FACULTY OF SCIENCE

# STATISTICS

**Statistics deals with the collection, analysis, presentation, and interpretation of numerical data.**

Today's society is awash with information and data; the Internet has the capacity to flood us with raw information. Politicians, interest groups, and the media cite numbers, ratios, and percentages to bolster points of view. Whose numbers can we believe? Does a certain pesticide cause cancer? Is the economy really up? Is that new medical treatment effective? Statistics offers the tools to answer these kinds of questions. It has an almost limitless scope of application.

Many people use statistics poorly. Our courses in statistics give students the background to use statistics carefully and correctly, with integrity and confidence. Theoretical courses emphasize the development of statistical methods, while our applied courses focus on applying statistical methods to interpreting data. Students will also learn how to use computer software to analyze large data sets.

This program leads to either a **Bachelor of Science degree (3-year or 4-year)** or a **Bachelor of Arts degree (3-year or 4-year) with a major in statistics or a 4-year Bachelor of Science or Arts in Statistics, Data Science Stream.** Students taking a degree in another major may choose to enhance their degree by adding a **minor** in statistics as a secondary area of interest.

By popular demand we now offer a Statistics degree with a Data Science Stream. Learn more about this program on this factsheet: Statistics-Data Science

## SAMPLE CAREERS

Graduates apply their expertise in data science, biostatistics, medicine, government, Cancer Care, agricultural research, health care research, quality control and actuarial work. They work with specialists such as economists, biologists, chemists, and doctors to assist in the design of experiments and sampling plans and the analysis of research data. Most statisticians find employment with private corporations or government departments and agencies. Statistics Canada representatives visit our campus regularly looking for statistics graduates to fill highly desirable jobs.

## SAMPLE COURSES

**Statistical Analysis I and II** are first-year courses that introduce students to statistical analysis and its applications. These courses include elements of probability, statistical inference (hypothesis testing and confidence intervals) on one and two samples, analysis of variance, contingency tables, and regression analy