

MATHEMATICS B.A.

*Admissions and internal transfers into this program have been paused

This program has fewer required courses in mathematics than the Mathematics B.S., so students have more free credits to explore other disciplines or further expand their mathematical experience. This program is particularly suited for students who wish to teach high school mathematics or to combine mathematics with another concentration. A total of 11 mathematics courses (36 hours) are required, consisting of 8 required courses (27 hours) and 3 electives (9 hours). In addition, two semesters of physics with lab (8 hours) are required

Program Requirements

Students within the department must maintain a minimum 2.0 G.P.A. in coursework required for their major and taken at D'Youville University. Students who fail to earn this G.P.A. will be placed on probation in the major. Probation may continue for a maximum of three consecutive semesters or a total of four non-consecutive semesters. Students who exceed these limits will be dismissed from the major. Students may appeal these decisions on academic status by submitting, in writing to the department chairperson, reasons why exceptional consideration may be justified. Additionally, students must earn a minimum grade of B- in Calculus I (MAT-125) and Calculus II (MAT-126).

Course Requirements

Code	Title	Credits
Major Requirements		44
General Education Requirements		30
Free Electives (including remaining Liberal Arts and Sciences Requirements)		46
Total Credits		120

Course Requirements for the Major

Code	Title	Credits
MAT-125	Calculus I ¹	4
MAT-126	Calculus II ¹	4
MAT-202	Calculus III	4
MAT-300	Introduction to Mathematical Reasoning	3
MAT-301	Real Analysis I	3
MAT-315	Linear Algebra	3
MAT-401	Abstract Algebra I	3
MAT-302	Real Analysis II	3
or MAT-402	Abstract Algebra II	
Total Credits		27

¹ Courses require a minimum grade of B-.

Mathematics Electives (Select from the Following, Minimum 9 Credits)

Code	Title	Credits
MAT-302	Real Analysis II	3
MAT-303	Foundations of Geometry I	3
MAT-304	Foundations of Geometry II	3
MAT-310	Foundations of Mathematics	3

MAT-318	Discrete Math	3
MAT-321	Differential Equations	3
MAT-375	Math Modeling in Biology	3
MAT-389	Special Topics	1-3
MAT-390	Special Topics	1-3
MAT-402	Abstract Algebra II	3
MAT-403	Probability	3
MAT-404	Mathematical Statistics	3
MAT-407	Senior Seminar I	2
MAT-408	Senior Seminar II	2
MAT-410	Number Theory	3
MAT-412	General Topology	3
MAT-414	Complex Analysis	3
MAT-417	Introduction to Graph Theory	3
MAT-420	Introduction to Linear Models	3
MAT-421	Design of Experiments	3
MAT-424	Numerical Analysis	3
MAT-443	Methods of Teaching Mathematics	3
MAT-479	Data Analysis Methods	3
MAT-480	Statistical Applications	3

In Other Academic Areas Required for Major

Select One of the Following Two Sequences

Code	Title	Credits
PHY-101	General Physics I	3
PHY-101L	Gen Physics Lab I	1
PHY-102	General Physics II	3
PHY-102L	Gen Physics Lab II	1
Total Credits		8

or

Code	Title	Credits
PHY-103	Physics for Engineers	3
PHY-103L	Physics for Engineers Lab 1	1
PHY-104	Physics for Engineers II	3
PHY-104L	Physics for Engineers II Lab	1
Total Credits		8

The B.A. in Mathematics requires a minimum high school average of 80% and a rank in the top 50% of one's class. Transfer students are required to have a minimum G.P.A. of 2.5.

Students nearly meeting these requirements will be considered for these programs by the department. Students denied immediate acceptance into the Mathematics B.S. will be accepted into the Mathematics B.A. program if they meet its requirements. These students may be promoted into the Mathematics B.S. program after they have sufficiently demonstrated competence (usually after the completion of two semesters).