

Psychology (Major/Minor) - For students admitted in or after 2013/2014

I. Objectives

This program aims to:

- allow students to develop basic skills across all areas of Psychology, including the biological and cognitive bases of behavior, developmental changes, social influences, and psychopathology;
- provide students with training in statistical and research methods that are essential for the implementation and consumption of psychological research;
- develop skills in critical analysis, reasoning, and self-reflection;
- provide students opportunities for tackling novel problems, and give them experience of addressing issues that are ill-defined; and
- be an internationally-recognized qualification in fundamental aspects of Psychology that allows students to pursue both professional training in applied aspects of Psychology (e.g., Clinical Psychology, Educational Psychology) and advanced research training in all areas of Psychology.

II. Programme structure

Components	No. of credits	
	Major	Minor
a) Introductory courses		
i) Disciplinary	12 (PSYC1001 & PSYC1004)	6 (PSYC1001)
ii) Pre-requisites*	12 (2 courses from 5 units)	-
b) Advanced courses		
i) Core courses	36 (PSYC2060, Stream 1, Stream 2)	-
ii) Disciplinary electives	6 (PSYC)	30 (PSYC)
iii) Capstone experience	6 (Stream 3)	-
iv) Social Innovation and Global Citizenship#	24 (SI & GC)	-
Total	96	36

Psychology Major Flowchart (4-year Curriculum)

*Candidates who opt to declare two major programmes offered by the Faculty of Social Sciences should avoid selecting overlapping pre-requisites.

#Candidates who opt to declare double majors in Geography, Politics and Public Administration, Psychology, Sociology and Social Policy and Social Development are allowed to undertake 24 credits of free electives, to fulfil the Faculty off-campus learning courses for the second major.

Candidates who wish to major (96 credits) or minor (36 credits) in Psychology must complete:

a) Introductory courses (24 credits for major; 6 credits for minor)

i) Disciplinary courses:

PSYC1001. Introduction to psychology (6 credits); and

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

Note 1: PSYC1001 & PSYC1004 are compulsory for psychology major. PSYC1004 is offered to either year one or year two students of 4-year curriculum. However, places are limited for year two students of 4-year curriculum.

Candidates who minor in Psychology must complete the disciplinary course PSYC1001.

ii) Two pre-requisite courses from the following five units, but not more than one from a single unit (12 credits):

Faculty of Social Sciences

Geography

Politics and Public Administration

Social Work and Social Administration

Sociology

b) Advanced courses (72 credits for major; 30 credits for minor)

i) Core courses (36 credits)

1) **Compulsory** course:

PSYC2060. Research and quantitative methods in psychology, and

2) 2 courses from the **First Stream**:

- PSYC2007. Cognitive psychology (6 credits)
- PSYC2022. Biological psychology (6 credits)
- PSYC2051. Perception (6 credits)

and

3) 3 courses from the **Second Stream**:

- PSYC2009. Life-span developmental psychology (6 credits)
- PSYC2019. Psychology of personality (6 credits)
- PSYC2020. Fundamentals of social psychology (6 credits)
- PSYC2062. Introduction to psychopathology (6 credits)

ii) Disciplinary electives (6 credits for major; 30 credits for minor)

Note 2: These disciplinary electives are advanced level courses at Level 2000, 3000 and 4000. Students are required to take at least 6 credits of disciplinary electives (excluding those 36 credits counted towards the core courses) for major, and 30 credits for minor.

iii) Capstone experience (*for major only*)

1 advanced lab course from the **Third Stream** to fulfill capstone experience (taken in year 3 or year 4):

- PSYC3051. Advanced personality psychology
- PSYC3052. Advanced social psychology (6 credits)
- PSYC3053. Advanced research in I/O psychology (6 credits)
- PSYC3054. Human neuropsychology (6 credits)
- PSYC3061. Advanced issues in perception (6 credits)
- PSYC3064. Advanced developmental psychology (6 credits)
- PSYC3068. Advanced cognitive Psychology (6 credits)

Note 3: An Advanced Lab course is required for taking Thesis in Psychology. You may be invited by the Department to take Thesis in Psychology in year 4 if you meet the criterion for taking this course. Please see "[An Overview of Thesis in Psychology](#)" on the Psychology Departmental [webpage](#).

iv) Social Innovation and Global Citizenship (24 credits)

For BSocSc students (Faculty off-campus learning courses)

Students are required to undertake 24 credits of off-campus learning under the twin themes Social Innovation and Global Citizenship as a condition of graduation. To fulfil the Social Innovation requirement, candidates must complete FOSS2018. To fulfil the Global Citizenship

requirement, candidates must either complete FOSS2019 or a combination of **two** 6-credit endorsed experiential learning courses, or undertake 12 credits of advanced courses on exchange studies or on an overseas summer programme approved by the Faculty. Candidates may complete a maximum of 30 credits of experiential learning (internship) during their studies.

