

Mathematics, Applications of: Bachelor of Science Minor

Faculty of Science and Horticulture	kpu.ca/science
Mathematics	kpu.ca/mathematics
Program Type	Undergraduate
Credential Granted	Baccalaureate Degree
Offered At	Richmond Surrey
Start Date(s)	September January May
Intake Type	Open intake
Format	Full-time Part-time
Instructional Cycle	Semester-based
Curriculum Effective Date	01-Sep-2014
How to Apply	www.kpu.ca/admission

DESCRIPTION

The study of mathematics requires a high degree of technical skill in specific areas, but, often more importantly, also demonstrates a well developed sense of logical reasoning which can be applied to many different areas. The BSc Minor in Applications of Mathematics allows a student the option of completing a Bachelor of Science degree in another subject area and still demonstrating the depth of their abstract reasoning and numerical skills by adding on a designation in mathematics.

ADMISSION REQUIREMENTS

Students pursuing a Bachelor of Science Minor in Mathematics must be admitted to the Faculty of Science & Horticulture.

DECLARATION REQUIREMENTS

Students pursuing this minor must declare their intention prior to graduation.

CURRICULAR REQUIREMENTS

General Requirements

All students must meet the following minimum requirements for a Bachelor of Science at KPU:

- 120 credits from a minimum of 40 courses (at least 3 credits each) at the 1100 level or higher.
- 45 credits from a minimum of 15 courses at the 3000 level or higher, including 9 credits at the 4000 level.
- 18 credits of breadth electives including:
 - at least 12 credits from courses that are offered outside the Faculty of Science & Horticulture; and
 - up to 6 credits from fields of science not prescribed in the Major requirements; and
 - 3 credits from a course at the 3000 level or higher.
- Cumulative GPA of 2.0 or higher

- At least 50% of all courses for the BSc, and at least 66% of upper-level courses for the BSc, must be completed at KPU.

Note: The following courses with considerable content overlap may only be counted once towards degree completion:

- BIOL 1112 or BIOL 1210
- ENGL 1100 or ENGL 1104
- ENVI 1106 or CHEM 1110
- ENVI 1206 or CHEM 1154 or CHEM 1210
- ENVI 1206 or CHEM 1154 or CHEM 1210
- CHEM 2310 or CHEM 2311 or CHEM 3310
- MATH 1120 or MATH 1130 or MATH 1140
- MATH 1152 or MATH 2721
- MATH 1220 or MATH 1230 or MATH 1240
- MATH 2321 or MATH 2821
- MATH 2335 or MATH 2341 or BUQU 1230
- PHYS 1101 or PHYS 1120
- PHYS 1102 or PHYS 1220

Applications of Mathematics Minor

In order to complete the Minor program, students must complete the following requirements:

Year 1 and 2

One of:

MATH 1120	Differential Calculus	3 credits
MATH 1130	Calculus for Life Sciences I	3 credits
MATH 1140	Calculus I (Business Applications)	3 credits

And one of:

MATH 1220	Integral Calculus	3 credits
MATH 1230	Calculus for Life Sciences II	3 credits

And one of:

MATH 2315	Probability and Statistics	3 credits
MATH 2335	Statistics for Life Sciences	3 credits
MATH 2341	Introduction to Statistics for Business	4 credits

And all of:

MATH 2232	Linear Algebra	3 credits
MATH 2321	Multivariate Calculus (Calculus III)	3 credits

Year 3 and 4

15 credits of courses chosen from List A (see below). 15 credits

List A - Selected Mathematics Courses

MATH 3120	Introduction to Applied Mathematics	3 credits
MATH 3140	Mathematical Computing	3 credits
MATH 3150	The Structure of Mathematics	3 credits
MATH 3160	Group Theory	3 credits
MATH 3170	Complex Variables	3 credits

MATH 3250	Geometry	3 credits
MATH 3315	Inferential Statistics	3 credits
MATH 3322	Vector Calculus (Calculus IV)	3 credits
MATH 3421	Ordinary Differential Equations	3 credits
MATH 3431	Partial Differential Equations	3 credits
MATH 3450	History of Mathematics	3 credits
MATH 4150	Number Theory	3 credits
MATH 4190	Introduction to Point-Set Topology	3 credits
MATH 4210	Biomathematics	3 credits
MATH 4220	Numerical Methods	3 credits
MATH 4240	Mathematical Modelling	3 credits
MATH 4250	Special Topics in Mathematics	3 credits
MATH 4350	Senior Project	3 credits

CREDENTIAL AWARDED

Upon successful completion of the minor as part of a Bachelor of Science program, transcripts will indicate a **Minor in Applications of Mathematics**.