Biostatistics 3100A
BIOSTATISTICAL METHODS FOR EPIDEMIOLOGY
Epidemiologists work with categorical data (e.g. healthy, sick, dead) and with time to event data (e.g. time to death). This course introduces analytic methods of such data, expanding on aspects of study design and analysis introduced in Epidemiology 2200A/B. It requires a prior introduction to analyses of continuous data.
Prerequisite(s): Biology 2244A/B or Statistical Sciences 2244A/B, and Epidemiology 2200A/B, with a minimum mark of 60% in each.
Extra Information: 2 lecture hours and 1 laboratory hour.
Course Weight: 0.50

Biostatistics 3110B
MULTIVARIABLE METHODS
This course covers frequently used multivariable regression models (linear for continuous outcomes and logistic for binary outcomes) in health research. By the end of the course students will (i) understand and critique applications of regression models appearing in the biomedical literature and (ii) carry out their own analyses.
Prerequisite(s): Biostatistics 3100A and Epidemiology 3200A, with a minimum mark of 60% in each.
Extra Information: 2 lecture hours and 1 laboratory hour.
Course Weight: 0.50

Biostatistics 3400A
INTRODUCTION TO BIOSTATISTICAL COMPUTING
This course introduces students to the use of both commercial software (i.e., SAS and Stata) and open-source software (R via RStudio) for data management, exploratory data analysis, data generation, and inferential statistical analysis. Examples will be used throughout the course to illustrate the advantages and disadvantages of each software.
Prerequisite(s): Biology 2244A/B or Statistical Sciences 2244A/B, and Epidemiology 2200A/B with marks of at least 60% in each; and registration in a module in Epidemiology and Biostatistics.
Extra Information: 2 lecture hours, 1 laboratory hour.
Course Weight: 0.50

Epidemiology 2200A/B
INTRODUCTION TO EPIDEMIOLOGY
The calculation and interpretation of basic epidemiologic measures, the strengths and weaknesses of various study designs, and the critical appraisal of published medical and epidemiologic studies.
Pre-or Corequisite(s): One of the following: Biology 2244A/B, Health Sciences 3801A/B, Psychology 2811A/B, Statistical Sciences 2035, Statistical Sciences 2141A/B, Statistical Sciences 2143A/B, Statistical Sciences 2244A/B, Statistical Sciences 2858A/B, the former Psychology 2810.
Extra Information: 2 lecture hours, 1 tutorial hour.
Course Weight: 0.50

Epidemiology 3200A
EPIDEMIOLOGY II
An examination of the major research issues in epidemiology studies focusing on principal sources of bias (sampling, measurement, and confounding) and other technical issues (e.g. effect-measure modification) in estimates of exposure-outcome associations. Understanding general and design-specific issues is accomplished through critical appraisal of published papers in selected topic areas.
Prerequisite(s): One of Biology 2244A/B or Statistical Sciences 2244A/B with a mark of at least **60**%; Epidemiology 2200A/B, or the former Epidemiology and Biostatistics 2200A/B, with a mark of at least 60%.
Pre-or Corequisite(s): Biostatistics 3100A.
Extra Information: 2 lecture hours and 1 laboratory hour.
Course Weight: 0.50

Epidemiology 3210B
INTERMEDIATE EPIDEMIOLOGY
This course will teach the fundamentals of observational study designs (case-control and cohort). The course will be problem-based and taught using published studies as examples. Course assignments and projects will include development and critique of protocols.
Prerequisite(s): Biostatistics 3100A and Epidemiology 3200A, with a minimum mark of 60% in each.
Extra Information: 3 lecture hours.
Course Weight: 0.50

Epidemiology 3330F/G
SYSTEMIC REVIEWS AND META-ANALYSIS
Introduction to the process of systematic reviews and meta-analysis, including formulating a research question, defining inclusion and exclusion criteria for the search, literature search method, data extraction, qualitative and quantitative synthesis of evidence.
Pre-or Corequisite(s): Biology 2244A/B or Statistical Sciences 2244A/B, and Epidemiology 2200A/B, with a minimum mark of 60% in each.
Extra Information: 3 lecture hours.
Course Weight: 0.50

Epidemiology 4600A

INTRODUCTION TO HEALTH ECONOMICS

A course focusing on the economics concepts and methods relevant to understand health policy decisions from an economic perspective. This course will cover following topics: microeconomic tools for health economics, demand for and supply of healthcare, health insurance, market failure in the health sector and methods of economic evaluation.
Prerequisite(s): Biostatistics 3100A and Epidemiology 3200A, with a minimum mark of 60% in each.
Extra Information: 3 lecture hours.
Course Weight: 0.50

Epidemiology 4615B

HEALTH ECONOMIC EVALUATION

This course will cover topics related to the theoretical economic foundation of cost-utility and cost-benefit analyses, and decision analytic models and statistical methods for the economic evaluation of health interventions. Application of Decision Tree Model, Markov Model and Microsimulation Model and uncertainty in health & medicine will be considered.
Prerequisite(s): One of Epidemiology 4600A or Economics 2261A/B, with a mark of at least 60%.
Extra Information: 2 lecture hours and 1 laboratory hour.
Course Weight: 0.50