SECONDARY MATHEMATICS (B.ED.) (120 CREDITS)

Offered by: Integrated Studies in Ed (Faculty of Education)
Degree: Bachelor of Education
Program credit weight: 120 credits

Program Description

The Bachelor of Education (B.Ed.) – Secondary Mathematics program requires 120 credits and leads to teacher certification. Students who have not completed Quebec CEGEP, French Baccalaureate, International Baccalaureate, or at least one year of university studies prior to commencing the B.Ed. must also complete a minimum of 30 credits of Freshman courses (in addition to the 120 credits for the program) for a total of 150 credits.

Note: Students entering this program from CEGEP or with Advanced Standing should have a strong background in their Mathematics courses. Students entering from CEGEP or with Advanced Standing without having completed two calculus courses and one linear algebra course (MATH 133 Linear Algebra and Geometry., MATH 140 Calculus 1., and MATH 141 Calculus 2. or their equivalents) will be required to make up any deficiencies in these courses over and above the degree requirements.

The aim of the B.Ed. Secondary Education program is to prepare strong beginning teachers for the secondary school level.

This integrated program consists of courses in Education (including field experiences) and courses in the subject area of the teaching specialization. Students also take 6 credits of free electives. For all teacher education programs, course sequencing is highly structured. For this reason, the advising information in this Course Catalogue section must be used in conjunction with the summary companion document (Program Overview) found at http://www.mcgill.ca/dise/progs/secmath.

The Secondary Mathematics program provides students with the learning opportunities needed to become proficient Mathematics teachers.

Please note that graduates of teacher education programs are recommended by the University to the Quebec Ministry of Education for Quebec teacher certification. For more information about teacher certification in Quebec, please refer to the Faculty of Education section under "Overview of Faculty Programs", "Undergraduate Education Programs", and "Quebec Teacher Certification".

Note: For information about Fall 2025 and Winter 2026 course offerings, please check back on May 8, 2025. Until then, the "Terms offered" field will appear blank for most courses while the class schedule is being finalized.

Freshman Program

Students normally complete 30 credits in their Freshman (U0) year.

The Freshman year is the time to take introductory-level courses in Mathematics, as well as to explore areas that are not normally taken as teachable subject areas within B.Ed. programs (e.g., Sociology, Psychology, Political Science, etc.). Students should also investigate the possibility of taking one of the First Year Seminar courses offered by the Faculty of Arts or the Faculty of Science.

Students in the Secondary Mathematics program must complete three Math prerequisite courses in their Freshman year, MATH 133 Linear Algebra and Geometry., MATH 140 Calculus 1., and MATH 141 Calculus 2..

In addition, students select courses from the recommended list below or other courses in consultation with the Program Adviser. The French Second Language (FRSL) courses suggested require a placement test to determine the appropriate course level.

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Course	Title	Credits
EDEM 220	Contemporary Issues in Education.	3
FRSL 101	Beginners French 1.	3
FRSL 102	Beginners French 2.	3
FRSL 207D1	Elementary French 01.	3
FRSL 207D2	Elementary French 01.	3
FRSL 211D1	Oral and Written French 1.	3
FRSL 211D2	Oral and Written French 1.	3
MATH 133	Linear Algebra and Geometry.	3
MATH 140	Calculus 1.	3
MATH 141	Calculus 2.	4
RELG 204	Judaism, Christianity and Islam.	3
RELG 207	Introduction to the Study of Religions.	3
WCOM 250	Research Essay and Rhetoric.	3

Required Courses (60 credits)

