

Course Syllabus
Math 302 - Introduction to Differential Equations I
Section 2, Spring 2018

Lecture time and place: M/W/F 9:30 - 10:20am, Watanabe 420

Instructor: Wolfgang Erb

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Web: <http://www.math.hawaii.edu/~erb/Math302>

Office: PSB 402

Office hours: M/F 10:30 - 11:30am, W 1:30-2:30pm

Course description: Various solution techniques for first order ordinary differential equations, solution techniques for linear second and higher order differential equations, solution techniques based on power series and Laplace transform, modeling with differential equations.

Course objectives: Obtaining an understanding of the above listed topics, being able to solve routine problems involving ordinary differential equations and to apply the ideas.

Course format: This three credit class meets for 150 minutes of lecture per week.

Program objectives: The need to solve differential equations had an enormous impact on the development of calculus. The mathematical formulations of many problems in life sciences, physics, chemistry or engineering involve differential equations. In this junior level course students learn how to handle differential equations and how they can be applied in different fields.

Textbook: *Elementary Differential Equations and Boundary Value Problems* by W.E. Boyce, R.C. DiPrima, D.B. Meade, 11th edition, Wiley. In this course, we will cover Chapters 1-6.

Grading: Course grade will be determined in the following way:

Homework: 25%

Midterm I: 15%

Midterm II: 15%

Midterm III: 15%

Final exam: 30%

The letter grade will be determined according to the following scale:

87.5% will guarantee an A

75 % will guarantee a B

62.5 % will guarantee a C

50 % will guarantee a D.

Note: I'm usually not giving \pm -scores. You should expect to get a letter grade based on the above schedule.

Homework: Problem sets will be assigned weekly on WeBWork. The homework assignments and due dates will be posted on the homepage of the course

<http://www.math.hawaii.edu/~erb/Math302>

No late work will be accepted.

Midterm exams: Three midterm exams will be given during the semester.

Midterm I: 02/14/2018

Midterm II: 03/14/2018

Midterm III: 04/11/2018

Attendance on exam days is compulsory. Otherwise, a grade of zero will be recorded. Any excused, documented conflict with a test date must be reported to the instructor prior to the date. No make-up exams will be offered. If you have an excused absence for an exam, your grade will be replaced by the final exam grade. The only exception will be for students requiring special accommodation due to disability.

Final exam: A comprehensive final exam will be held on Friday, 05/07/2018, from 9:45 - 11:45 pm in Watanabe 420.

Check <http://manoa.hawaii.edu/undergrad/schedule/final-exams/spring/> for changes.

In the exam: You are allowed to have one 8.5" by 11" paper with handwritten notes in your exams. No further notes, books or electronic devices are allowed.