Math 244 will cover portions of Chapters 1-7 of the text. The course learning objectives are: a. Develop an understanding of the elementary theory of ordinary differential equations and their solutions in the context of separable and first order linear ordinary differential equations and recognize situations where these equations arise in selected mathematical models. b. Become familiar with the terminology and methods of solution of higher order linear differential equations, especially methods for constant coefficient homogeneous and forced equations, and understand how these solution methods apply to selected second order linear models. c. Develop an understanding of linear algebra in Euclidean n-space and how vectors and matrices are used to solve systems of equations, both algebraic and differential.

To contact me about the course, please email me or see me in office hours if possible. I check my email regularly (including on most early evenings and weekends), but I only check my phone messages when I am on campus.

**GRADING POLICY**

- Best 4 of 6 quiz scores: 20%
- Lowest of two midterm scores: 15%
- Best of two midterm scores: 25%
- Final: 35%
- Homework: 5%

**EXAM SCHEDULE**

- Quizzes (20 minutes): On the six dates listed below
- Midterm 1 (50 minutes): Tuesday, October 15
- Midterm 2 (50 minutes): Tuesday, November 12
- Final (2 hours and 50 minutes, comprehensive): Wednesday, December 11, 1:10 PM -4:00 PM

If you have to miss a scheduled exam (not quiz) due to illness or a family emergency, see me as soon as possible. I am sorry for the inconvenience, but programmable and graphing calculators with memory are NOT allowed on exams and quizzes. You may use a cheap scientific calculator to compute decimals, roots, and trigonometric function values, but the exam will be written so it is not necessary to have such a calculator. I will also require exact values for some trigonometric functions on exams and quizzes. It is important that exams reflect your own knowledge and ability. If I catch someone cheating on an exam or quiz, then I will report that student to the university authorities and implement whatever the maximum penalty that they recommend, which could mean failure in the course.
The quizzes will be given during the last 20 minutes of class on September 27, October 4, October 25, November 1, November 22, and (Tuesday) December 3. There will be no makeup quizzes, or early quizzes, for ANY reason. If you have to miss a quiz, it will count as a dropped quiz. If you have more than two excused absences—for documented illness, family emergency, or school event—then the extra percentage from the quiz will be determined by your final exam score. Each quiz will be one easy and one more difficult problem that will be each be very similar to homework problems. The midterm exams will include problems more difficult than those on the quizzes, so if you have any trouble with the quizzes, that is a sign that you need more study time and possibly some help. I might change the schedule and give the quiz at the beginning of class on any quiz date, so be sure to be in class on time.

Homework will be assigned and collected daily. I will have class volunteers grade each homework assignment. The scores that the class graders assign are for feedback only—the homework score will be recorded based on completeness only. If you correctly grade the homework, you will get 1/2 point out of 100 points extra credit in the class. I will not accept late homework to be graded, but you may show me up to three late homework assignments that for which you will receive full credit. Do not turn these homeworks in—show them to me at some time when I have the gradesheet. You must do this by Tuesday on the last week of class.

Math 244 tries to cover the material in two difficult courses (linear algebra and differential equations) in just one quarter. Consequently, we move very quickly and don’t have time in class to cover material that should have been covered in prerequisites. We also won’t have time for much motivation or theory. Feel free to come to my office hours if you need help with prior material or want to understand concepts more thoroughly than we cover them in class.

Probably the most important prerequisite is integration: you will be expected to understand integration by parts, integration by substitution, integration of trig functions, trig substitutions, and integration by partial fractions. In addition, you should know basic integration formulas.

The linear algebra material in Chapters 2, 3, and 4 is very abstract. You may have to spend more time on these topics than you required in earlier math courses.

Please let me know if you have any concerns or questions about the class.
<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Thursday</th>
<th>Friday</th>
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<tbody>
<tr>
<td>9-23: §1.2 covered</td>
<td>9-24: §1.3 covered</td>
<td>9-26: §1.4 covered</td>
<td>9-27: §1.6 covered</td>
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<td>HW 1 due</td>
<td>HW 2 due</td>
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<td>Quiz 1: §1.2-1.3</td>
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<td>9-30: §1.6-1.7</td>
<td>10-1: §1.7, §2.1-2</td>
<td>10-3: §2.3 covered</td>
<td>4-8: TBA</td>
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<td>HW 3 due</td>
<td>HW 4 due</td>
<td>HW 5 due</td>
<td>HW 6 due</td>
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<td>Quiz 2: §1.4, 1.6,1.7, 2.1, 2.2</td>
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HW 1: §1.2 # 1-6, 7, 9, 13, 19, 23, 25, 26.

HW 2: §1.3 # 1, 6, 8, 9, 15bcd, 16bcd, 19, 20, 24, 25.

HW 3: §1.4 # 1, 2, 4, 12, 13, 15, 19, 25, 26.

HW 4: §1.6 # 1, 3, 5, 7, 9, 15, 17, 23.

HW 5: §1.7 # 1-3, 5-7.

HW 6: §2.2 T-F: # 1, 2, 5, 6, 8; Problems # 2, 3, 9, 13(a), 14, 15, 27.