FOSS2018. Social Innovation internship (12 credits)

FOSS2019. Global Citizenship internship (12 credits)

FOSS2022. Global intensive learning programme (6 credits)

FOSS2023. Global Social Impact lab (6 credits)

For non-BSocSc students

Students are required to undertake 24 credits of courses listed under the Faculty of Social Sciences syllabuses, including the social sciences and non-social sciences courses.

Note 4: The selection of courses and special topics in psychology available in a particular year is subject to the approval of the Head of the Department. In course registration, students should pay special attention to the prerequisite of courses as specified in the syllabuses. In exceptional cases these may be waived. **For course description of each course, please [click here](#) for details.**

Note 5: Please pay attention to the **updated** membership requirement of Hong Kong Psychological Society at https://hkps.org.hk/en/membership/membership_guide/ from the question “Who can become member?” Please also read carefully the [Letter from the Head of Department dated 04 Dec 2013](#) concerning the membership of HKPS if students are planning to take further study.

Updated January 2018

Rev Jul 2018

Rev Sep 2020

Rev Jul 2021

Cognitive Science (Major/Minor) - For students admitted in or after 2021/2022

Cognitive Science is the scientific study of the mind and mental phenomena. For example, what is consciousness? Do other animals have language? Could a computer ever think? What is mental imagery? Answering these questions relies upon an interdisciplinary perspective, and so Cognitive Science adopts methodologies from computer science, psychology, philosophy, linguistics, and neuroscience. Students who take this major will be exposed to research in all these disciplines, and will integrate results from across the different approaches in order to more fully understand the complexities of the mind and the brain.

A core aspect of the programme is to ensure that students learn skills from different research traditions; for example, a Cognitive Science student could be expected to learn how to run psychological experiments, apply formal linguistic analysis, or critique a philosophical argument. In doing so, this program will develop students who have a variety of formal intellectual skills, and can bring those skills to bear on a range of issues in our increasingly technological world. Students with a Major in Cognitive Science will also be able to act as a bridge between those who are technically skilled and those who seek to understand technology, by placing formal computational analysis within the context of human thought and behaviour.

I. Objectives

This program aims to:

- introduce students to critical issues within the interdisciplinary field of Cognitive Science, particularly related to the core disciplines of Psychology, Computer Science, Linguistics, and Philosophy;
- provide students with training in research techniques that are used to study the mind, thinking, and intelligence, from an interdisciplinary perspective;
- develop skills in critical analysis and reasoning; and
- provide students opportunities for tackling novel problems, and give them experience of addressing issues that are ill-defined.

II. Programme structure

Components	No. of credits	
	Major	Minor
a) Introductory courses		
i) disciplinary	12 (COMP1117/ LING1000 / LING2034 / PHIL1012 / PSYC1001)	12 (COMP1117/ LING1000 / LING2034 / PHIL1012 / PSYC1001)
ii) pre-requisites*	12 (2 courses from 9 units)	-
b) Advanced courses		
i) core courses	12 (PSYC2066 & PSYC2067)	12 (PSYC2066 & PSYC2067)
ii) disciplinary electives	30 (COMP / LING / PHIL / PSYC)	12 (COMP / LING / PHIL / PSYC)
iii) capstone experience	6 (PSYC4068)	-
Total	72	36

**Candidates who opt to declare two major programmes offered by the Faculty of Social Sciences should avoid selecting overlapping pre-requisites.*

Candidates who wish to declare a major (72 credits) or minor (36 credits) in Cognitive Science must complete:

a) Introductory courses (24 credits for major; 12 credits for minor)

i) Two disciplinary courses from the following list:

- COMP1117. Computer programming (6 credits)
- LING1000. Introduction to language (6 credits)
- LING2034. Psycholinguistics (6 credits)
- PHIL1012. Mind and knowledge: An introduction to philosophy (6 credits)
- PSYC1001. Introduction to psychology (6 credits)

- ii) Two pre-requisite courses from the following nine units, but not more than one from a single unit (12 credits):

Faculty of Social Sciences

Geography

Politics and Public Administration

Psychology

Social Work and Social Administration

Sociology

Computer Science

Linguistics

Philosophy

b) Advanced courses (48 credits for major; 24 credits for minor)

- i) Core courses (12 credits for both major and minor)

PSYC2066. Foundations of cognitive science (6 credits)

PSYC2067. Seminars in cognitive science (6 credits)

- ii) Disciplinary electives (30 credits for major; 12 credits for minor)

Candidates who **major** in this programme must complete at least 5 elective courses from the course list below. Candidates who **minor** in this programme must complete at least 2 elective courses from the course list below. The following courses are grouped by subject area; students are free to specialize within one area or select courses from different areas. In course registration, students should pay special attention to the prerequisite of individual course as specified in the syllabus.

