Program/Major or Minor/Concentration Revision Form

(07/2004)

1.0 Degree Title
Specify the two degrees for concurrent degree programs

1.1 Bachelor of Science

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

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

1.4 Category

Faculty Program (FP)	Honours (HON) **X**
Major	Joint Honours Component (HC)
Joint Major	Internship/Co-op
Major Concentration (CON)	Thesis (T)
Minor	Non-Thesis (N)
Minor Concentration (CON)	Other
	Please specify

1.5 B.Sc. Honours in Mathematics

2.0 Administering Faculty/Unit
Science/Mathematics & Statistics

Offering Faculty/Department
Science/Mathematics & 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: 201409

4.0 Existing Credit Weight: 60
Proposed Credit Weight: 60

5.0 Rationale for revised program

The changes reflect the introduction of MATH 254 (Honours Analysis 1). Giving students the choice of MATH 242 (Analysis 1) and MATH 254 (Honours Analysis 1) allows for a fluid transfer between the Major and Honours Programs.

6.0 Revised Program Description (Maximum 150 words)

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)

Honours Mathematics (60 credits)
Required Courses (48 credits)

* MATH 314 may be substituted for MATH 248 if MATH 222 had to be taken in the Fall.

MATH 235 Algebra 1 (3 credits)
MATH 242 Analysis 1 (3 credits)
MATH 248 Honours Advanced Calculus (3 credits) *
MATH 251 Honours Algebra 2 (3 credits)
MATH 255 Honours Analysis 2 (3 credits)
MATH 325 Honours Ordinary Differential Equations (3 credits)
MATH 354 Honours Analysis 3 (3 credits)
MATH 355 Honours Analysis 4 (3 credits)
MATH 356 Honours Probability (3 credits)
MATH 357 Honours Statistics (3 credits)
MATH 366 Honours Complex Analysis (3 credits)
MATH 370 Honours Algebra 3 (3 credits)
MATH 371 Honours Algebra 4 (3 credits)
MATH 375 Honours Partial Differential Equations (3 credits)
MATH 380 Honours Differential Geometry (3 credits)
MATH 470 Honours Research Project (3 credits)

Complementary Courses (12 credits)

12 credits selected from:

MATH 350 Graph Theory and Combinatorics (3 credits)
MATH 352 Problem Seminar (1 credit)
MATH 376 Honours Nonlinear Dynamics (3 credits)
MATH 377 Honours Number Theory (3 credits)
MATH 387 Honours Numerical Analysis (3 credits)
MATH 397 Honours Matrix Numerical Analysis (3 credits)
MATH 480 Honours Independent Study (3 credits)
MATH 487 Honours Mathematical Programming (3 credits)
MATH 488 Honours Set Theory (3 credits)

all MATH 500-level courses.

Honours-level courses from related disciplines:

* COMP 250 may be preceded by COMP 202.

COMP 250 Introduction to Computer Science (3 credits) *
COMP 252 Honours Algorithms and Data Structures (3 credits)

no more than 6 credits from the following courses for which no Honours equivalent exists:

MATH 204 Principles of Statistics 2 (3 credits)
MATH 329 Theory of Interest (3 credits)
MATH 338 History and Philosophy of Mathematics (3 credits)
MATH 348 Topics in Geometry (3 credits)
MATH 407 Dynamic Programming (3 credits)

Students may select other courses with the permission of the Department.

Attach extra page(s) as needed

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

Honours Mathematics (60 credits)
Required Courses (45 credits)

* MATH 314 may be substituted for MATH 248 if MATH 222 had to be taken in the Fall.

MATH 235 Algebra 1 (3 credits)
MATH 248 Honours Advanced Calculus (3 credits) *
MATH 251 Honours Algebra 2 (3 credits)
MATH 255 Honours Analysis 2 (3 credits)
MATH 325 Honours Ordinary Differential Equations (3 credits)
MATH 354 Honours Analysis 3 (3 credits)
MATH 355 Honours Analysis 4 (3 credits)
MATH 356 Honours Probability (3 credits)
MATH 357 Honours Statistics (3 credits)
MATH 366 Honours Complex Analysis (3 credits)
MATH 370 Honours Algebra 3 (3 credits)
MATH 371 Honours Algebra 4 (3 credits)
MATH 375 Honours Partial Differential Equations (3 credits)
MATH 380 Honours Differential Geometry (3 credits)
MATH 470 Honours Research Project (3 credits)

Complementary Courses (15 credits)

3 credits selected from:

MATH 242 Analysis 1 (3 credits)
**** MATH 254 Honours Analysis 1 (3 credits)**

****It is strongly recommended that students take MATH 254.**

12 credits selected from:

MATH 350 Graph Theory and Combinatorics (3 credits)
MATH 352 Problem Seminar (1 credit)
MATH 376 Honours Nonlinear Dynamics (3 credits)
MATH 377 Honours Number Theory (3 credits)
MATH 387 Honours Numerical Analysis (3 credits)
MATH 397 Honours Matrix Numerical Analysis (3 credits)
MATH 480 Honours Independent Study (3 credits)
MATH 487 Honours Mathematical Programming (3 credits)
MATH 488 Honours Set Theory (3 credits)

all MATH 500-level courses.

Honours-level courses from related disciplines:

***COMP 250 may be preceded by COMP 202.

COMP 250 Introduction to Computer Science (3 credits) ***
COMP 252 Honours Algorithms and Data Structures (3 credits)

no more than 6 credits from the following courses for which no Honours equivalent exists:

MATH 204 Principles of Statistics 2 (3 credits)
MATH 329 Theory of Interest (3 credits)
MATH 338 History and Philosophy of Mathematics (3 credits)
MATH 348 Topics in Geometry (3 credits)
MATH 407 Dynamic Programming (3 credits)

Students may select other courses with the permission of the Department.