Abnormal Psychology

Behavioural Neuroscience

Developmental Psychology: current issues

Environmental and Organisational Psychology

History and Philosophy of Psychology II

Human Performance

Language and Communication

The Nature/Nurture controversy

Statistics and Research Design
PSYC3002 - Abnormal Psychology

Lecturers

Dr. Rocco Crino (Coordinator)
Ms. Diane Clark
Mr. Simon Milton
Professor Stephen W. Touyz

The course aims to give a general overview of information in the field of adult, abnormal psychology. This includes diagnostic criteria, possible etiologic influences, and, where appropriate, brief discussion of treatment alternatives. Tutorials focus on videos depicting each of the disorders covered in the course.

Also covered are an introduction to abnormal psychology (e.g., conceptualising abnormality) and overviews of a variety of disorders, including anxiety disorders, mood disorders, addictive behaviours, psychoses, and personality disorders.

Text
PSYC3002 -
Behavioural Neuroscience

Lecturers:
Prof Ian S. Curthoys, (Coordinator), Room 231 Top South Badham
Dr Paul Mallet, Room 247 Top South Badham
Dr Dale Atrens, Room S476, Main Quad

The Plan of the Course (this is subject to funds and personnel being available):
The course is designed to give students first hand more specialised coverage of a number of areas of contemporary research in Behavioural Neuroscience.

Lecture outlines

Professor Ian Curthoys will give a total of 7 lectures:
- New methods in neuroscience (1.5 lectures)
The application of new methods of studying brain function (such as PET, MRI, SPECT and functional MRI) in relation to understanding the basis of psychological function and disorders.

- Sensorimotor integration (3.5 Lectures)
The anatomical and physiological basis of sensorimotor integration; the vestibular system as an example. The role of the vestibular system in stabilizing the perceptual world. The effect of unilateral vestibular loss.

- Neural basis of schizophrenia (2 Lectures)
Recent evidence of the heritability and pharmacology of schizophrenia

Dr Paul Mallet will give 4 lectures on the following:
- Cannabis and the brain
This lecture is an introduction to the pharmacology of cannabis and the brain's cannabinoid system. Topics covered include the historical development of ideas about how cannabis affects the brain, and recent studies examining the basic effects of cannabis on the brain and behaviour. We will consider the different types of cannabinoid receptors and various cannabinoid drugs, including the recently discovered "anandamides" which occur naturally in the brain.

- Cannabis and addiction
Is cannabis addictive? This lecture examines the recent controversy surrounding whether cannabis has similar neurochemical and behavioural effects to other "harder" drugs such as cocaine and heroin. We will also explore the myth and reality surrounding cannabis withdrawal.

- Neural basis of learning and memory
This lecture examines the neural basis of learning and memory. Topics covered include the neuroanatomy and the neurotransmitters involved in learning and memory. Evidence for different types of neural plasticity as substrates (e.g., long term potentiation) will be covered.
- Cannabis and memory
This lecture examines the interaction between cannabis and memory. Do cannabinoid drugs impair short term memory? Does prolonged exposure to cannabis produce permanent cognitive effects? This lecture attempts to answer these questions and also covers some recent studies which have examined the role of the anandamides in memory.

Dr Dale Atrens will give 2 lectures on:
- The neural basis of energy balance
The components of mammalian energy balance. Neuroendocrine basis of food intake and energy expenditure. The psychopharmacology of dieting and weight loss.

Textbook

*This will be supplemented by references to recent papers in the areas covered.
PSYC3002 -
Developmental Psychology: current issues

Lecturers

Dr Pauline Howie (Coordinator)
Dr David Livesey

1. Perceptual Motor Development (Dr Livesey)

   (a) Approaches to the study of perceptual-motor development: task oriented and process oriented approaches.

   (b) Assessment of perceptual-motor development - identifying children with Developmental Coordination Disorder.

   (c) The development of response control (response inhibition). Inhibitory function in children with ADHD.

2. Sex role development (Dr Howie)

   (a) Development of gender identity and sex role behaviours

   (b) Theories of sex role development

3. Development in context: influence of the media (Dr Howie)

   Effects of television on cognitive and social development

4. The child in the legal system (Dr Howie)

   (a) Children's developing understanding of the legal process

   (b) Research on memory and suggestibility in children's testimony

Text
No set text
PSYC3002 - Environmental and Organisational Psychology

Lecturers
Dr Brian Crabbe
Dr Alan Craddock (Coordinator)
Mark Yates

Environmental Psychology (Dr Crabbe/Mr Yates)
1. The nature of environmental psychology. The study of the reciprocal relationship between behaviour and physical environment.
2. Housing: A comparison of three prevalent housing types - detached houses, low rise units and high rise units - with respect to social contact, privacy and crime.
3. Cities: The effects of high densities, crowding, noise, cognitive overload and other environmental stressors on behaviour.
4. Other environments: Work environments (schools, offices), institutional environments (prisons, mental hospitals) and leisure environments (parks).

