UNIVERSITY OF WINDSOR

Operational Research

FACULTY OF SCIENCE

Who We Are

Operational Research (OR) helps to improve operations in industry, business and governments through the use of scientific methods and the development of specialized techniques. The approaches and tools used in OR are based on mathematical algorithms, simulation, and qualitative or logical reasoning. OR analysts are employed as decision-support professionals in transportation companies, the military, manufacturing industries, financial organizations, etc.

the degree that works

Why Windsor

The Right Choice

Quality programs. Exceptional faculty members. A friendly, supportive campus. These are just a few of the reasons why Windsor is the right choice for you. We provide "the degree that works," an innovative, student-focused approach that combines learner-centred teaching with practical experiences to prepare its students for the challenges of tomorrow.

Vibrant and Dynamic

Windsor (www.city.windsor.on.ca/home) is a friendly community of 200,000. We're known for our exciting arts and entertainment scene, hundreds of restaurants, and abundant shopping. Outdoor enthusiasts can enjoy our moderate climate, many major waterways and countless parks. And, our strategic, international border location means Michigan is just across the river with concerts, world-class museums and four major league sports teams.

The Windsor advantage

Why Study Operational Research (OR)?
What is the shortest path for a snowplow? How many hotel rooms should be overbooked to account for cancellations? What is the best way to mix all of the ingredients to produce the least expensive yet effective fertilizer? How many satellites are needed to support a cellular phone network?

If you are intrigued by these kinds of questions, and if you understand the importance of being able to answer them, then a program in OR is right for you. In Canada today, people with OR training are providing solutions to government agencies, consulting, commercial, industrial and financial companies, hospitals, etc. The success of these OR analysts has stimulated a growing awareness of the need for your skills and techniques.

At the University of Windsor, you can enter a co-operative education program that leads to a Bachelor of Operational Research (BOR) degree and, at the same time, earn the CORS Diploma in Operational Research awarded by the Canadian Operational Research Society (CORS).

A Truly Multidisciplinary Program
The strength and excitement of Operational Research is its multidisciplinary nature and its applicability to a wide variety of situations. At the University of Windsor, we have built a new program that incorporates the multidisciplinary nature of OR.

Our program will provide you with core competencies in mathematics and statistics along with relevant courses in business, computer science, economics and industrial engineering. As a graduate of this program, you will have a strong theoretical core that will be enhanced by the practical experience gained from your paid, co-op work terms. You will be able to offer creative and ingenious solutions to a variety of practical problems.

Our Connection to the Canadian Operational Research Society (CORS)
CORS is the national organization that represents operational researchers in Canada. Their website, which is maintained at the University of Windsor, can be found at www.cors.ca If you visit the site, you will discover:

- the University of Windsor's Dean of Science, Dr. Richard Caron, was president of CORS in1998-1999;
- the University of Windsor hosted the CORS National Conference in 1999; and
- the university's Leddy Library is home to the CORS archives.

With our involvement in CORS, you can be sure that you will learn from faculty members who stay in touch with OR professionals across the country.

Program Profile
The Bachelor of Operational Research Co-op program consists of 40 courses and four work terms. There are 36 major requirements including 11 courses in mathematics, six courses in statistics, two courses in computer science, four courses in economics, seven courses in engineering, five courses in business administration, and one additional course in either mathematics or engineering. In addition, you will take four electives from any area. The four work terms are scheduled for the summers after your first and second years, the winter term of your third year, and the fall term of your fourth year. Your final academic term will be in the summer of your fourth year.

What You Will Take First Year
Fall Term
62-120 Linear Algebra I
62-140 Calculus A
60-140 Problem Solving, Programs and Computers
41-110 Introduction to Economics
70-151 Accounting I
Winter Term
62-141 Calculus B
62-190 Mathematical Foundations
60-141 Introduction to Programming
41-111 Introduction to Economics II
70-152 Accounting II
Summer Term
62-188 Work Term I

Admission Requirements
Six Grade 12 U or M courses including Grade 12 U English 1, 12 U Advanced Functions and Introductory Calculus, and 12 U Geometry and Discrete Mathematics or OAC equivalents.

Operational Research Degrees Available at the University of Windsor:

- Honours Bachelor of Operational Research Co-op

FOR MORE INFORMATION PLEASE CONTACT:
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