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)
Major	Joint Honours X 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. Joint Honours in Mathematics and Computer Science

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: 75
Proposed Credit Weight: 75

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)

Joint Honours Mathematics and Computer Science (75 credits)

Required Courses (45 credits)

* Students who have sufficient knowledge in a programming language are not required to take COMP 202.

COMP 202 Foundations of Programming (3 credits) *
COMP 206 Introduction to Software Systems (3 credits)
COMP 250 Introduction to Computer Science (3 credits)
COMP 252 Honours Algorithms and Data Structures (3 credits)
COMP 273 Introduction to Computer Systems (3 credits)
COMP 302 Programming Languages and Paradigms (3 credits)
COMP 310 Operating Systems (3 credits)
COMP 330 Theory of Computation (3 credits)
COMP 362 Honours Algorithm Design (3 credits)
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 350 Graph Theory and Combinatorics (3 credits)

Complementary Courses (30 credits)

18 credits in Mathematics, at least 12 credits selected from:

* Students with appropriate background in probability may substitute MATH 587 for MATH 356 and must then also register for MATH 355.

MATH 354 Honours Analysis 3 (3 credits)
MATH 355 Honours Analysis 4 (3 credits)
MATH 356 Honours Probability (3 credits) *
MATH 370 Honours Algebra 3 (3 credits)
MATH 371 Honours Algebra 4 (3 credits)
MATH 387 Honours Numerical Analysis (3 credits)

The remaining credits should be selected from honours courses given by the Department of Mathematics and Statistics.
12 credits in Computer Science, selected from Computer Science courses at the 300 level or above excluding COMP 364, COMP 396 and COMP 431. ECSE 508 may also be taken.

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)

Joint Honours Mathematics and Computer Science (75 credits)

Required Courses (42 credits)

* Students who have sufficient knowledge in a programming language are not required to take COMP 202.

COMP 202 Foundations of Programming (3 credits) *
COMP 206 Introduction to Software Systems (3 credits)
COMP 250 Introduction to Computer Science (3 credits)
COMP 252 Honours Algorithms and Data Structures (3 credits)
COMP 273 Introduction to Computer Systems (3 credits)
COMP 302 Programming Languages and Paradigms (3 credits)
COMP 310 Operating Systems (3 credits)
COMP 330 Theory of Computation (3 credits)
COMP 362 Honours Algorithm Design (3 credits)
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 350 Graph Theory and Combinatorics (3 credits)

Complementary Courses (33 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.**

18 credits in Mathematics, at least 12 credits selected from:

** Students with appropriate background in probability may substitute MATH 587 for MATH 356 and must then also register for MATH 355.

MATH 354 Honours Analysis 3 (3 credits)
MATH 355 Honours Analysis 4 (3 credits)
MATH 356 Honours Probability (3 credits)**
MATH 370 Honours Algebra 3 (3 credits)
MATH 371 Honours Algebra 4 (3 credits)
MATH 387 Honours Numerical Analysis (3 credits)

The remaining credits should be selected from honours courses given by the Department of Mathematics and Statistics.
12 credits in Computer Science, selected from Computer Science courses at the 300 level or above excluding COMP 364, COMP 396 and COMP 431. ECSE 508 may also be taken.