How to Choose Your First Mathematics Course

Department of Mathematics & Statistics University of Maine







The following questions are designed to help you choose your first mathematic class(es) at UMaine.

You can select a class before or after speaking with your advisor, but you should definitely speak to your advisor before making a final decision on what course to enroll in.





In order to graduate from UMaine, all students must fulfill their general education requirements, including six (6) credits of Quantitative Literacy (QL).

There are 34 courses at UMaine that meet this requirement, and you can find a complete list at the Office of Student Records or Office of Assessment websites.





The Department of Mathematics & Statistics offers 14 courses that fulfill the QL requirements.

Please note that this list will also show you which courses have a *prerequisite*.





Prerequisite A means you must have a C or better in MAT111 Algebra for College Math or no MAT111 grade and passing part II of the Math Placement Exam.

> Prerequisite B means you must have a C or better in MAT122 *Pre-Calculus* or **no** MAT122 grade and passing part III of the Math Placement Exam.



MATH DEPARTMENT COURSES THAT MEET QUANTITATE LITERACY



- MAT 101 The Nature & Language of Mathematics
- MAT 103 Algebraic Models in Our World
- MAT 107 Elementary Descriptive Geometry
- MAT 108 Elementary Numerical Mathematics From a Modern Perspective
- MAT 115 Applied Mathematics for Business & Economics (Prerequisite A)
- MAT 116 Introduction to Calculus (Prerequisite A)
- MAT 117 Applications of Calculus (Prerequisite of a C or better in MAT 116)
- MAT 122 Pre-Calculus (Prerequisite A)
- MAT 126 Calculus I (Prerequisite B)
- MAT 127 Calculus II (Prerequisite of a C or better in MAT 126)
- MAT 136 Honors Level Calculus I (Departmental permission required)
- MAT 137 Honors Level Calculus II (Departmental permission required)
- STS 215 Introduction to Statistics for Business & Economics
- STS 232 Principles of Statistical Inference





Some majors have specific requirements that will meet the QL requirement:

Most sciences, e.g.
Physics &
Mathematics,
require MAT 126 &
MAT 127

Some Life Sciences require either MAT 126 & MAT127 or MAT116 & MAT117

> QL Requirement

If there are no math requirements in your major, you must choose how to meet the QL requirement





Remember, MAT 111 will *not* satisfy the QL requirement. You need to take MAT 111 only if you did not meet <u>Prerequisite A</u>, but intend to take a course that requires it.

Also, although MAT 122 *does* satisfy the QL requirement, its true purpose is to prepare students who did not meet Prerequisite B and need to take MAT 126. If you don't need MAT 126, MAT 122 may not be the right choice for you.

Remember to <u>reach out to us</u> with any questions!



Whatever your situation may be, we believe we offer a pathway that will fit your interests and needs, and your preparation.

Your answers to the following questions should help you find the right course for you.







QUESTION 1: DOES YOUR MAJOR HAVE ANY SPECIFIC MATH OR STATS REQUIREMENTS?

YES You can skip ahead to question 3 if you would like.

Please note: you should still talk with your advisor or our department before registering.







QUESTION 2: HOW MUCH DO YOU LIKE MATH?

"I LOVE IT!"

"I LIKE MATH, BUT I DON'T WANT TO TAKE MAT 126."

"I HATE IT!"







Great, so do we... There's no rule that says you can't take a more advanced class than your major requires. As long as you meet the prerequisite for a class you can take it if you'd like. If you want to take MAT 126 or MAT136 but your major doesn't require it, you can still take it! Calculus is an exciting subject for people who like math, and if you passed part III of the Math Placement Exam you should be well prepared to take it, so why not give it a try? Perhaps you will decide to add or switch to a math major or math or stats minor.







just aren't interested in taking it. We have developed MAT 116 & MAT117 specifically for students in life & social students who enjoy mathematics but don't want to delve into the calculus sequence. You only need Prerequisite B to take MAT 116. This option allows you to see a conceptualized version of our Calculus I/II without the technical information STEM students require, and it's a great alternative to consider. 3







Don't panic! We offer courses for students who just want to meet their QL Requirements, namely with MAT 101, MAT 103, and STS 232, which are designed to give a college level of mathematics without repeating the math you may not have enjoyed in high school. You don't need to take the Math Placement Exam to enroll in these courses. However, register for these courses soon after starting at UMaine, before you forget your high school math skills. And who knows, you may end up enjoying our math courses more than you expect!







QUESTION 3: DOES YOUR MAJOR REQUIRE MAT 126 CALCULUS I?

If you have not done so already, you should take all three (3) sections of the Math Placement Exam.

NO







- If you pass section III, you can register directly for MAT 126.
- If you pass section II but not section III, you will need to obtain a grade of C or higher in MAT 122 Pre-Calculus before you can take MAT 126. You should register for MAT 122.
- If you pass section I but not section II, you will need to obtain a grade of C or higher in MAT 111 Algebra for College Mathematics before you can take MAT 122. You should register for MAT 111.







You may also want to consider taking MAT 136 Honors Calculus I instead of MAT 126. This is a more rigorous study of the same MAT 126 material, but intended for students who wish to deepen their technical knowledge of the material.

MAT 136 is often taken by students with prior exposure to calculus, but other students can certainly succeed in this course as well. If you are interested in our MAT 136 course, please contact our department for advising on whether this is a good option for you.







QUESTION 4: DOES YOUR MAJOR REQUIRE MAT 115, MAT 116, OR MAT 122?

YES

If you have not done so already, you should take at least the first two (2) sections of the Math Placement Exam.

- If you pass section II, you can register directly for MAT 115,
 MAT 116, or MAT122. (If you pass section III as well, you may want to talk to your advisor about considering MAT 126 instead)
- If you pass section I but not section II, you will need to obtain a grade of C or higher in MAT 111 Algebra for College Mathematics.
 You should register for MAT 111.







QUESTION 5: DOES YOUR MAJOR REQUIRE MAT 107, MAT 108, STS 215, STS 232, OR ANYTHING ELSE?

YES
TO MAT 107 AND/OR MAT 108

YES
TO STS 215 AND/OR STS 232

YES TO SOMETHING ELSE

NO







Some education majors are required to take MAT 107 and/or MAT 108. If you need to take these, you probably already know this, but if you have any doubts please reach out to your advisor about what your major requires.

These courses are normally closed to other students, as their material is very specific to the degree needs of the students who take these classes.







You can go ahead and register for STS 232 without taking the Math Placement Exam. It has no prerequisites.

Technically, STS 215 has a prerequisite of MAT 115, but our department can often break this prerequisite, so please contact us is you want to take STS 215.







Our department is unaware of any other math or stats requirements for majors, so you may be mistaken.

Please reach out to your advisor or our department for clarification so we can make sure you are registered for the right course.











QUESTION 6: DO YOU KNOW WHAT CLASS TO TAKE NOW?

YES Great! Good luck. Remember that we offer help outside class schedules, whether during your instructor's office hours or in our Math Lab which is open every weekday. Come get help early and often, if you have difficulties with the material.

NO That's okay. Come in and talk to us about your options, and our department will help you find the right class.







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MATH LAB

