

Virginia Western Community College

ELE 298

Seminar and Project in Electrical Engineering Technology

Prerequisite

ETR 113, ETR 114, ETR 237

Course Description

Requires completion of a project or research report related to the student's occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field.

Semester Credits: 3 hours Lecture Hours: 3 hours Lab/Recitation Hours: 0 lab hours

Required Materials

Textbook:

The Associate CET Study Guide by Electronics Technicians Association Staff
ISBN# 1-891749-97-02, Publisher: Electronics Technicians Association International

Other Required Materials:

The Associate Electronics Technicians Certification Exam fee is \$60. Test is 2 hours taken at the end of the semester.

1. Scientific Calculator

2. Safety Glasses. Safety glasses must be worn in the laboratory when constructing circuits or taking measurements.
3. OrCad PSpice 9.1 Software.
4. EagleCad Circuit Board design Software
5. Components for course project as required.
6. Engineering Computation Paper.

Course Outcomes

At the completion of this course, the student should be able to:

1. Apply theory gained in previous courses to practical situations.
2. Review and recite material to prepare for professional credentialing.
3. Demonstrate proficiency and teamwork skills to accomplish a task or project.

Topical Description (Subject to Change):

Topic	aCET Chapter
CET Overview, Safety	1, 2
DC Electronics, Basic Math and DC Circuits	3,4
AC Electronics, Part 1	5,6
AC Electronics, Part 2	7
Components	8, 9, 10
Analog Circuits	11,12
Test 1. (3 - 12). Tele-Communications, Part 1	13
Tele-Communications, Part 2	14,15

Digital Circuits, Part 1	16
Digital Circuits, Part 2	17
Lab Practices, Part 1	18
Lab Practices, Part 2	19, 20
Shop and Service Management.	21, 22
aCET Test or Final Exam	
Technical Presentations	Final Project

- Students will need to complete a semester long project to pass the course.
- In addition, students will be required to attend 2 out of 3 electronics company tours to complete the course

Notes to Instructors

1. Suggested Grading Scheme:
 - a. MidTerm and Final 25%
 - b. Homework 20%
 - c. Course Project 45%
 - d. Company Visits 10%

Students can opt out of the Final if they take the aCET exam.

2. Suggested Grading Scale:
 - A = 90 – 100
 - B = 80 – 89
 - C = 70 – 79
 - D = 60 – 69
 - F < 60

3. Recommended lab materials, sample tests and supplemental handouts are available from the program head.
4. Instructors should notify the program head at least a day in advance for any special accommodations or materials that will be needed for class.