Cognitive Processes

Pattern Recognition
The stimulus equivalence problem. Stages of pattern recognition: segmentation; feature extraction; classification and categorisation. Theories: template theory; feature theory; computational theory; connectionist theory.

Attention

Language
Comprehension and production. Lexical access and models of word recognition: The Search model; The Verification Model; The Logogen model; The Interactive-Activation model.

Reasoning
Deductive reasoning; syllogisms; errors in syllogistic reasoning; the Watson selection test. Inductive reasoning; adaptive heuristics; representative and availability heuristics; analogies; expertise.

Memory
Short-term and working memory. The episodic/semantic distinction. Implicit and explicit memory. Reality monitoring and memory for source. Autobiographical memory. Semantic memory models and the representation of knowledge: Network models; feature comparison models; spreading activation; the ACT* model; distributed representations and connectionism.

Imagery
Theories: Dual coding; propositional encoding; multiple working memory systems. Imagery vividness. Experimental studies.

Recommended Reading
Teaching Outcomes

Ability to describe, discuss and think critically about theoretical and experimental work on pattern recognition, visual and auditory attention, models of lexical memory and access, reasoning, memory and imagery.

Possession of an understanding of major historical, empirical and conceptual issues that have been the focus of mainstream research in cognitive psychology.

Appreciation of the status, role, influence, strengths and weaknesses of rule-based and connectionist modeling of the cognitive processes.

Capacity for critical appraisal of theory construction, experimental method and statistical inference as they are applied in research on cognitive processes.

Familiarity with the means to assess the truth of premises and the validity of arguments in the context of cognitive theory and experimental work.

Evidence of Learning

Assessment will take the form of a computer-based quiz in Week 6 covering work completed in tutorials during Weeks 2 - 5. At the end of semester, a multiple choice examination will assess knowledge of the entire course including tutorial work, lecture material, recommended reading and all the stated teaching outcomes.

Social

Group and Intergroup Relationships

Intergroup processes
Relationships between groups; Prejudice, discrimination and intergroup conflict, examined from the theoretical perspectives of intergroup conflict, social learning theory, personality and psychodynamic approaches; eclectic theory.

Intragroup processes
Relationships within small groups, particularly factors influencing group performance (task and maintenance); Leadership and follower processes; group polarisation; social facilitation; deindividuation.
Interpersonal Processes

Altruism, helping behaviour and social support
Altruism distinguished from helping behaviour; theories of helping behaviour; bystander intervention in emergencies; determinants of helping behaviour; reactions of the recipients of help.

Affiliation and Attraction
Is there a need for affiliation? Why do we affiliate? Conditions under which our need to be with others is heightened. The nature of social support. Attraction: Measuring attraction. Some determinants of attraction; mere-exposure, proximity, similarity of attitudes, similarity of personality, level of esteem, mood state.

Recommended Reading

Teaching Outcomes

(1) Ability to describe, explain, evaluate and apply psychological models and research studies relevant to intergroup processes.

(2) Ability to describe, explain, evaluate and apply psychological models and research studies relevant to intragroup processes.

(3) Ability to describe, explain, evaluate and apply psychological models and research studies relevant to helping behaviour.

(4) Ability to describe, explain, evaluate and apply psychological models and research studies relevant to interpersonal attraction.

Evidence of Learning

Assessment will take the form of: (1) a written examination which will cover the full range of teaching outcomes (the examination will be in the form of multiple-choice questions), and (2) a class quiz which will employ multiple-choice and short-answer questions and which will be primarily concerned with the content of the tutorial programme.
Developmental

Early environmental influences upon cognitive and social development.

1. Studies of early sensory and social/emotional deprivation:
   (a) animal studies of sensory deprivation - effects on problem solving and brain development;
   (b) orphanage studies - effects on IQ and social development.

2. Early enrichment programs.
   (a) Early stimulation - effects on development of brain and behaviour
   (b) Head Start and other compensatory education programs - effects on IQ and social development

Teaching Outcomes

(1) Ability to describe, explain and evaluate research studies examining the influences of early sensory, cognitive and social/emotional deprivation upon cognitive and social development and to relate these studies to theoretical approaches to development.

(2) Ability to describe, explain and evaluate research studies examining the effects of early stimulation upon neural, cognitive and social development in animal and human subjects.

(3) Ability to describe, explain and evaluate research studies examining the influences upon cognitive and social development of programs designed to counteract the effects of early deprivation and to relate these effects to developmental theory.

Evidence of learning

Assessment will take the form of: (1) a written examination which will cover the full range of teaching outcomes (the examination will be in the form of multiple-choice questions), and (2) a class quiz which will employ multiple-choice and short-answer questions and which will be primarily concerned with the content of the tutorial programme.
**Lecture Programme**

**Cognitive Processes**

| Lectures 1 (Week 1) | Dr Latimer | Pattern Recognition 1 |
| Lectures 2 (Week 1) | Dr Markham | Memory 1 |
| Lectures 3 (Week 2) | Dr Latimer | Pattern Recognition 2 |
| Lectures 4 (Week 2) | Dr Markham | Memory 2 |
| Lectures 5 (Week 3) | Dr Latimer | Neural Networks |
| Lectures 6 (Week 3) | Dr Markham | Imagery |
| Lectures 7 (Week 4) | Dr Latimer | Visual and Auditory Attention |
| Lectures 8 (Week 4) | Dr Markham | Deductive Reasoning |
| Lectures 9 (Week 5) | Dr Latimer | Word Recognition 1 |
| Lectures 10 (Week 5) | Dr Markham | Inductive Reasoning |
| Lectures 11 (Week 6) | Dr Latimer | Word Recognition 2 |

**Developmental**

| Lectures 12 (Week 6) | Dr Livesey | Early Deprivation: Orphanage Studies |
| Lectures 13 (Week 7) | Dr Livesey | Early Deprivation: Sensory Deprivation Studies |
| Lectures 14 (Week 7) | Dr Livesey | Early Enrichment Programs |
| Lectures 15 (Week 8) | Dr Livesey | Head Start and other Compensatory Programs |

**Social**

| Lectures 16 (Week 8) | Dr Craddock | Prejudice |
| Lectures 17 (Week 9) | Dr Craddock | Prejudice |
| Lectures 18 (Week 9) | Dr Craddock | Prejudice |
| Lectures 19 (Week 10) | Dr Craddock | Group Processes |
| Lectures 20 (Week 10) | Dr Craddock | Group Processes |
| Lectures 21 (Week 11) | Dr Craddock | Group Processes |
| Lectures 22 (Week 11) | Dr Crabbe | Helping Behaviour |
| Lectures 23 (Week 12) | Dr Crabbe | Helping Behaviour |
| Lectures 24 (Week 12) | Dr Crabbe | Helping Behaviour |
| Lectures 25 (Week 13) | Dr Crabbe | Attraction |
| Lectures 26 (Week 13) | Dr Crabbe | Attraction |
Tutorial Program

Week 1  No Tutorials
Week 2  Stroop Interference Effects
Week 3  Phonological Access in Word Recognition
Week 4  Eye Witness Memory
Week 5  Imagery
Week 6  Computer Quiz on Tutorials 1 – 4
Week 7  Film on early enrichment programs for disadvantaged children
Week 8  Tutorial paper on the Head Start program
Week 9  Prejudice
Week 10  Group Processes
Week 11  Altruism
Week 12  Attraction
Week 13  Class Quiz on Tutorials 7-13

Weights for Course Components

All three components (Cognitive, Developmental and Social): 30% Quiz and 70% Examination

Form of Examination

All three components (Cognitive, Developmental and Social) Multiple choice