

WHAT MATH COURSE SHOULD I TAKE (2)

NOTE: It is imperative that departmental pre-requisites be adhered to—including minimum grades to progress in a sequence. Please note that if you register (or are registered by a faculty or staff member) for a math course with a minimum grade criterion and you do not receive the necessary grade in the pre-requisite course for that class, you must drop the course and repeat the prerequisite course again. If you do not do so, the Math Department will drop you. This may not be noticed right away and you can be dropped from the course well into the semester thereby causing issues with registration, tuition liability, and financial aid.

1. If you are interested in the physical or natural sciences (*Physics, Biology, Biochemistry, Chemistry, Geology, Computer Science, Mathematics, and/or health professions pathways such as pre-med/pre-dental, physical therapy, etc*), then you need at least one semester of Calculus, either Math 141 or Math 151. (Check with your major department and/or Health Professions Advising Services to see how many semesters of Calculus you need and which sequence is needed.)
2. For *Business and Economics*, then you need at least one semester of Calculus, either Math 131, Math 141 or Math 151. (Check with your major department to see how many semesters of Calculus you need and which sequence is preferred.)
3. If you are interested in Accounting then your minimum requirement is a working knowledge of Math 122, Precalculus. If you place into calculus using the guidelines below, then you have the working knowledge you need of Precalculus and will not need to take a math course for the Accounting major.
4. If you are interested in Elementary Education, then you need to take Math 119, *Math for Elementary School Teachers*.
5. If you are interested in English, History, Political science, Drama, etc, i.e. areas that don't utilize mathematics, then your minimum math requirement is Math 110, *Mathematical Literacy*. However, you can meet the Pathways Math and Quantitative Reasoning (MQR) requirement with any of the following Math courses Math 114/114W, 115, 128 or choices in Computer Science, Sociology, or Psychology (these choices depend on your major).

ELIGIBILITY CRITERIA FOR PLACEMENT

6. You are eligible to enroll in Precalculus (Math 122) if **ANY** of the following three conditions is met:
 - A. Your *mathematics* high school GPA is at least 85 and you have successfully completed at least Algebra 2;

- B. Your New York State Regents Trigonometry score is at least 70.
- C. Your New York State Regents Common Core Algebra 2 score is at least 70.

NOTE: If you place into Math 122 and you don't need it for your major or the health professions, you don't need to take it. You can take something else to satisfy the MQR requirement. See #4.

- 7. You are eligible to enroll in Calculus 1 if **ANY** one of the following three conditions is met:
 - A. Your *mathematics* high school GPA is at least 94 and you have successfully completed a course beyond Algebra 2;
 - B. Your New York State Regents Trigonometry score is at least 85.
 - C. Your New York State Regents Common Core Algebra 2 Score is at least 80.

You can bypass some of the calculus classes (and get credit for them) if you took an AP Calculus Exam and got a score of 4 or higher..

NOTE: If you place in Calculus and you don't need it for your major or the health professions, you don't have to take it. Taking Precalculus if you place in Calculus is usually a waste of your time. You can take something else to satisfy the MQR requirement. See #4.

- 8. Students who don't meet conditions A, B or C, in 5 or 6 above and have not scored high on an AP math exam automatically place into Math 115. **Please note that if you place into Math 115 you need not take it unless you need Math 122 or Calculus for your major or the health professions.**

Business and Econ Students: If you take Math 115 and earn a grade of A- or better, then you will be eligible to register for Math 131 the following semester, bypassing Math 122. If you get a grade of B minus or better in Math 115, you can register for a special 5 hour section of Math 131 without taking Math 122. All others who need Math 131 for their major should follow Math 115 by Math 122.

SUPPOSE YOU WANT TO TAKE A MATH COURSE TO MEET YOUR MQR REQUIREMENT

- 9. If you need an MQR course and are thinking of using Math 115 or Math 122 to meet this requirement, realize that there are other interesting low level mathematics courses you can take instead. You can take Math 110, Math 113, Math 114, Math 116, or Math 128. We are adding new courses periodically for the general student, so check with the Math Department as there may be other math courses for you to take to meet the MQR requirement. Any math course numbered 122 or higher will also meet the MQR requirement.

THE DIFFERENT CALCULUS SEQUENCES

10. We have 3 Calculus sequences

- a. Math 151- 152 which is similar to the standard first year Calculus sequence at most universities and colleges. **Note:** Math 151 is intended for the strongest of math students. It is highly recommended that most students should take the Math 141-143 sequence described in b. below instead of the Math 151-152 sequence. **Note: Those students who have taken Math 122 may not register for Math 151 unless they attain a grade of B minus or better in Math 122. Those students who have passed Math 122 and wish to continue into a calculus sequence can take Math 141.**
- b. Math 141, 142, 143 sequence. This sequence covers the *same* material as Math 151 and 152, but proceeds at a somewhat slower pace. **If you need Math 151 and 152, you can take the slower Math 141-143 and you will have met your requirement.**
- c. Math 131, 132, 143. This covers the same content as the above sequences in a and b but is primarily for people who originally needed Math 131 (Business & Econ), changed majors, and now find that they need Math 141 or Math 151 instead of Math 131. Those students will take Math 132 after Math 131. This will fill in the topics you are missing from Math 141 and cover the material from Math 142. From there, you can go directly into Math 143. This sequence meets the Math 151-152, or Math 141-143 requirement.

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| MATH 110 | Mathematical Literacy - an Introduction to College Mathematics. | MQR | |
| MATH 114/114W | Elementary Probability and Statistics. | MQR | |
| MATH 115 | College Algebra for Precalculus. | MQR | |
| MATH 119 | Mathematics for Elementary School Teachers. | MQR | |
| MATH 120 | Discrete Mathematics for Computer Science. | MQR | |
| MATH 122 | Precalculus. | MQR | |
| MATH 131 | Calculus With Applications to the Social Sciences I. | MQR | |
| MATH 141 | Calculus/differentiation. | MQR | |
| MATH 142 | Calculus/integration. | MQR | |
| MATH 143 | Calculus/infinite Series. Calculus-Infinite Series. | MQR | |
| MATH 151 | Calculus/differentiation & Integration. | MQR | |
| MATH 152 | Calculus/integration & Infinite Series. Calculus/integration and Infinite Series. | MQR | |
| MATH 157 | Honors Calculus I. | MQR | |
| MATH 158 | Honors Calculus II. | MQR | |
| MATH 201 | Calculus. Multivariable Calculus. | MQR | |
| MATH 202 | Advanced Calculus. | MQR | |
| MATH 231 | Linear Algebra I. | MQR | |
| MATH 237 | Honors Linear Algebra. | MQR | |
| MATH 241 | Introduction to Probability and Mathematical Statistics. | MQR | |
| MES 160 | Classical Islamic Literature and Civilization. | LIT | RL WC PI |
| MUSC 110 | Contemporary Issues in the Sciences | MQR | MS |