Freshman Math Advising

The courses in the first-year calculus sequences are the basis for taking higher level mathematics courses. Thus, the first question you should ask your advisee is:

Have you taken any calculus before?

- If the answer is no, then the student may choose between these first-year calculus or statistics courses:

    - **Math 119** (Elements of Calculus, Part I) and **Math 120** (Elements of Calculus, Part II). Taken together, these courses cover the same topics as Math 121, at a slower pace and incorporating precalculus topics as needed and with an emphasis on applications. Students may opt to take Math 119 only. Students who complete both courses will be well-prepared to continue in the calculus sequence with Math 122. Recommended for most students who have not previously taken calculus.
    - **Math 121** (Calculus I). This course is appropriate for strong students who have taken a rigorous precalculus curriculum who are interested in the physical sciences or mathematics. Students may continue on to Math 122 after completing this course.
    - **Math 132** (Elementary Statistics). This is a first course in statistics, and does not require any background in calculus.
    - **Math 133** (Intermediate Statistics). This is a second course in statistics and is appropriate for students with a score of 4 or 5 on the AP Statistics exam. Students may also take this as a follow-up to Math 132.

    Students can not receive credit for Math 121 after taking Math 119 and Math 120, and can not receive credit for either of Math 119 or Math 120 after taking Math 121, because of their similar content. Any of these courses are fine for pre-med students. Introductory statistics courses do not satisfy prerequisites for higher level mathematics courses.

- If the answer is yes, then the student may consider one of the following:

    - **Math 121** (Calculus I). This course is appropriate for students who have seen some calculus before and would like to start at the beginning, or who scored 3 or lower on the AP AB Calculus exam.
    - **Math 122** (Calculus II). This course is appropriate for students who scored 4 or higher on the AP Calculus AB Exam, or who had a solid experience in an AB level calculus class, but did not study BC calculus.
    - **Math 123F** (Mathematical Deduction with Calculus). This is a first-year seminar with an emphasis on mathematical writing that covers the same topics as Math 122. It has a prerequisite of Math 121.
    - **Math 221** (Vectors and Matrices), **Math 222** (Multivariable Calculus), or **Math 223** (Linear Algebra). These are gateway courses to the major and all require a knowledge of calculus. If a student scored 4 or higher on the AP Calculus BC Exam or had an outstanding experience in calculus, then Math 221 or Math 222 is highly recommended. If, in addition, the student has some experience with mathematical proofs, or wants to learn how to read and write proofs along with learning linear algebra, then they may consider Math 223, which is a more theoretical version of Math 221. Students cannot receive credit for more than one of Math 221 and Math 223.

    Students interested in studying statistics at the mathematics major level will need Math 222 and then in a later semester can continue with the probability and statistics sequence, Math 231 and 232.

    If you or your advisee do not feel comfortable with the recommendation accompanying the Math Placement Test result, then please go with guidelines provided here. Should you need any assistance, feel free to contact the Departmental Advisory Committee (listed on website). Our chair David Pollack and administrative assistant Caryn Canalia (x2189) may also be able to answer your questions.