

# MATH 3113-001/005 SYLLABUS

FALL 2019

## Basic Info

Meeting time and location:

- Section 001: MWF 1:30–2:20. PHSC 0122.
- Section 005: MWF 11:30–12:20. PHSC 0359.

Instructor: Daniel Smolkin

E-mail address: [smolkin@ou.edu](mailto:smolkin@ou.edu)

Office: PHSC 529

Office hours: TuTh 11-12, or by appointment

**Course Description.** MATH 3113 is a basic course in Differential Equations. The course aims to teach the techniques for solving the most common differential equations that arise in applications. The approach is problem-oriented more than theoretical, though we will need to cover some theory. The main topics are:

- First order ordinary differential equations.
- Linear differential equations with constant coefficients.
- An introduction to systems of differential equations.
- The Laplace transform.

**Prerequisites.** MATH 2423 or MATH 2924.

**Course text.** *Differential Equations and Boundary Value Problems (5/e)*, by C. H. Edwards, D. E. Penney, and D. T. Calvis, Pearson, 2014, ISBN 9780321796981.

## Important Dates.

- Drop deadline: August 30
- Exam 1: September 16
- UT game (no classes): October 11
- Exam 2: October 14
- Exam 3: November 4
- Withdraw deadline: November 8
- **Final exam (in our usual classroom):**
  - Section 001: Wednesday, December 11, 8:00–10:00am,
  - Section 005: Thursday, December 12, 1:30–3:30pm

**Grading.** Grading will be based on homework, quizzes, and exams. Each student's grade for the course will be broken down in the following way:

Homework	Quizzes	Midterm 1	Midterm 2	Midterm 3	Final
10%	25 %	15 %	15 %	15 %	20 %

## COURSE POLICIES

**Calculators** will not be allowed during exams, but they might be helpful for quizzes and homework. Of course you can also use a computer in these situations.

**Homework:** Homework will be due once a week and submitted through Gradscope. See the pdf titled [gradescope\\_intro.pdf](#) to learn how to use/access gradescope. Note that **you will need to scan your homework in order to submit it**. You can do this by using a scanning app if you have a smartphone; see [https://gradescope-static-assets.s3.amazonaws.com/help/submitted\\_hw\\_guide](https://gradescope-static-assets.s3.amazonaws.com/help/submitted_hw_guide).

pdf. There are also scanners in the library. In addition, I'll assign some practice problems after each class that will not be graded. Your two lowest homework scores will be dropped.

**Quizzes:** We will be having weekly quizzes each Monday at the end of class (except for exam days), but perhaps on other days as well. Your three lowest quiz scores will be dropped. Quizzes are open book/note/calculator etc. You are encouraged to work with other students on your quizzes! Missed quizzes will not be excused, with few specific exceptions. See below.

**Exams:** Exams will take up the entire class period. Calculators will not be allowed for exams. Cell phones must be turned off during exams. I will let everyone drop 1 of their midterms.

**Attendance:** Attendance is not mandatory. However, I will be giving quizzes during class at least once a week. It's your responsibility to find out what you missed if you don't attend class. Please check the course canvas page or ask your classmates before e-mailing me.

**Different sections:** I will try to keep sections 001 and 005 going at the same pace. You are welcome to attend the the other section for whatever reason, physical space permitting. However, I ask that you **please attend the section you're enrolled in on exam days**. Same goes with the final exam.

**Cheating** will not be tolerated. Any homework, quiz, or exam on which we determine a student has cheated will receive a 0.

**Extra credit:** I will award some extra credit for participating in the discussion on canvas. See below.

**Missed work:** The grading scheme allows you to miss a couple of homeworks/quizzes and a midterm, so it will not be possible to make them up after the due date except in very exceptional circumstances. In accordance with the University of Oklahoma policy, this only applies for the following:

- Documented illnesses (and the doctors note must state you were too sick to attend class, not just that you visited their office).
- A conflict with a religious observance.
- A conflict with a Provost-approved University-sponsored responsibility (for example an away game for a varsity team).
- A conflict with some other legally required activity (for example jury duty or emergency military service).

