

Math 108: Brief Calculus with Applications

Math 108 selects topics related to economics, finance, business, and social sciences from the three calculus courses Math 111, Math 112, and Math 212. The course presents the differential and integral calculus of polynomial, exponential, logarithmic functions and emphasizes the use of these functions in mathematical modeling (= word problems). See <http://www.math.wm.edu/lutzer/Math108/Highlights108.pdf> for examples. Probably the two biggest differences between Math 108 and Math 111 are that Math 108 does not include trigonometric functions while Math 111 does, and Math 108 includes many more word problems than does Math 111. Warning: you cannot get credit for both Math 108 and Math 111.

Associated MAPLE labs

One of the four credit hours in Math 108 consists of a computer lab that uses the language MAPLE to solve applications problems that are algebraically more complicated than the ones worked out by hand in the rest of the course. Lab assignments are normally made available on line each week, and the lab grade counts as 15% of the final course grade.

Calculators

Calculators are normally allowed in Math 108 to facilitate arithmetic calculations. They will be prohibited on certain exam questions.

Textbook

For 2006-07, the textbook will be **Brief Calculus and Its Applications**, tenth edition, by Goldstein, Lay, and Schneider, published by Pearson Prentice Hall.

Prerequisites

A good knowledge of high school algebra, including exponential and logarithmic functions, is the key to success in Math 108. You can see an algebra readiness test for this course by going to

<http://www.math.wm.edu/lutzer/Math108/AlgebraPrerequisites.pdf>

where you will find an un-timed seven question test. You should be able to work at least six of the seven questions correctly before enrolling in Math 108.

Special Warnings

- You cannot receive credit for both Math 108 and Math 111.
- Math 108 does not prepare you for Math 112. If you plan to pursue a science major or a pre-medical program, you should not enroll in Math 108.