

Department of Psychology
Course description for academic year 2019/20

Introductory Courses

Student who intends to major in Psychology must have completed PSYC1001 and PSYC1004.

PSYC1001. Introduction to psychology (6 credits)

Discussion of basic concepts in psychology and a preliminary survey of representative work carried out in various areas of psychological investigation, together with an investigation at some length of one such area. Assessment: 100% coursework.

PSYC1004. Introduction to quantitative methods in psychology (6 credits)

This course adopts a practical approach to teaching the analytical aspects of research in psychology. The course is designed to provide students with the basic background in research design and data analysis, covering the logic of statistical reasoning and inference as well as the key concepts involved. Priority will be given to students who plan to major in psychology. Assessment: 100% coursework.

Advanced Courses

Department of Psychology

In addition to class sessions, each course may include a practical element on which candidates may expect to spend about two hours per week.

The final grading for each course will be determined by performance in the examination and by assessment of coursework in a ratio of 40% coursework, 60% examination, unless otherwise specified.

PSYC2002. Psychological testing and measurement (6 credits)

This course surveys the major concepts and techniques in the field of psychometrics, and provides students with some hands-on experience with commonly used tests. Topics covered include: the context of testing and measurement; the testing process; test standardization; reliability and validity; intelligence and its appraisal; personality assessment; special domain testing; occupational applications; large-scale measurements; ethics and prospects.

Assessment: 100% coursework.

Prerequisite: PSYC1001.

PSYC2005. Introduction to counselling and therapeutic psychology (6 credits)

This course provides a theoretical and experiential foundation for counselling and further training in the mental health profession. Major theoretical approaches in psychotherapy are surveyed and critiqued. Experiential learning is used to help elucidate some of the course material and facilitate reflection. Topics covered also include basic counseling skills and practice, ethics, diversity and cultural values, indigenous and community-based models, and outcome and process research. Students who have taken SOWK0117 / SOWK2117 / SOWK2137 are not allowed to enroll PSYC2005.

Assessment: 100% coursework.

Prerequisite: PSYC1001.

PSYC2007. Cognitive psychology (6 credits)

This course covers how humans process information from the environment. Topics include various aspects of perception, attention, memory, imagery, language and decision-making. Students will learn from attending lectures and active participation during tutorials. Students will also conduct experiments about cognitive functioning and learn to critically evaluate existing studies in the research literature and to write research reports on experimental findings.

Assessment: 100% coursework.

Prerequisites: PSYC1001 and PSYC1004

PSYC2009. Life-span developmental psychology (6 credits)

This course provides an introduction to developmental psychology from a life-span perspective. The topics include: basic concepts and theories of human development; research methodology and issues in the study of developmental change; biological, environmental and social influences on development; processes of physical development over the life-span; attachment and emotional development; development of perception, language, cognition and morality; development of personality and social relationships.

Assessment: 70% coursework, 30% examination.

Prerequisite: PSYC1001.

PSYC2010. History and issues in psychology (6 credits)

This course provides an in-depth study of psychology within an historically- and issue-based framework. Beginning with the philosophical and physiological forerunners to how the modern discipline became an experimental, scientific project, it will move on to examine some of the debates in the West in the first half of the twentieth century which either forestalled or encouraged the use of mental concepts and the (re)emergence of cognitive psychology. Assessment: 50% coursework, 50% examination.

Prerequisite: PSYC1001.

PSYC2019. Psychology of personality (6 credits)

This course will critically examine a number of theories of personality as exemplified in the lives of some of the significant figures in the field. The relationship of specific theories to practical applications, personality assessment and psychotherapeutic techniques may be included. The major aims of the course are to provide a survey of the breadth and complexity of this field and to provide a perspective from which to examine assumptions about human nature and the evaluation of behaviour.

Assessment: 100% coursework.

Prerequisite: PSYC1001.

PSYC2020. Fundamentals of social psychology (6 credits)

The course gives an overview of the field which studies the behaviour of individuals in social contexts. It covers social perception, social cognition, social motivation, attitudes and attitude change, relationship between attitude and behaviour, aggression, helping, interpersonal attraction, social influence on individual behaviour and group dynamics. The impact of Chinese culture on various social behaviours will form part of the discussion.

Assessment: 100% coursework.

Prerequisite: PSYC1001.

PSYC2022. Biological psychology (6 credits)

This course provides an introduction to biological aspects of behaviour. The topics include: biological bases of behaviour, development, learning, memory, and abnormal psychology; the nervous system; processes of brain maturation; psychophysiology.

Assessment: 100% coursework.

Prerequisite: PSYC1001.

