

Overall Major Requirements

- 45-60 non-duplicative mathematics credits
- A minimum of 36 senior-level credits
- A minimum of 6 credits at the 400-level

Required Courses for the Mathematics Major

Choose one of:

- CMPT 101 Introduction to Computing I **OR** CMPT 103 Introduction to Computing II

Specific Major Requirements

27 Credits

- MATH 114 Elementary Calculus I
- MATH 115 Elementary Calculus II
- MATH 214 Intermediate Calculus I
- MATH 215 Intermediate Calculus II
- MATH 225 Linear Algebra II
- MATH 310 Real Analysis
- MATH 330 Ordinary Differential Equations

Choose 3 credits:

- MATH 120 Basic Linear Algebra I
- MATH 125 Linear Algebra I

Choose 3 credits:

- MATH 200 Fundamental Concepts of Math
- MATH 241 Geometry

General Major Requirements

18 to 33 Credits

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*Students may also choose to take STAT 265 **AND** STAT 266

Important Planning Notes

1. Courses required for the major may be used to satisfy the breadth requirements in a Bachelor of Arts or Science degree. Please refer to the applicable degree planner for details.
2. The prerequisites for CMPT 103 are CMPT 101 or, at the high school level, three credits of intermediate CSE including CSE 2120. If students possess high school level prerequisites, they are required to complete 3 credits of junior-level prerequisites for this major (CMPT 103). If students do not possess high school level prerequisites, they must complete 6 credits of junior-level prerequisites (CMPT 101 and CMPT 103).
3. Students who have taken CMPT 114 and 115 cannot take CMPT 103 for credit.
4. Students are required to consult the MacEwan University academic calendar to ensure they meet prerequisites for all courses they enrol in.
5. Please keep in mind that course offerings will vary from academic year to academic year.

Mathematics Major (42 to 60 credits)

Total Credits: _____

Mathematics Course Offerings

- MATH 200 Fundamental Concepts of Math
- MATH 214 Intermediate Calculus I
- MATH 215 Intermediate Calculus II
- MATH 222 Discrete Mathematics
- MATH 225 Linear Algebra II
- MATH 228 Algebra: Introduction to Ring Theory
- MATH 241 Geometry

- MATH 310 Real Analysis
- MATH 311 Complex Variables
- MATH 312 Probability Theory
- MATH 320 Elementary Number Theory
- MATH 321 Fields and Modules
- MATH 330 Ordinary Differential Equations
- MATH 341 Modern Geometries
- MATH 350 Introduction to Graph Theory
- MATH 361 History of Mathematics

- MATH 410 Analysis and Topology
- MATH 420 Groups and Galois Theory
- MATH 430 Applied Dynamical Systems
- MATH 436 Introduction to Partial Differential Equations
- MATH 495 Special Topics in Mathematics