwise stated). Orders may be placed via secure internet, free fax 1800642453, phone 07 46312742 (within Australia), or mail. Overseas students should fax +61 7 46311743, or phone +61 7 46312742. For costs, further details, and internet ordering, use the 'Textbook Search' facility at <http://bookshop.usq.edu.au> click 'Semester', then enter your 'Course Code' (no spaces).

Quinlan, P, & Dyson, B 2008, *Cognitive Psychology*, Pearson Education Ltd, Harlow, UK.

## REFERENCE MATERIALS

Reference materials are materials that, if accessed by students, may improve their knowledge and understanding of the material in the course and enrich their learning experience.

Gazzaniga, MS, Irvy, RB & Mangun, GR 2002, *Cognitive Neuroscience: The biology of the mind*, 2nd edn, Norton, New York.

Goldstein, EB 2002, *Sensation and Perception*, 6th edn, Brooks/Cole, Pacific Grove, CA.

Pinel, JPJ 2007, *Biopsychology*, 6th edn, Pearson, Allyn & Bacon, Boston, MA.

Reed, SK 2004, *Cognition: Theory and Applications*, 6th edn, Wadsworth/Thomson, Belmont, CA.

Schiffman, HR 2001, *Sensation and Perception: An Intergrated Approach*, 6th edn, Hoboken, NJ.

Suzuki, David 1997, *The Brain: Our Universe Within*, Discovery Channel, Bethesda.

(Video: two tapes - four programs)

Zimbardo, Philip G 1989, *Discovering Psychology: Program 7 - Sensation and Perception*, WGBH Boston in association with the American Psych, USQ Library, Toowoomba.

(AV152.1 Dis)

## STUDENT WORKLOAD REQUIREMENTS

ACTIVITY	HOURS
Assessments	33.00
Examinations	2.00
Lectures	36.00
Private Study	94.00

## ASSESSMENT DETAILS

Description	Marks out of	Wtg (%)	Due date
ASSIGNMENT 1	100.00	15.00	24 Aug 2009
CMA TEST 1 (MOD 1 - 5)	50.00	25.00	07 Sep 2009
ASSIGNMENT 2	100.00	30.00	28 Sep 2009
2HR RESTRICT (M/C) EXAMINATION	50.00	30.00	END S2 (see note 1)

### NOTES

1. Examination dates will be available during the Semester. Please refer to the examination timetable when published.

## IMPORTANT ASSESSMENT INFORMATION

- 1 Attendance requirements:  
It is the students' responsibility to attend and participate appropriately in all activities (such as lectures, tutorials, laboratories and practical work) scheduled for them, and to study all material provided to them or required to be accessed by them to maximise their chance of meeting the objectives of the course and to be informed of course-related activities and administration.
- 2 Requirements for students to complete each assessment item satisfactorily:  
To complete each of the assignments satisfactorily, students must obtain at least 50% of the marks available for each assessment.
- 3 Penalties for late submission of required work:  
If students submit assignments after the due date without (prior) approval of the examiner then a penalty of 5% of the total marks gained by the student for the assignment may apply

- for each working day late up to ten working days at which time a mark of zero may be recorded. No assignments will be accepted after model answers have been posted.
- 4 Requirements for student to be awarded a passing grade in the course:  
To be assured of receiving a passing grade a student must achieve at least 50% of the total weighted marks available for the course.
  - 5 Method used to combine assessment results to attain final grade:  
The final grades for students will be assigned on the basis of the weighted aggregate of the marks obtained for each of the summative assessment items in the course.
  - 6 Examination information:  
Candidates are allowed access only to specific materials during a Restricted Examination. The only materials that candidates may use in the restricted examination for this course are: writing materials (non-electronic and free from material which could give the student an unfair advantage in the examination). Students whose first language is not English, may, take an appropriate unmarked non-electronic translation dictionary (but not technical dictionary) into the examination. Dictionaries with any handwritten notes will not be permitted.
  - 7 Examination period when Deferred/Supplementary examinations will be held:  
No supplementary examinations will be given. Deferred examinations will be held during the next examination period.
  - 8 University Regulations:  
Students should read USQ Regulations 5.1 Definitions, 5.6. Assessment, and 5.10 Academic Misconduct for further information and to avoid actions which might contravene University Regulations. These regulations can be found at the URL <http://www.usq.edu.au/corporateservices/calendar/part5.htm> or in the current USQ Handbook.

## **ASSESSMENT NOTES**

- 9 The due date for an assignment is the date by which a student must despatch the assignment to USQ. The onus is on the student to provide proof of the despatch date, if requested by the Examiner. For 2009, assignments are to be submitted via internet/email.
- 10 Students must retain a copy of each item submitted for assessment. This must be produced within five days if required by the Examiner.
- 11 Access to email, the online course environment, and the internet is a departmental requirement. Students who attempt this course without access to the online (Moodle) course environment cannot expect to do as well as those who regularly access the site. Information sent via the Moodle site and your USQ email will be regarded as being receivable. [Note, other accounts often have more limited sized mail boxes, are not accessible when the USQ external connection is down and may not always remain open throughout your candidature].
- 12 Students can reasonably expect that certain aspects of the assignments in this course will require existing knowledge of research methods and statistical analyses. This includes knowledge contained in recommended USQ pre-requisite courses such as Foundation Psychology B, Data Analysis, and Research Methods A. Students who do not possess such knowledge and applied skills should not expect to do as well in this course as those who have acquired them.