Science handbook
interactions with plants, including mycorrhizal fungi and shoot-borne endophytes. Physiological and ecological implications of the interactions will also be considered. Each student will design and implement a research project. Analytical thinking and research-led activity will be encouraged. Using broad scientific approaches, each student will gain the capacity to work cooperatively to find and analyse information from primary sources, develop approaches to test their understanding, and to present their work in a scientifically acceptable manner. Students will develop a deeper understanding of one area of fungal biology through independent study. Part of the learning material will be available on the internet.

BIOL3917  
Fungi in the Environment (Advanced)  
Credit points: 6  
Teacher/Coordinator: A/Prof P McGee  
Session: S1  
Intensive Classes: 40 hours of practical work in a two week intensive program immediately prior to semester one (laboratory component each morning from 15-26 February 2010), plus the equivalent of 30 hours self-guided study during the semester.  
Prerequisites: Distinction average in 12 credit points of Intermediate Biology and Plant Science, or 6 credit points of Intermediate Biology, or Plant Science. and 6 Intermediate credit points of either Microbiology or Geography.  
Prohibitions: BIOL3017  
Assessment: Selected from one 2 hour take home exam, laboratory and written assignments.  
Note: The completion of 6 credit points of MBLG units is highly recommended.  
Qualified students will be encouraged to develop a research project under supervision. The content and nature of the research will be agreed on with the executive officer.

PPAT3003  
Plant Disease  
Credit points: 6  
Teacher/Coordinator: Prof David Guest  
Session: Semester 1  
Classes: (2 lec, 3h prac/week)  
Prerequisites: MICR2024  
Assessment: One 2h end of semester exam (60%), one prac exam (25%), six take-home quizzes (15%).

This unit introduces the pathogens and plant diseases that damage natural ecosystems and limit food, fibre and biofuel production. The lecture component of the unit discusses the aetiology of plant disease and symptom development; diagnosis of plant disease; the biology, epidemiology and management of fungi and other microbes that cause plant disease; breeding for disease resistance; plant-parasite relationships; and disease resistance in plants. The practical component builds skills in the techniques used to handle and identify plant pathogens, and develops skills in experimental design, execution and interpretation of experimental data. At the completion of this unit, students will be able to exercise problem-solving skills (developed through practical experiments and lecture discussions), think critically, and organise knowledge (from consideration of the lecture material and preparation of practical reports), expand from theoretical principles to practical explanations (through observing and reporting on practical work), use appropriate software for analysing data and reporting on laboratory projects. Students learn to work in a research team, plan effective work schedules (to meet deadlines for submission of assessable work), use statistical analysis in research, keep appropriate records of laboratory research, work safely in a research laboratory and operate a range of scientific equipment. Students will gain research and inquiry skills through research based practical sessions and assignments. Part of the learning material will be available online.

Textbooks
Schumann GL & Darcy CJ 2006. Essential Plant Pathology. APS Press, St Paul, Minn., USA.

HORT3005  
Production Horticulture  
Credit points: 6  
Teacher/Coordinator: Dr. Jenny Jobling  
Session: Semester 1  
Classes: (2 lec; 1x3hr prac/workshop)/wk  
Prerequisites: Two of PLNT2001, PLNT2002, PLNT2502, PLNT2003, PLNT2903  
Assumed knowledge: AFNR1001, AFNR1002 and HORT2002  
Assessment: One 3 hr exam (55%), three assignments (45%).

This unit of study covers topics on the production of perennial fruit crops, wine grapes, the sustainable production of vegetables and it also covers the key aspects of the postharvest handling and quality assurance of fresh produce. At the end of this unit students are expected to have a detailed understanding of these areas of horticulture and be able to discuss related literature and the physiological principles underlying the commercial success of these horticultural enterprises. Students will also gain research and enquiry skills through research based practical sessions and assignments.

