MA114:003–005, Spring 1999
Calculus II

Instructors:	Russell Brown (lecturer)	POT 741
	Office hours: M 2–3, W11–12, F11–12	257 3951
	and by appointment	rbrown@ms.uky.edu
	Dan Folie (section 3)	POT 718, 257 6806
	TR 5–6pm	folie@ms.uky.edu
	Istvan Kovacs (section 4 and 5)	POT 806 257 6817
	W12–1:30pm, F 12–1:50pm	kovacs@ms.uky.edu

Text: Calculus: concepts and contexts, single variable, by James Stewart.

Course content:

	Chapter 5	Integrals
	Chapter 6	Applications of integration
	Chapter 7	Differential equations
	Chapter 8	Infinite sequences and series

Grading: Each of the three hour exams and the final will be 100 points. The projects will be worth 20 points each, for a total of 60 points. Quizzes will be worth 60 points. You may earn up to 30 points for presenting homework problems in recitation. I expect that you will need 90% for an A, 80% for a B, 70% for a C and 60% for a D. Thus, you will need to earn at least 495 points out of the total of 550 points to obtain an A, 440 for a B, 385 for a C and 330 for D.

Cheating: Copying or cheating on exams and quizzes is not allowed. The minimum penalty for cheating is a failing grade in this course. I expect that students will collaborate on projects. However, you should not take credit for an assignment unless you made a substantial contribution to the solution of that problem. You are encouraged to work together on homework, but you should not turn in as your work a solution which you copied from another student.

Homework: Below is a list of suggested problems. You should work all of these problems. Time will be available in recitation to begin work on these problems and selected problems will be presented by students in recitation. A few additional problems may be assigned during the semester. If you have difficulty with a problem, please see the lecturer or your teaching assistant to find out how to work the problem.

Quizzes: Quizzes will be given in lecture on most Fridays, except on the weeks of exams. The dates appear in the schedule below. These quizzes are to encourage you to keep current with your homework. Many of the quizzes will be based on homework problems from the text.
Your quiz average will be computed after dropping the two lowest scores.

Exams: There will be three exams on Tuesday evenings from 7:30 to 9:30. The dates for these exams are on the calendar. Please make sure you have these dates free. The room for these exams will be different from your lecture and recitation room. The room will be announced in class. The final will be from 1–3pm on Friday, 7 May 1999. The final will be given in the lecture room.

Projects: We hope to complete three projects. You will work in groups on these projects and your group will turn in one written report. Groups must have 1 to 3 members. All members of a group will receive the same grade. We will devote most of one recitation to each project. You will need to arrange for additional time out of class to complete each project.

MA194: Calculus II is a four credit course, but meets for more than four hours per week. In order to receive credit for the extra class time, you are strongly encouraged to enroll in MA194. You should enroll in the same section number for both MA194 and MA114.

MA194 will be graded on a pass/fail basis. If you have zero, one or two unexcused absences you will pass MA194 if you have three or more unexcused absences, you will fail MA194. **Please tell your TA about any excused absences as soon as possible**. Excused absences due to university activities should be mentioned in advance. Absences due to illness or emergency should be reported as soon as you return to school.

Attendance: Go to class. Attendance will be taken in recitation in order to determine your MA194 grade.

Missed assignments: No makeup quizzes will be given and no late projects accepted. If you miss an assignment for illness or other emergencies, tell the lecturer, Brown, as soon as you return to school. If you miss recitation for a scheduled activity, tell your TA as soon as you know you will miss class. Missed assignments will be given a grade of 0 and we will compensate for excused absences when we assign final grades.

Please try to attend all exams. If you must miss an exam talk to Brown to arrange a makeup.

Calculators: You are encouraged to have a graphing calculator to use in class, on homework and during exams. Your instructors will be using TI-82's. The TI-86's instruction set is a superset of the TI-82's instruction set. On exams, you may not use a machine which performs symbolic manipulation. In particular, no TI-92's, no laptop computers and no machines with a keyboard.

