

# MATHEMATICS AND STATISTICS FOR MANAGEMENT MAJOR (B.COM.) (75 CREDITS)

**Offered by:** Management (Desautels Faculty of Management)

**Degree:** Bachelor of Commerce

**Program credit weight:** 75

## Program Description

(72-75 credits)

The B.Com.; Major in Mathematics and Statistics for Management focuses on newer methodologies and strategies to solve current and modern real-world problems. This program may be completed in 72 or 75 credits.

## Program Prerequisites

Before entering the program, students must have completed the following courses [or their equivalent] if not already completed, above the program's 72-75 credits.

0-10 credits from:

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Course	Title	Credits
MATH 133	Linear Algebra and Geometry.	3
MATH 140	Calculus 1.	3
MATH 141	Calculus 2.	4

## Required Courses (63 credits)

### Management Core

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Course	Title	Credits
MGCR 211	Introduction to Financial Accounting.	3
MGCR 222	Introduction to Organizational Behaviour.	3
MGCR 233	Data Programming for Business.	3
MGCR 250	Expressive Analysis for Management.	3
MGCR 271	Business Statistics.	3
MGCR 293	Managerial Economics.	3
MGCR 294	The Firm in the Macroeconomy.	3
MGCR 331	Information Technology Management .	3
MGCR 341	Introduction to Finance.	3
MGCR 352	Principles of Marketing.	3
MGCR 372	Operations Management.	3
MGCR 382	International Business.	3
MGCR 423	Strategic Management.	3
MGCR 460	Social Context of Business.	3

## Major

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Course	Title	Credits
MATH 222	Calculus 3.	3
MATH 223	Linear Algebra.	3
MATH 242	Analysis 1.	3
MATH 243	Analysis 2.	3
MATH 323	Probability.	3
MGSC 372	Advanced Business Statistics. <sup>1</sup>	3
MGSC 373	Operations Research 1.	3

<sup>1</sup> Or equivalent.

## Complementary Courses (9-12 credits)

9-12 credits from:

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Course	Title	Credits
COMP 202	Foundations of Programming.	3
COMP 551	Applied Machine Learning.	4
FINE 452	Applied Quantitative Finance.	3
FINE 460	Financial Analytics.	3
MATH 208	Introduction to Statistical Computing.	3
MATH 308	Fundamentals of Statistical Learning.	3
MATH 314	Advanced Calculus.	3
MATH 315	Ordinary Differential Equations. <sup>1</sup>	3
MATH 324	Statistics.	3
MATH 423	Applied Regression.	3
MATH 427	Statistical Quality Control.	3
MATH 447	Introduction to Stochastic Processes.	3
MATH 523	Generalized Linear Models.	4
MATH 524	Nonparametric Statistics.	4
MATH 545	Introduction to Time Series Analysis.	4
MATH 559	Bayesian Theory and Methods.	4
MGSC 403	Introduction to Logistics Management.	3
MGSC 431	Operations and Supply Chain Analysis. <sup>2</sup>	3
MGSC 434	Topics in Operations Management 1	3

<sup>1</sup> Students interested in upper-level statistics courses offered by the Department of Mathematics and Statistics are strongly encouraged to take this course.

Students must consult the rules for credits and sequencing for Statistics courses in the Desautels Faculty of Management Course

<sup>2</sup> Overlap section.

MGSC 434 Topics in Operations Management 1 when the topic is relevant to this program and approved by the Mathematics program adviser.

2 Mathematics and Statistics for Management Major (B.Com.) (75 credits)

Students must consult the rules for credits and sequencing for Statistics courses in the Desautels Faculty of Management Course Overlap section.