#### Career Paths

Here are just a few examples of the potential career paths:

## Job alignment (depending on modular combinations)

- Business Analyst
- Healthcare Data Analyst
- Operations Analyst
- Digital Marketing Management
- Transportation Logistics Management
- Financial Analyst
- Market Research
- Process Improvement Analyst
- Forecasting/Planning Analyst
- Sports Analytics
- Business Intelligence Analyst
- Election/Campaign Analyst
- Resource Planning Analyst
- Public Policy Analyst

#### **Sample Modular Combinations:**

- BMOS Accounting with ADS
- BMOS Global Commerce with ADS
- BMOS Finance and Administration with ADS
- BMOS Organizational and Human Resources with ADS
- BA Finance with ADS
- BA Economics with ADS
- BA Political Science with ADS
- BA Sociology with ADS
- BA Philosophy with ADS
- BA Psychology with ADS



#### For more information

School of Management, Economics, and Mathematics King's University College 519-433-3491 1-800-265-4406

kings.uwo.ca/school-of-mem kings@uwo.ca







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# KING'S

Minor in Analytics and Decision Sciences



The School of Management, Economics, and Mathematics

A place to be. A place to become.



# What is Analytics and Decision Sciences?

Analytics and Decision Sciences (ADS) is an interdisciplinary minor focusing on the intersection between data and decision making. ADS is the explicit linking of the mathematical, statistical and computational realms to problems in the management and social sciences.

The minor in ADS must be combined with a major, specialization, or honours specialization in another discipline. For example, this could be a field of management, economics, political science, philosophy, psychology, or sociology. Students from any Western campus are eligible to enroll in the minor.

Career skills and experiential learning are incorporated into ADS courses. Extensive labs, tutorials, and projects reinforce and assess the application of Excel, VBA, Python, and R.



#### **Course Offerings**

Senior-level courses include statistics/ econometrics, time-series analysis, and cognitive psychology, as well as the following:

#### **Introductory Operations Research**

An overview of optimization and simulation with a focus on applications. Includes learning to program in a high-level language (currently Python), with a substantial lab component.

#### **Risk and Simulation**

Spreadsheet-based modelling (Excel, VBA, and other software), with a foundation of matrix algebra, optimization, and simulation. Real examples from all functional areas of business will illustrate the power of spreadsheet modelling.

### **Data Visualization for Management** and Social Sciences

Introduction to data visualization and statistical programming (currently R). This course aligns with the growing data fluency needs of many careers, building off the foundation developed in earlier statistics, econometrics, or quantitative research methods courses.

#### **Course Offerings**

#### **Professional Analytics**

CAP/INFORMS job task analysis methodology explored through case analysis. Linear programming, decision analysis, game theory, inventory analysis, queuing, simulation, and forecasting will be applied in a variety of scenarios.

# **Conditions for Analytical Thinking and Decision Making**

Confront controversy and conflict, and learn to navigate complex arguments that can be approached from different viewpoints. Good decision-making requires more than just an ability to parse and extract insight from data: it also requires us to confront problems from multiple perspectives, and to identify and question assumptions.

#### **Complex Problems**

Unstructured problem solving and entrepreneurial thinking. Includes a 10-day experiential learning sprint spent working with a community partner (government, corporate, not-for-profit, etc) to address a real problem.

