1.0 Degree Title  
Specify the two degrees for concurrent degree programs  
B. Com

1.1 Major (Legacy = Subject) (30-char. max.)

1.2 Concentration (Legacy = Concentration/Option)  
If applicable (30 char. max.)

1.3 Minor (with Concentration, if applicable)  
(30 char. max.)  
Minor in Mathematics

1.4 Category

1.5 Complete Program Title

2.0 Administering Faculty/Unit

Desautels Faculty of Management / B. Com

Offering Faculty/Department

Science / Mathematics and Statistics

3.0 Effective Term of revision or retirement

Please give reasons in 5.0 “Rationale” in the case of retirement  
(Ex. Sept. 2004 = 200409)  
Retirement  
Term:  
200701

4.0 Existing Credit Weight  
24 credits

Proposed Credit Weight  
18 Credits

5.0 Rationale for revised program

This program revision has come in response to the changing needs of the Desautels Faculty of Management who lately introduced new changes in its management core.

6.0 Revised Program Description (Maximum 150 words)

Students entering the Minor are normally expected to have completed MATH 133, MATH 140 and MATH 141 or their equivalents. Otherwise they will be required to make up any deficiencies in these courses over and above the 18 credits required by the program.
7.0 List of existing program and proposed program

### Existing program (list courses as follows: Subj Code/Crse Num, Title, Credit weight, under the headings of: Required Courses, Complementary Courses, Elective Courses)

**Required Courses**
- MATH 222 (3) Calculus 3
- MATH 315 (3) Ordinary Differential Equations

**Complementary Courses**
- MATH 223 (3) Linear Algebra
- MATH 235 (3) Algebra 1
- MATH 236 (3) Algebra 2

The remaining credits may be freely chosen from the Required and Complementary courses for Majors and Honours students in Mathematics (MATH 324 is strongly recommended), with the obvious exception of courses that involve duplication of material.

Alternatively, up to six credits may be allowed for appropriate courses from other departments. These include MGSC 630, MGSC 632 (if MATH 425 is not taken), MGSC 633, MGSC 671, MGSC 675, MGSC 678, MGSC 679, MGSC 680.

All courses counted towards the Minor must be passed with a grade of C or better. No more than six credits of overlap are permitted between the Minor and the primary program.

### Proposed program (list courses as follows: Subj Code/Crse Num, Title, Credit weight, under the headings of: Required Courses, Complementary Courses, Elective Courses)

**Required Courses**
- MATH 222 (3) Calculus 3
- MATH 223 (3) Linear Algebra
- MATH 315 (3) Ordinary Differential Equations
- MGSC 373 (3) Operations Research 1

**Complementary Courses**
- MGSC 372 (3) Advanced Business Statistics
- MGSC 479 (3) Applied Optimization
- MGSC 578 (3) Simulation of Management Systems
- MGSC 575 (3) Applied Time Series Analysis

The remaining credits selected from
- MATH 316 (3) Complex Variables
- MATH 317 (3) Numerical Analysis
- MATH 319 (3) Partial Differential Equations
- MATH 323 (3) Probability
- MATH 326 (3) Nonlinear Dynamics and Chaos
- MATH 340 (3) Discrete Structures 2
- MATH 407 (3) Dynamic Programming
- MATH 417 (3) Mathematical Programming

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8.7.1 Minor in Mathematics

Adviser: Professor D. Leisen, Department of Mathematics and Statistics, Faculty of Science

**Required Courses**
- (6 credits)
  - MATH 222  (3) Calculus 3
  - MATH 315  (3) Ordinary Differential Equations

**Complementary Courses**
- (18 credits)
  - MATH 223  (3) Linear Algebra
  - or MATH 235  (3) Algebra 1
  - and MATH 236  (3) Algebra 2

The remaining credits may be freely chosen from the Required and Complementary courses for Majors and Honours students in Mathematics (MATH 324 is strongly recommended), with the obvious exception of courses that involve duplication of material.

Alternatively, up to six credits may be allowed for appropriate courses from other departments. These include MGSC 630, MGSC 632 (if MATH 425 is not taken), MGSC 633, MGSC 671, MGSC 675, MGSC 678, MGSC 679, MGSC 680.

All courses counted towards the Minor must be passed with a grade of C or better. No more than six credits of overlap are permitted between the Minor and the primary program.

Program/Major or Minor/ Concentration Revision Form P2-2
8.0 Consultation with Related Units  ☐ Yes  ☐ No  Financial Consult  ☐ Yes  ☐ No

Attach list of consultations

9. Approvals

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