

COMMUNITY HEALTH AND EPIDEMIOLOGY (EPID)

EPID 301 Principles of Epidemiology Units: 3.00

Basic methods involved in researching the distribution and determinants of health/disease in populations. Core principles of epidemiology are examined, as are the various epidemiological approaches to study design. The latter include descriptive (cross-sectional and ecological), observational (case-control and cohort), and experimental (randomized controlled trials) approaches.

Learning Hours: 117 (13.5L, 13.5T, 6 Group Learning, 12 Online Activity, 72 Private Study)

Requirements: Prerequisite BIOL 243 or CHEE 209 or COMM 162 or ECON 250 or GPHY 247 or KNPE 251 or NURS 323 or POLS 285 (formerly POLS 385/3.0) or PSYC 202 or SOCY 211 or STAM 200 or STAT 263 or STAT 267 or STAT 269 or STAT 367. Exclusion HSCI 270 (formerly BMED 270/3.0); HLTH 323.

Offering Faculty: Faculty of Health Sciences

Course Learning Outcomes:

1. Define and explain the main terms used in epidemiology (concepts, measures).
2. Recognize and distinguish the main study designs (cross-sectional and correlational, case control, cohort, randomized controlled trial and systematic reviews) used to identify causes of disease and to evaluate the effectiveness of clinical and public health interventions.
3. Calculate and interpret the main measures used in descriptive and analytic studies (rates, estimates of association).
4. Identify and evaluate the main sources of error related to interpreting the epidemiological findings (chance, bias, confounding).
5. Recognize and explain the practical applications of epidemiology (outbreaks, surveillance, prevention, screening).

EPID 401 Biostatistical Data Analysis Units: 3.00

An applied statistics course covering practical topics in tests and confidence intervals for single and multiple samples, ANOVA, linear regression, correlations, methods for categorical data, and nonparametric methods. The lab uses statistical software. The course emphasizes analyzing data arising in life sciences using practical statistical methods.

Requirements: Prerequisite Level 4 or above and registration in the LISC/BCHM Specialization or Major Plan, or BHSc program, and a cumulative GPA of 2.50 or higher, and one of (BIOL 243/3.0; COMM 162/3.0; ECON 250/3.0; HSCI 190/3.0; PSYC 202/3.0; SOCY 211/3.0; STAM 200/3.0; STAT 263/3.0).

Offering Faculty: Faculty of Health Sciences

EPID 499 Research Project in Epidemiology Units: 12.00

An examination of an epidemiological research question chosen by the student with guidance from the supervisor. Project will involve review of the literature, development of a proposal, data collection and/or processing, data analysis, a written report and oral presentation. Students will be required to attend and report on seminars of their choosing from a number of venues across campus. Limited enrolment. NOTE Acceptance by a supervisor required prior to registration.

NOTE Students whose research requires the care and/or handling of animals must also complete the Introductory Animal Care Course and if required the appropriate Animal Use workshops through the Office of the University Veterinarian.

Learning Hours: 480 (288 Laboratory, 24 Group Learning, 24 Individual Instruction, 144 Private Study)

Requirements: Prerequisite Level 4 and registration in the LISC Specialization Plan and a cumulative GPA of 2.50 or higher and (HSCI 270/3.0 or EPID 301/3.0 or HLTH 323/3.0). Corequisite EPID 401/3.0. Exclusion Maximum 12.0 units from: ANAT 499/12.0; BCHM 421/6.0; BCHM 422/6.0; BCHM 594/3.0; BCHM 595/6.0; BCHM 596/12.0; CANC 499/12.0; DISC 591/3.0; DISC 592/3.0; DISC 593/3.0; DISC 594/3.0; DISC 598/6.0; DISC 599/6.0; EPID 499/12.0; EPID 595/6.0; HSCI 591/3.0; HSCI 592/3.0; HSCI 593/3.0; HSCI 594/3.0; HSCI 595/3.0; HSCI 598/6.0; HSCI 599/6.0; LISC 499/12.0*; LISC 594/3.0; LISC 595/6.0; LISC 596/12.0; LISC 598/9.0; MICR 499/12.0; NSCI 499/12.0; PATH 499/12.0; PATH 595/6.0; PHAR 499/12.0; PHGY 499/12.0; REPD 499/12.0.

Offering Faculty: Faculty of Health Sciences

**EPID 595 Independent Study Units: 6.00**

Exceptionally qualified students entering their fourth-year may take an independent study provided it has been approved by the Program Office(s) principally involved. The Program Office may approve an independent study without permitting it to be counted toward a concentration in that Program Office. It is, consequently, the responsibility of a student taking an independent study to ensure that the concentration requirements for their degree will be met. NOTE Requests for an independent study must be received one month before the start of the first term in which the student intends to undertake the independent study.

Requirements: Prerequisite Permission of the Program Office(s) principally involved. Exclusion Maximum 12.0 units from: ANAT 499/12.0; BCHM 421/6.0; BCHM 422/6.0; BCHM 594/3.0; BCHM 595/6.0; BCHM 596/12.0; CANC 499/12.0; DISC 591/3.0; DISC 592/3.0; DISC 593/3.0; DISC 594/3.0; DISC 598/6.0; DISC 599/6.0; EPID 499/12.0; EPID 595/6.0; HSCI 591/3.0; HSCI 592/3.0; HSCI 593/3.0; HSCI 594/3.0; HSCI 595/3.0; HSCI 598/6.0; HSCI 599/6.0; LISC 499/12.0*; LISC 594/3.0; LISC 595/6.0; LISC 596/12.0; LISC 598/9.0; MICR 499/12.0; NSCI 499/12.0; PATH 499/12.0; PATH 595/6.0; PHAR 499/12.0; PHGY 499/12.0; REPD 499/12.0.

Offering Faculty: Faculty of Health Sciences