

LIFE SCIENCES (LISC)

LISC 171 Social and Physical Determinants of Health and Disease Units: 3.00

This course will use an evidence-based approach to address the impact of social and environmental exposures and circumstances on health at both an individual and population level.

Requirements: Prerequisite Registration in a LISC or BCHM Plan. Exclusion GLPH 171; HLTH 101; HLTH 102; GPHY 339.

Offering Faculty: Faculty of Health Sciences

LISC 173 History and Philosophy of Health and Healthcare Units: 3.00

Multidisciplinary course organized around five major fields of scientific endeavour: anatomy, physiology, pathology, pharmacology, and population and global health

Requirements: Prerequisite Registration in a LISC or BCHM Plan. Exclusion IDIS 173 (formerly BMED 173/3.0); PHIL 201.

Offering Faculty: Faculty of Health Sciences

LISC 270 Fundamentals of Health Research Methodology Units: 3.00

Introduction to fundamentals of health-related research methods with a focus on developing critical reasoning skills. Using examples from a wide range of health-related research topics, students will gain familiarity and skills to assess primary literature at a basic level.

Requirements: Pre Lvl 2 one from STAT263; BIOL243; STAM200; CHEE209; ECON250; GPHY247; KNPE 251; NURS323; POLS385; PSYC202; SOCY211; STAT267; STAT367; COMM162 or permission from the instructor. Exclusions No more than 3 units in BMED270; SOCY210; GPHY240; LISC270
*Please see 20/21 Courses of Instructions for full exclusion list

Offering Faculty: Faculty of Health Sciences

LISC 271 Global Population and Health Units: 3.00

Emphasis will be placed on population health, instead of the health of individuals. Population and Global health prioritize partnerships and resource sharing, instead of unilateral relationships, and focuses on advocacy.

Requirements: Prerequisite (Level 2 or above and registration in a LISC or BCHM Plan) or permission of the Department. Exclusion GLPH 271.

Offering Faculty: Faculty of Health Sciences

LISC 300 The Process of Discovery in the Biomedical Sciences Units: 3.00

Teams of students will identify the critical questions that must be answered to resolve major controversies or gaps of knowledge that impede the application of fundamental principles in the Life Sciences to health care. The end product will be a written report and public presentation that is accessible to a wide audience.

NOTE Restricted to students registered in Level 3 or above in a (LISC Specialization or Major Plan or BCHM Specialization or Major Plan or BIOL Plan or PSYC Plan).

NOTE Limited enrollment available to BIOL and PSYC students.

Learning Hours: 126 (6 Lecture, 6 Seminar, 33 Group Learning, 33 Online Activity, 48 Private Study)

Requirements: Prerequisite Minimum 3rd year (Level 3) standing and registration in one of (LISC Honours Plan; BCHM Honours Plan; BHSc Program; BIOL Plan; PSYC Plan).

Offering Faculty: Faculty of Health Sciences

LISC 373 Health Ethics, Law and Policy Units: 3.00

Introduction to ethical, legal and regulatory requirements for people working in the health professions.

Requirements: Prerequisite Level 3 or above and registration in a LISC or BCHM Plan. Exclusion IDIS 373 (formerly BMED 373/3.0).

Offering Faculty: Faculty of Health Sciences

LISC 383 Advanced Research Methodologies Units: 3.00

Students will develop an understanding of the three primary types of research employed in health sciences: Experimental quantitative, observational quantitative, and qualitative

Requirements: Prerequisite Level 3 or above and registration in a LISC or BCHM Plan and (HSCI 270 [formerly BMED 270/3.0] or LISC 270 or EPID 301 or HLTH 252 or PSYC 203 or SOCY 210) or permission of the instructor. Exclusion HSCI 383 (formerly BMED 383/3.0).

Offering Faculty: Faculty of Health Sciences

LISC 385 Biohacking and Gerontechnology Units: 3.00

Examines technologies that are in use/evolving in the aging support and anti-aging arsenal, including gerontechnology and anti-aging technologies.

Requirements: Prerequisite (Level 3 or above and registration in a LISC or BCHM Plan) or permission from the instructor. Exclusion GLPH 385.

Offering Faculty: Faculty of Health Sciences



LISC 387 Sex Differences in Health and Disease Units: 3.00

This course will focus on the role of sex/gender related differences in etiology, pathogenesis and immune responses of human diseases. Conventional and advanced tools in diagnosis and treatment of diseases affecting men and women.

