

# EE332 ELECTRICAL ENGINEERING II

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## 1 Objective

EE332 is the second course in electrical engineering in the two course series designed for Group I majors. In this course students learn to apply modeling and analysis techniques to rotating machines, diodes, op amps, transistors, and amplifiers. Students also are introduced to amplitude modulation and demodulation and combinational and sequential digital logic.

The course syllabus lays out in detail the topics which we shall cover in the course. The course syllabus, this course policy, and other documents pertaining to the course can be reached from the section web site at

<http://www.usna.edu/Users/ee/cameronc/EE332/>

## 2 Textbook

1. Hambley, Allan R., *Electrical engineering: principles and applications*, Prentice-Hall, Inc., Upper Saddle River, New Jersey, 2002.

Readings for each lesson are as specified in the syllabus. I expect you to have read the material *prior* to the class in which we discuss it.

## 3 Homework

Homework assignments will be posted on the online course syllabus. They are due at the *beginning* of the next succeeding class. All homework assignments are mandatory. I shall grade selected

problems. I award zero credit for late homework. Answers to the homework problems will be posted on the web.

Homework must be well organized, legible, and self-contained. Submit your homework on green engineering paper, stapled together, with the name of the course, your section number, and your own name clearly visible. Clearly identify each problem, restate the problem, and reproduce any diagrams associated with the problem before beginning your solution. It is permissible to photocopy the problem statement, if you prefer, before providing your solution. While getting right answers is important, I am especially interested in how you explain the thought process that leads you to them so make your solutions make sense.

If I cannot read your solutions, understand them, identify the answer or answers you claim are right, and match all components in your schematic diagrams to symbols in your solutions, then your solutions will not get full—or possibly any—credit. Include all measurement units (e.g., volts or amperes) where appropriate.

## 4 Labs

Labs are an important element of the course, intended to reinforce the concepts discussed in class. You may work with a lab partner of your own choosing. If you prefer, you make work by yourself, provided enough lab stations are available. I encourage you to help and get help from other

students in the lab.<sup>1</sup> *Partners must submit a single lab report with both their names upon it.* In all cases, submit your lab reports at the beginning of the Wednesday class eight days following the lab work. If you get help from other students, acknowledge this help and name those students in your report.

## 5 Quizzes

I will occasionally hold short quizzes. For quizzes you may use a single  $8\frac{1}{2} \times 11$  sheet of paper.

## 6 Tests and Exams

There will be two closed-book midterm tests 50 minutes in length. The final exam also will be closed-book and is three hours in length. Let me know in advance if you will not be able to attend during an exam. Unexcused absences will result in a grade of zero for that exam.

Exams will have a strict start/stop time. I will announce the start and end of each exam by the commands “*Begin work*” and “*Cease work.*” You shall immediately place any writing instrument in your hand on the desk/table top and close the exam (cover sheet on top). I shall keep the class apprised of the time remaining.

## 7 Collaboration

Collaboration with your fellow Midshipmen is permitted and encouraged. Such collaboration is a hallmark of all professional officers. However, the assignment you hand in must be your own. Claiming someone else’s work as your own—plagiarism—is totally unacceptable. *List the names of all midshipmen who assisted you with your assignment, sign the list, and include it when you hand in the assignment.* Collaboration is not permitted during quizzes, tests, or exams.

<sup>1</sup>Of course, this is completely distinct from and not permission to commit plagiarism.

## 8 Calculators

You may use a calculator in every class, lab, quiz, test, and exam. I will not permit you to share calculators during tests, exams, or quizzes. If your calculator doesn’t work and you have not brought spare batteries, plan to do arithmetic manually for you have no alternative.

## 9 Grades

I determine grades initially as shown in Table 1 on page 3. I award a letter grade of A for a numerical grade of 90% or better; B for 80% or better; C for 70% or better; D for 60% or better; and F for less than 60%. However, I reserve the right to alter course letter grades up or down based on your class participation, performance trends, and my overall impression of your performance.

## 10 Extra Instruction

I would prefer that you make an appointment by e-mail for EI. See my schedule for a list of generally open times.

For EI, bring your course notes, homework problems, and specific questions or problems confronting you. If you are having trouble learning the material and applying it to solving problems, it would be wise to get extra instruction.

I will accept phone calls at home up to 2200 and will do my best to give decent assistance by telephone. I am almost invariably in my office by 0730, if not earlier.

Finally, you may ask me questions via e-mail, too.

## 11 Administrative Matters

### 11.1 Questions

Feel free to ask questions in class. I would rather clear up a difficulty immediately than see you cease all progress because of a misapprehension.

	6-week	12-week	16-week	Final Grade
Final Exam	—	—	—	30%
Test 2	—	29%	29 %	20%
Test 1	40%	29%	29 %	20%
Homework	16 %	11 %	11 %	8%
Lab Reports	20%	14%	14%	10%
Quizzes	24 %	17 %	17 %	12%
Class Participation	subjective			

Table 1: Grade Weightings

If it is indicated, I may ask you to schedule extra instruction.

quizzes, or labs is *your responsibility* and must be done within one week.

## 11.2 Sleeping in Class

Even if you are drowsy, *do not sleep in class*. Stand up quietly and go to the back of the room. You do not need my permission to do so. When you are ready, quietly return to your seat.

## 11.3 Omitted Material

I cannot cover everything during class. If some topic or example is not covered, that does not mean it is unimportant. Refer to the EE332 course objectives to make sure you have not overlooked anything.

## 11.4 E-mail and the Web

I plan to rely heavily on e-mail and the web to communicate with you. Check your e-mail at least daily so you don't miss something I send you. Bear in mind that e-mail is not instantaneous: although the mail may be in my box, I may not read it for some hours.

The course web page is at

<http://www.usna.edu/EE/ee332/>

## 11.5 Absence/Makeup Policy

You must notify me prior to missing class if you will be absent. Arranging for makeups of exams,

## 11.6 Section Leader's Duties

I will appoint a Section Leader and an alternate during the first class. The alternate will fill in for the Section Leader if the latter is absent. I require the Section Leader to

- call the section to attention and report the names of absent students at the start of class;
- collect and submit all homework and other assignments to me at the start of class. Separate different assignments into different piles;
- call the class to attention for dismissal at the end of class;
- muster the class in the parking lot of Maury Hall during emergencies, fire drills, etc., and report absences to me; and
- contact the EE Department by phone (3-6150) if I am more than 10 minutes late for class to ask my whereabouts. If I am not expected to arrive at all, direct the class in a study period, collect all homework, and deliver it to the EE Office before the close of business that day. Do not dismiss the class early.

I am obliged to report Midshipmen who are late or absent or who leave early.

## **11.7 Eating and Drinking in Class**

No eating or drinking is allowed in the lab. Drinks are permitted in the classroom provided they do not distract the class. You are responsible for keeping the classroom clean. Abuse of this privilege will result in drinks being banned from the classroom.

## **11.8 Contacting the Instructor**

*Instructor:* CDR Charles B. Cameron

*Telephone:* (410) 293-6181 (Work)  
(410) 757-8876 (Home, up to 2200)

*E-mail:* [cameronc@usna.edu](mailto:cameronc@usna.edu)

*Office:* Maury Hall 336