

**SYLLABUS    ODEs and Linear Algebra (section 3)    2250    Fall 2008**

Instructor: Darci Taylor

Course Website: <http://www.math.utah.edu/darci/math2250.html>

Class hours: Mon, Tues, Wed, Fri 12:55-1:45pm WEB 105

Office: LCB 326

Office hours: To be determined, and announced the first week of class.

Email: [darci@math.utah.edu](mailto:darci@math.utah.edu)

Prerequisites: Mathematics 1210 and 1220, together with Mathematics 2210 or Physics 2210 (or 3210); alternately Mathematics 1250-1260 (or 1270-1280). Thus students are expected to know 1-variable Calculus (1210-1220), and to be familiar with vectors, curves, tangent (velocity), acceleration and force vectors (from Math 2210 or Physics 2210).

Eligibility: It is the student's responsibility to check and prove eligibility.

Required Text: *Differential Equations and Linear Algebra*, custom edition by C.H. Edwards Jr. and David E. Penney. The course will follow this book closely and homework problems will be drawn from it.

Course Description: WARNING! There is a lot of material to cover in Math 2250, so make sure that you are prepared for the time this course will take. Furthermore, it is up to you to make sure that you have taken the prerequisites, and that you are mathematically ready for the subject material. Math 2250 is an introduction to differential equations, and how they are used to model problems arising in engineering and science. Linear algebra is used as a tool for solving standard linear equations and for solving and understanding the structure of solutions to linear (systems of) differential equations.

By past agreement with the College of Engineering, part of the course requirement currently consists of computer projects, and we expect to continue this agreement. The projects are intended to enhance the course material and acclimatize students to the use of mathematical technology. There is no class time scheduled for computer projects. Maple orientation tutorials are held at a variety of announced times during the first two weeks of the course. Please make use of them if you are not already familiar with Maple.

Calculators: Students are encouraged to have and use graphical calculators in class. Calculators will *NOT* be allowed (or required) for any exam or test.

Expectations:

\* Please be courteous of your fellow classmates. **I request that you refrain from eating during class**, as this can serve as a distraction to those around you. Also, please **turn cell phones off during class**.

\* Please be kind to the graders (and yourself) by turning in legible homework, and box your answers. If your homework/tests are *not* legible, they will *not* be marked correct.

\* Be proactive about your education. After all, you (or someone else) is paying a lot of money for you to be here. So, if you don't understand a concept, don't be afraid to ask questions either in class, in office hours, by email, or at the tutoring lab.

**Homework:** Homework will be assigned each day, and must be turned in by **Friday** at the **beginning of class**.

**Grading:** There will be three mid-term tests and a final exam. The final exam will have two sections: the first will concentrate on the final section of the course (i.e. it will be equivalent to one of the mid-term tests), and the second section will be a voluntary make-up test which will allow you to retake ONE of the previous mid-term tests. Thus, no make-up tests will be given. Students must bring University ID cards to all tests, and these will be checked during the test.

The grade breakdown will be:

Tests: 70% (Exam 1 is worth 11.2%, Exams 2,3,and 4 are each worth 19.6%)

Homework: 15%

Computer Projects: 15%

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	89 - 87 B+	79 - 77 C+	69 - 67 D+		
100 - 94 A	86 - 84 B	76 - 74 C	66 - 64 D	59 - 0 E	
93 - 90 A-	83 - 80 B-	73 - 70 C-	63 - 60 D-		

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**Tutoring:** The Rushing Math Center offers free drop-in tutoring, a computer lab, and study areas for undergraduates. The Rushing Student Center is adjacent to the LCB and JWB (bottom floor between the two buildings). The hours for the Fall semester are: 8am - 8pm Monday through Thursday and 8am - 6pm on Friday.

**Academic Honesty:** Cheating will not be tolerated. No cell phones, pagers, etc. will be allowed during exams. In addition, incidents of plagiarism of any type or referring to any unauthorized material during examinations will be rigorously pursued by this instructor.

**American Disabilities Act:** Students with disabilities needing academic accommodations should: 1) register with and provide documentation to the Student Disability Resource Center (SDRC); 2) bring a letter to the instructor from SDRC indicating you need academic accommodations. This should be done within the first week of class.