MATHEMATICAL SCIENCES MAJOR
2017/18 Academic Year

MacEwan
UNIVERSITY

Overall Major Requirements

The Mathematical Sciences Major is comprised of three disciplines – computer science, mathematics, and statistics. Students select two of the three as primary disciplines. While students in this major are not required to complete a minor, if any of computer science, mathematics or statistics disciplines are chosen as a minor, all senior-level credits in that discipline will only count toward the minor. Please refer to Planning Note 3 for more information on the structure of the Mathematical Sciences Major.

Requirements for the Major include:

☐   60-72 non-duplicative credits
☐   A minimum of 42 senior-level credits
☐   A minimum of 12 credits at the 300- or 400-level in the primary disciplines
☐   A minimum of 3 credits at the 300- or 400-level in each discipline

Specific Major Requirements	12 Credits

☐   MATH 114 Elementary Calculus I
☐   MATH 115 Elementary Calculus II

Choose 3 credits:

☐   MATH 120 Basic Linear Algebra I
☐   MATH 125 Linear Algebra I

Choose 3 credits:

☐   CMPT 101 Introduction to Computing I
☐   CMPT 103 Introduction to Computing II

General Major Requirements	48 to 60 Credits
Primary Discipline I	*18 to 24 Credits*

☐   _____   ☐   _____   ☐   _____
☐   _____   ☐   _____   ☐   _____
☐   _____   ☐   _____

Primary Discipline II	*18 to 24 Credits*

☐   _____   ☐   _____   ☐   _____
☐   _____   ☐   _____   ☐   _____
☐   _____   ☐   _____

General Requirements	*6 to 12 Credits*

Choose 6 to 12 credits from senior-level CMPT, MATH, and STAT

☐   _____   ☐   _____   ☐   _____
☐   _____

Mathematical Sciences Major (60 to 72 credits)	**Total Credits: _____**

Important Planning Notes

1. Courses required for the major may be used to satisfy the breadth requirements in the Bachelor of Science degree. Please refer to the applicable degree planner for details.

2. Students are required to consult the MacEwan University academic calendar to ensure they meet prerequisites for all courses they enrol in.

3. The structure of the Mathematical Sciences major is as follows:

   ### If a student chooses a Mathematical Sciences minor:

   a. Students must choose two primary disciplines from Computer Science, Mathematics, and Statistics, and may choose the third discipline as their minor.

   b. All senior credits in the third discipline will count only toward the minor.

   c. Student must take a minimum of 18 senior level credits from both of their primary disciplines to complete the major's requirements, with an additional six senior level credits taken in either of the primary disciplines.

   d. Students must have 12 credits at the 300- or 400-level in their primary disciplines, with at least three credits from each primary discipline.

   ### If a student chooses a minor other than Mathematical Sciences:

   a. Students must choose two primary disciplines from Computer Science, Mathematics, and Statistics.

   b. Student must take a minimum of 18 senior level credits from both of their primary disciplines to complete the major's requirements, with an additional six senior level credits taken in any of the three disciplines.

   c. Students must have 12 credits in their primary disciplines at the 300- or 400-level in their primary disciplines, with at least three credits from each primary discipline.

   ### If a student chooses no minor:

   a. Students must choose two primary disciplines from Computer Science, Mathematics, and Statistics.

   b. Student must take a minimum of 18 senior level credits from both of their primary disciplines to complete the major's requirements, with an additional six senior level credits taken in any of the three disciplines.

   c. Students must have 12 credits in their primary disciplines at the 300- or 400-level in their primary disciplines, with at least three credits from each primary discipline.

   d. The 18 credits normally assigned to a minor will be considered options. Therefore, a student must complete 39 credits of options to be eligible for graduation.

   e. Students must plan their options very carefully, as they can use a maximum of six credits in any Mathematical Sciences discipline within their options. Students also cannot exceed the 48 credit junior level maximum, and they must complete 72 credits of Science courses.

4. **STAT 265 and STAT 266** can only be used once to fulfill *either* a MATH course requirement *or* a STAT course requirement.

5. Please keep in mind that course offerings will vary from academic year to academic year.