

STATISTICS

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 really 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 **micourses**. **Learn more about this exciting new program and its career opportunities here:**

[Data Science Program | Mathematics and Statistics | The University of Winnipeg \(uwinnipeg.ca\)](#)

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. The majority of 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

Statistics for Epidemiology focuses on the design and statistical analysis of data typically gathered from epidemiological studies. Epidemiologists are concerned with identifying risk factors for diseases. In practice, epidemiological data presents statistical challenges. For example, disease status and risk factors may not be available for all members of the population. Students will learn to analyze epidemiological data using statistical software such as R.

MORE SAMPLE COURSES

- x Elementary Biological Statistics I & II
- x Statistical Computing I & II
- x Business and Management Statistics
- x Survey Sampling I and II
- x Applied Regression Analysis
- x Analyzing Longitudinal Data