Calculus Placement Guide:Traditional Calculus Sequence

Registration information for students majoring or minoring in one of the following disciplines:

- Mathematics
- Computer Science
- Business
- Chemistry
- Physics
- Economics
- Biology*

Note:

It is recommended that students check the Mathematics requirements for a particular department before registering for any math courses.

| Math 111: Calculus I | | |
|--------------------------------|--|--|
| Description: | This course covers limits, differentiation, and the integration of single variable functions. Students will learn how to interpret and compute results in these topics, as well as to understand their application within the social and natural sciences. This is a 3 credit hour course. | |
| | Offered in Fall, Spring, and Summer | |
| Prerequisites: | None | |
| Intended audience: | Math 111 (or Math 111L) is the recommended route for students: With no previous Calculus experience. Majoring in Mathematics, Chemistry, Business, Computer Science, Physics, or Economics. | |
| Math 111L: Calculus I with Lab | | |
| Description: | This course covers the same topics as Calculus I (Math 111), but with its expanded time frame, provides more examples, application, and practice through group and individual work in the labs. There will be more frequent assessment of, and support for, progress using a webbased set of exercises and quizzes. It also uses an electronic version of the Calculus textbook (eBook) with software that provides extensive additional materials. This is a <i>4 credit hour</i> course. | |
| | Offered in Fall Only | |
| Prerequisites: | None | |
| Intended audience: | Math 111L (or Math 111) is the recommended route for students: | |

Math 112: Calculus II

Description:

This course is intended for those who have completed Math 111 at Emory or who have completed Calculus I at another university. It starts with techniques on integration and introduces topics as if it is the first time students have seen them.

Majoring in Mathematics, Chemistry, Business, Computer Science, Physics, or Economics.

Offered in Fall, Spring, and Summer

· With no previous Calculus experience.

Prerequisites:

The prerequisites are:

- Math 111 or 111L at Emory, or
- · Calculus I at another university.

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Registration information for students majoring or minoring in one of the following disciplines:

- Mathematics
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- Biology*

Note:

Please note that
Biology requires
Math 116 for the
Biology BS major,
and not the traditional
Calculus II courses of
Math 112 or 112Z.

| Math 112: Calculus II (continued) | | |
|-----------------------------------|---|--|
| Intended audience: | Math 112 is the recommended route for students majoring in Math, Chemistry, Computer Science, Physics, or Economics. | |
| Math 112Z: Calculus II | | |
| Description: | This course begins with series and sequences. It recaps the techniques of integration, but at a quick pace. Offered in Fall Only, Available to Freshmen only | |
| Prerequisites: | To enter this course, you must have: • A score of 4 or 5 on the Calculus AB Advanced Placement exam, or • A score of 5, 6, or 7 on the HL I.B. Math test. | |
| Intended audience: | Similar to Math 112, this course is best suited to freshmen who are majoring in Math, Chemistry, Computer Science, Physics, or Economics. | |
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Math 116: Life Sciences Calculus II

This course introduces students to the application of differential equations and probability theory in the life sciences. The course begins with a quick review of some integration techniques, exponential growth, and decay. Students will be briefly introduced to the matrix and multivariable calculus topics needed to study systems of differential equations that model such phenomena as competition, predator/prey, and epidemics. There is an introduction to probability theory, followed by several applications to topics such as genetics. This is a **4 credit hour** course.

Offered in Fall and Spring

| Prerequisites: | Freshman who have: |
|--------------------|--|
| | Completed Math 111, or |
| | Received a 4 or 5 on the Calculus AB Advanced |
| | Placement exam, or |
| | Scored a 5, 6, or 7 on the HL I.B. Math test. |
| Intended audience: | *Math 116 is required for students pursuing a BS in Biology. |

It is not required for the Biology BA but is often recommended for Medical Schools.

Math 116 **is not designed** for students pursuing higher-level math and does not satisfy the prerequisite for any advanced math courses.