PSYC2035. Introduction to educational psychology (6 credits)

This course focuses on how psychological theories are applied to learning, teaching, and facilitation of human growth. The topics include major developmental theories and their application to learning and instruction, learning theories from both behavioral and cognitive traditions, effective teaching methods and practices, learners' individual and group differences, achievement motivation, and assessment. Students will be involved in learning activities that require self-reflection and integration of daily life experience.

Assessment: 100% coursework.

Prerequisite: PSYC1001.

PSYC2036. Special topics in psychology (6 credits)

This course provides an opportunity to study in some depth an area of psychology of interest to students and a staff member alike. Individual topics may have special requirements for eligibility.

Students taking this course may select one topic from a list of topics to be announced in the semester immediately prior to that in which they are taken.

Assessment: 100% coursework.

Prerequisite: PSYC1001.

PSYC2038. Psychology of language (6 credits)

A study of the cognitive processes involved in language comprehension and production, including the acquisition of native as well as second languages, the biological and cognitive bases of language learning and use, the psychology of reading and reading disabilities, the comparison of psychological aspects of the Chinese language and other languages, and bilingualism.

Prerequisite: PSYC1001.

PSYC2051. Perception (6 credits)

An introduction to sensation and perception, with an emphasis on the psychology of seeing. Specific topics include the following: examination of the functional properties of sensory systems (e.g., auditory system, color vision, vestibular system, touch and kinaesthesia); phenomenology of sensation and perception; psychophysical limits of perceptual systems; goals of sensory coding; structure and evolution of sensory systems; theories of perception. Perceptual experiments will be conducted by students in laboratory classes.

Assessment: 100% coursework.

Prerequisite: PSYC1001.

PSYC2060. Research and quantitative methods in psychology (6 credits)

This course is designed to extend the skills and knowledge of students on research design and quantitative methods in psychology, so that they are better prepared to conduct their own independent empirical research. The course builds on what students already learned in PSYC1004 to cover more advanced topics.

Assessment: 100% coursework.

Prerequisites: PSYC1001 and PSYC1004.

PSYC2062. Introduction to psychopathology (6 credits)

This course will provide a broad exposure to both theory and practice in clinical psychology. It is a foundation course in mental health, counselling and other psychological services. A wide array of types of mental disorders will be examined. Important themes will be emphasized such as the continuum in behaviour from mental health to mental illness, the diathesis-stress and nature-

nurture models and epidemiology.
Assessment: 100% coursework.
Prerequisite: PSYC1001.

PSYC2063. Industrial/organizational psychology (6 credits)

This course surveys the complex relationships that exist between people, their social environment, and their work. Topics may include job analysis, personnel selection, personnel training, performance management, vocational guidance, work motivation, job satisfaction, leadership, group relations, conflicts, organization design, occupational stress, and errors.
Assessment: 100% coursework.
Prerequisite: PSYC1001.

PSYC2065. Health psychology (6 credits)

This course acquaints students with the realm of health psychology. Students will gain (a) an understanding of the ways psychosocial factors influence health concerns and healthcare utilization, and (b) familiarity with basic concepts that guide the work of health professionals. Topics covered in this course include health behaviors, coping with health-related stress, social support and health, psychoimmunology, management of chronic illnesses, and patient-practitioner interaction.
Assessment: 100% coursework.
Prerequisite: PSYC1001.

PSYC2066. Foundations of cognitive science (6 credits)

This course allows students to gain an understanding of the workings of the mind in the context of the technological advances that are increasingly shaping our lives and our society. The course introduces students to the domain, goals and methods of Cognitive Science, showing how different disciplines converge in their enquiry into how the brain works. Lectures will present case studies highlighting research findings which show how similar questions about the functioning of the human mind are answered from the perspective of each contributing discipline. Assessment: 100% coursework.
Prerequisite: COMP1117 or ENGG1330 or LING1000 or PHIL1012 or PSYC1001.

PSYC2067. Seminars in cognitive science (6 credits)

This course is a tutorial-based reading course in specialist areas of cognitive science research and interest. It will include presentations and group discussion of research and issues of interest within cognitive science, providing an opportunity for students to examine critically the cognitive science approach to understanding intelligent systems.
Assessment: 100% coursework.
Prerequisite: PSYC2066.

PSYC2071. Judgments and decision making (6 credits)

To understand the psychological factors involved with human judgment and decision making. We will contrast human decision making with normative theories of rational choice, and survey psychological evidence of systematic decision biases and errors in judgments. We will discuss the heuristics and biases approach to judgment and decision errors, and critiques of this approach. Real world examples will be presented from the domains of medicine, economics, and consumer choice.

