

## Options for your first Mathematics or Statistics Class

It's absolutely normal to forget some of the mathematics that you learned in high school. However, this does not mean that you should retake classes for which you have already seen the material. Our classes typically build in some form of review as needed, which will allow you to refresh your memory. So, if you have taken calculus in high school (even if you don't have AP credit or anything), you should start with Calculus II or higher (see below for specific advice). **Generally, the math department will not allow students to repeat classes that they have already taken elsewhere.**

- **General guidance.** If potentially majoring in a social or biological science, you may find a STAT class more directly relevant to your major than a MATH class. Potential CS majors should work towards taking MATH 220, Physics majors towards taking MATH 231, and Mathematics majors towards taking both MATH 220 and MATH 231, in either order (followed by MATH 232). Any math professor is happy to talk to you about your options.
- **MATH 131: Calculus Ia (Fall only) or MATH 133: Calculus I (Fall or Spring).** You must have instructor consent to register for these classes. MATH 133 is a one-semester course, while the sequence MATH 131/132 integrates pre-calculus topics with the same calculus content over two semesters. To determine which is right for you, you must take a Pre-Advisement Survey, which covers mostly precalculus topics. To take this survey, follow this [link](#), or look for the "Placement Exams" section of blackboard's "Institution Page". After taking the survey, you must contact an instructor to help figure out which course is right for you. If you have taken a Calculus class in high school (even if you do not have course credit), then you should instead take MATH 134.
- **MATH 134: Calculus II (Fall or Spring).** No placement exam or consent is required. This class is appropriate if you have taken a Calculus class in high school (even if you do not have course credit), or if you have one of the following exam scores: a 4 or 5 on the AB Calculus AP exam; a 3 on the BC exam with an AB subscore of 4 or 5; a 5 on the IB Mathematics AA HL exam; or a 6 or 7 on the IB Mathematics AI HL exam. If you are already comfortable with the material from MATH 134 (equivalent to a BC Calculus class, even if you do not have course credit), then you should instead take MATH 220 or 231.
- **MATH 220: Discrete Mathematics or MATH 231: Multivariable Calculus (Fall or Spring).** No placement exam or consent is required. These classes are appropriate if you are already comfortable with the Calculus I/II curriculum (even if you do not have course credit), or if you have one of the following exam scores: a 4 or 5 on the AP Calculus BC exam; or a 6 or 7 on the IB Mathematics AA HL exam. MATH 220 is also suitable for students with MATH 133 credit who have either taken CSCI 150 or feel ready for an intermediate-level mathematics course. It covers a variety of topics, including an introduction to mathematical proofs. MATH 231 is a continuation of the Calculus sequence. Taking these courses in either order is fine, though potential Physics majors should start with MATH 231 and potential CS majors should start with MATH 220.
- **STAT 113: Introduction to Statistics (Fall or Spring), STAT 114: Introduction to Biostatistics (varies), or STAT 205: Statistics and Modeling (Fall only).** No consent is required. STAT 113 and 114 assume no prior knowledge of statistics and cover the same material, though STAT 114 emphasizes biological examples. A self-diagnostic exam to check your comfort level with algebra and numerical manipulation is available at this [link](#), the Mathematics Department's "Resources" website. If you scored a 3 or higher on the AP Statistics exam, if you are reasonably comfortable with introductory statistics, or if you have a strong mathematical background (even with no statistics background), then you should instead take STAT 205. It reviews everything from the AP Statistics curriculum, before continuing to more advanced topics.