

**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\***

**30 Credits**

- MATH 114 Elementary Calculus I
- MATH 115 Elementary Calculus II
- MATH 120 Basic Linear Algebra I **OR** MATH 125 Linear Algebra I
- MATH 200 Fundamental Concepts of Math
- 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 one of the following two courses; the other course may be used to fulfill the General Major Requirements  
MATH 228 Algebra: Introduction to Ring Theory      MATH 241 Geometry

**General Major Requirements**

**15 to 30 Credits**

- |   |                                     |                                     |
|---|-------------------------------------|-------------------------------------|
| <input type="checkbox"/> MATH _____ (400-level) | <input type="checkbox"/> MATH _____ | <input type="checkbox"/> MATH _____ |
| <input type="checkbox"/> MATH _____ (400-level) | <input type="checkbox"/> MATH _____ | <input type="checkbox"/> MATH _____ |
| <input type="checkbox"/> MATH _____             | <input type="checkbox"/> MATH _____ | <input type="checkbox"/> MATH _____ |
| <input type="checkbox"/> MATH _____             |                                     |                                     |

\*Students may also choose to take STAT 265, STAT 266, and STAT 322

**Mathematics Major (45 to 60 credits)**

**Total Credits: \_\_\_\_\_**

### **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).
3. \*Engineering students who have successfully completed MATH 100, MATH 101, MATH 102, ENCP 100 will have the equivalents of MATH 114, MATH 115, MATH 125 and CMPT 101. See an advisor for full details.
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 Course Offerings**

Please refer to the academic calendar or [MacEwan.ca/Science](http://MacEwan.ca/Science) > Disciplines > Mathematics for further information regarding course offerings.