

CUMBERLAND COUNTY COLLEGE

Course: IT 205 Digital Electronics

Credit: 3

Prerequisites: MA 110

Description:

Provides students with information and experience on integrated circuits which are used in analyzing and storing data.

Learning Outcomes:

Upon successful completion of this course, students will be able to:

- Distinguish analog, digital, and binary systems
- Perform arithmetic operations of binary, octal, and hexadecimal numbers
- Explain operation table of digital gates
- Design simple combinational logic circuits
- Discuss the operation of flip-flops
- Explain operation of counters
- Distinguish combinational logic circuits and sequential circuits

Topical Outline:

- Analog, Digital, Binary
- Arithmetic in Binary, Octal, and Hexadecimal
- Logic Gates
- Combinational Logic Circuits
- Karnaugh map and design of Combinational Logic Circuits
- Flip-Flops and Sequential Circuits
- Counters
- Analog-to-Digital and Digital-to-Analog converters

Text: Digital Fundamentals, Floyd, Prentice Hall Publication

Student Assessment:

Student proficiency in this course is assessed through two mid-semester exams, the final exam, weekly assignments and term project as follows:

Mid-Semester Exams	40%
Final Exams	30%
Term Project	20%
Weekly Assignment	10%

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.