The University of Sydney

Faculty of Science

Handbook

1997

Editor

Anthony F. Masters

The Editor gratefully acknowledges the substantial inputs to the preparation of the Handbook by Ms Deirdre McKay and Ms Charlene Griffiths from the Faculty of Science. The Editor also thanks all Departmental and School Faculty Handbook Liaison Officers for their assistance.
Students in the Faculty of Engineering who have completed Physiology 202 plus at least one other intermediate course similar to one of the above prerequisites may also be permitted to enrol

Classes Sem 1: (4 lec & 8 prac)/wk
Assessment one 3hr exam, spot tests, essays, prac reports, seminar presentations

This course is concerned with the structure and function of the nervous system at the molecular, cellular and integrative level. Some examples of neurological disorders will be discussed. The following topics will be covered: the regional anatomy of the central nervous system; somatomotor and autonomic control systems; visual system; auditory system; somatosensory system; hypothalamus; development and regeneration of the nervous system. The practical component of the course consists of experiments in physiological methods, small group tutorials on neuroanatomy and small group sessions in which students discuss current research papers in a wide variety of subdisciplines of neuroscience.

Textbook
E. Kandel, J. Schwartz and T. Jessell *Principles of Neural Science*

PHSI 302S Neuroscience Cellular and Integrative 12 units

Qual Physiology 301
Classes Sem 2: (3 lec, 3 tut & 6hr prac)/wk
Assessment one 3hr exam, spot tests, essays, prac reports, seminar presentations

This course will allow students to study in depth a range of topics in neuroscience at the molecular, cellular and integrative level. The topics covered are: the relationships between glia and neurones; the molecular basis of brain function; the integrated central neural control of autonomic and somatomotor functions; visual and higher cortical functions. Practical work will take the form of either an experimental project carried out in a research laboratory or an extensive library research project.

Textbook
E. Kandel, J. Schwartz and T. Jessell *Principles of Neural Science*

PHSI 303S Heart and Circulation 12 units

Qual Physiology 202
Prereq Biochemistry (201 and 202) or (211 and 212) and an additional 8 or more units from any Intermediate course(s) in the following subjects: Anatomy and Histology, Biology, Chemistry, Computer Science, Mathematics, Microbiology, Pharmacology, Physics, Physiology, Psychology or Statistics

Students in the Faculty of Engineering who have completed Physiology 202 plus at least one other intermediate course similar to one of the above prerequisites may also be permitted to enrol

Classes Sem 2: (4 lec, 2 tut & 6hr prac)/wk
Assessment one 3hr exam, spot tests, essays, prac reports, seminar presentations

This course offers an up to date and in depth treatment of the structure and function of the cardiovascular system at the organ system, cellular and molecular levels. There is a particular focus on exercise physiology and the way in which the heart, circulation and muscle contribute to the limits of sporting achievement. The excitability, contractility and energetics of the heart and blood vessels are studied, and the regulation of these organs by local (physical and chemical) factors, hormones and the nervous system are discussed, with emphasis on cellular and molecular mechanisms. At the systemic level, the course deals with short term (neural) mechanisms controlling the blood pressure, and how the system behaves during exercise and other stresses. Long term (hormonal) mechanisms regulating blood pressure via the renal control of extracellular fluid volume, and the pathophysiology of atherosclerosis and hypertension are also discussed. Lectures are combined with practical laboratory experiments on animals and human subjects.

**Physiology Honours**
Coordinator Assoc. Prof. Davey

During fourth year, no formal course of lectures is provided but students are given a relevant problem to investigate. This problem usually represents a small facet of one of the major current research projects within the Department, and the students work in collaboration with members of the staff. Students write a thesis embodying the results of their work.

**Department of Psychology**

Psychology is the study of behaviour. As a study it is approached on a scientific basis, with provision for professional training at the postgraduate level. The research activities of the Department cover almost all of the main branches of the subject.

**Registration and noticeboards**

Students in all years must register during the orientation period. Psychology 101 students register by going to the Carslaw Building during orientation and collecting a personalised computer generated timetable, which will indicate the lecture times and the tutorial group to which they have been allocated. Further information will be posted at the Enrolment Centre and on the Junior Psychology noticeboard on the 4th Floor of the Griffith-Taylor Building.