Philosophy of Mind

PHIL2220.	The mind
PHIL2225.	The philosophy of artificial intelligence
PHIL2230.	Philosophy and cognitive science
PHIL2245.	Philosophy and emotions
PHIL2410.	Mind and language in Chinese thought
PHIL2510.	Logic
PHIL2520.	Philosophy of logic
PHIL2610.	Philosophy of language
PHIL2651.	Bad language: the philosophy of non-ideal language use

Artificial Intelligence and Computational Approaches

COMP3270.	Artificial intelligence
COMP3314.	Machine learning
COMP3407.	Scientific computing
LING2067.	Natural language processing
LING2068.	Computational approaches to language
PSYC3061.	Advanced issues in perception

Brain and Cognition

LING2053.	Language and the brain
LING2069.	Origins of language
PSYC2007.	Cognitive psychology
PSYC2022.	Biological psychology
PSYC2051.	Perception
PSYC3054.	Human neuropsychology
PSYC3068.	Advanced cognitive psychology

Mind and Language

LING2036.	Child language
LING2037.	Bilingualism
LING2048.	Language and cognition
LING2055.	Reading development and reading disorders
LING2074.	Introduction to second language research
LING3005.	Advanced topics in reading, language and cognition
LING3007.	Seminar in Psycholinguistics
PHIL2075.	The semantics/pragmatics distinction
PHIL2260.	Seminar in mind and language

iii) Capstone experience (for major only)

PSYC4068.	Research project in cognitive science (6 credits)
-----------	---------------------------------------------------

Rev Jul 2017

Amended Jul 2018

Reamended Jun 2020

Reamended Oct 2020

Reamended May 2021

Neuroscience (Major/Minor)-For students who newly declare in or after 2021/2022

Important notes about choosing Neuroscience as second major or minor

- a. Declaration of Neuroscience major/minor is not available via the SIS during course selection period or add/drop period. Students who would like to declare major/minor in Neuroscience are required to submit an [application form](#) to the Department of Psychology one week before the end of add/drop period each semester. Successful candidates will be informed about the declaration result after add-drop period each semester.
- b. For FAQ on the neuroscience programme, please click [here](#).
- c. For enquiries, please contact Ms Joey Lau at ugpsyc@hku.hk

Neuroscience is the interdisciplinary study of the structure and function of the nervous system. This programme focuses on the neural mechanisms underlying behavior cognition and perception in humans, both in health and disease (although students will be exposed to findings from animal studies as well). Students will be given rigorous academic training, from a variety of disciplines, to prepare them for further studies and research, as well as to be able to eventually translate the relevant knowledge into practical applications. Apart from academic careers and further medical training in areas such as cognitive neuroscience, psychology, neurology, and psychiatry, other career paths include computer science, education, artificial intelligence, public policy, marketing, medicine, and pharmacology etc., as they all benefit from a basic training in neuroscience.

I. Objectives:

The mission of this Neuroscience programme is to provide high quality undergraduate education in neuroscience using a multi-disciplinary approach. This programme combines basic science with more specialized courses in neuroscience and psychology. Students can take this neuroscience programme as a second major, or as a minor in addition to their declared primary major. The objectives of the programme are set out below:

- a) provide students with exposure to and a fundamental understanding of neuroscience and its related fields in a multi-disciplinary approach
- b) develop students' ability to critically analyze scientific research
- c) equip students with basic theoretical and methodological training that enable their successful pursuit of further study at the postgraduate level in neuroscience or related disciplines
- d) enhance students' awareness of social issues as the neuroscience training will equip them with the background to understand controversies in neuroscience or related disciplines.

II. Programme Structure

Components	No. of Credits	
	Major	Minor
a) Introductory courses		
i) disciplinary	6	6
ii) pre-requisites*	12	-
b) Advanced courses		
iii) core courses	24	24
iv) disciplinary electives	24	6
v) capstone experience	6	-

* Candidates who opt to declare two major programmes offered by the Faculty of Social Sciences should avoid selecting overlapping pre-requisites.

