MATH 3113: Introduction to Ordinary Differential Equations
Course Syllabus
Fall 2014

Section 003
MWF: 1:30 - 2:20 pm
PHSC 114

Instructor: Dr. Matt McBride
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Offic Hours: MWF: $12:30 - 1:30$ pm or by appointment
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Textbook: C. H. Edwards and D. E. Penney, *Differential Equations and Boundary Value Problems*, th Edition

Prerequisites: MATH 2423 or MATH 2924

Objective: We will learn how to solve first-order differential equations, how to solve linear differential equations of second and higher order, how to use Laplace transforms to solve differential equations, and how to solve systems of differential equations. We will also study a few selected examples showing how differential equations arise in scientific problems.

Withdrawl Date: Through October 24th, you may drop the course and receive a W grade. Dropping the course after October 24th requires a petition to the Dean, and will result in a grade of either W or F.

Academic Honesty: The University of Oklahoma takes great pride in academic honesty, thus cheating of any kind will not be tolerated. If cheating is suspected, bad actions will be taken.

Students with disabilities: The University of Oklahoma is committed to providing reasonable accomodation for all students with disabilities. If you require special accomodation in this course you are requested to speak with the instructor as early in the semester as possible. Students with disabilities must be registered with the Office of Disability Services prior to receiving accomodations in this course. For further information please see `http://drc.ou.edu`.

Homework: As with any math course, homework is a vital component. One must practice newly learned facts, theorems, etc. through the assigned homework. Homework will be assigned daily, however it will be collected only once a week except during exam weeks. See the due dates in the schedule.

Exams: There will be three closed book, closed notes, and closed homework in-class exams. Students will have the whole class period to take the exams. All three exams will cover roughly six sections, though this may be modified due to time and is left up to the discretion of the instructor. See the schedule for exact sections covered.

Final Exam: The final exam is a comprehensive exam and will be held on **Wednesday, December 10$^{\text{th}}$** in the usual class location at **8:00 - 10:00 am**. This date can **not** be modified, so make sure one's calendar is free.

Make-up Policy: Make-up exams will be given **only** for reasons deemed acceptable by the instructor, and **only** with written documentation. Make-up exams must be taken within one week of the original date, and no make-ups may be taken after the final exam. Make-up exams are never easier than the original.

Calculator Policy: You may use any type of calculator when working on the homework assignments. In class and when taking exams, a calculator is not really needed, but you may, if you wish, use a simple calculator that does not have graphics capability while taking exams, just to check your arithmetic. The reason for the exclusion of graphics capability to make sure that you have the graphs of the fundamental functions like such as trigonometric, lograrithm, and exponential in your head. Given the nature of the problems you really won't need a calculator.

Grading Distribution:

        Homework.................25%
        Exams.......................45%
        Final Exam...............30%
        Total......................100%

Grading Scale:

        A:....100% - 90%
        B:......89% - 80%
        C:......79% - 70%
        D:......69% - 60%
        F:......59% and below

Fall 2014 Tentative Schedule

Note: this may be modified and is left to the discretion of the instructor.

Date	Sections Covered	Homework
Mon, Aug. 18	1.1	none
Wed, Aug. 20	1.1	**1.1:** 1-27 odd
Fri, Aug. 22	1.2	**1.2:** 1-9 odd,10,11,25,37
Mon, Aug. 25	1.3	none
Wed, Aug. 27	1.3	**1.3:** 1,7,9,11-16,19,20,27,32
Fri, Aug. 29	1.4 (**1.1,1.2 due**)	**1.4:** 1-31 odd,36-39
Wed, Sept. 3	1.5	**1.5:** 1-25 odd,29-32
Fri, Sept. 5	1.6 (**1.3,1.4 due**)	**1.6:** none
Mon, Sept. 8	1.6	**1.6:** 1-29 odd,37,40,43-53 odd,63-65
Wed, Sept. 10	3.1	none
Fri, Sept. 12	3.1 (**1.5 due**)	**3.1:** 7-15 odd,17-19,21-27 odd,30,32,33,35,45
Mon, Sept. 15	3.2	**3.2:** 7-23 odd,25-29
Wed, Sept. 17	Review for Exam 1	none
Fri, Sept. 19	**Exam 1**	**Covering: 1.1-1.6,3.1**
Mon, Sept. 22	3.3	none
Wed, Sept. 24	3.3	**3.3:** 1-29 odd,33,35,50,53-57 odd
Fri, Sept. 26	3.4 (**1.6,3.1,3.2 due**)	none
Mon, Sept. 29	3.4	**3.4:** 1,2,15-21 odd,24-28
Wed, Oct. 1	3.5	none
Fri, Oct. 3	3.5 (**3.3 due**)	none
Mon, Oct. 6	3.5	**3.5:** 1-25 odd,47-55 odd
Wed, Oct. 8	4.1 (**3.4 due**)	none
Mon, Oct. 13	4.1	**4.1:** 1-19 odd, for 11-19 no graph
Wed, Oct. 15	Review for Exam 2	none
Fri, Oct. 17	**Exam 2**	**Covering: 3.2-3.5**

Date	Sections Covered	Homework
Mon, Oct. 20	4.2	**4.2:** 7-21 odd,26,27
Wed, Oct. 22	5.1	none
Fri, Oct. 24	5.1 (**3.5,4.1 due**)	none
Mon, Oct. 27	5.1	**5.1:** 1-10,11-23 odd
Wed, Oct. 29	5.2	none
Fri, Oct. 31	5.2 (**4.2 due**)	none
Mon, Nov. 3	5.2	**5.2:** 1-21,40
Wed, Nov. 5	7.1	none
Fri, Nov. 7	7.1 (**5.1 due**)	**7.1:** 1-13 odd,23-31 odd,37,38
Mon, Nov. 10	7.2	none
Wed, Nov. 12	Review for Exam 3	none
Fri, Nov. 14	**Exam 3**	**Covering: 4.1,4.2,5.1,5.2,7.1**
Mon, Nov. 17	7.2	**7.2:** 1-15 odd,17-23 odd,27
Wed, Nov. 19	7.3	**7.3:** 1-19 odd,27-33 odd
Fri, Nov. 21	7.4 (**5.2,7.1 due**)	**7.4:** 1-35 odd
Mon, Nov. 24	7.6 (**7.2,7.3 due**)	**7.6:** 1-11 odd
Mon, Dec. 1	Review for Final Exam	none
Wed, Dec. 3	Review for Final Exam	none
Fri, Dec. 5	Review for Final Exam (**7.4,7.6 due**)	none
Wed, Dec. 10	**Final Exam**	**8:00-10:00am in PHSC 114**