## 1.0 Degree Title

Specify the two degrees for concurrent degree programs

<table>
<thead>
<tr>
<th>Degree Title</th>
<th>B.Sc.</th>
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## 1.1 Major (Legacy = Subject) (30-char. max.)

Honours in Applied Mathematics

## 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)
- Major
- Joint Major
- Major Concentration (CON)
- Minor
- Minor Concentration (CON)

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<th>Category</th>
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<td>Non-Thesis (N)</td>
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Please specify

- HONOURS (HON) |

## 1.5 Complete Program Title

B.Sc. Honours in Applied Mathematics

## 2.0 Administering Faculty/Unit

Science/Mathematics and Statistics

## 3.0 Effective Term of revision or retirement

Please give reasons in 5.0 “Rationale” in the case of retirement

<table>
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<th>Term</th>
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## 4.0 Existing Credit Weight

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## 5.0 Rationale for revised program

To give students in the Honours in Applied Mathematics program the choice between MATH 247 Honours Applied Linear Algebra and MATH 251 Honours Algebra 2 (currently MATH 251 is a required course in that program). MATH 247 Honours Applied Linear Algebra and MATH 251 Honours Algebra 2 are equivalent.

## 6.0 Revised Program Description (Maximum 150 words)

To give students in the Honours in Applied Mathematics program the choice between MATH 247 Honours Applied Linear Algebra and MATH 251 Honours Algebra 2 (currently MATH 251 is a required course in that program). MATH 247 Honours Applied Linear Algebra and MATH 251 Honours Algebra 2 are equivalent.
# 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 (42 credits)
- COMP 250 Introduction to Computer Science (3 credits)
- COMP 252 Honours Algorithms and Data Structures (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 325 Honours Ordinary Differential Equations (3 credits)
- MATH 350 Graph Theory and Combinatorics (3 credits)
- MATH 356 Honours Probability (3 credits)
- MATH 357 Honours Statistics (3 credits)
- MATH 375 Honours Partial Differential Equations (3 credits)
- MATH 470 Honours Research Project (3 credits)

*COMP 250 may be preceded by COMP 202*

### Complementary Courses (18 credits)
- 3 credits selected from:
  - MATH 249 Honours Complex Variables (3 credits)
  - MATH 366 Honours Complex Analysis (3 credits)
- at least 3 credits selected from:
  - MATH 387 Honours Numerical Analysis (3 credits)
  - MATH 397 Honours Matrix Numerical Analysis (3 credits)
- and the remainder of credits selected from:
  - COMP 362 Honours Algorithm Design (3 credits)
  - MATH 352 Problem Seminar (1 credit)
  - MATH 354 Honours Analysis 3 (3 credits)
  - MATH 355 Honours Analysis 4 (3 credits)
  - MATH 370 Honours Algebra 3 (3 credits)
  - MATH 371 Honours Algebra 4 (3 credits)
  - MATH 377 Honours Number Theory (3 credits)
  - MATH 380 Honours Differential Geometry (3 credits)
  - MATH 487 Honours Mathematical Programming (3 credits)
  - MATH 488 Honours Set Theory (3 credits)
  - MATH 490 Honours Mathematics of Finance (3 credits)

All MATH 500-level courses

No more than 6 credits form 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)
- MATH 537 Honours Mathematical Models in Biology (4 credits)

Other courses with the permission of the Department.

## 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 (42 credits)
- COMP 250 Introduction to Computer Science (3 credits)
- COMP 252 Honours Algorithms and Data Structures (3 credits)
- MATH 235 Algebra 1 (3 credits)
- MATH 242 Analysis 1 (3 credits)
- MATH 247 Honours Applied Linear Algebra (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 350 Graph Theory and Combinatorics (3 credits)
- MATH 356 Honours Probability (3 credits)
- MATH 357 Honours Statistics (3 credits)
- MATH 375 Honours Partial Differential Equations (3 credits)
- MATH 470 Honours Research Project (3 credits)

*COMP 250 may be preceded by COMP 202*

**Students select either MATH 251 or MATH 247, but not both.**

### Complementary Courses (18 credits)
- 3 credits selected from:
  - MATH 249 Honours Complex Variables (3 credits)
  - MATH 366 Honours Complex Analysis (3 credits)
- at least 3 credits selected from:
  - MATH 387 Honours Numerical Analysis (3 credits)
  - MATH 397 Honours Matrix Numerical Analysis (3 credits)
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- MATH 537 Honours Mathematical Models in Biology (4 credits)

Other courses with the permission of the Department.
8.0 Consultation with Related Units  □ Yes  ☑ No
Financial Consult  □ Yes  ☑ No

Attach list of consultations

<table>
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<tr>
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Submitted by

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<th>Email</th>
<th>Submission Date</th>
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To be completed by ARR:

CIP Code