East Tennessee State University • Department of Engineering Technology ENTC 2320-001 • Electronics I • Spring 2012



InstructorMr. Garth GhearingClassroom223 Wilson Wallis Hall

Class times Mon., Wed., & Fri. 9:20-11:20AM

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Office 111A Wilson Wallis Hall

Office Hours Mon., Wed., & Fri. 6:45-9:15AM

Class Homepage https://elearn.etsu.edu/d21/

I Course Description, Credit Hours, and Prerequisites

ENTC 2320 Electronics I (4 credits). Prerequisite(s): ENTC 2310, MATH 1840. Devices, rectification, filters, voltage regulation, characteristic curves, graphical analysis of amplification, amplifier configurations, amplifier equivalent circuits, gain equations, static and dynamic load lines, and biasing. Lecture and lab.

II Course Objectives

The purpose of this class is to introduce students to the electronics and active devices. Upon the successful completion of the course, the student will have developed and demonstrated basic understandings of:

- develop an understanding of the principles of rectification and filtering;
- apply the principles of rectification and filtering in laboratory experiments using diodes and passive elements:
- develop an understanding of the principles of amplification using both a graphical and an analytical approach;
- apply the principles of amplification in laboratory experiments using active devices;
- develop a greater depth of understanding and skill in the use of laboratory test equipment;

III Texts and Materials

Required textbooks:

The primary textbook we will use is Floyd's *Electronic Devices*, any relatively recent edition (7th through 9th) will do. Do not spend more than \$50. Find a cheap copy and use your savings to buy yourself a multimeter and breadboard.

IV Attendance Policy

Attendance may be taken at any time during each class meeting. *Your presence and participation are important.* In-class design/programming assignments will not necessarily be announced prior to those class meeting(s). All major exams and term project assignments will be announced at least five calendar days prior to the test/due date.

Students are responsible for the material covered in all class sessions as well as all assignments.

V Evaluation and Grading

Grading is based on your performance as revealed in your in-class laboratories, homework assignments, project presentation and report, the midterm exam, and the final exam.

| | Percent of Final Grade |
|-----------------|------------------------|
| 1. LABS | 10% |
| 2. QUIZZES | 20% |
| 3. MIDTERM EXAM | |
| 4. FINAL EXAM | 40% |
| | Points Total 100% |

Minimum Score to Receive

$$A = 90$$
 $B + = 87$ $B = 83$ $B - = 80$ $C + = 77$ $C = 73$ $C - = 70$ $D + = 67$ $D = 60$ $F = Below 60\%$

Homework & Assignments:

A test, exercise, or paper may be given (or submitted) early for a University sponsored absence (please provide suitable notice, if possible). Make-up tests may be given at the discretion of the instructor and only if a student presents suitable documentation (evidence) explaining the (emergency) absence to the instructor.

Quizzes and exams may include any material covered in the lectures, assigned readings, videos, classroom discussions or exercises.

Students with documented needs for note taking, test taking, or other classroom accommodations should make arrangements with the instructor early in the term. Contact the ETSU Disability Services, Lower Level D.P. Culp Center (Seahorn Rd. entrance)

Voice: (423) 439-8346; Fax: (423) 439-8489; TDD: (423) 439-8370

It is a good idea to read any syllabus in its entirety. Some teachers put possibilities for extra credit that aren't announced elsewhere, just to see if the students actually read these. Like this: On the first quiz, write your major in the space above your name to receive a free point.

VI Attachment Link for Academic Misconduct, Disabilities, Counseling, Dates, Tutoring, etc. http://www.etsu.edu/reg/academics/syllabus.aspx