Information about registration meetings for Psychology 201, 202, 301 and 302 students will also be posted at the Enrolment Centre, and on the Departmental noticeboards on the 5th floor of the Griffith-Taylor Building.

**Enquiries**

The main enquiry office of the Department is Room 416, Griffith-Taylor Building (tel. 9351 2872). Staff members available to discuss particular courses may be contacted directly or through this office.

**Honours**

In order to be eligible to graduate with Honours in Psychology, it is necessary (except as provided in the by-laws or resolutions) to gain a year average of Pass with at least Credit in Psychology 201 and 202 and also in Psychology 301 and 302. Students wishing to graduate with Honours in Psychology are urged to discuss their choice of other subjects with a Faculty adviser as soon as practicable. There is currently a quota on entry to Psychology 4.
Examinations
Undergraduate courses are examined at the end of each semester and include classwork by way of essays, reports or practical/laboratory work. At the beginning of each course or section of a course, students are advised of its relative weight and the contributions of exam and classwork for assessment purposes.

Textbooks
Check Departmental noticeboards before buying prescribed texts.

Junior Psychology courses

PSYC101F Psychology 101  6 units
Classes Sem 1: (3 lec, one 1hr tut & one 1hr demonstration)/wk
Assessment one 3hr exam, one 1000w essay, tut test; experimental participation

The course is a general introduction to the main topics and methods of psychology, and is the basis for advanced work as well as being of use to those not proceeding with the subject. The course covers the following areas: subject matter and methods of psychology; basic statistics and measurement; behavioural neuroscience; sensory processes; social psychology; personality theory.

Textbook
To be advised
and Handbook and Practical Worksheets for Psychology 1 (1997)

PSYC 102S Psychology 102  6 units
Prereq Psychology 101
Classes Sem 2: (3 lec, one 1hr tut & one 1hr demonstration)/wk
Assessment one 3hr exam, one 1500w prac report, tut test; experimental participation

The course covers the following areas: human development; human mental abilities; learning, motivation and abnormal psychology; visual perception; cognitive processes.

Textbook
As for Psychology 101

Intermediate Psychology courses

PSYC 201F Psychology 201  8 units
Qual Psychology 102
Classes Sem 1: (4 lec & up to 4hr tut/prac)/wk
Assessment two 2hr exams, essays, prac, reports

Psychology 201 deals with material on both basic and complex psychological processes and covers the following topics:

Psychological statistics
Classes (1 lec & 1 tut)/wk
Assessment one 1hr exam, quiz

Personality
Classes (1 lec & 1 tut)/wk
Assessment one 1hr exam, one 1500w essay

Individual differences
Classes (1 lec & 1 tut)/wk
Assessment one 1hr exam

Sensation and Perception
Classes (1 lec & 1 prac)/wk
Assessment one 1hr exam

Textbooks
To be advised

PSYC 202S Psychology 202  8 units
Prereq Psychology 201
Classes Sem 2: (4 lec & up to 4hr tut/prac)/wk
Assessment two 2hr exams, essays, prac, reports

Psychology 202 deals with material on both basic and complex psychological processes and covers the following topics:

Psychological statistics
Classes (1 lec & 1 tut)/wk
Assessment one 1hr exam, quiz

Behavioural neuroscience and learning
Classes (1 lec & 1 prac)/wk
Assessment one 1hr exam, prac report

Social psychology
Classes (1 lec & 1 tut)/wk
Assessment one 1hr exam, quiz

Cognitive processes
Classes (1 lec & 1 prac)/wk
Assessment one 1hr exam, one prac report

Textbooks
To be advised

Senior Psychology courses

PSYC 301F Psychology 301  12 units
Qual Psychology 202
Classes Sem 1: (4 lec & up to 6hr of tut/prac)/wk in first semester
Assessment four 45min exams, essays, prac reports

Classes
The course consists of four lectures and up to six hours of practical-tutorial work each week. The class work includes essays and reports of practical or laboratory work done under supervision.

Courses
Because of timetabling difficulties some courses are offered at times other than those listed for Psychology 301 and 302 in the timetable for Senior courses.

Students wishing to proceed to Psychology 4 Honours must complete History and Philosophy of Psychology I and II and the options in Measurement and Psychometrics and Statistics and Research Design, plus two options in each semester.

Students not wishing to proceed to Psychology 4 Honours must complete four options each semester.

