POPLHLTH 708
Epidemiology
15 Points
Semester 2, 2018

Course Prescription
Examines epidemiological study design, measures of effect, and screening, appropriate statistics for epidemiology, with a focus on public health epidemiology.

Goals of the Course
To provide an overview of the:
- Principles of the design of epidemiological studies
- Main measures of effect measured in epidemiological studies
- Role of bias in the results of epidemiological studies
- Application of epidemiology to public health

Learning Outcomes
Experience gained in:
- Designing an epidemiological study
- Analysing epidemiological data using OpenEpi & hand held calculators

Content Outline
Day 1
- Measures of disease frequency
- Measures of effect
- Cohort studies
Day 2
- Intervention studies
- Cross-sectional studies
- Monitoring health status of New Zealanders
- OpenEpi – introduction to data analysis
Day 3
- Case control studies
- Bias in observational studies
- Confounding & Standardisation
Day 4
- Sample size, Power & Confidence Intervals (practical with OpenEpi)
- Genetic epidemiology
Day 5
- Meta-analysis
- Multivariate analyses in epidemiology
Day 6
- Infectious disease epidemiology
- OpenEpi – further practice
Day 7
- Screening, Causation & Prevention
- Questionnaire design
- Validity & Reliability
Day 8
- Burden of disease
- Applying epidemiology to develop health policy
- Overview of course
POPLHLTH 708 Epidemiology

Learning and Teaching

Sessions are taught using an interactive lecture format with opportunity for informal discussion and questions (medium class size). A calculator is required to do calculations in class. Students learn how to use OpenEpi (internet version) for analyses of aggregated data and sample size calculations in the computer laboratory. The main project is designing an epidemiological research study.

Teaching Staff

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Additional information contact

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Campus Teaching Dates

This course is held at Tāmaki Campus. The lecture dates are available on the web site https://www.fmhs.auckland.ac.nz/assets/fmhs/soph/docs/SOPH Postgraduate Timetable 2018.pdf Please see your timetable on SSO or Building 730 Reception noticeboard on the day for the room details.

Learning Resources

OpenEpi software, can be freely downloaded from CDC website (www.cdc.gov/epiinfo)

Assessment

Course work: 2 tests of epidemiological calculations (10% each of total mark)
Project – design an epidemiological study (30% of total mark)

Examination: 2 hours (50% of total mark)

The semester two examinations period is

Programme and Course Advice

This course is core background knowledge and research methods in public health epidemiology. It is suitable for BHSc or social sciences graduates as well as medical and nursing graduates and may also be taken towards a health sciences or medical science programme.
It is a core course (option of POPLHLTH 708 or POPLHLTH 709) for the PG Certificate and PG Diploma in Public Health.
Full-time public health students are encouraged to take this course rather than POPLHLTH 709.