Learning Hours: 120 (24 Lecture, 12 Seminar, 36 Group Learning, 48 Private Study)

Requirements: Prerequisite (Level 3 and registration in a LISC/BCHM Major or Specialization Plan or BHSC program) and (a GPA of 2.5) and one of (MICR 270/3.0; MICR 360/3.0; MICR 386/3.0) and BCHM 218/3.0. Exclusion REPD 387/3.0*.

Offering Faculty: Faculty of Health Sciences

LISC 390 Integrated Life Science Laboratory I Units: 3.00

Students will learn a number of different laboratory techniques, developing skills in scientific methodology, data acquisition, and interpretation. Students will also attain skills in critical thinking and hypothesis development, as well as gain experience in writing a laboratory report, and participating in research presentations.

NOTE Priority will be given to students registered in a LISC Specialization Plan.

Requirements: Prerequisite (PHGY 210/6.0 or PHGY 214/6.0 or [PHGY 215 and PHGY 216]) and (LISC 391 or PHAR 230 or PHAR 340 or PHAR 370 [formerly PHAR 270/3.0]). Exclusion BMED 384.

Offering Faculty: Faculty of Health Sciences

LISC 391 Integrated Life Sciences Laboratory Units: 3.00

An intermediate laboratory course on the Physiology and Pharmacology of Cardiorespiratory Sciences and Neuroscience. Students develop skills to acquire and evaluate data and methods. Critical thinking skills are used for the development of arguments, assumptions, and information required to evaluate concepts and hypotheses.

NOTE Priority will be given to students registered in a LISC Specialization Plan.

Learning Hours: 108 (36 Laboratory, 36 Online Activity, 36 Private Study)

Requirements: Prerequisite PHGY 210/6.0 or PHGY 214/6.0 or (PHGY 215 and PHGY 216). Exclusion BMED 384.

Offering Faculty: Faculty of Health Sciences

LISC 400 Neuro-Immune Interactions in Health and Disease Units: 3.00

This course is designed to advance critical thinking skills, as well as oral and written communication skills, via an inquiry-based approach in neuroimmunology. Teams of students identify the critical cellular and molecular processes regulating neuro-immune interactions in health and disease.

Learning Hours: 120 (24 Group Learning, 36 Individual Instruction, 36 Online Activity, 24 Private Study)

Requirements: Prerequisite Minimum 3rd year (Level 3) standing, registration in a LISC/BCHM/BHSc Major or SSP, a GPA of 2.5, and one of ([PHGY 290/3.0 and MICR 270/3.0]; LISC 300/3.0; NSCI 323/3.0; NSCI 324/3.0; MICR 360/3.0; MICR 386/3.0).

Offering Faculty: Faculty of Health Sciences

LISC 426 Current Concepts in Sensorimotor Neuroscience Units: 3.00

A multi-disciplinary course exploring advanced concepts of sensorimotor integration from a systems neuroscience perspective. Topics include the neural basis of perception, action selection, reinforcement learning, and motor control. Students will learn to critically evaluate scientific literature and present these concepts to classmates.

Requirements: Prerequisite Level 4 or above and registration in the LISC Major or Specialization Plan and a cumulative GPA of 2.50 or higher and (NSCI 323 or NSCI 324).

Offering Faculty: Faculty of Health Sciences

LISC 471 Advanced Global and Population Health Units: 3.00

Students will take knowledge gained from GLPH 271/3.0 or LISC 271/3.0, and apply it in this course, which will focus on more advanced topics of population and global health, as well as provide experiential learning.

Requirements: Prerequisite (Level 4 or above and registration in a LISC or BCHM Plan and [LISC 271/3.0 or GLPH 271/3.0]) or permission of instructor. Exclusion GLPH 471/3.0.

Offering Faculty: Faculty of Health Sciences

LISC 483 Advanced Topics in Infectious Disease Units: 3.00

This course examines basic principles of infectious diseases, including epidemiology, pathophysiology, transmission, and control of infectious agents, with an emphasis on antimicrobial therapy and resistance.

Requirements: Prerequisite ([Level 4 or above and registration in a LISC or BCHM Plan] and [MICR 221 or MICR 270 or MICR 271 or MICR 320]) or permission of the instructor. Exclusion BMED 483.

Offering Faculty: Faculty of Health Sciences



LISC 493 Global Health Practice Units: 3.00

This course will strengthen students' abilities to respond to a community's health needs through a practical service learning position with an approved local or international community health organization

Requirements: Prerequisite Level 4 or above and registration in a LISC or BCHM Plan and GLPH 271. Exclusion GLPH 493.

Offering Faculty: Faculty of Health Sciences

LISC 594 Independent Study Units: 3.00

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LISC 595 Independent Study Units: 6.00

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