All Psychology options are offered subject to the availability of staff and on the condition that they are chosen by an adequate number of students in each case. The topics include:

Abnormal psychology
Classes (1 lec & 1 tut)/wk
Assessment one 45min exam, one 1500w essay, tut paper
Cognitive processes: recognition, search and memory
Classes (1 lec & 1 tut)/wk
Assessment one 45min exam, prac reports

History and philosophy of psychology I: historical foundations
Classes (1 lec & 1 tut)/wk
Assessment one 45min exam, one 2000w essay, tut paper
Required of students wishing to proceed to Psychology Honours

Intelligence
Classes (1 lec & 1 tut)/wk
Assessment one 45min exam, one prac report, tut paper

Learning and motivation
Classes (1 lec & up to 2hr of tut or prac)/wk
Assessment one 45min exam, prac report

Measurement and psychometrics
Classes (1 lec & 1 tut)/wk
Assessment one 45min exam, prac report
Required of students wishing to proceed to Psychology Honours

Social psychology
Classes (1 lec & 1 tut)/wk
Assessment one 45min exam, prac report

Theoretical bases of development
Classes (1 lec & 1 tut)/wk
Assessment one 45min exam, prac report

PSYC 302S Psychology 302 12 units
Qual Psychology 202. History and Philosophy II option
requires History and Philosophy I
Classes Sem 2: (4 lec & up to 6hr of tut/prac)/wk
Assessment four 45min exams, essays, prac reports
Classes and courses information: See Psychology 301 above.

The topics include:

Behavioural neuroscience
Classes (1 lec & up to 2hr of prac or tut)/wk
Assessment one 45min exam, prac report

Child abnormal psychology
Classes (1 lec & 1 tut)/wk
Assessment one 45min exam, one 1000w essay, tut paper

Developmental issues
Classes I lec & 1 tut)/wk
Assessment one 45min exam, report

Environmental and organisational psychology
Classes (1 lec & 1 tut)/wk
Assessment one 45min exam, one prac report

History and philosophy of psychology II: philosophical principles
Prereg History and philosophy of psychology I: historical foundations
Classes (1 lec & 1 tut)/wk
Assessment one 45min exam, one 2000w essay, tut paper
Required of students wishing to proceed to Psychology Honours

Human performance
Classes (1 lec & 1 tut)/wk
Assessment one 45min exam, 10 short reports, tutorial quiz

Language and communication
Classes (1 lec & 2 prac)/wk
Assessment one 45min exam, assignment

Perceptual systems
Classes (1 lec & 1 up to 2hr of tut or prac)/wk
Assessment one 45min exam, prac report

Personality
Classes (1 lec & 1 tut)/wk
Assessment one 45min exam, assignment

Statistics and research design
Classes (1 lec & 1 tut)/wk
Assessment one 45min exam, prac report
Required of students wishing to proceed to Psychology Honours

The nature/nurture controversy in psychology
Classes (1 lec & 1 tut)/wk
Assessment one 45min exam, one 1500w essay, tut paper

Psychology 4 Honours
Entry Requirement Average of Credit or better in Psychology 201 and 202, and also in 301 and 302; specified options in Psychology 301 and 302
Assessment one 2hr & one 3hr exam or equivalent, report of empirical research project, theoretical thesis or review

Due to restricted resources for research supervision, the intake to Psychology 4 Honours will be limited to approximately 55 students and will be determined by academic merit.

Students are required to (a) devise, conduct and report upon an empirical research project, (b) write a theoretical thesis or review, and (c) attend one lecture course, two seminar courses and, two method courses. The areas of psychology in which these activities may occur depend on the interests and specialities of staff members.

Reference lists will be supplied by staff handling the numerous special fields that are available.

Postgraduate study

Doctor of Philosophy
See the University’s Statutes and Regulations 1996. for by laws and resolutions. Direct enquiries to the Head of Department.

Master of Psychology
Postgraduate training in clinical psychology is controlled by the Faculty of Science. Details of the Master of Psychology degree awarded on successful completion of this training are available in the Statutes and Regulations 1994-95 and Chapter 7 of this handbook.

Graduate Diploma in Science (Psychology)
This diploma provides a fourth year in Psychology at the Pass level, and consists predominantly of course work. See Chapter 7 of this Handbook.