

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 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 LISC or BCHM plan Exclusion BMED173; PHIL201

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 and registered in a (LISC or BCHM) plan Exclusion GLPH271

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 (6L;6S;33G;33O;48P)

Requirements: PREREQUISITE Level 3 and above and [registration in a LISC or BCHM Honours Plan (LISC-M-BSH; LISC-P-BSH; BCHM-M-BSH; BCHM-P-BSH) or BIOL Plan or PSYC Plan].

Offering Faculty: Faculty of Health Sciences

LISC 322 Fundamentals Of Neuroscience Units: 3.00

Requirements: PHGY212 OR PHGY210 OR PHGY214 OR BIOL338 OR PSYC271

Offering Faculty: Faculty of Arts and Science

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 and registration in a LISC or BCHM plan Exclusion BMED373

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 Lvl 3 registration in a LISC or BCHM plan and (BMED270 or LISC 270 EPID301 or HLTH252 or PSYC203 or SOCY210) or permission of the instructor Exclusion BMED383

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 and registration in a LISC or BCHM plan or permission from the instructor. Exclusion GLPH385

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 or PHGY 214 or [PHGY 215 and PHGY 216]; PHAR 230 or PHAR 270 or PHAR 340 or LISC 391 Exclusion No more than 3.0 units from LISC390; 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 (36Lb;36O;36P)

Requirements: Prerequisite (PHGY 215 and PHGY 216) or PHGY 210 or PHGY 214. Exclusion BMED384

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: PREREQUISITES Level 4 and NSCI 322/3.0 or LISC 322/3.0 or NSCI 323/3.0 or NSCI 324/3.0 and reg. in LISC Major or Spec. Plan and (a GPA of 2.5)

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 and registration in a LISC or BCHM plan and (LISC 271 or GLPH 271) or permission of instructor. Exclusion GLPH 471

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 and registration in a LISC or BCHM plan and one of (MICR 320; MICR 270; MICR 271; MICR 221), or permission from the instructor. Exclusion BMED 483/3.0

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 and registration in a LISC or BCHM plan and GLPH271 Exclusion GLPH493

Offering Faculty: Faculty of Health Sciences

LISC 594 Independent Study Units: 3.00

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LISC 595 Independent Study Units: 6.00

Offering Faculty: Faculty of Health Sciences

LISC 596 Independent Study Units: 12.00

Offering Faculty: Faculty of Health Sciences

LISC 598 Independent Study Units: 9.00

Offering Faculty: Faculty of Health Sciences