Description: Human Information Processing

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<tr>
<th>Subject</th>
<th>Cat-nbr</th>
<th>Class</th>
<th>Term</th>
<th>Mode</th>
<th>Units</th>
<th>Campus</th>
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<tbody>
<tr>
<td>PSY</td>
<td>2040</td>
<td>34454</td>
<td>2, 2004</td>
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Academic group: FOSCI
Academic org: FOS005
Student contribution band: 1
ASCED code: 090701

STAFFING
Examiner: Gerry Tehan
Moderator: Malcolm Mills

REQUISITES
Pre-requisite: PSY1020 and 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 suffer 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 a revision of visual and auditory sensation that was covered in Foundation Psychology B. The course builds upon this material by examining visual and auditory perceptual processes and associated brain structures. Following perception, the course deals with attention looking at both the different types of attention and the different theories of how attention works. Memory over short retention intervals is then examined with an emphasis upon working memory. Finally the course looks at the factors involved in producing long-term memories.
OBJECTIVES

On successful completion of this course students will be able to demonstrate:

1. a rudimentary knowledge of structures in the areas of sensation, perception, attention and memory; and
2. skills in conducting and reporting experimental research in these areas;

TOPICS

<table>
<thead>
<tr>
<th>Description</th>
<th>Weighting (%)</th>
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<tbody>
<tr>
<td>1. Sensation: The Visual System Structure of the Eye and Retina and the Visual Pathways</td>
<td>8.70</td>
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<tr>
<td>2. Perception: Visual Functions - Edges, Changes and Acuity</td>
<td>8.70</td>
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<tr>
<td>3. Visual Pattern Perception - Shapes, Spatial Frequency &amp; Gestalt Laws</td>
<td>8.70</td>
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<td>4. Distance and Size Perception - 3D from 2D and Illusions.</td>
<td>8.70</td>
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<td>5. Motion - Real and Illusory Movement</td>
<td>8.70</td>
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<tr>
<td>7. Attention: Types of attention and capacity models</td>
<td>8.30</td>
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<td>8. Attention: Resource models</td>
<td>6.30</td>
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<tr>
<td>9. Short-term Retention: Short-term memory</td>
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<tr>
<td>10. Short-term Retention: Working memory</td>
<td>8.30</td>
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<tr>
<td>11. Long-term Memory: Encoding and imagery</td>
<td>8.30</td>
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<tr>
<td>12. Long-term Memory: Retrieval, organisation and practice</td>
<td>8.30</td>
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</table>

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).

CD-ROM highly recommended but not compulsory

Ashcraft, MH 2002, PSY2040 Human Information Processing,

Matlin, MW & Foley, HJ 2002, PSY2040 Human Information Processing,

(Note selected exercises in study book with CDROM.)

Study Package 2004, PSY2040 Human Information Processing, Distance Education Centre, USQ, Toowoomba.

**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.

Ackerman, Dianne 1995, Mystery of the Senses Series - Hearing, Green Umbrella Ltd, Washington.

Ackerman, Dianne 1995, Mystery of the Senses Series - Vision, Green Umbrella Ltd, Washington.


Carlson, NR 2001, Physiology of Behavior, 7th edn, Allyn & Bacon, Boston.

(with CD-Rom)


Kalat, JW 2000, Biological Psychology, 7th edn, Wadsworth Thomson Learning, Belmont, CA.


(linked to Kalat's text ISBN: 0-534-34921)

Lefton, LA 2000, Psychology, 7th edn, Allyn & Bacon, Boston.


(Video: two tapes - four programs)
(ISBN: 0-534-34036-9)
(AV152.1 Dis)

**STUDENT WORKLOAD REQUIREMENTS:**

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>HOURS</th>
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<tbody>
<tr>
<td>Assessment</td>
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<tr>
<td>Examinations</td>
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</tr>
<tr>
<td>Lectures</td>
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<td>Private Study</td>
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ASSESSMENT DETAILS

<table>
<thead>
<tr>
<th>Description</th>
<th>Marks out of</th>
<th>Wtg(%)</th>
<th>Due date</th>
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<tr>
<td>ASSIGNMENT 1</td>
<td>45.00</td>
<td>15.00</td>
<td>30 Aug 2004</td>
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<tr>
<td>ASSIGNMENT 2</td>
<td>30.00</td>
<td>30.00</td>
<td>04 Oct 2004</td>
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<tr>
<td>2 HOUR CLOSED EXAMINATION</td>
<td>70.00</td>
<td>55.00</td>
<td>END S2</td>
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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 assignment.

3 Penalties for late submission of required work:
   If students submit assignments after the due date without prior approval then a penalty of 0% of the total marks available for the assignment will apply for each working day late.

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% in the examination and at least 50% of the available weighted marks for the summative assessment items.

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 (or grades) obtained for each of the summative assessment items in the course.

6 Examination information:
   In a Closed Examination, candidates are allowed to bring only writing and drawing instruments into the examination.

7 Examination period when Deferred/Supplementary examinations will be held:
   No supplementary examinations will be given. Deferred examinations will be held during the examination period at the end of the semester of the next offering of this course.

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 the USQ. The onus is on the student to provide proof of the despatch date, if requested by the Examiner.

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, discussion groups and the internet is a departmental requirement. I expect you to open your university provided email account and check it regularly for personal communication. Information sent this way 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].