Organisational Psychology (Dr Craddock/Mr Yates)
1. Characteristics and Types of Social Systems: Systems, sub-systems and supra-systems; system boundaries, rules communication and feedback processes; system structures; systems and change.
3. Productivity and Satisfaction: Task maintenance roles, processes and outcomes; balancing these two sets of group processes.
4. Conflict Resolution, Conciliation and Mediation: Working with and understanding situations in which cooperation, communication and mutuality of goals are under threat.

Text
No set text

Recommended References
PSYC3002 -
History and Philosophy of Psychology II:
Philosophical Principles

Lecturers
Dr J Burnham (Visiting Guest Lecturer)
Ms Fiona Hibberd
Dr Terry McMullen

Syllabus

A. Psychology as science
1. The roles of observation and theory in science; operationism in psychology.
3. Scientific explanation; causality, determinism and functional explanation in psychology.
4. Constructing scientific theories: instrumentalism, realism and the ontological status of theoretical concepts in psychology.
5. Reductionism in science; the reduction of psychology to neurophysiology.
6. Theory change, scientific progress, revolutions and the role of paradigms in psychology.
7. Proposed alternatives to scientific objectivity: social constructionism and postmodernism.

B. Some fundamental concepts of psychology
1. The concept of behaviour: bodily movements, actions and behaviour as a process.
2. The concept of cognition: the representational concept of cognition and alternatives; the observation of cognitive processes.
3. The concept of motivation: intentions, desires, goal directedness, needs and drives.

Text (as for semester 1)
PSYC3002 - Human Performance

Lecturer
Prof Helen Beh

Lecture outline

1. Introduction to the Course and the Measurement of Performance
   Human performance as an area of study in psychology; categorising performance; speed, accuracy
   and output measures; the speed-accuracy trade-off phenomenon; performance efficiency.

2. Performance Rhythms
   Circadian variation in physiological and performance functions; task variation in TOD functions;
   group variation in circadian functions; “morning” and “evening” persons; introversion and
   extraversion as determinants of TOD functions; theories of circadian phase differences.

3. Performance following Sleep Disturbance
   Types of sleep and sleep disturbance; effect of total sleep deprivation on performance; studies of
   partial sleep loss; selective sleep deprivation and performance; effect of sleep interruption.

4. Motivation and Performance
   Motivating through competition; the nature of competition; types of competition; components of
   competition-audience, co-action and rivalry; the development of rivalry; individual differences
   in competitiveness; incentives and goal-setting and their use in enhancing performance.

5. Noise and Performance
   What is noise?; noise parameters; auditory and non-auditory effects of noise; overview of studies
   of noise and performance; theories of noise effects: distractibility hypothesis; arousal theory of
   noise.

6. Work-Rest Scheduling
   Time-on-Task functions; factors affecting TOT functions-task duration, task difficulty, feedback;
   the end-effect; rest pauses; the ratio rule for work-rest scheduling.

7. Timesharing
   Information processing capacity and information overload; Measuring workload; Hick’s Law and
   performance; dual task performance; training in dual task performance; individual differences in
   workload capacity.

8. Work Stress and Work Dependency
   The nature of work stress; factors contributing to work stress; workload and work strain; measuring
   work stress; the nature of work dependency; motivational basis of work dependency.

9. Drug Use and Performance
   Physiological effects of caffeine; performance under different dosage levels of caffeine; the
   “smart” pill; physiological effects of nicotine; performance during and after nicotine intake;
   marijuana and performance; performance following alcohol intake; drugs in sport.

10. Workspace Factors and Performance
    Office layout and worksites; studies of performance in air conditioned worksites; effect of colour;
    lighting and performance.

11. Performance under Different Atmospheric Conditions
    Ambient temperature; sunlight and performance; wind and behavioural effects; atmospheric
    ionization and performance; chemical pollution of the atmosphere.
12. Accidents
Defining accidents; accidents as error outcomes; external causes of accidents; accidents as skill-based or stress-based; accident research; theories of accidents and accident-prevention.

READING LIST
 Chapters 4, 5, 10, 11.
Wickens, C. D. Engineering Psychology and Human Performance, 2nd Ed., Chapters 2,7,9, 10.