Notes:

- A course will be counted as fulfilling the major/minor requirement only if it is not taken as fulfilling another curriculum requirement.
- The major# option/minor option is open to all HKU undergraduates. Candidates are required to have Level 3/above in HKDSE Biology, Chemistry or Combined Science OR equivalent courses (subject to the approval from the Department of Psychology), before enrolling in the neuroscience core courses.
- It is preferable for the candidates to have knowledge in basic sciences or computer programming prior to the enrollment in neuroscience courses.

(#Neuroscience programme could only be taken as a multidisciplinary / second major)

Candidates who wish to declare a major (72 credits) or minor (36 credits) in Neuroscience must complete the following. In view of the pre-requisite requirements for advanced disciplinary electives which will have implications for students' course choice and study load, students should approach the Department of Psychology if they intend to declare the major/minor so that proper academic advising and mentoring can be given. Prior approval from the Department is required before students can declare the major/minor.

a) Introductory courses (18 credits for major, 6 credits for minor) ^{Note@}

i) All candidates must complete the following disciplinary course:
 PSYC1001. Introduction to psychology (6 credits)

ii) Pre-requisite courses (12 credits)

Candidates who major in this programme must complete two pre-requisite courses at introductory level from any faculties, bearing in mind the pre-requisite requirements for courses listed in the "Disciplinary Electives", and take the relevant pre-requisite courses as necessary.

For non-BSocSc students, they shall select PSYC1004 Introduction to quantitative methods in psychology to fulfill the pre-requisite requirement, and make up the rest 6 credits by taking any introductory course of which should be the pre-requisite course of an advanced course in neuroscience curriculum from any faculties.

Students may also consider taking the course COMP1117 Computer programming to better prepare for further research in the capstone experience or thesis in neuroscience.

Note@: Should there be an overlap of introductory courses for the two majors, candidates will be exempted from such requirements for neuroscience major and are required to make up any credit shortfall arising from such double-counting by taking disciplinary electives.

- b) Advanced courses (54 credits for major, 30 credits for minor)
 - i) Core courses (24 credits for both major and minor)

Candidates who major or minor in this programme must complete the following courses.

PSYC2101.	Foundations of neuroscience I (6 credits)
PSYC2103.	Foundations of neuroscience II (6 credits)
PSYC2111.	Neurobiological basis of psychological issues (6 credits)
PSYC3054.	Human neuropsychology (6 credits)

- ii) Disciplinary electives (24 credits for major, 6 credits for minor) ^{Note#}

Candidates who **major** in this programme must complete 24 credits from the course list below in which 12 credits must be from the stream of “Neuroscience electives” and the rest of the credits from “Other electives”. These 24 elective credits must be offered by at least two different departments.

Candidates who **minor** in this programme must complete at least 1 elective from either stream of “Neuroscience electives” or “Other electives”. These 6 elective credits must be offered outside the Department of Psychology.

In the interest of deepening the understanding of subject matters taught in the field of Neuroscience, candidates who wish to minor in Neuroscience may also take the introductory course PSYC1004 Introduction to quantitative methods in psychology as free elective in addition to the completion of the disciplinary electives.

In sum, the following courses offered by different departments are grouped under two streams. Candidates who major/minor in Neuroscience are required to complete at least 24/6 credits from the courses listed below and these elective credits must include at least one disciplinary elective course offered outside the Department of Psychology.

First Stream “Neuroscience electives”

PSYC2102.	Seminar in neuroscience (6 credits)
PSYC2110.	Developmental neuroscience (6 credits)
PSYC2112.	Research internship in neuroscience (6 credits) *
PSYC2113.	Introduction to brain imaging (6 credits)
PSYC4101.	Thesis in neuroscience (12 credits) *
BBMS3011.	Molecular neuroscience (6 credits)

*Internship/thesis (For major only)

Second Stream “Other electives”

BIOL3105.	Animal physiology & environmental adaptation (6 credits)
BBMS2003.	Human genetics (6 credits)
BMED3501.	Medical imaging (6 credits)
PSYC2007.	Cognitive psychology (6 credits)
PSYC2051.	Perception (6 credits)

Note#: In course registration, students should pay special attention to the prerequisite of courses as specified in the syllabuses. They must complete relevant pre-requisite courses before taking corresponding disciplinary electives. In exceptional cases these maybe waived.

iii) Capstone experience (for major only)

Candidates who major in this programme must complete one of the following courses:

PSYC3061.	Advanced issues in perception (6 credits)
PSYC3068.	Advanced cognitive psychology (6 credits)
PSYC4102.	Capstone project in neuroscience (6 credits)

Course Descriptions for PSYC courses

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

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

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

PSYC2101. Foundations of neuroscience I (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

PSYC2103. Foundations of neuroscience II (6 credits)

This course complements the first course in this series, Foundations of Neuroscience I, covering the fundamental principles of neuroscience. This second course will familiarise students with

principles related to chemical control of the brain (e.g., homeostasis, hypothalamic control, and relevance to behaviour), the autonomic nervous system, and diffuse modulatory systems (e.g., noradrenergic, serotonergic, dopaminergic, and cholinergic regulation). This course will culminate with a series of introductory programming modules to prepare students for advanced research at the undergraduate and graduate levels. Priority will be given to students majoring/minoring in neuroscience.