Textbooks
Reference Books:

Psychology
Psychology is the study of behaviour and it is approached on a scientific basis, with provision for professional training at the postgraduate level. The research activities of the School cover almost all of the main branches of the discipline. Extensive information about the subject and the School is available on the School web-site: www.psych.usyd.edu.au. A major in Psychology that is accredited by the Australian Psychological Society and can lead to registration as a Psychologist in NSW (upon completion of further studies) can be gained through a number of degree programs: Bachelor of Science, Bachelor of Psychology, Bachelor of Arts, Bachelor of Arts (Psychology), Bachelor of Arts and Science, Bachelor of Liberal Studies and Bachelor of Economics (Social Science). A normal three year sequence required for a major in Psychology is: PSYC 1001, 1002, 2011, 2012, 2013, 2014, 3018 and at least three Senior units of study selected from PSYC3010 (required for entry into Honours), 3011, 3012, 3013, 3014, 3015, 3016, 3017, 3020 and HPSC3023. The senior units must include at least one of PSYC 3011, 3012, 3013 and 3014. Mid-year entry is possible and involves modification of this sequence.

Enquiries
The main enquiry office of the School is Room 325, Level 3 Brennan MacCallum Building, A18. Staff members available to discuss particular courses may be contacted directly or through this office.

Honours
In order to be eligible to enter Psychology Honours, it is necessary (except as provided in the by-laws or resolutions) to gain a year average of at least Pass with Credit in Intermediate and in Senior Psychology units of study constituting a major in Psychology, and must include PSYC3010. 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 Honours. Entry is competitive on the basis of academic merit.

Examinations
Undergraduate units of study 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 unit of study students are advised of the contributions of exam and classwork for assessment purposes.

Summer School: January-February
PSYC1001 and PSYC1002 are offered in the Sydney Summer School. Consult the Sydney Summer School website for more information: www.summer.usyd.edu.au.

PSYC1001  
Psychology 1001  
Credit points: 6  
Session: Semester 1  
Main Classes: Three 1 hour lectures and one 1 hour tutorial per week, plus 1 hour per week of additional web-based (self-paced) material related to the tutorial.  
Assessment: One 2.5hr exam, one 1000w essay, multiple tutorial tests, experimental participation.
Psychology 1001 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. Psychology 1001 covers the following areas: science and statistics in psychology; behavioural neuroscience; applied psychology; social psychology; personality theory; human development.

This unit is also offered in the Sydney Summer School. For more information consult the website:
http://www.usyd.edu.au/summerschool/

Textbooks
Psychology 1001 manual,

PSYC1002 Psychology 1002
Credit points: 6 Session: Semester 2, Summer Main Classes: Three 1 hour lectures and one 1 hour tutorial per week, plus 1 hour per week of additional web-based (self-paced) material related to the tutorial. Assessment: One 2.5 hour exam, one 1250 word research report, multiple tutorial tests, experimental participation.

Psychology 1002 is a further general introduction to the main topics and methods of psychology, and it is the basis for advanced work as well as being of use to those not proceeding with the subject. Psychology 1002 covers the following areas: human mental abilities; learning, motivation and emotion; visual perception; cognitive processes; abnormal psychology.

This unit is also offered in the Sydney Summer School. For more information consult the web site:
http://www.usyd.edu.au/summerschool/

Textbooks
Psychology 1002 manual

Intermediate units of study

PSYC2011 Brain and Behaviour
Credit points: 6 Teacher/Coordinator: Dr Ian Johnston Session: Semester 1 Classes: Three 1 hour lectures and one 1 hour tutorial per week. Prerequisites: PSYC (1001 and 1002). Prohibitions: PSYC2111 Assessment: One 2 hour exam, major assignment (1500-2000 word essay/report), minor assignment (short written practical exercise and/or tutorial quizzes).

This unit of study examines a range of phenomena and principles in learning and perception and their relations to underlying neural substrates. The emphasis in learning is on instrumental conditioning and the principle of reinforcement, ranging from applications of this principle to its neural substrates. Also covered are analyses of aversive-based learning, such as punishment and avoidance, and anxiety, together with related neurochemical mechanisms and the effects of various psychopharmacological agents on these processes. A number of perceptual phenomena will be studied (e.g., motion detection, recognition of faces, identification of emotion). A series of practical classes and demonstrations allow students to gain hands-on experience of how some of these principles and phenomena may be studied experimentally.

