
HOMEWORK: (20%) Problems have been selected from the end of chapter that cover the essential concepts to an adequate level of complexity. The problem sets will be taken from the end of chapter problems with the answers provided to maximize your efforts. The problem set solutions will be available on Blackboard on the due date given in the syllabus. If you are having problems with ANY of the assigned problems, use the office hours for help in getting the problem started, which is usually all it takes. ALL EXAM QUESTIONS WILL BE TAKEN FROM THE PROBLEM SETS AND SOLVED PRACTICE EXERCISES.

NOTE: As the problem set solutions will be made available on Blackboard on the due date, no homework will be accepted after the due date given in the syllabus for obvious reasons. If you cannot make it to class, turn in the homework to the ECE office before or on the due date to be put in my mailbox.

The problem sets will NOT be graded, due to the answers being given, but credit will be given for an ADAQUATE effort being shown in the work. If you choose, and some of you will, to simply copy the work from someone else and turn it in, be warned that this is a recipe for disaster !!! There is no substitute for working the problem sets and most of those who tried got to take the class again as a booby prize !!

To entice you to do the problem sets, each exam will include 4-5 questions taken directly from the assigned problem sets and practice exercises with very little modification. If you can produce the correct answer shown in the back of the book, or at the bottom of the practice exercise, you will have NO problem with the exams. If you have access to the solutions to the assigned book problems via internet or another source, please note this is considered plagerism. If you are caught plagerising in this class, you will not have an opportunity to do it again at SDSU. This course covers a lot of material and I believe this approach will help you focus on the fundamental concepts without being distracted by some of the more complex material, albeit useful once the basics are understood. If you cannot get the answers given in the book, I suggest you use my office hours to get help before that particular problem, or problems, show up on the exam.....CAV EAT EMPTOR !!!!

MIDTERMS: (1st -- 20%, 2nd – 30%) Two non-comprehensive exams will be given. Chapters 1, 2, and 3 will be covered in midterm #1, Chapters 4 and 5 in midterm #2. The exams will be closed book, closed notes, with one 8.5”x11” sheet of notes. As mentioned earlier, the exam questions will be taken directly from the
applicable problem sets and practice exercises. The exam solutions will be posted on the glass outside of E302F.

**FINAL EXAM: (30%)** Chapters 7, 8, and 9. The final exam will be non-comprehensive and will be closed book, closed notes, with one 8.5”x11” sheet of notes. The final will cover only the material covered since the 2nd midterm. The final will be closed book, open notes. All the final exam questions will be from the assigned end of chapter problems and practice exercises as with the two midterms.

**GRADING:** The class average is considered the beginning of the C grade. Grading is based on the formula given above. Those who exceed the class average will be in the C to A range, those below, C- to F, very simple and straightforward.

**CLASS POLICIES AND PROCEDURES:**

1) Although class attendance will not be considered in any grading capacity, the exams will stress material covered in the lecture. If 6 footers are breaking hard out of the south on a lecture day, be sure to get a copy of the lecture material given that day.

The lecture is designed to supplement the assigned reading in the text, not be a substitute for it. Due to questions and examples done during the lecture, it is unlikely that all the assigned reading material will be explicitly covered during the lecture periods. This implies that you are responsible for studying and comprehending this material yourself. Please use the office hours if you need assistance.

Do not get behind in this class !!!!!!! We will be covering a great deal of material and if you fall behind, I doubt that your class load and/or work schedule will allow you to catch up and salvage a decent grade. The last page of this handout included a detailed class schedule that we will stick to like gum to your shoe.

2) It will be ASSUMED that the material to be covered in lecture will have been read prior to the lecture. Again, refer to the schedule for the reading assignments. It has been shown that the comprehension of the material is greatly enhanced if reviewed before and not after the formal lecture.

3) Cheating on the mid-exams or the final will not be tolerated and will be punished by a zero grade on that exam and possibly also an automatic "F" for the entire course. Without exception all such incidents will be reported to the Campus Judicial Coordinator for disciplinary action. Cheating includes copying another students' work, OR allowing ones' work to be copied, particularly on the take-home portion of the midterms. Do not jeopardize your future by CHEATING !!
4) Note taking is an art. I can tell you from personal experience that the best note taking strategy is to RE-WRITE the “rough” note taken during the actual lecture within 72 hours. Transfer the notes to a dedicated notebook and you will notice that the note volume will increase by almost double !! This is due to the fact that much of the lecture was verbal and is not in your rough notes but still in your short term memory. The process of rewriting your notes neatly into the dedicated notebook is the absolute best study strategy as it transfers the verbal information into print before it is lost from your short term memory AND will force you to stay up with the material....It is better to study the material at a regular pace then to try to study all the material in a “cram” session before an exam...we both know that this usually does not work....Try this and I can assure you it will make a MAJOR difference in your GPA.

