

MATH 111: CALCULUS

Instructor: John Lind

Office: Library 390

Office Hours: M 12:00–13:00, T 13:00–14:00, Th 15:00–16:30; also by appointment

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Class meeting: MWF 13:10–14:00 Library 389 [F05]

MWF 15:10–16:00 Physics 240A [F06]

This course explores differential calculus of a single real variable with rigor and mathematical maturity. The goal is to obtain a conceptual understanding and calculational mastery of limits, derivatives, and integrals. In order to understand the theoretical basis for the subject, we will examine the definition of the limit, continuity, the mean value theorem, and the definition of the Riemann integral. The lectures and the homework will also be oriented towards applications and problem-solving skills. The basic properties of polynomial, trigonometric, exponential, logarithmic, and rational functions will be reviewed so that we have a rich supply of interesting examples.

Text. Calculus (single variable), 6th edition, Hughes-Hallett, et. al. (available in the bookstore and on reserve in the library [QA303.C155 2013])

Assignments, Exams. There will be weekly homework assignments due at the beginning of class on wednesdays. There will be one midterm exam, one final exam, and occasional in-class quizzes.

Tutoring. There is a drop-in math tutoring center open Sundays through Thursdays, 19:00–21:00, in Library 387.

I expect you to comport yourself with honor, as derived from respect for the academic program, your peers and your instructors. Collaboration is an important part of the mathematical life, and I encourage you to talk to your peers and work on problems together. Your homework is a reflection of your own understanding of the material and should be written entirely by you, in your own words, with proper attribution of your collaborators at the beginning. I consider copied homework to be an honor principle violation.