Web site and library: There will be a primitive web-site for this course at http://www.ms.uky.edu/~rbrown/ma114. This site will contain old tests, and copies of all handouts (in postscript and .pdf). There will also be a book on reserve in the Math Library in the basement of the Patterson Office Tower. This notebook will contain solutions to exams, quizzes and projects.

Problems: If you have any questions about this course, contact your TA or instructor. If they cannot resolve a problem, you may see the course coordinator for MA114, the departmental ombudperson or the university ombudperson.

Tentative schedule with suggested homework problems.:

13–15 Jan	§5.1, 1, 3, 9, 11.
18 Jan	Monday, Martin Luther King Day, no class.
19–22 Jan	§5.2 1, 3, 5, 7, 11, 13, 15, 21, 25, 31, 33. §5.3 1, 3, 7, 13, 25, 33, 39, 43, 47, 51, 55, 61.
22 Jan	Quiz 1 §5.1, §5.2
25–29 Jan	§5.4 1, 5, 7, 9, 11, 15, 17, 23, 27, 29. §5.5 3, 7, 11, 19, 29, 37, 45, 55, 57, 63. §5.6 1, 5, 7, 13, 21, 27, 33, 41, 45.
28 Jan	Project: Wallis's product.
29 Jan	Quiz 2 §5.3, §5.4, §5.6.
1–5 Feb	§5.8 1, 3, 7, 15, 21, 23, 25, 27. §5.9 1, 3, 5, 11, 15, 23, 35, 43, 45, 55.
3 Feb	Wed, last day to drop a course.
5 Feb	Quiz 3 §5.7, §5.8, §5.9.
9 Feb	Fri, 7:30–9:30 pm, first exam.
10–12 Feb	Appendix F 1, 7, 13, 17, 23, 27.
15–19 Feb	Integration by trigonometric substitution. Problems to be assigned. §6.1 1, 3, 7, 11, 15, 19, 21, 23, 26, 35.
19 Feb	Quiz 4, Appendix F and trigonometric substitution.
22–26 Feb	§6.2 1, 3, 9, 11, 19, 23, 25, 31, 35, 41. §6.3 3, 5, 9, 11, 17, 19.
26 Feb	Quiz 5 §§6.1–6.2.
1–5 Mar	§6.4 1, 5, 7, 11, 13. §6.5 1, 3, 5, 7, 11, 13, 15, 19, 23.
5 Mar	Quiz 6 §§6.3–6.4
9 Mar	7:30–9:30 pm, second exam
10–12 Mar	§8.1 3, 7, 11, 13, 15, 25, 27, 29, 33, 35, 37, 39, 43. §8.2 3, 5, 11, 19, 21, 27, 33, 39, 43, 45.
12 Mar	Friday, last day to withdraw.
15–19 Mar	Spring break, no classes.
22–26 Mar	§8.3 3, 5, 7, 9, 17, 21, 23, 27, 29. §8.4 1, 3, 5, 11, 13, 15, 19, 23, 29, 31, 33.
26 Mar	Quiz 7 §§8.1–8.3.
29 Mar–2 Apr	§8.5 3, 5, 7, 11, 17, 23, 25. §8.6 1, 3, 7, 11, 17, 19, 23, 31. §8.7 1, 9, 11, 19, 21, 23, 31, 33, 39, 43, 47.
1 Apr	Project: Computing π.
2 Apr	Quiz 8 §8.4–8.5
5–9 Apr	§8.8 3, 7, 11, 13, 15. §8.9 5, 11, 13, 23, 25.
9 Apr	Quiz 9 §8.6–§8.9.
Apr 13	7:30–9:30 pm, third exam
14–16 Apr	§7.1 1, 3, 7, 9. §7.2 1, 3–6, 7, 9, 19.
19–23 Apr	§7.3 1, 2, 5, 9. §7.4 1, 3, 5, 9, 13, 15, 21, 23, 27, 29, 31, 37. §7.5 3, 5, 9, 11, 13, 17.
22 Apr	Project: Which is faster: up or down? p. 526 Stewart.
23 Apr	Quiz 10 §§7.1–7.3.
26–30 Apr	Catch-up, review.
28 Apr	Quiz 11 §§7.4–7.5.
7 May	Fri., 1–3 pm Final exam