

Math 114 – Calculus II Spring 2018 Syllabus

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Office hours: Monday, Wednesday, Friday 3:15-4:30 PM
Course Web Page: <http://www.ms.uky.edu/~perry/ma114.s18/>
Course Calendar: <http://www.ms.uky.edu/~perry/ma114.s18/Docs/Calendar.pdf>

Course Description:

A second course in Calculus. Applications of the integral, techniques of integration, convergence of sequence and series, Taylor series, polar coordinates. Lecture, three hours per week; recitation, two hours per week.

Prerequisites

A grade of C or better in MA 113, MA 137 or MA 132.

Student Learning Outcomes

After completing this course students should clearly understand the fundamental concepts of one variable calculus and work effectively to solve problems using these concepts. Students should be able to:

1. Compute integrals *analytically* using integration by substitution, integration by parts, trig substitution and partial fractions
2. Approximate definite integrals *numerically* and understand the accuracy and limitations of the numerical methods
3. Understand why physical quantities such as area, arc length, surface area, and volume can be computed using integral calculus
4. Use integrals to compute arc length, area enclosed by a curve, surface area, and volume
5. Determine the convergence or divergence of an improper integral, infinite sequence, or infinite series
6. Describe plane curves using parametric and polar coordinates
7. Analyze mathematical models involving first-order differential equations

Required Materials

Textbook: Calculus (8th Edition) by James Stewart. A custom paperback version published for UK is available from the bookstores. Students may choose a single-variable version that will be used for MA 113 and MA 114 (ISBN 978-1-337-005640-3), a full version that will be used for MA 113, MA 114, and MA 213 (ISBN 978-1-337-03059-5), or an electronic version with all chapters (ISBN 978-1-285-85826-5). Students may also use the standard hardback version (ISBN 978-1-285-74155-0). These are bundled with electronic access to the textbook. You purchased access to the eBook when you purchased your textbook. Instructions for accessing the eBook are available in the [Student Quick Start Guide](#). Our class access key is **uky 3622 9307**

iClicker: The lecture portion of your grade is based on active participation in lecture (the Mon-Wed-Fri meetings). You will participate in class using your phone, laptop, or other device with an internet connection. You will need to create an *iClicker* Student account and purchase a subscription. When setting up your account, please use your student ID number **without the leading 9**, and your official UK email address. A 180-day subscription costs \$14.99, and can be purchased directly through *iClicker* or by buying an access code from one of the university bookstores. If you have any difficulties with obtaining an account or with bringing a phone or laptop to class, please see your instructor. If you are using *iClicker* Polling in another class this term, you only need one subscription. You can access our *iClicker* course by using the *iClicker* on the Modules tab of our Canvas course page.

See the video <https://www.youtube.com/watch?v=DRdwxsxZ6xE> for more information about setting up an account.

Software: All students should have an up-to-date browser for Canvas, the *iClicker* app, and a graphing calculator or a graphing program such as *desmos*, *WinPlot*, *Grapher*, *Maple*, *Mathematica*. Students will need a desktop or laptop computer with internet access to access WebWork, the online homework system that students will use to complete web-based homework.

Math 194

In addition to the 4 hours of credit for MA 114, the Mathematics Department offers one additional hour of credit as MA 194 on a pass/fail basis. MA 194 offers problem-solving practice and weekly quizzes on Thursdays (except during exam weeks). See the [course calendar](#) for daily recitation activities and weekly quizzes.

You will pass MA 194 if you have at most 2 unexcused absences during MA 114 recitations and you pass MA 114. If you fail MA 114 you will automatically fail MA 194. If you pass MA114 but have 3 or more unexcused absences in recitations, you will fail MA194.

You are responsible for bringing the recitation worksheets to recitation. Failure to bring the worksheets may be considered as an unexcused absence in the session. Leaving a recitation class early for reasons other than a scheduled, University-sponsored event or a

personal emergency may be counted as an unexcused absence.

Your section number for MA 194 has to be the same as your section number for MA 114. If you drop or change sections of MA 114, please make sure to also drop or change sections of MA 194. It is your responsibility to take care of this if you change sections; otherwise you risk a failing grade for MA 194 because you are not on the proper class roll.

