

MATH 351-014  
MWF 1:25–2:15, PRN 228

Engineering Mathematics I  
Fall 2021

Web Page: <http://www.math.udel.edu/~edwards/download/m351/f21home.html>  
(also referenced from QR code at end of document)

Instructor: Prof. D. A. Edwards  
EWG 511

Office Hours: T 9:30–10:30, R 1:30–2:30, or by appointment  
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## Introduction

Welcome to Engineering Mathematics I! Since the course is designed for engineering majors, many of the examples in class presentations and homework assignments will be from the areas of circuit theory and mechanical oscillators.

The texts for this course are

- P) *Linear Algebra: A Modern Introduction*, 4th ed., by Poole
- Z) *Advanced Engineering Mathematics*, 7th ed., by Zill. **I will not be using Webassign.**

If you have any questions, contact me during my office hours or make an appointment. **Extra copies of handouts are available at the Web page listed above or referenced at the QR code at the end of the document.**

If you have to miss class one day, just get the notes from someone. If you are in quarantine, let me know and I will stream the class over Zoom.

Please silence cellular phones before entering the classroom.

## Assessment

Your grade for the course will be determined in two stages. First your *raw score* will be calculated using the *higher* of the two algorithms:

- 1) The exams will count for 90% of your grade (final counts double), and the homework counts 10%.
- 2) The exams will count for 80% of your grade (final counts double), and the homework counts 20%.

Therefore, performing well on the homework will not only help you learn the material, it can also directly help your grade. (In the past, it has been my experience that the vast majority of students improve their grades by using their homework scores.) Then each of the raw scores will be scaled to determine final grades.

## Homework

In most cases, homework will be distributed every Friday during lecture, and it will be due at the beginning of class the following Friday. The homework will cover material up through the Monday after it is distributed. **ABSOLUTELY NO LATE HOMEWORK WILL BE ACCEPTED!** If you must miss a due date because of University business, it is your responsibility to make sure the homework gets to me *before* the due date. However, I will drop your two lowest homework scores. Therefore, low scores for assignments where you were pressed for time can be erased as long as you don't have too many of them.

Though you may not copy directly from another's paper or use someone else's ideas as your own<sup>1</sup>, I encourage you to discuss the homework problems with your classmates. Any scientific endeavor is rarely done in a vacuum; therefore it is to your advantage to learn the benefits of collaborating. Model homework solutions will be posted online after the assignment is due. Hopefully these will assist you in learning the material.

Homework assignments should be folded like a book with the following information on the "front cover:"

Name  
Math 351-014—Edwards  
Assignment Number  
Date

You will turn in your assignments this way so that your grade may be written on the inside, thus ensuring your privacy. I will make every effort to ensure that your graded homework is returned in a timely manner.

Each homework assignment will consist of ten questions. Of those, some randomly selected problems will *not* be graded. For these questions, you will receive one point if you attempted the problem. For the problems that will be graded, you may receive up to four points, depending on the completeness and accuracy of your solution.

The examinations will largely be based on the material covered in the homework assignments. However, you are encouraged to try other problems in the book for practice.

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<sup>1</sup> For more details regarding academic dishonesty, see the Student Handbook (<http://www.udel.edu/stuguide/>).

## **Exams**

Exam dates are listed on the attached schedule. **You will need a small blue book for each exam.** The first three will take place during a regular lecture period; the final exam will be two hours long. **NO MAKEUP EXAMS WILL BE GIVEN!**

When the exams are returned, they will have a numerical score and a letter grade on them. The numerical score is your score for the exam; *the letter grade is your grade for the course* to that point, including all homework scores.

Attached to each examination will be a course evaluation form, so that I may receive your suggestions for how the course could be improved.

## **Electronic Communication**

Important announcements (corrections to typographical errors, etc.) will be handled by e-mail. Also at the URL

<http://www.math.udel.edu/~edwards/download/suggest.html>

you will find an anonymous suggestion box.

## Tentative Schedule

**Note:** This is only a tentative schedule; there may be deviations from it.

September 1–3: Sections Z1.1, Z1.2, Z2.3

September 1: Homework 1 distributed

**September 6: Labor Day (no school)**

September 8–10: Sections Z1.1, Z1.2, Z2.2, Z3.1

September 10: Homework 1 due; homework 2 distributed

week of September 13: Sections Z3.1–3.3

September 17: Homework 2 due; homework 3 distributed

week of September 20: Sections Z3.2, Z3.4, Z3.5, Z3.8

September 24: Homework 3 due; homework 4 distributed

week of September 27: Sections Z3.5, Z3.8, P2.1

**October 1: Exam I** (covers chapters Z1, Z2, sections Z3.1–3.4, Z3.8)

week of October 4: Sections P2.1, P2.2, P3.1, P3.2

October 8: Homework 4 due; homework 5 distributed

October 11–13: Sections P3.1–3.3

**October 15: No School**

week of October 18: Sections P3.3, P4.2

October 22: Homework 5 due; homework 6 distributed

week of October 25: Sections P2.3, P3.5, P4.2, P6.1, P6.2

October 29: Homework 6 due; homework 7 distributed

**November 1: Exam II** (covers sections Z3.5, Z3.8, P2.1, P2.2, P3.1–3.3, P4.2)

November 3–5: Sections P3.5, P6.2, P6.3

week of November 8: Sections P4.1, P4.3, P6.3

November 12: Homework 7 due; homework 8 distributed

week of November 15: Sections P4.3, P4.4, Z10.1, Z10.2, Z11.2

November 19: Homework 8 due; homework 9 distributed

**week of November 22: Thanksgiving Recess**

week of November 29: Sections Z10.2, Z11.2

**December 1: Exam III** (covers sections P2.3, P3.5, P6.1–6.3, P4.1, P4.3, P4.4)

December 6–8: Sections Z10.2, Z11.2, Z10.3

December 8: Supplemental study problems distributed

December 10: Formal review session

December 10: Homework 9 due

December 11: Informal review session, 10–12

**December 13, 1–3, PRN 118: Final Exam** (covers entire class, but especially chapters Z10, Z11)

