CC 112 – STRUCTURED PROGRAMMING

CREDIT HOURS

3 Hours

CONTACT HOURS (Hours/week)

Lecture: 2; Lab: 2

TEXT BOOK

J.Hanly and E. Koffman, ”C Program Design for Engineers”, Addison Wesley, latest edition

COURSE DESCRIPTION

An introduction to C-language Programming is provided in this course, Variable/Constant definitions, Basic Programs, Sequential Programming, Conditional Programming, Looping and repetitions, Functions, Arrays as well as searching and sorting techniques.

PREREQUISITE:

CC 111

RELATION OF COURSE TO PROGRAM

Required

COURSE INSTRUCTION OUTCOMES

The student will be able to:

Study C-language programming techniques, sequence, selection and repetition control structures, functions, Arrays, sorting and searching techniques.

TOPICS COVERED

- Overview of Programming and Problem Solving
- C Syntax and Semantics
- I/O Formatting and Arithmetic
- Conditions and Logical Expressions
- Selection Control Structures
- Repetitions (Part 1)
- Repetitions (Part 2)
- Functions (Part 1)
- Functions (Part 2)
- Arrays (Part 1)
- Arrays (Part 2)
- Programming applications – problem solving Tech (Part 1)
- Programming applications – problem solving Tech(Part 2)

CONTRIBUTION OF COURSE TO MEET THE REQUIREMENTS OF CRITERION 5:

Professional component Content			
Math and Basic Sciences	**Engineering Topics**	**General Education**	**Other**
	✓		

RELATIONSHIP OF COURSE TO STUDENT OUTCOMES:

Student Outcomes		Course aspects
A	An ability to apply knowledge of mathematics, science, and engineering	
B	An ability to design and conduct experiments, analyze and interpret data.	b_1 b_2 b_3 b_4
C	An ability to design a system, component, or process to meet desired needs within realistic constraints such as economics, environmental, social, political, ethical, health, and safety, manufacturability, and sustainability	c_1 c_2 c_3
D	An ability to function on multi-disciplinary teams.	
E	An ability to identify, formulate, and solve engineering problems	e_1 e_2 e_3
F	An understanding of professional and ethical responsibility	
G	An ability to communicate effectively	
H	The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and social content	
I	A recognition of the need for, and an ability to engage in life-long learning.	
J	A knowledge of contemporary issues within and outside the electrical engineering profession.	
k	An ability to use the techniques, skills, and modern engineering tools necessary for electrical engineering practice.	k