Textbooks
See school website

PSYC2012 Statistics & Research Methods for Psych
Credit points: 6 Teacher/Coordinator: Dr Margaret Charles Session: Semester 1 Classes: Two 1 hour lectures and one 1 hour tutorial per week, plus one 1 hour lecture and one 1 hour tutorial per fortnight. Prerequisites: PSYC (1001 and 1002). Prohibitions: PSYC2112 Assumed knowledge: Recommended: HSC Mathematics, any level. Assessment: One 2 hour exam, class tests, online quizzes, one 1500 word group project, one 45 minute mid-semester exam.

The aim is to introduce students to fundamental concepts in statistics as applied to psychological research. These include summary descriptive statistics, an introduction to the principles and practice of research design, and the use of inferential statistics. Building upon this framework, the unit of study aims to develop each student's expertise in understanding the rationale for, and application of, a variety of statistical tests to the sorts of data typically obtained in psychological research.

Textbooks
See school website

PSYC2013 Cognitive and Social Psychology
Credit points: 6 Teacher/Coordinator: Dr Karen Gonsalorale Session: Semester 2 Classes: Three 1 hour lectures and one 1 hour tutorial per week. Prerequisites: PSYC (1001 and 1002). Prohibitions: PSYC2113 Assessment: One 2 hour exam, major assignment (1500-2000 word essay/report), minor assignment (short written practical exercise and/or tutorial quizzes).

This unit expands the depth and range of topics introduced in the first year lectures on Cognitive Processes, Developmental Psychology and Social Psychology. The first section (16 lectures) on Cognitive Processes focuses on current theories of memory, attention, problem solving and decision making and discusses the methods and issues involved in investigating these processes in both healthy individuals and people with cognitive dysfunctions. The second section (6 lectures) on Developmental Psychology presents and evaluates evidence about the early influences on children's social and cognitive development. The final section (16 lectures) on Social Psychology continues an examination of social development across the lifespan from adolescence to late adulthood, followed by an examination of salient social constructs such as prejudice, group processes, altruism, affiliation and attraction.

Textbooks
Cognitive: See School website

PSYC2014 Personality and Intelligence 1
Credit points: 6 Teacher/Coordinator: Dr Niko Tiliopoulos Session: Semester 2 Classes: Three 1 hour lectures and one 1 hour tutorial per week. Prerequisites: PSYC (1001 and 1002) Prohibitions: PSYC2114 Assessment: One 2 hour exam, major assignment (1500-2000 word essay/report), minor assignment (short written practical exercise and/or tutorial quizzes).

PSYC2014 is made up of two conceptual components: Theories of Personality and Differential Psychology (Individual Differences). The aim of the Personality component is to introduce students to a number of influential theories of personality. Students will be exposed to some conceptual analysis and expected to examine critically the various theories covered. The aim of the Differential Psychology component is to introduce key topics in the study and assessment of individual differences in personality and intelligence. Students are expected to gain an understanding about the major theories of intelligence, associated research methods, and the traditional areas of group differences.

Textbooks
Theories of personality component:
Differential Psychology component:
See School website

Senior units of study

PSYC3010 Advanced Statistics for Psychology
Credit points: 6 Teacher/Coordinator: Dr Sabina Kleitman Session: Semester 2 Classes: Two 1 hour lectures and one 2 hour tutorial per week. Prerequisites: PSYC (2012 or 2112) plus at least one other Intermediate Psychology Unit of Study from PSYC (2011 or 2111), PSYC (2013 or 2113), PSYC (2014 or 2114). Prohibitions: PSYC201 Assessment: One 2 hour exam, class test, 1500 word assignment, practical exercises.

