BIOSTATISTICS

The collaborative specialization in Biostatistics was created in response to the growing demand in Canada and the United States for qualified Master's level biostatisticians in academic and industry sponsored epidemiologic and health services research.

Graduates will be capable of working as biostatistical consultants within multi-disciplinary health research teams. This objective will be achieved through coursework that will equip students with a sound knowledge in observational and experimental epidemiologic designs, statistical theory, statistical models for health data analysis, and statistical computing. A four month practicum will allow students to apply basic knowledge and develop consulting expertise within a health research group in a university or industry setting.

Admission

Students must first gain admission to the pattern II M.Sc. program offered by one of the associated departments (Public Health Sciences or Mathematics and Statistics) if they wish to complete their degree with a specialization in biostatistics. Students are strongly advised to indicate their desire to complete their degree with a specialization in biostatistics prior to submitting their initial application.

Students admitted to the biostatistics specialization will normally have an honours B.Sc. degree with high standing (75% or above) in statistics, mathematics, computer science, biology, life sciences, or health sciences; and strong analytical skills.

Registration and Specialization Requirements

To register in the specialization students must complete the enrolment form available from their home department. Students registered in the specialization will be required to complete 8 term courses (six mandatory courses and two electives) and a practicum. The six required courses will include EPID 801 Introduction To Epidemiology, EPID 804 Intermediate Epidemiology, EPID 823 Advanced Methods in Biostatistics, STAT 862 Statistical Learning I (or EPID 822 Applied Regression Analysis for students registered in Public Health Sciences), STAT 886 Survival Analysis and MATH 896 Core Mathematical Statistics I (for students registered in Mathematics and Statistics) **or** STAT 853 Statistical Inference (for students registered in Public Health Sciences). The remaining two electives are subject to departmental approval.

The practicum will involve a four month placement working on a project pertaining to some aspect of biostatistics applications or a methodological research affiliated with the work of the supervisor. Students must write a report on their practicum and make a presentation to an examining committee.

Students who complete this specialization will have their transcript amended to read that their Master's degree was earned "with a specialization in biostatistics".

Faculty

Director
Peng, P., Public Health Sciences, and Mathematics and Statistics
Associated Departments and Faculty Members:

- **Public Health Sciences:** Chen, B., Ding, K., Lu, Z., Peng, P., Tu, D.
- **Mathematics and Statistics:** Chen, B., Jiang, W. Lin, D., Ling, H.K., Lu, Z., Peng, P., Song, Y., Takahara, G., Thomson, D., Tu, D.