5) Consultations outside of class are limited to the scheduled office hours except by prior arrangement. Office hours will be held in E302H during the times announced in class.
EE340
COURSE OUTLINE – TWO 75 MINUTE LECTURES PER WEEK

The following schedule will be used this semester:

PART I: VECTOR CALCULUS AND MATRIX ALGEBRA

Week 1

1) 19 Jan course overview, magical mystery tour of classical and modern field theory. very weird stuff !!!

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Week 2

2-3) 24-26 Jan Ch 1 -- pps. 4 – 22
      Ch 2 -- pps. 29 – 42
      Ch 3 -- pps. 57 -- 63

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Week 3

4-5) 31 Jan-2 Feb Ch 3 -- pps. 63 – 83

2 Feb  Ch 1 PS due

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Week 4

PART II: ELECTROSTATICS

6-7) 7-9 Feb Ch 4 -- pps. 109 – 132

9 Feb   Ch 2 PS due

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Week 5

8) 14-16 Feb Ch 4 -- pps. 132 – 144

14 Feb  Ch 3 PS due

16 Feb – Exam #1 -- Ch 1, 2, and 3

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Week 6

9-10) 21-23 Feb  Ch 4 – pps. 145 – 160  (skip rest of Ch 4)
                 Ch 5 – pps. 175 - 184

Week 7

11-12) 28 Feb-2 Mar  Ch 5 -- pps. 185 – 205  (skip rest of Ch 5 and Ch 6)

2 Mar  Ch 4 PS due

Week 8

13-14) 7-9 Mar  Electrostatic shielding example
                        Van de Graff generator example

Week 9

PART III: MAGNETOSTATICS

15) 14-16 Mar  Ch 7 – pps 287 – 292  (example 7.2)

14 Mar  Ch 5 PS due

16 Mar – Exam #2 – Chapters 4 and 5 only

Week 10

16-17) 21-23 Mar  Ch 7 – pps. 293 – 309  (skip rest of Ch 7)

27 MARCH – 31 MARCH  SPRING BREAK

Week 11

18-19) 4-6 April  Electromagnetic rail gun/launcher example
                        Ch 8 – pps. 337 – 348

6 April  Ch 7 PS due

Week 12

20-21) 11-13 April  Ch 8 – pps. 349 – 368  (skip rest of Ch 8)
Week 13
22-23) 18-20 April Ch 9 – pps. 407-415

Week 14
24-25) 25-27 April Ch 9 – pps. 416 – 421

27 April Ch 8 PS due

Week 15
26-27) 2-4 May Ch 9 – pps. 422 -- 424

NOTE: CH 9 PS will be accepted until the final, solutions will be posted 4 May.

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HOMEWORK SETS

PART I:

Chapter 1 – 1.1, 1.5, 1.3, 1.6, 1.9, 1.12, 1.18, 1.23, 1.30
Chapter 2 – 2.1, 2.3, 2.6, 2.18, 2.26
Chapter 3 – 3.3, 3.7, 3.9, 3.15, 3.18, 3.23, 3.27, 3.28, 3.37, 3.41, 3.42
ALL practice exercises in covered sections

PART II:

Chapter 4 – 4.2, 4.6, 4.11, 4.22, 4.28, 4.36, 4.38, 4.44, 4.56, 4.59
Chapter 5 – 5.2, 5.7, 5.11, 5.13, 5.20, 5.24, 5.35, 5.36, 5.40
ALL practice exercises in covered sections

PART III

Chapter 7 – 7.2, 7.3, 7.10, 7.12, 7.21, 7.27, 7.29, 7.31
Chapter 8 – 8.1, 8.7, 8.10, 8.11, 8.14, 8.18, 8.20, 8.27

Chapter 9 – 9.1, 9.7, 9.9, 9.13, 9.15, 9.16

ALL practice exercises in covered sections