This unit of study expands upon students' knowledge of the general linear model and its applications in the analysis of data from psychological research. The first half of the course is focused on research for which analysis of variance would be appropriate, and
develops students' ability to test more focused questions than can be answered by omnibus F tests. Issues that arise in testing contrasts, such as inflation of Type I error, will also be considered. In the second half of the course, students will further their understanding of multivariate techniques, such as multiple regression analysis.

Textbooks
See School website

PSYC3011 Learning and Behaviour
Credit points: 6
Teacher/Coordinator: Dr Justin Harris
Session: Semester 2
Classes: Two 1 hour lectures and one 2 hour tutorial per week.
Prerequisites: PSYC (2011 or 2111) and at least one other Intermediate Psychology Unit from PSYC (2012 or 2112), PSYC (2013 or 2113), PSYC (2014 or 2114).
Prohibitions: PSYC3209
Assumed knowledge: PSYC (2012 or 2112)
Assessment: One 2 hour exam, one 2000 word prac report, tutorial assessment.

This unit addresses the fundamental concepts and more important research findings related to contemporary theories of associative learning in animals and humans. It examines the application of such fundamental research to issues such as drug use, food choice, and learned helplessness. It is designed to foster skills in reading primary sources in this area, and to develop the opportunity for hands-on experience in carrying out a research project.

Textbooks
See School website

PSYC3012 Cognition, Language and Thought
Credit points: 6
Teacher/Coordinator: Dr Bruce Burns
Session: Semester 1
Classes: Two 1 hour lectures and one 2 hour practical per week.
Prerequisites: PSYC (2013 or 2113) and at least one other Intermediate Psychology unit from PSYC (2011 or 2111), PSYC (2012 or 2112), PSYC (2014 or 2114).
Prohibitions: PSYC3205
Assumed knowledge: PSYC (2012 or 2112)
Assessment: One 2 hour exam, 2000 word prac report, practical exercises.

This unit is designed to be accessible to advanced students with a variety of research interests. One major component of the course will focus on language processing and consider how children learn language, the processes involved in speech perception and production, language comprehension and reading. The remainder of the course will deal with the cognitive processes involved in reasoning and decision-making. The practical program will expose students to a variety of the research methods used to investigate higher cognitive processes, and develop their understanding of how these methods can be used to investigate hypotheses about mental processes and consider applications of cognitive research to real-world problems and issues.

Textbooks
See School website

PSYC3013 Perceptual Systems
Credit points: 6
Teacher/Coordinator: Dr Alex Holcombe
Session: Semester 2
Classes: Two 1 hour lectures and one 2 hour tutorial per week.
Prerequisites: PSYC (2011 or 2111) and at least one other Intermediate Psychology Unit from PSYC (2012 or 2112), PSYC (2013 or 2113), PSYC (2014 or 2114) or ANAT2010
Prohibitions: PSYC3210
Assumed knowledge: PSYC2012
Assessment: One 2 hour exam, one 2500 word report, tutorial quiz, group presentation.

The unit covers at an advanced level selected topics in perception from the psychophysical, physiological and neuropsychological perspectives. Students are expected to gain an understanding of developing knowledge at current frontiers of research, appreciate the significance of basic perceptual research for perception in the office and on the pitch, and be able to evaluate the empirical and conceptual worth of research contributions. Topics covered include spatial and temporal limits of vision, form completion and the resolution of ambiguity, multisensory integration and neural mechanisms.

Textbooks
See School website

PSYC3014 Behavioural and Cognitive Neuroscience
Credit points: 6
Teacher/Coordinator: Dr Karen Croot
Session: Semester 2
Classes: Two 1 hour lectures and one 2 hour practical per week.
Prerequisites: (PSYC (2011 or 2111) and at least one other Intermediate Psychology Unit from PSYC (2012 or 2112), PSYC (2013 or 2113), PSYC (2014 or 2114)) OR (ANAT2010 plus FCOL2011)
Prohibitions: PSYC3204, PSYC3215
Assumed knowledge: PSYC (2111 or 2112)
Assessment: One 2 hour exam, one major essay/report 2000-2500 words, tutorial quiz and participation.