TEXT:
PSYC3002 -
Language and Communication

Lecturer
Dr Michael Walker

Course Outline

The course focuses on face-to-face communication. Language is considered in terms of its expressive content, and spoken language is discussed as part of a multi-channel communication system. The topics in the syllabus are:

The structure of conversation. This includes the structure of speech in relation to conversational turn-taking; speech structures with surface and latent meaning, especially irony, sarcasm, and joking; two part contrast and three term sequences and their use in conversation and public speaking; patterns of communication; signalling turns in two person, three person, and multi-person groups; sociolinguistics, especially sex differences, socioeconomic differences, and regional differences in the use of English.

Language in context. Spoken language and associated nonverbal signals; contextual effects on the interpretation of messages; encoding and decoding accuracy; nonverbal sensitivity; lying and the detection of deceit; mixed messages and the nonverbal dominance hypothesis; politeness and forms of address; personal disclosure; controlling the ramifications of disclosure; verbal remedial tactics; claim-backing and persuasion; marital communication; communication, language and health.

Nonverbal communication. Vocal and visual nonverbal signals; the vocal attractiveness stereotype; paralinguistic communication; the communicative content of speech errors, incoherent sounds, coughs, whistles, clicks, claps, clucks, and the like; aspects of gaze; facial expression; gestures and gesticulation; posture; gait; bodily communication; signalling in sexual encounters; signalling in aggressive encounters; signalling affect, such as boredom, interest, embarrassment, confidence, resignation, loneliness, pride, admiration, frustration, and the like.

Communication of emotion. The expression of happiness, sadness, anger, disgust, surprise, and fear; emotional development; gender and age differences in the expression of emotion; cultural differences in the expression of emotion; the facial feedback hypothesis; the power-emotion relationship in discourse; the role of emotion in interpersonal encounters.

General References
PSYC3002 - Nature/Nurture Controversy

Lecturer
Ms Alison Turtle

1. Early history: rationalism/empiricism; the perceived significance of feral children; conflicting theories of the evolutionary process.

2. The beginnings in empirical psychology; nineteenth century development of mental measurement (craniometry, phrenology, anthropometry). Galton and de Candolle on men of science, the launching of eugenics.

3. The pattern of twentieth century debate issues, influences, fashions, recurring themes. The development of theories of inheritance and the rise of behaviour genetics.

4. Social applications: psychological utopias; the eugenics movement; educational programmes. Deception and fraud in the scientific enterprise.

5. Methodological approaches: case studies, observation of neonates; behaviour genetics; experimental manipulation of environmental variables, field studies.

6. Content areas of ongoing debate: psycholinguistics, perception, mental deviation, intelligence, sex differences, criminality.

7. Conceptual problems: definition of terms, testability of theories, the separability of heredity and environment, the question of interaction, the viability of cross-cultural comparison.

General References
PSYC3002 - Statistics and Research Design

Lecturer: Dr Margaret Charles  
Mungo MacCallum Room 635

This course deals with the design and analysis of experiments in psychology for which some form of analysis of variance is appropriate. There will be 1 lecture and 1 tutorial per week. Tutorials will involve the use of statistical packages on computer as well as hand calculators. Students should purchase a computer disk and should bring this disk, as well as a calculator, to all tutorials.

<table>
<thead>
<tr>
<th>Topics to be covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>The problem of multiple comparisons. The one way fixed effects ANOVA model: partitioning variation and degrees of freedom. Expected mean squares and the formation of F ratios.</td>
</tr>
<tr>
<td>Asking focused questions: testing contrasts. Planned orthogonal contrasts. Trend analysis.</td>
</tr>
<tr>
<td>Controlling the Type I error rate with multiple comparisons: the Scheffe procedure and the Bonferroni procedure.</td>
</tr>
<tr>
<td>Factorial designs: The two way ANOVA model with fixed effects. Partitioning between-group variation into main effects and interaction effects. Main effect and interaction contrasts for a two way ANOVA design.</td>
</tr>
<tr>
<td>Decision-wise vs family-wise control of Type I errors.</td>
</tr>
<tr>
<td>Repeated measures or within-subject variables. Univariate vs multivariate approaches to the analysis of repeated measures data. Planned contrasts for designs involving repeated measures data.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is no set text for this course. Harris (1994) is an excellent reference, but the 'primer' in its title may be a misnomer. Howell (1992) is useful for analysis of variance and Hays (1994) for contrast analysis.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment will ( provisionally) be based on an open-book test in mid-semester (20%), an assignment (30%) and a final examination (50%).</td>
</tr>
</tbody>
</table>