Unless the absence is due to unforeseeable circumstances, you are required to notify me at least two weeks in advance.

#### TIPS FOR SUCCESS

**Online discussion:** I encourage everyone to use the discussion boards on canvas to ask each other questions and discuss the course. To encourage everyone to use the discussion board, I'll be assigning a bit of extra credit: after each exam, I'll go through all the posts since the exam before that. For every post you write with substantial mathematical content, I'll award 0.1% extra credit, up to 0.5% each time. So you can get up to 1.5% extra credit total by regularly using the discussion board.

**Software:** we will be making frequent use of software in this class, especially for drawing plots. I will

**Office hours:** I encourage everyone to stop by office hours if you have any questions about the course, or even if you just want to say hi. Office hours are a great opportunity to get one-on-one help, which is usually more effective than large lectures (and frankly, I enjoy holding office hours more than lecturing). If you can't make the scheduled office hours, feel free to e-mail me and set up an appointment—my schedule should be fairly open in the afternoons.

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**Course schedule (tentative).**


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<b>Week of . .</b>	<b>Sections</b>
August 19	1.1, 1.2
August 26	1.3, 1.4
September 2	No school on Monday (Labor day). 1.5
September 9	1.6, Exam review
September 16	Exam 1 (Chapter 1), 3.1
September 23	3.2, 3.3
September 30	3.4, 3.5
October 7	3.5, Exam review, No school Friday (UT game)
October 14	Exam 2 (Chapter 3), 4.1,
October 21	4.2, 5.1,
October 28	5.2, Exam review,
November 4	Exam 3 (Chapters 4, 5), 7.1,
November 11	7.1, 7.2
November 18	7.3, 7.4
November 25	7.6, Thanksgiving break (No classes Wednesday or Friday).
December 2	7.6, Final exam review
December 9	<b>Final exam (cummulative)</b> (see “important dates” to see when your final exam will be)

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ACCOMODATIONS

**Religious Holidays.** It is the policy of the University to excuse the absences of students that result from religious observances and to provide without penalty for the rescheduling of examinations and additional required class work that may fall on religious holidays. If you plan to observe a religious holiday that may conflict with a meeting or examination time of this course, please notify me during the first two weeks of the semester so that we can make appropriate arrangements.

**Reasonable Accommodation Policy.** Students requiring academic accommodation should contact the Disability Resource Center for assistance at (405) 325-3852 or TDD: (405) 325-4173. For more information please see the Disability Resource Center website <http://www.ou.edu/drc/home.html>

Any student in this course who has a disability that may prevent them from fully demonstrating their abilities should contact me personally as soon as possible so we can discuss accommodations necessary to ensure full participation and facilitate your educational opportunities.

**Adjustments for Pregnancy/Childbirth Related Issues.** Should you need modifications or adjustments to your course requirements because of documented pregnancy-related or childbirth-related issues, please contact your professor or the Disability Resource Center at (405) 325-3852 as soon as possible. Also, see <http://www.ou.edu/eoo/faqs/pregnancy-faqs.html> for answers to commonly asked questions.

**Title IX resources and Reporting Requirement.** For any concerns regarding gender-based discrimination, sexual harassment, sexual assault, dating/domestic violence, or stalking, the University offers a variety of resources. To learn more or to report an incident, please contact the Sexual Misconduct Office at (405) 325-2215 (8 to 5, M-F) or [smo@ou.edu](mailto:smo@ou.edu).

Incidents can also be reported confidentially to OU Advocates at (405) 615-0013 (phones are answered 24 hours a day, 7 days a week). Also, please be advised that a professor/GA/TA is required to report instances of sexual harassment, sexual assault, or discrimination to the Sexual Misconduct Office. Inquiries regarding non-discrimination policies may be directed to: Bobby J. Mason, University Equal Opportunity Officer and Title IX Coordinator at (405) 325-3546 or [bjm@ou.edu](mailto:bjm@ou.edu). For more information, visit <http://www.ou.edu/eoo.html>.