University of Victoria

Division of Continuing Studies | Population Health Data Analysis Program
PO Box 1700 STN CSC Victoria British Columbia V8W 2Y2 Canada
T 250-721-8481 | F 250-721-8774 | phda@uvic.ca | continuingstudies.uvic.ca

Job posting

Positions: Instructor, Epidemiological Statistics course
Instructor, Spatial Epidemiology and Outbreak Detection course

Posting Date: June 12, 2023

Closing Date: Posting will remain open until the pool is filled

 # Of Hires Needed: 2

Format: Online

Date: January-April 2024 term

Pay Rate: $6250 plus 4% vacation pay

Continuing Education has been an integral part of the University of Victoria since its inception in 1963. Today, the Division of Continuing Studies (DCS) provides adult and continuing education programming in co-operation with UVic faculties and community partners. We offer a comprehensive portfolio of programs in a range of academic disciplines, using diploma, certificate, degree, and other programming models to serve adult, part-time, international, and geographically dispersed students.

Position summary:

The Division of Continuing Studies is interested in developing long-term relationships with superior instructors who have high professional standards, excellent communication skills, enthusiasm, and a commitment to creating learning experiences immersed in adult education principles.

We are seeking two professionals who desire the opportunity to share their knowledge and experience in the field of Population Health Data Analysis–***Epidemiological Statistics* (PHDA 02)** and ***Spatial Epidemiology and Outbreak Detection* (PHDA 04)**. The successful candidates will be familiar with epidemiological study design and analysis methods. The ideal candidate will have a Ph.D. in the field of epidemiology or Population and Public Health with related research experience in the use of administrative data analysis. Experience in epidemiological design studies, proficiency in software programs such as SAS and R programming and expertise in the use of administrative health data will be considered an asset.

We are also especially interested in candidates who can demonstrate strong skills in the application of Geospatial analysis and related methods in health research, proficiency in GIS programming, and a strong commitment to excellence in teaching and teamwork.

Qualifications:

Applicants must have:

- A minimum of a master's degree in Epidemiology, Population or Public Health, or Quantitative Social Science discipline; research and/or work experience in the fields of health data analysis and/or population and public health.
- Technical knowledge and experience using SAS with some R programming, and GIS skills.
- Research and/or work experience in the field of epidemiology and Population and Public Health.
- Excellent interpersonal, communication, and facilitation skills.

- Previous teaching experience (designing content for a course, training, or presentation) is preferred.
- Teaching experience: knowledge in distance education considered an asset.

Epidemiological Statistics courses description:

This is a basic course in epidemiology, which also covers a variety of analytic topics not commonly addressed in elementary statistics courses. The course will introduce students to the field of epidemiology. Students will critically evaluate articles in the epidemiologic literature and examine epidemiologic methods including:

- data collection
- study design and statistical analysis
- ratios
- relative risk
- contingency tables
- logistic and Poisson regression
- measurement error and exposure misclassification
- imputation of missing values
- multilevel regression models in epidemiology

Learning objectives

- Explain basic concepts in descriptive epidemiology such as incidence, prevalence, mortality, morbidity, and effect.
- Distinguish among common epidemiological designs such as case-control, cohort, cross-sectional and randomized controlled studies.
- Identify major categories of bias that can affect the validity of epidemiological studies.
- Apply common measures of association such as relative risk, odds and odds ratios, attributable risk, attributable risk percentage and population attributable risk to epidemiological data.
- Employ common tools of epidemiological statistics such as logistic and Poisson regression and become oriented to multilevel regression models to analyze appropriate data.

Spatial Epidemiology and Outbreak Detection course description:

This course provides an introduction to methods in spatial epidemiology and outbreak detection. The focus is on application rather than theory: this is not a course in spatial statistics. It is structured sequentially to move from spatial exploration of health data, to quantifying spatial patterns and clusters, to spatial exposure assessment and, finally, to methods for assessing risk.

The spatial epidemiology part of the course focuses on:

- assessing exposures through the use of a geographical information system (GIS)
- conducting small area health studies (ecological models)
- incorporating spatial parameters into models for individual health analyses.

The outbreak detection part of the course focuses on:

- visualization of spatial data
- disease surveillance
- use of spatial scan statistics in cluster detection.

Learning objectives

- Recognize when—and why—a spatial approach is required and the assumptions, strengths, limitations, and interpretations of different spatial methods used in health research.
- Identify geospatial technologies and methods for epidemiology and cluster detection.
- Apply an appropriate study design to address a specific spatial epidemiological question.
- Visualize patterns of health and disease in place and time.
- Analyze clusters and diffusion of disease to identify outbreaks.
- Conduct small area and individual spatial epidemiology studies.
- Critically interpret spatial epidemiology and outbreak detection methods.
- Apply spatial epidemiology and outbreak detection methods to various population health research questions.

For further information about the **Professional Specialization Certificate in Population Health Data Analysis**, please visit continuingstudies.uvic.ca/phda

The PHDA fully online, non-credit courses are offered as a partnership between Population Data BC, the University of Victoria, Division of Continuing Studies, and the Department of Geography.

How to apply:

Please submit a cover letter and current resume (in pdf format) to:

Ann Greenwood, Program Coordinator

Division of Continuing Studies University of Victoria

phdacoord@uvic.ca

Equity statement:

The University of Victoria is an equity employer and encourages applications from women, persons with disabilities, members of visible minorities, Aboriginal Peoples, people of all sexual orientations and genders, and others who may contribute to the further diversification of the University. All qualified candidates are encouraged to apply; however, in accordance with Canadian Immigration requirements, Canadians and permanent residents will be given priority.