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Course	Title	Credits
EDEC 201	First Year Professional Seminar.	1
EDEC 215	English Exam for Teacher Certification.	0
EDEC 233	Indigenous Education.	3
EDEC 247	Policy Issues in Quebec and Indigenous Education.	3
EDEC 254	Second Professional Seminar (Secondary).	1
EDEC 260	Philosophical Foundations.	3
EDEC 262	Media, Technology and Education.	3
EDEC 351	Third Professional Seminar (Secondary).	2
EDEC 404	Fourth Year Professional Seminar (Sec).	3
EDES 350	Classroom Practices.	3
EDES 353	Teaching Secondary Mathematics 1.	3
EDES 453	Teaching Secondary Mathematics 2.	3
EDFE 200	First Field Experience (K/Elem and Secondary).	2
EDFE 254	Second Field Experience (Secondary).	3
EDFE 351	Third Field Experience (Secondary).	8
EDFE 451	Fourth Field Experience (Secondary).	7
EDPE 300	Educational Psychology.	3

EDPE 304	Measurement and Evaluation.	3
EDPI 309	Diverse Learners.	3
EDPI 341	Instruction in Inclusive Schools.	3

Complementary Courses (3 credits)

3 credits selected as described below.

Multicultural Education

3 credits from:

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Course	Title	Credits
EDEC 248	Equity and Education.	3
EDEC 249	Global Education and Social Justice.	3

Secondary Mathematics Subject Area (51 credits)

Secondary Mathematics students complete 51 credits selected in consultation with the Program Adviser in one of two options.

Option 1

21 credits from the list of "Required Mathematics Courses" and

30 credits from the list of "Complementary Mathematics Courses"

Or

Option 2

21 credits from the list of "Required Mathematics Courses" and

15 credits from the list of "Complementary Mathematics Courses"

And

15 credits of designated courses in another unofficial "teachable" subject area (English, Social Sciences, or Science and Technology - see an adviser for courses).

Required Mathematics Courses (21 credits)

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Course	Title	Credits
MATH 222	Calculus 3.	3
MATH 223	Linear Algebra.	3
MATH 228	Classical Geometry.	3
MATH 315	Ordinary Differential Equations.	3
MATH 323	Probability.	3
MATH 324	Statistics.	3
MATH 338	History and Philosophy of Mathematics.	3

Complementary Mathematics Courses

(30 OR 15 credits)

3 credits from:

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Course	Title	Credits
MATH 235	Algebra 1.[1]	3
MATH 242	Analysis 1.[1]	3

[1] Should be taken in Year 1 or Year 2

27 credits from the list below for Secondary Mathematics Option 1 students or 12 credits from the list below for Secondary Mathematics Option 2 students

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Course	Title	Credits
COMP 202	Foundations of Programming.	3
COMP 230	Logic and Computability.	3
EDTL 520	Perspectives on Knowledge in Mathematics and Science.	3
MATH 235	Algebra 1.	3
MATH 236	Algebra 2.	3
MATH 242	Analysis 1.	3
MATH 243	Analysis 2.	3
MATH 314	Advanced Calculus.	3
MATH 316	Complex Variables.	3
MATH 317	Numerical Analysis.	3
MATH 318	Mathematical Logic.[1]	3
MATH 319	Partial Differential Equations .	3
MATH 326	Nonlinear Dynamics and Chaos.	3
MATH 327	Matrix Numerical Analysis.	3
MATH 329	Theory of Interest.	3
MATH 340	Discrete Mathematics.	3
MATH 346	Number Theory.	3
MATH 348	Euclidean Geometry.	3
MATH 417	Linear Optimization.	3
MATH 423	Applied Regression.	3
MATH 447	Introduction to Stochastic Processes.	3
MATH 523	Generalized Linear Models.	4
MATH 524	Nonparametric Statistics.	4
MATH 525	Sampling Theory and Applications.	4
PHIL 210	Introduction to Deductive Logic 1.[1]	3

[1] Students cannot receive credit for both.

Unofficial "Teachable" Subject Area (15 credits)

15 credits of designated courses for Secondary Mathematics Option 2 students (English, Social Sciences, or Science and Technology - see an adviser for course selection)

Electives (6 credits)

Note: Students who have chosen to do 36 credits in one teachable subject and 15 credits in another will use 3 credits of electives to take

the Secondary Teaching Methods course needed for their second unofficial teachable subject.