Course Activities and Assignments

Students will attend 50-minute lectures on Monday, Wednesday and Friday, and 75-minute recitations on Tuesday and Thursday. Students should read and study the relevant section of the course text before coming to lecture. During the lectures, students will work problems and answer *iClicker* polling questions based on the reading and lecture materials. Students will bring recitation worksheets to each recitation, solve problems in a group-work setting, and take weekly quizzes on course material (except during exam weeks and Dead Week).

Web-based homework will be due each Wednesday and Friday (and also on Monday, February 19 and Monday, April 16) by 11:58 PM. There will be no Wednesday assignments during exam weeks (February 5-9, March 5-9, and April 9-13). If an emergency or illness takes you away from school, please discuss your situation with your professor and ask to be excused from an assignment, if appropriate. If you have a scheduled absence (travel or authorized university absence) you must still submit the web homework by the deadline.

Students will take *common exams* on Tuesday, February 6; Tuesday, March 6; and Tuesday, April 10. These exams will be administered 5:00-7:00 PM. Students having a schedule conflict due to a course meeting or other University-sponsored activity must request an alternate exam at least one week in advance.

Classroom Behavior Policies

First, if you come to class, stay in class. Students who leave class early for reasons other than a scheduled University activity or a personal emergency disrupt the lecture and interfere with the academic freedom of other students.

Second, don't use cell phones and laptops except when answering *iClicker* questions, viewing lecture materials, or taking notes on the lecture. It's to your advantage to be fully present and attentive in class.

Third, please respect your fellow students by not talking in lecture except during group work, when asking questions, or when responding to questions.

Course Grading

Course assignments and tests will be weighted as follows.

| | |
|----------------|----------------|
| 3 Common Exams | 60.00% |
| 1 Final Exam | 20.00% |
| Web Homework | 10.67% |
| Attendance | 6.66% |
| Weekly Quizzes | 2.67% |
| Total | 100.00% |

Grading scale:

| | |
|---------|---|
| 90-100% | A |
| 80-89% | B |
| 70-79% | C |
| 60-69% | D |
| 0-59% | E |

Mid-term Grade

Mid-term grades will be posted in myUK by the deadline established in the Academic Calendar (<http://www.uky.edu/registrar/calendar>).

Final Exam Information

The final exam will take place on Monday, May 2, 8:30PM-10:30PM. Room assignments will be posted on the course web page at least one week in advance of the final. Any student who has three exams the same day may request the instructor of the highest-numbered course to reschedule the exam. For Math 114, these requests should be made by Monday of Dead Week.

Attendance Policy

For the lecture portion of the course, your attendance grade is based on *active participation in class* as measured by response to *iClicker* questions. Each student will be allowed up to five absences to account for *iClicker* problems.

For the recitation portion of the course, your recitation instructor will take attendance each day. Failure to bring the required recitation worksheet, or leaving class before its

scheduled end, may result in an unexcused absence. Students with more than 2 unexcused absences will receive a grade of “F” in MA 194.

Excused Absences

Students need to notify the professor of absences prior to class when possible. Excused absences may be granted for illness, the death of a family member, travel for a University-sponsored activity, major religious holidays, full-time employment, or other reasons at the discretion of the instructor. Please refer to [Senate Rules 5.2.4.2](#) for the complete University policy about excused absences, or ask you instructor if you have any questions.

Students are expected to withdraw from the class if more than 20% of the classes scheduled for the semester are missed (excused) per University policy.

Academic Integrity

Per University policy, students shall not plagiarize, cheat, or falsify or misuse academic records. Students are expected to adhere to University policy on cheating and plagiarism in all courses. The minimum penalty for a first offense is a zero on the assignment on which the offense occurred. If the offense is considered severe or the student has other academic offenses on their record, more serious penalties, up to suspension from the University may be imposed.

Accommodations due to disability

If you have a documented disability that requires academic accommodations, please see me as soon as possible during scheduled office hours. In order to receive accommodations in this course, you must provide me with a Letter of Accommodation from the Disability Resource Center (DRC). The DRC coordinates campus disability services available to students with disabilities. It is located on the corner of Rose Street and Huguelet Drive in the Multidisciplinary Science Building, Suite 407. You can reach them via phone at (859) 257-2754 and via email at drc@uky.edu. Their web address is <http://www.uky.edu/DisabilityResourceCenter>.