This unit of study will focus on approaches to studying neurosciences incorporating molecular, pre-clinical and clinical models of brain function. These biological models of brain function will be linked with behavioural, affective and cognitive function and dysfunction. The implications of focal cognitive deficits in neurological patients for models of normal cognitive function will also be explored. Specific topics to be covered will be selected from the following areas: appetite psychoneuroimmunology, sensorimotor integration, and the neural and molecular basis of learning and memory, attention, language, visual cognition and praxis. In addition to lectures, a practical component will cover basic neuroanatomy, histology and neuropathology, and will introduce students to experimental and case-study approaches to studying neurosciences.

Textbooks
See School website

PSYC3015 Personality and Intelligence 2
Credit points: 6
Teacher/Coordinator: Dr Niko Tilipoulos
Session: Semester 1
Classes: Two 1 hour lectures and one 2 hour tutorial per week.
Prerequisites: PSYC (2014 or 2114) and PSYC (2011 or 2012 or 2111 or 2112 or 2113 or 2113)
Assumed knowledge: PSYC (2012 or 2112); PSYC (2013 or 2113)
Assessment: One 2 hour exam; one 2000 word essay; tutorial quizzes.

The aim of this unit of study is to provide an overview of different perspectives on the construct of personality, intelligence, and metacognitive abilities to build a critical platform from which both empirical evidence and theoretical propositions can be evaluated. Two broad methodological approaches will be considered, compared, and contrasted in relation to cognitive and non-cognitive attributes and their potential overlap. (a) The individual differences approach to the study of personality and intelligence broadly defined which serves as the basis of much of contemporary psychological assessment in clinical, educational, and organizational settings and (b) the experimental approach to cognitive abilities which use experimental methods to study the information-processing components that underlie intellectual performance. Metacognitive abilities will be studied through differential psychology and decision-making paradigms.

Textbooks
See School website

PSYC3016 Developmental Psychology
Credit points: 6
Teacher/Coordinator: Dr Pauline Howie
Session: Semester 2
Classes: Two 1 hour lectures and one 2 hour tutorial per week.
Prerequisites: PSYC (2013 or 2113) and at least one other Intermediate Psychology unit from PSYC (2011 or 2111), PSYC (2012 or 2112), PSYC (2014 or 2114).
Prohibitions: PSYC3206
Assessment: One 2 hour exam, one 2000 word report.

This unit examines various theoretical approaches to human development and selected issues within Developmental Psychology. The major issues/controversies in developmental theory are examined in relation to a number of the more influential theoretical approaches. Students are expected to gain an understanding of developing knowledge at current frontiers of research, appreciate the significance of basic perceptual research for perception in the office and on the pitch, and be able to evaluate the empirical and conceptual worth of research contributions. Topics covered include spatial and temporal limits of vision, form completion and the resolution of ambiguity, multisensory integration and neural mechanisms.

Textbooks
See School website

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9. Undergraduate units of study
9. Undergraduate units of study

**PSYC3017**
Social Psychology

**Credit points:** 6  
**Teacher/Coordinator:** Dr Lisa Zadro  
**Session:** Semester 1  
**Classes:** Two 1 hour lectures and one 2 hour tutorial per week.  
**Prerequisites:** PSYC (2013 or 2113) and at least one other Intermediate Psychology Unit of Study from PSYC (2011 or 2111), PSYC (2012 or 2112), PSYC (2014 or 2114).  
**Prohibitions:** PSYC3212  
**Assumed knowledge:** PSYC (2012 or 2112).  
**Assessment:** One 2 hour exam, one 2500 word research report, tutorial presentation.

This unit continues the coverage of topics in Social Psychology begun in PSYC1001 and PSYC2013. The unit is divided into topic areas, where the emphasis is on evaluating theories and the relevant evidence. Topics areas include social relationships, antisocial behaviour, applied social psychology (effects of the physical environment on social behaviour; jury decision making), social cognition, leadership, and cross cultural psychology. Tutorials provide first hand experience of research by involving students in a range of research projects on the topics covered in the lectures. The tutorials also provide an opportunity for discussion of issues associated with these topics.

