

NORTHERN MICHIGAN UNIVERSITY
MA 161-01-09S
SUMMER 2009
CALCULUS I

5 credits

Independent Study

Instructor: Andy Poe, 1129 New Science Facility, 227-1598

This course covers differential calculus and primitive integral calculus of a single variable. Topics include: limits, definition of the derivative, rules for computing the derivative for polynomial functions and transcendental functions (exponential and trigonometric functions and their inverses), and applications of the derivative including min-max problems, related rate problems, Newton's method of approximation, and implicit differentiation.

The integral calculus topic include definition of definite and indefinite integrals, the Fundamental Theorem of Calculus, and certain basic integration techniques (u-substitution, trigonometric substitution).

Review of algebraic and trigonometric manipulation will be done as necessary and there will be an emphasis on word problems and applications.

Text: No Text

Laptop Policy: Although this is a Computer Science course, the use of a laptop in class is forbidden in class and on exams. There will be exceptions to this policy, such as when we install software or when we have lab days. But, in general, if I'm lecturing, no laptops, or any other distracting electronic equipment such as Walkmans, iPods, cell phones, etc.

Courseload: There will be two exams worth 10% each and a final worth 20%. The remaining 60% will be determined through frequent quizzes.

Office Hours: By Appointment.

DISABILITY SERVICES

If you have a need for disability-related accommodations or services, please inform the Coordinator of Disability Services in the Disability Services Office at 2001 C. B. Hedgcock (227-1700; TTY 227-1543). Reasonable and effective accommodations and services will be provided to students if requests are made in a timely manner, with appropriate documentation, in accordance with federal, state and University guidelines.