Assessment: 100% coursework.

Prerequisite: PSYC1001 and 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. 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.

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.

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.

Assessment: 100% coursework

Prerequisites: PSYC1004 and either PSYC2007 or PSYC2051.

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)

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

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: Pass in BBMS1001 Introduction to Human Anatomy and Physiology or BIOC1600 Perspectives in Biochemistry

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. Latest techniques in neuroscience research, such as the use of viral-mediated expression of transgenes, optogenetics, chemogenetics, and induced pluripotent stem cells, will be introduced. Lectures, tutorials, presentation of research papers and research-oriented practical training are emphasized so as to expose students to different areas in molecular neuroscience through multiple learning activities.

Prerequisite: Pass in any one of these courses: BBMS1001 Introduction to Human Anatomy and Physiology, BIOL1110 From Molecules to Cells, BIOC2600 Basic Biochemistry, BIOL2220 Principles of Biochemistry, BMED2301 Life sciences I (Biochemistry), MEDE2302 Life Sciences II (Cell Biology & Physiology), PSYC2101 Foundations of Neuroscience, PSYC2110 Developmental Neuroscience.

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

April 2017

Amended July 2018

re-amended July 2019

re-amended Aug 2020

re-amended May 2021

Human Resource Management Minor – FSS

I. Objectives

To be able to manage a culturally and psychologically diverse workforce, one must not only possess the requisite management skills but also be culturally sensitive. To prepare our students for this, the revamped inter-disciplinary minor in Human Resource Management will include courses that contain elements on wellness, global citizenship, and cultural sensitivity.

II. Programme structure

	No. of credits
Component	Minor
a) Introductory courses - pre-requisites	0 to 12
b) Advanced courses - disciplinary electives	24 to 36

Candidates who minor in Human Resource Management are required to complete

- a) *at least 36 credits of courses listed under the programme from at least two departments;*
- b) *at least 24 credits of which are advanced courses; and*
- c) *not more than 12 credits of which are introductory courses to meet the prerequisite requirement of taking the advanced courses.*

Note: An introductory course will be counted as fulfilling the HRM minor requirement only if (1) it is not taken as fulfilling another curriculum requirement; (2) it is taken as a prerequisite for an advanced course of the following list; and (3) that advanced course is subsequently successfully completed.

In course registration, students should pay special attention to the pre-requisite of courses as specified in the syllabi.

- MGMT3403. Leadership (6 credits)
- MGMT3404. Cross-cultural management (6 credits)
- MGMT3429. Strategic human resources management (6 credits)
- MGMT3434. Human resource: theory and practice (6 credits)
- MGMT3475. Current topics in human resource management (6 credits)
- ECON2232. Economics of human resources (6 credits)
(Prerequisite of ECON2232: ECON1210)
- POLI3025. Managerial skills in public organizations (6 credits)
- POLI3037. Managing people in public organizations (6 credits)
- POLI3065. Public organization and management (6 credits)
- PSYC2002. Psychological testing and measurement (6 credits)

- (Prerequisite of PSYC2002: PSYC1001)
- PSYC2005. Introduction to counseling and therapeutic psychology (6 credits)
(Prerequisite of PSYC2005: PSYC1001)
- PSYC2020. Fundamentals of social psychology (6 credits)
(Prerequisite of PSYC2020: PSYC1001)
- PSYC2063. Industrial/organizational psychology (6 credits)
(Prerequisite of PSYC2063: PSYC1001)
- PSYC2065. Health psychology (6 credits)
(Prerequisite of PSYC2065: PSYC1001)
- PSYC3053. Advanced research in industrial/organizational psychology (6 credits)
(Prerequisite of PSYC3053: PSYC1001 and PSYC1004 and PSYC2063)
- SOWK3058. Managing people in human services (6 credits)
- SOWK3060. Career skills training (6 credits)
- SOWK4055. Management in human service organizations (6 credits)
-

Amended Jul 2018

Re-amended Jul 2019

Re-amended May 2021