Assessment: 100% coursework.

Prerequisite: PSYC1001.

PSYC2072. Research internship in psychology I (6 credits)

Students will have an opportunity to learn to do research as an intern in ongoing empirical research projects under a teacher's supervision in the Department of Psychology. Students spend 10-12 hours per week assisting various research activities. The internship includes participating in lab meetings or meeting individually with the supervisor, reading relevant theoretical and empirical articles, assisting in ongoing empirical research projects, and writing an internship report. Information about research projects offering internship placements and application procedure will be available in the Psychology Department webpage. Internship I and II can be done with the same supervisor or two different supervisors.

Assessment: 100% coursework.

PSYC2073. Research internship in psychology II (6 credits)

Please refer to Research internship in psychology I for the course description. Internship I and II can be done with the same supervisor or two different supervisors.

Assessment: 100% coursework.

PSYC2074. Mindfulness-based cognitive therapy (6 credits)

The course has a strong experiential component. The standard 8-week program of mindfulness-based cognitive therapy (MBCT) is embedded in the course. Students have first-hand experience as the participants of the MBCT. They are required to do mindfulness practice 45-60 minutes daily and participate in a whole day silence retreat. In addition to this experiential learning, students also have the opportunities to study the theoretical background of meditative traditions and how mindfulness is applied in contemporary mental health services. This is a course that requires both practical involvement and theoretical understanding.

Assessment: 100% coursework.

Pre-requisite: PSYC1001.

PSYC2101. Foundations of neuroscience (6 credits)

This course covers the fundamental principles of neuroscience. Topics include history of neuroscience, neurons and glia, neuronal membrane at rest, action potential, synaptic transmission, neuroanatomy, the somatic sensory system, chemical senses: taste and smell. the auditory system, vision and the eye, vision and the brain, spinal control of movement, brain control of movement, chemical control of the brain and behavior, development in the nervous system, memory systems, learning and memory: molecular biology, emotion and attention. (Priority will be given to students planning to major in neuroscience)

Assessment: 100% coursework.

Prerequisite: PSYC1001.

PSYC2102. Seminar in neuroscience (6 credits)

This course is a tutorial-based reading course in specialist areas of cognitive and behavioral neuroscience. It will include group presentations, in the context of organized formal debates, and in-depth group discussions of individual journal articles, providing an opportunity for students to examine critically the neuroscientific approach to understanding mind and behavior.

(Priority will be given to students planning to major in neuroscience)

Assessment: 100% coursework.

Prerequisite: PSYC2101.

PSYC2110. Developmental neuroscience (6 credits)

Developmental neuroscience is an interdisciplinary research topic that integrates neuroscience, cognitive science and developmental science. This course aims to uncover the brain and neural mechanisms that underlie social, affective and cognitive development across the life span. Specific topics will include the introduction of theories and methods in developmental neuroscience, neuroplasticity, neural mechanisms that underlie the development of attention and perception processes, motor learning, memory, cognitive control, social-emotional processes. This course will examine these processes at different developmental stages, including infants, toddlers, adolescence and ageing population. This course will also cover the neural mechanisms underlying atypical development such as the Autism Spectrum Disorder (ASD).

Assessment: 70% coursework, 30% examination.

Prerequisite: PSYC2101.

PSYC2111. Neurobiological basis of psychological issues (6 credits)

Human behavior is generated by complex psychophysiological mechanisms of the brain. This course is designed to provide a broad introduction to the biological basis of stress, emotion, and regulation of cognitive-affective processes affecting psychological health. The neurobiological basis of psychopathologies e.g. depression, anxiety, will be examined as examples to demonstrate the complex relationships between brain, behavior, and psychopathology.

Assessment: 100% coursework.

Prerequisite: PSYC1001.

PSYC2112. Research internship in neuroscience (6 credits)

(For neuroscience major) Students will have an opportunity to learn to do research as an intern in ongoing empirical research projects under a teacher's supervision in the Department of Psychology and/or other course contributing departments/faculties. Students spend 10-12 hours per week assisting various research activities. The internship includes participating in lab meetings or meeting individually with the supervisor, reading relevant theoretical and empirical articles, assisting in ongoing empirical research projects, and writing an internship report. Information about research projects offering internship placements and application procedure will be available in the Psychology Department webpage.

Assessment: 100% coursework.

Prerequisite: PSYC2101.

PSYC2113. Introduction to brain imaging (6 credits)

Functional Magnetic Resonance Imaging (fMRI) is widely used to study brain functions. This course is designed to provide a general introduction to the physical and physiological bases and principles of fMRI, MRI related safety issues, and design and analysis of fMRI experiments.

