Syllabus

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Topic</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>First order differential equations</td>
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<tr>
<td>2</td>
<td>First order systems</td>
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<tr>
<td>3</td>
<td>Linear Systems</td>
</tr>
<tr>
<td>4</td>
<td>Forcing and Resonance</td>
</tr>
<tr>
<td>6 (§1-§4)</td>
<td>Laplace Transforms</td>
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</tbody>
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Grading

- Midterm Exam 1: 20%
- Midterm Exam 2: 20%
- Final Exam: 25%
- Homework: 10%
- Quizzes: 10%
- Projects: 15%

- I will count the final exam as 35% and your worst midterm as 10% if it improves your grade.
- Much of the work will be covered largely through homework, which will be assigned to be concurrent with the class topics. It is very important to stay current with homework.
- I will collect homework mostly at the beginning of class on Friday (but occasionally on some other day). Late homework will be penalized 50% for one week past its original due date. After that, late homework will not be accepted.
- Additionally, there will be 4 or 5 quizzes during the quarter, almost always on Friday, always announced in advance. I’ll drop your two lowest quiz scores when I compute your “Quizzes” grade.
There will be 3 short group projects during the quarter. Each is worth 5% of your total grade. Details (dates of projects), structure of groups, required technology, etc. will be announced later.

**Important Dates**

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
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<tbody>
<tr>
<td>Dr. Martin Luther King, Jr., holiday</td>
<td>Monday, Jan 16. No class.</td>
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<tr>
<td>Midterm Exam 1</td>
<td>Friday, Jan 27</td>
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<tr>
<td>Last day for automatic W</td>
<td>Monday, Feb 13</td>
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<tr>
<td>Midterm Exam 2</td>
<td>Thursday, Feb 23</td>
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<tr>
<td>A well deserved day off!!</td>
<td>Friday, Feb 24</td>
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<tr>
<td>Last day of classes winter quarter</td>
<td>Monday, March 12</td>
</tr>
<tr>
<td>Final Exam</td>
<td>Wednesday, March 14, 8-9:50 a.m.</td>
</tr>
</tbody>
</table>

(1) Dates and/or formats of exams are subject to change. (2) The final exam schedule is set by the Registrar’s Office. (3) If there is a snow day or if other circumstances warrant, I may need to cancel the “well deserved day off.”

**Academic Integrity Policy:** I encourage you to work together solving homework problems and understanding course material. The solutions you submit must be written by you and you alone.

Exams and quizzes are to be done individually and in accordance with the rules set forth on the exam. Cheating violates the integrity of the academic process. Any individual who is proven to be cheating will (at a minimum) fail the class. No exceptions will be made.

If you have any questions or concerns about this policy, please consult with me anytime during the course.

For DU’s official policies, visit the following links.

- Honor Code: [http://www.du.edu/honorcode](http://www.du.edu/honorcode)

**Other Course Policies**

- **Email:** If I need to email any individual or the entire class, I’ll do that using your the email address you have provided to DU. Please check this email regularly.
- **Missed Exams:** If you know in advance that you will miss an exam due to an approved university function (such as an athletic event, a debate team trip, etc.), you must consult with me as soon as you know and in all cases before the exam.
- **Missed Quizzes:** **No make up quizzes will be given.** I will give quizzes outside of class only under specific circumstances. For example, if you are participating in a university approved function (such as an athletic event, a debate team trip, etc.) and there is a coach or supervisor present to monitor the quiz, then I will give that person the quiz in a sealed envelope. Other circumstances may qualify—the basic standard is the presence of an adult who will be responsible for the integrity of the quiz. Remember that your two lowest quiz scores will be dropped when I compute your quiz grade.
- **Early Final Exam:** The final exam must be taken at the scheduled time. I will not give an early final under any circumstances.
• **Accommodations:** I’m happy to work with university offices (DSP, LEP) so that you receive the accommodations for which you qualify.

• **Incompletes and Withdrawals:** I give incompletes only in the most extreme and documentable circumstances. Falling behind in class is not an acceptable reason for obtaining an incomplete. The university strictly enforces its policy of not allowing a withdrawal after the 8th week of class except in the most extreme circumstances.

**Further Comments**

• You should be an active learner. The only way to learn mathematics is to do mathematics. Study with paper, pencil, calculator and/or laptop. Don’t study by “reading.” Learn **actively**.

• I will post most course documents (some homework, worksheets, etc.) on the website in pdf format. To save paper, I will not distribute homework problems. It is your responsibility to check the website for any documents you might have missed.

• You should plan to spend much time reviewing course notes and understanding notation and general concepts. Doing the homework is not enough! You should review and understand the material from each lecture before the next lecture. This will help you keep current and help you to understand more while working less.

• Do not fall behind!! I believe that you will need to spend 8-10 hours outside of class every week to succeed in this course. (2 hours a night, 4 nights a week, will be much, much more productive for you than one 10 hour intensive study once a week.) It is virtually impossible to catch up in a mathematics class if you fall behind. Also, mathematics builds on earlier concepts. The concept you study today is the tool you use tomorrow. Keep up.

• Let me emphasize the importance of understanding and mastering definitions, notation and terminology. Much of the power of mathematics arises from good, suggestive notation.

• Office hours are an important way for you to clear up what is unclear to you. We encourage you to come to our office hours. I am around the office a lot and I’m happy to schedule appointments if you can’t come to a scheduled office hour.

• Exams will test not only your understanding but your facility in working with the concepts. Exams test cumulative preparation so someone who has worked steadily on the course will be rewarded. *My exams are always designed to reward proper preparation and penalize cramming.*

• Generally, my grading scale is 90% is an A, 80% is a B, etc. I will compute your grade exactly as I have indicated above.

• Plan an exam strategy. Are you going to start on page 1 and work page by page through the exam, or are you going to read the entire exam and solve the problem that is easiest for you first? Each of you should decide this on your own. There is no right answer that I can give. But it is worth thinking about in advance.