

CUMBERLAND COUNTY COLLEGE

Course: EG 122 Electronics for Engineers

Credits: 3 (3:3:0)

Prerequisites: MA-120 or MA-121

Description: EG-122 is an introductory course in Electronics in which the basic concepts in electronics will be covered to include passive and active electronic components, diodes and transistors, Power supply analysis and design, transistor amplifier analysis and design, transistor oscillators analysis and design, operational amplifier analysis and design, and basic integrated circuits. Completion of a term project will be required.

Learning Outcomes:

At the completion of this course, students will be able to:

- Design and analyze a basic power supply.
- Design and analyze a basic transistorized amplifier circuit
- Design and analyze a basic transistorized oscillator circuit
- Discuss the applications of operational amplifiers
- Employ basic integrated circuits in designing advanced electronic circuits

Topical Outline:

- Passive and active electronic components
- Diodes and transistors
- Transistor amplifier analysis and design
- Operational amplifier analysis and design
- Integrated circuits

Text:

Microelectronics Circuit Analysis and Design, 4th ed., ISBN: 0073380644 /9780073380643

Student Assessment:

Students' evaluation in the subject will be based on 3 examinations, laboratory performance and a final projects.

Laboratory Performance	20%
Mid semester Exams	40%
Final Exam	20%
Final Project	20%

Academic Integrity:

Plagiarism is cheating. Plagiarism is presenting in written work, in public speaking, and in oral reports the ideas or exact words of someone else without proper documentation.

Whether the act of plagiarism is deliberate or accidental [ignorance of the proper rules for handling material is no excuse], plagiarism is, indeed, a “criminal” offense. As such, a plagiarized paper or report automatically receives a grade of **ZERO** and the student may receive a grade of **F** for the semester at the discretion of the instructor.

Tutoring & Project Assist:

If you are having difficulty with work in this class tutoring is available through the Center for Academic & Student Success. If you think that you might have a learning disability, contact Project Assist at 856.691.8600 x 1282 for information on assistance that can be provided to eligible students.

Before Withdrawing From This Course:

If a student experiences adverse circumstances while enrolled in this course and considers withdrawing, s/he should see an advisor (division or advisement center) BEFORE withdrawing from the class. A withdrawal may cause harmful repercussions to completion rate standards and overall GPA which can limit or eliminate future financial aid in addition to causing academic suspension.