

*Lecturer:* Russell Brown, POT 741, 257-3951, rbrown@uky.edu. Office hours: M3-4 in Mathematics Resource Center, MWF 11-12 in POT741 and by appointment.

*Rooms:* Lectures are MWF 2-2:50 in CP222.

*Textbook:* The textbook for this course will be *Calculus*, 3rd edition, by James Stewart.

*Material to be covered:* In Calculus I, we will learn about derivatives, integrals and the fundamental theorems of calculus, which give the connection between integrals and derivatives. We will begin by introducing the notion of a limit, which is essential to defining derivatives and integrals. By the end of the semester students should know precise definitions of the limit, the derivative and the integral. We will also give an indication of the sorts of problems that can be solved using calculus and discuss the interpretations of the derivative as velocity or slope of a tangent line and the integral as area or distance traveled.

*Homework:* A small number of homework problems will be collected for grading. This homework will come in two flavors. Routine problems that will be graded by an undergraduate paper grader and longer, more interesting assignments that will be graded by your instructors. Some of these assignments may involve the use of Maple. No late homework will be accepted. In addition to the graded homework, you should work most of the problems on the course calendar. Your main task in recitation is to make sure that you understand these problems.

*Mathematics resource center:* Teaching assistants will be in Mathskeller to help with Calculus. This resource center is located in the basement of the Classroom Building. A schedule will be circulated early in the semester and will eventually be located at <http://www.ms.uky.edu/~mrc>

*Exams:* There will be three exams and a final. These exams are scheduled in the evening as indicated in the course calendar. Please be sure that you have these dates free. The final exam will be cumulative, but with an emphasis on the material covered since the last test.

*MA193:* In addition, to the 4 hours of credit for MA113, the department offers one additional hour of credit as MA193 on a pass/fail basis. You will pass MA193 if you have 0, 1 or 2 unexcused absences. If you have more unexcused absences, you will fail MA193. Your section number for MA193 should equal your section number for MA113. If you drop or change sections of MA113, please make sure to also drop or change sections of MA193.

*Grading:* Students need an average of 90% for an A, 80% for a B, 70% for a C and 60% for a D. Grades may be curved by making small adjustments in these percentages. Your grade will be based on the activities in the table below.

3 hour exams	300
Final exam	100
Homework	100
TOTAL	500

*Calculators:* Students may use a graphing calculator on exams and homework. Students may not use a machine with symbolic manipulation capabilities on exams. Thus, no TI-89's, TI-92's, no HP-48's or laptop computers may be used on exams. Please see the lecturer if you have any questions as to whether a particular machine may be used on a test.

*Absences:* You should attend class. If you must miss a recitation and are registered for MA193, you must explain your absence to your teaching assistant. Otherwise, your absence will be marked as unexcused and this may lead to failing MA193. If you are not able to turn in a homework assignment because of an absence, you will not be able to turn it in late. If you have an excused absence, please inform your lecturer, Russell Brown. A list of all excused absences will be collected during the semester. We will consult this list before assigning final grades.

*Web page:* A primitive web page for this course is at <http://www.ms.uky.edu/~rbrown/courses/ma113.s.03> Any handouts will be available at this address.