**Textbooks**  
See School website.

**PSYC3018**
Abnormal Psychology

**Credit points:** 6  
**Teacher/Coordinator:** Dr Marianna Szabo  
**Session:** Semester 1  
**Classes:** Two 1 hour lectures and one 2 hour tutorial per week.  
**Prerequisites:** PSYC (2014 or 2114) and at least one other Intermediate Psychology unit of study from PSYC (2011 or 2111), PSYC (2012 or 2112), PSYC (2013 or 2113).  
**Prohibitions:** PSYC3203  
**Assumed knowledge:** PSYC2012  
**Assessment:** One 2 hour exam, one 2000 word essay, quiz, tutorial presentation.

This unit of study critically examines core issues in Abnormal Psychology, concerning the description, explanation and treatment of psychological disorders. The unit of study will include topics such as:

(a) Adult abnormal psychology: Anxiety disorders (specific phobias, panic disorder, generalised anxiety disorder, OCD); Addictive disorders (drug, alcohol, gambling); Eating disorders (anorexia nervosa, bulimia nervosa); Mood disorders (dysthymia, major depressive disorder, cyclothymia, bipolar disorder); Schizophrenia, Personality disorders.

(b) Child abnormal psychology: Attention Deficit Hyperactivity disorder; Conduct disorder; Anxiety disorders, Depression.

**Textbooks**  
See School website.

**PSYC3020**
Applications of Psychological Science

**Credit points:** 6  
**Teacher/Coordinator:** Dr Helen Paterson  
**Session:** Semester 2  
**Classes:** Two 1 hour lectures and one 2 hour tutorial per week.  
**Prerequisites:** 12 credit points of junior psychology and 12 credit points in Intermediate Psychology  
**Prohibitions:** PSYC3019  
**Assessment:** One 2 hour examination and one 2500 word written assignment

The main focus of this unit will be on Health Psychology, but other applied areas such as Forensic and Organizational Psychology will also be introduced. The aim of the Health Psychology component is to define health within a biopsychosocial framework and to present some of the current issues in the area. It will provide an introduction to key areas in health psychology, and demonstrate how they relate to other disciplines. Issues such as the context within which treatment takes place, the psychosocial factors involved in dealing with physical disease, the application of psychological theory to illness and preparation for hospitalization, the management of adverse psychological sequelae arising from hospitalisation and rehabilitation will be considered. Also considered are the key models and theories in health psychology which are seen by many to be the foundations of the subject area.

**Textbooks**  
Morrison, Bennett, Butow, Mullan and White. An Introduction to Health Psychology: An Australian perspective. Pearson Education, Australia. 2007

**HPSC3023**
Psychology & Psychiatry History & Phil

HPSC3023 Psychology & Psychiatry History & Phil can be counted towards a Psychology Major. Successful completion of this unit of study is essential for students intending to take the Theoretical Thesis option in Psychology Honours.

**Psychology Honours**

**Prerequisites for admission**

A Major in Psychology with a minimum Credit average or better across both the Intermediate and Senior Psychology. Units of Study comprising the 48 credit points of Intermediate and Senior Psychology Units that constitute the minimum required for the Major. PSYC (3010 or 3201) must be included in the Senior Units. BPysch students should consult resolutions in chapter 6. School permission required. Due to restricted resources for research supervision, the intake to Psychology Honours will be limited to approximately 80 students and will be determined by academic merit in Intermediate and Senior Psychology.

**Assessment**

Formal exams in Ethics and Issues in Psychology and in Research Methods; report of empirical research project; theoretical thesis or assessment in two Special Fields modules. Students are required to (a) devise, conduct and report upon an empirical research project (research area dependent on interests and specialities of staff members); (b) write a theoretical thesis or attend two Special Fields seminars and complete required assessment tasks; and (c) attend one lecture series in Ethics and Issues in Psychology and two series of lectures in Research Methods.

**Virology**

Details for Virology units can be found under the Microbiology entry.