Assessment: 100% coursework.

Prerequisite: PSYC1001 and PSYC1004.

PSYC3052. Advanced social psychology (6 credits)

This advanced laboratory course is designed for students interested in learning how to conduct studies in social psychology. Students will develop skills in critically evaluating current theoretical controversies and methodological paradigms. Special attention is given to theoretical, methodological, and measurement issues such as critical thinking in social psychology, social research design, proposal writing, and research ethics. This course is conducted in a seminar format with the expectation that students will participate actively and on occasion help lead a discussion. Some combination of readings, written assignments, and oral presentation is required. Students will each do an independent empirical research project. Priority will be given to UG students majoring in psychology.

Assessment: 100% coursework.

Prerequisites: PSYC1004 and either PSYC2019 or PSYC2020.

PSYC3053. Advanced research in industrial/organizational psychology (6 credits)

This research-based course focuses on specific topics in industrial/organizational psychology that are pertinent to the latest economic development in Hong Kong and in the Greater China Region. Psychometric assessment of various job attitudes, aptitudes, and work-related personality will be one such topic. Students will develop their knowledge and hands-on skills in selected areas

covered in the introductory course on Industrial and Organizational Psychology. Students will each do an independent empirical research project. Priority will be given to UG students majoring in psychology.

Assessment: 100% coursework.

Prerequisites: PSYC1004 and PSYC2063.

PSYC3054. Human neuropsychology (6 credits)

This course introduces basic principles of brain-behaviour relationships. Research methods for investigating brain-behavior relationships are reviewed. The neuro-anatomical and neuropsychological mechanisms underpinning various cognitive and affective processes as well as how these processes are dysregulated in some common brain disorders are discussed. Students will participate in an independent empirical research project. Priority will be given to UG students majoring in psychology and neuroscience.

Assessment: 100% coursework.

Prerequisites: Either PSYC2101 or PSYC2022.

PSYC3061. Advanced issues in perception (6 credits)

This advanced seminar course reviews findings from both recent and classical research on human perceptual systems. Modules will consider in-depth, select special topics such as cross-modal perceptual interactions, lessons from abnormal perception in agnosia, amblyopia, etc. Modules will be discussed from a multidisciplinary standpoint, integrating computational, psychophysical and neurobiological approaches. Priority will be given to UG students majoring in psychology and neuroscience.

Assessment: 100% coursework.

Prerequisites: PSYC1004 and PSYC2051.

PSYC3064. Advanced developmental psychology (6 credits)

This course will introduce you to recent and classical research findings and methods in developmental psychology. It will provide hands-on experience with the research process by having you design and implement your own independent empirical research project. It will focus on key issues facing researchers, such as problems of observing and interpreting, generating testable questions, validity, research design and measurement. Students will each do an independent empirical research project. Priority will be given to UG students majoring in psychology.

Assessment: 100% coursework.

Prerequisites: PSYC1004 and PSYC2009.

PSYC3068. Advanced cognitive psychology (6 credits)

This course covers some of the more recent developments in cognitive psychology. Students will learn about current issues in cognitive psychology by reading research articles. Topics may include consciousness, mental representations of objects/faces/letters, language, memory and decision making, as well as other topics reflecting the interests of the teacher. Students will each do an independent empirical research project. Priority will be given to UG students majoring in psychology and neuroscience.

Assessment: 100% coursework.

Prerequisites: PSYC1004 and either PSYC2007 or PSYC2051.

PSYC4007. Independent study in psychology (12 credits)

(For psychology major) Students will each conduct an independent empirical research project. Regular attendance for research supervision is required. The project write-up should be about 8,000 to 10,000 words (exclusive of tables, bibliographies and appendices) and should follow the practice of communication in top psychology journals. Approval by Departmental Head is required for admissions into this course.

Assessment: 100% coursework.

Prerequisites: PSYC1001 and PSYC1004 and PSYC2060.

PSYC4008. Thesis in psychology (12 credits)

(For psychology major) Students will conduct an independent empirical investigation of a psychological problem. Thesis research will be supervised individually by teaching members of the Department. The thesis should be about 8,000 to 10,000 words (exclusive of tables, bibliographies and appendices) and should follow the practice of communication in top psychology journals. Eligible students will be invited by the Department to apply for admissions into this course. Approval by Departmental Head is required for admissions into this course.

Assessment: 100% coursework.

Prerequisites: PSYC1001 and PSYC1004 and PSYC2060; and

Co-requisites: PSYC3052 or PSYC3053 or PSYC3054 or PSYC3061 or PSYC3064 or PSYC3068.

