Calculus II MA114:004-006

Lecturer: Russell Brown, POT 741, 257-3951, russell.brown@uky.edu. Office hours: W11-12 in Mathematics Resource Center, CB 063, MF 11-12 in POT 741 and by appointment. *Teaching assistants:*

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Rooms: The lectures will be in CP 320 10-10:50pm MWF. Recitations will meet on Tuesday and Thursday. Please check your schedule for time.

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

Material to be covered: The second semester of Calculus will begin with the study of the exponential, logarithm and inverse trigonometric functions. Then, we will study techniques of integration. The third part of the course is devoted to sequences and series. The study of series and their convergence allows us to define new mathematical functions. A good understanding of convergence will help us to understand to the accuracy of numerical approximations. The final part of the course introduces parametric curves and (reviews?) polar coordinates. These topics serve as a preparation for Calculus III, MA213.

A detailed schedule of topics is in the attached course calendar.

Homework: Students should work every problem on the course calendar. This work will not be collected and graded. Time will be provided in recitation to go over a few of these problems. HOWEVER, YOU DO NOT LEARN MATH BY WATCHING US WORK PROBLEMS. You learn math by working problems.

A small number of challenging problems will be assigned, collected and graded. On these problems we will look both at your solution and also how carefully and completely you explain your solution. Exams will be based on both the graded homework and the problems from the course syllabus.

Quizzes: Quizzes will be given on most Thursday's. These quizzes will not be graded. However, they will provide important practice for examinations.

Mathematics resource center: Teaching assistants will be in the Mathematics resource center to help with all 100 level mathematics courses. This resource center will be in White Hall Classroom Building, room 065 (in the basement). A schedule will be circulated early in the semester and will eventually be located at http://www.mathskeller.com

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.

MA194: In addition, to the 4 hours of credit for MA114, the department offers one additional hour of credit as MA194 on a pass/fail basis. You will pass MA194 if you pass MA114 and have 0, 1 or 2 unexcused absences. If you fail MA114 or have three or more unexcused absences, you will fail MA194. Your section number for MA194 should equal your section number for MA114. If you drop or change sections of MA114, please make sure to also drop or change sections of MA194.

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. Several topics such as series, parametric curves and polar coordinates will be much simpler with a graphing calculator. 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 during a test.

Absences: You should attend class. If you must miss a recitation and are registered for MA194, you must explain your absence to your teaching assistant. Otherwise, your absence will be marked as unexcused and this may lead to failing MA194.

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 which causes you to miss an assignment, please inform your lecturer, Russell Brown. A list of all homework assignments that are missed because of absence will be collected during the semester. We will consult this list before assigning final grades and attempt to determine the grade you would have obtained if you had completed the assignment.

Please note carefully the division of responsibility for excused absences. Missed homeworks should be reported to Brown. Missed recitations should be reported to the teaching assistant. Do not miss exams.

Web page: A primitive web page may be reached from

http://www.ms.uky.edu/~rbrown/courses/ Any handouts will be available at this address. *Library:* Solutions to exams and occasional homework problems will be kept on reserve in the Mathematics Library in the basement of Patterson Office Tower.