**WHAT MATH COURSE SHOULD I TAKE (2)**

- 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-dent, Physical therapy, etc), or Business and Economics, then you need at least one semester of Calculus, either MATH 131, MATH 141, or MATH 151 depending on your intended major and preparedness. (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.)

- 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 higher level math course for the Accounting major. If not, then you would either need to take Math 115 to take Math 122, or, if eligible, go directly into Math 122.

- If you are interested in Elementary Education, then you need to take MATH 119, *Math For Elementary School Teachers*.

- 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, 119, 120, 122, 128 (currently numbered 190.3). Many math courses numbered 131 and above are also MQR courses. The following classes outside of math also qualify for MQR status: CSCI 12, 48, 111,112, 211, and 212; PSYCH 107.1 & 1073; and DATA 205 (formerly known as Soc 205). Check the Queens College Bulletin or Degree Works if there is any doubt about the MQR status of a course.

**ELIGIBILITY CRITERIA FOR PLACEMENT**

- 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.
• 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. Here are the credit equivalents for the various AP scores

A Math AB Calculus score of 4 earns you 4 credits of MATH 151
A math AB score of 5 earns you 6 credits for MATH 141 & MATH 142
A Math BC score of 4 earns you 8 credits for MATH 151 & MATH 152
A score of 3 on either the AB or BC exam will earn you 3 elective credits.

For overseas student, we have the following IB equivalents. An IB Math score of 6 or 7 will earn you credit for MATH 151,152, for a total of 8 cr.

An IB Math score of 5 will earn you 4 credit for MATH 151.
An IB Math score of 4 will earn you 3 credits for MATH 141

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 above.

• 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.

THE DIFFERENT CALCULUS SEQUENCES
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.

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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