
MA 214 – Calculus IV

Section 006, Spring 2020

MWF 13:00 – 13:50, CB 214

Department of Mathematics, University of Kentucky

Instructor

Dr. **Ding Lu**

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Office hours: MWF 2:00 pm – 2:50 pm (or by appointment).

Syllabus & info: check on Canvas (<https://www.uky.edu/canvas/>)

Teaching Assistant

Ms. **Julianne Vega**

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Office hours: Wed 9:00 am – 11:00 am, Thur 9:00 am – 10:00 am, Mathskeller.

Textbook

Notes on Diffy Qs by **Jiří Lebl**.

Online book available at: <https://www.jirka.org/diffyqs/html/diffyqs.html>

Course objective

Calculus IV is about *Ordinary Differential Equations* (ODE). In this course, we will study the theory and solution methods for ODEs. The main topics include: first-order ODEs (Chapter 1), second and higher order linear ODEs (Chapter 2), the Laplace transform (Chapter 6), and power series methods (Chapter 7). A tentative calendar for the course coverage can be found at the course site on Canvas, but the schedule is also subject to change and update.

Prerequisites

Calculus III (MA 213): A good knowledge of integration techniques are required.

Course expectations

Our lecture will follow the textbook quite closely, so you are encouraged to read the related materials as they are covered in class. I expect you to attend all classes and finish all homework assignments on time. Absences will only be excused with proper medical documentation, and other reasonable cause for nonattendance. You should try to talk to me about it as soon as possible.

Class organization

- **Homework:** There will be a total of 7 homework sets during the semester. You will need to complete and submit by the due date as stated in the homework (usually about every two weeks, see calendar). Late submission will not be accepted.

Homework will be posted on Canvas and collected as hard copies (in class??).

- **Quizzes:** There will be a total of 4 quizzes (see calendar). They will be held every two weeks on Friday's classes, with the exception of exam weeks. The problems will be mostly based on the homework assignment due on that week.
- **Exams:** There will be 2 midterm exams to be held in class: The first one will be on **02/28/2020** and will cover materials up to section 2.4. The second one will be on **04/06/2020** and will cover materials up to section 6.2.

There will also be a final exam of two hour duration scheduled at **13:00–15:00 on 05/04/2020**.

- **Policies:**

- For quizzes and exams, no calculators are allowed!
- Make-up quizzes or exams will be permitted only for excused absences.

Grades

Your grades will be calculated out of 100% and computed as follows.

Homework	10%
Quizzes	20%
Two midterm Exams	40%
Final Exam	30%

The course grade is assigned in the usual manor as

%	grade
90.0 – 100.	A
80.0 – 89.9	B
70.0 – 79.9	C
60.0 – 69.9	D
below 60	E