

University of Kentucky

MA 214 - Calculus IV

Sections 2, Fall 2014

MWF 10:00 - 10:50am, CB 349

Instructor

Dr. [Qiang Ye](#)

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syllabus link: <http://www.ms.uky.edu/~qye/MA214/ma214.html>

Teaching Assistant

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Office Hours: T.Th 2:00-3:00 pm

Textbook

Elementary Differential Equations (custom edition for the University of Kentucky), by William E. Boyce and Richard C. DiPrima. (The 10th edition of the regular version of the book may be used too.)

Help sessions

There will be four weekly help sessions staffed by teaching assistants. These are available to students in all sections of MA214. You are strongly encouraged to attend one of these sessions every week scheduled as follows:

Tuesdays 11am-12:15pm. in FPAT 253, (N. Armernoff)

Tuesdays 3:30-4:45pm. in CB 201, (J. Zhuge)

Thursdays 11am-12:15pm. in FPAT 253, (J. Zhuge)

Thursdays 3:30-4:45pm. in CB201, (N. Armernoff)

Help is also available through the [Mathskeller](#) - a resource center run by the math department. Mathskeller is located in CB 63 and is open from 9:00 AM to 5:00 PM Monday through Friday.

Course Coverage

In this course, we study theory and solution methods for ordinary differential equations (ODE). We will cover most of Chapter 1 (Introduction), Chapter 2 (First-order differential equations), Chapter 3 (Second-order linear equations), Chapter 5 (Series solutions), and Chapter 6 (The Laplace transform). A tentative [calendar](#) for the course coverage, which is subject to change/update, can be found [HERE](#).

Prerequisites

MA 213 or equivalent.

Homework

We will use [WeBWork](#) - a web based homework system - for assigning, completing, and grading homeworks. Homeworks will be assigned weekly with the exception of the exam weeks and they will be due on Friday at 1am at [WeBWork](#). Late submission will not be accepted by [WeBWork](#).

An account has been created for each enrolled student at [WeBWork](#). Please login at [WeBWork](#) using your LinkBlue username for e-mail as the username and using your UK ID as the initial password. Once you have logged in, please change your password immediately by clicking on Password/Email in the Main Menu. You can then click on Homework Sets in the Main Menu to see a list of homework available. Be sure to check the Status column of homework sets, which is marked as open, closed, or not yet open. If the set is open, that means that when you solve a problem, it will be counted towards your grade. If the set is closed, you can still solve problems and get your answers checked, but your results will not be recorded.

More detailed information on WeBWork can be found [HERE](#) or in PDF file [HERE](#). A brief instruction on how to enter answers in WeBWork can be found [HERE](#) or in PDF file [HERE](#).

Quizzes

With the exception of the exam weeks, we will have weekly quizzes to be held on Friday's classes. The quizzes will be based on the homework due at that week. Solutions to quizzes are posted below.

[Solution to Quiz 1](#)

[Solution to Quiz 2](#)

[Solution to Quiz 3](#)

[Solution to Quiz 4](#)

[Solution to Quiz 5](#)

Exam 1 will be on Wed. Oct. 8 and will cover materials up to (and including) Section 3.3. The classes on Friday Oct. 3 and Monday Oct. 6 will be devoted to review.

Some practice problems from the textbook: p.40, #7 and #20. p.48: #3 and #15, p.101: #3, #10, #25. p.110: #4(a), #15(a). p.60: #2, #4, #9, #15, #16, p.76: #1,#4, #10. p.88: #1, #3, #15. p.155: #9, #27, #28. p.144: #5, #9. p.164: #7,#17. (Answers on p.589-635)

[Solution to Exam 1](#)

[Solution to Quiz 6](#)

[Solution to Quiz 7](#)

[Formula Sheet for Laplace Transform](#)

Exams and Grades

There will be two midterm exams to be held in class on Oct. 8 and Nov. 12. There will also be a final exam of two hour duration scheduled at 1pm on Dec. 16, 2014. The course grade will be computed from a score of up to 600 points earned from exams and homeworks as follows:

Two midterm Exams (100 points each)	200 points
Final Exam	200 points
Homework	100 points
Quizzes	100 points
Total	600 points

The scheme for assigning the course grade is given in the following table.

90% (540 points) or above	A
80% (480 points) or above	B
70% (420 points) or above	C
60% (360 points) or above	D
below 60% (360 points)	E

If you miss an exam, you will automatically be given zero point unless legitimate reasons are provided with FULL documentations, in which case a make-up exam will be arranged.

You may use a graphing calculator on exams but may not use any electronic device with the ability to do symbolic computations such as the TI-89, TI-92, HP48 or a laptop computer. Cell phones must be turned off and put away out of sight during an examination.

Midterm grades

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

Excused Absences

Students need to notify the professor of absences prior to class when possible. S.R. 5.2.4.2 defines the following as acceptable reasons for excused absences: (a) serious illness, (b) illness or death of family member, (c) University-related trips, (d) major religious holidays, and (e) other circumstances found to fit "reasonable cause for nonattendance" by the professor. Students anticipating an absence for a major religious holiday are responsible for notifying the instructor in writing of anticipated absences due to their observance of such holidays no later than the last day in the semester to add a class. Information regarding dates of major religious holidays may be obtained through the religious liaison, Mr. Jake Karnes (859-257-2754). Students are expected to withdraw from the class if more than 20% of the classes scheduled for the semester are missed (excused or unexcused) per university policy.

Verification of Absences

Students may be asked to verify their absences in order for them to be considered excused. Senate Rule 5.2.4.2 states that faculty have the right to request "appropriate verification" when students claim an excused absence because of illness or death in the family. Appropriate notification of absences due to university-related trips is required prior to the absence.

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. Plagiarism and cheating are serious breaches of academic conduct. Each student is advised to become familiar with the various forms of academic dishonesty as explained in the Code of Student Rights and Responsibilities. Complete information can be found at the following website: <http://www.uky.edu/Ombud>. A plea of ignorance is not acceptable as a defense against the charge of academic dishonesty. It is important that you review this information as all ideas borrowed from others need to be properly credited. Part II of Student Rights and Responsibilities (available online <http://www.uky.edu/StudentAffairs/Code/part2.html>) states that all academic work, written or otherwise, submitted by students to their instructors or other academic supervisors, is expected to be the result of their own thought, research, or self-expression. In cases

where students feel unsure about the question of plagiarism involving their own work, they are obliged to consult their instructors on the matter before submission. When students submit work purporting to be their own, but which in any way borrows ideas, organization, wording or anything else from another source without appropriate acknowledgement of the fact, the students are guilty of plagiarism.

Plagiarism includes reproducing someone else's work, whether it be a published article, chapter of a book, a paper from a friend or some file, or something similar to this. Plagiarism also includes the practice of employing or allowing another person to alter or revise the work which a student submits as his/her own, whoever that other person may be. Students may discuss assignments among themselves or with an instructor or tutor, but when the actual work is done, it must be done by the student, and the student alone. When a student's assignment involves research in outside sources of information, the student must carefully acknowledge exactly what, where and how he/she employed them. If the words of someone else are used, the student must put quotation marks around the passage in question and add an appropriate indication of its origin. Making simple changes while leaving the organization, content and phraseology intact is plagiaristic. However, nothing in these Rules shall apply to those ideas which are so generally and freely circulated as to be a part of the public domain (Section 6.3.1).

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 (Room 2, Alumni Gym, 257- 2754, email address: jkarnes@email.uky.edu) for coordination of campus disability services available to students with disabilities.