

# DECISION SCIENCE (DSCI)

## DSCI 294 | SPECIAL TOPICS IN DECISION SCIENCE

**Units: 1-4 Repeatability: Yes (Repeatable if topic differs)**

An overview and analysis of selected topics in decision science. The course may be repeated if the topic changes. Prerequisites may change depending on the topic.

## DSCI 300 | FOUNDATIONS OF BUSINESS ANALYTICS

**Units: 3 Repeatability: No**

**Core Attributes: Quantitative reasoning comp**

Prerequisites: (ITMG 100 or BUSN 101 with a minimum grade of C-) and (MATH 130 with a minimum grade of C- or MATH 133 with a minimum grade of C- or MATH 150 with a minimum grade of C- or MATH 151 with a minimum grade of C-) and (ECON 216 with a minimum grade of C- (Can be taken Concurrently) or ECON 217 with a minimum grade of C- (Can be taken Concurrently))

Business analytics skills are essential in the business world and this course provides a fundamental competence and understanding of descriptive, predictive and prescriptive analytics tools. The objective of the course is to develop students' ability in applying analytical and quantitative tools in business decision making. To achieve this objective, the course will introduce the general classes of analytical models, their applications in business contexts as well as problem formulation and solution techniques. (Note: ECON 216 or ECON 217 may not be taken concurrently during intersession or summer sessions. ECON 216 or ECON 217 may only be taken concurrently if it is taken during the fall or spring semester.). (Students are eligible for this course after successfully completing 45 units and the course prerequisites.).

## DSCI 303 | OPERATIONS MANAGEMENT

**Units: 3 Repeatability: No**

Prerequisites: (ITMG 100 or BUSN 101 with a minimum grade of C-) and (ECON 216 with a minimum grade of C- or ECON 217 with a minimum grade of C-) and (MATH 130 with a minimum grade of C- or MATH 133 with a minimum grade of C- or MATH 150 with a minimum grade of C- or MATH 151 with a minimum grade of C-)

Students employ a managerial perspective to develop a strategic view of operations and supply chain management in a wide range of contemporary contexts (with a primary focus on process management within and across organizations). Students develop critical skills and master material relating to the fundamental role played by operations in the competitive performance of an organization. Among the critical skills and areas of mastery students develop are process analysis, process design, process improvement, supply chain management, capacity planning & control, inventory management, quality planning, quality control, strategic improvement techniques and risk management. The course incorporates concerns for corporate social responsibility. (Students are eligible for this course after successfully completing 45 units and the course prerequisites.).

## DSCI 494 | SPECIAL TOPICS IN DECISION SCIENCE

**Units: 1-4 Repeatability: Yes (Repeatable if topic differs)**

Prerequisites: MATH 130 with a minimum grade of C- or MATH 133 with a minimum grade of C- or MATH 150 with a minimum grade of C- or MATH 151 with a minimum grade of C-

An in-depth analysis of selected topics in decision science. The course may be repeated if the topic changes. Prerequisites may change depending on the topic.

## DSCI 496 | UNDERGRADUATE RESEARCH

**Units: 1-3 Repeatability: Yes (Can be repeated for Credit)**

Students develop and/or assist in research projects in various fields of decision science and operations under the supervision of a faculty member. Students will meet with a faculty member, with whom a research relationship is established, on an on-going basis to discuss the research project, assess the student's role and responsibilities, and to discuss the process of conducting scholarly research. Students may participate in a range of research activities, including but not limited to: survey construction and design, project management, participant solicitation, experimental research, qualitative interviewing, focus group moderation, fieldwork, literature searches, data entry, data analysis, critical analysis, political economy inquiries, and writing of instruments and manuscripts. Students must register with a specific faculty member with whom they complete a contract outlining the roles and responsibilities of the student and faculty member. A maximum of three units of undergraduate research may be used to satisfy requirements for the major. Requires professor's and department chair's approvals.

## DSCI 499 | INDEPENDENT STUDY

**Units: 1-3**

Prerequisites: MATH 130 with a minimum grade of C- or MATH 150 with a minimum grade of C- or MATH 151 with a minimum grade of C-  
Independent study including empirical research and written reports. A maximum of 3 units of independent study may be used to satisfy requirements for the major.