PSYC4068. Research project in cognitive science (6 credits)

(For cognitive science major) This course comprises an independent research study in an area of cognitive science of the candidates' choice, subject to availability of supervision. Students will conduct a research project or read within an area of study, to be agreed with their instructor, and write an extended essay or research project report. The essay or project write-up should be about 4,000 to 5,000 words (exclusive of tables, bibliographies and appendices) and should follow the practice of communication in cognitive science journals.

Assessment: 100% coursework.

Prerequisite: PSYC2066.

PSYC4101. Thesis in neuroscience (12 credits)

(For neuroscience major) Students will each conduct an independent empirical research project. Regular attendance for research supervision is required. The project write-up should be about 6,000 to 10,000 words (exclusive of tables, bibliographies and appendices).

Assessment: 100% coursework.

Prerequisites: PSYC1001 and PSYC1004 and PSYC2060 and PSYC2101.

PSYC4102. Capstone project in neuroscience (6 credits)

(For neuroscience major) This course comprises an independent research study in an area of neuroscience of the candidates' choice, subject to availability of supervision. Students will read within an area of study, to be agreed with their instructor, and write an extended essay or research proposal.

Assessment: 100% coursework.

Prerequisite: PSYC2101.

Course descriptions for Non-PSYC electives for Neuroscience Major/Minor

BBMS2003. Human Genetics (6 credits)

To present an extensive introduction to the principles of genetics, illustrate how they operate in humans with examples, and discuss the applications of these in medical and clinical genetics. Topics include the Mendel's laws of genetics, the basic patterns of Mendelian inheritance in humans, the construction and the analysis of a pedigree, single gene and polygenic inheritance, multifactorial traits and heritability, cytogenetics, karyotypes, structural changes in chromosomes, and non-Mendelian inheritance. Concepts of genetic variations in human populations and Hardy-Weinberg equilibrium will also be presented.

Prerequisite: BBMS1001 or BIOC1600

Assessment: 30% continuous assessment; 70% examination.

BBMS3011. Molecular Neuroscience (6 credits)

This is an advanced course aiming to provide students with the latest frontier on molecular and cellular mechanisms that underlie the structure and function of the central nervous system. This interdisciplinary course covers fundamental concepts on the molecular basis of brain functions during development and aging, and discusses how dysregulation of these processes might lead to various brain disorders. Topics include axon guidance, synaptic transmission, formation and plasticity of synapses, learning and memory, and diseases of the nervous systems such as cognitive and emotional disturbance. Lectures tutorials, presentation of research papers and research-oriented practical training are emphasized so as to expose students to different research areas in molecular neuroscience.

Prerequisite:

Pass in any one of these courses: BBMS1001 Human Biology, BIOC2600 Basic

Biochemistry, BIOL2220 Principles of Biochemistry, MEDE2302 Life Sciences II (Cell Biology &

Physiology), PSYC2022 Biological Psychology

Assessment: 50% continuous assessment; 50% examination.

BIOL3105. Animal physiology & environmental adaptation (6 credits)

The course covers the major aspects of animal physiology for environmental adaptation in terrestrial & aquatic habitats. Stress will be given to the functional interactions between animals and the environment, especially on the mechanisms by which animals obtain resources for survival from the environment, detect environmental changes via sensory structures, and respond to adversities in the environment by altering their body forms & functions.

Prerequisite: BIOL2103 or BIOL2220 or BIOC2600 or MEDE2301

Assessment: 30% continuous assessment; 70% examination.

BMED3501. Medical imaging (6 credits)

Medical imaging is an indispensable technology in modern healthcare and biomedical research. It provides in vivo anatomical, physiological and functional information of the human body in normal, developing and pathological states. The rapid development in this field not only leads to better disease diagnosis and more accurate treatment efficacy assessment, but also paves the way for better understanding of living biological systems.

This course presents the mathematical, physical, and computational principles underlying modern medical imaging systems. It will cover fundamentals of conventional (X-ray and Ultrasound) and modern (Computerized Tomography – CT; Magnetic Resonance Imaging – MRI; Nuclear Imaging and Optical Imaging) imaging techniques applied to biological systems and in medical diagnoses and the interpretations of these images. Techniques for the visualization, segmentation, and analysis of medical image data will also be discussed, as well as applications of medical imaging.

At the end of the course, students should gain a clear understanding in the physics, working principles and mathematics involved in the various imaging modalities covered. They should also be able to appreciate the interdisciplinary nature of the subject and learn the latest development or advancement in the field of medical imaging.

Pre-requisite: Pass in BMED2500 or ELEC3241

Assessment: 30% continuous assessment, 70% examination