CENTRAL UNIVERSITY OF KERALA
केरल केन्द्रीय विश्वविद्यालय

DEPARTMENT OF COMPUTER SCIENCE

SCHOOL OF MATHEMATICAL AND PHYSICAL SCIENCES

Minutes of BOS in Computer Science Held on 09 July 2016 at 11.00 AM

Agenda: To discuss about the Syllabus, feedback of students, previous question papers, evaluation strategies

The following members were present during the meeting.

1. Dr. P. S. Hiremath, Professor, KLE Technological University
2. Dr. Rajesh R.
3. Dr. T.M. Thasleema
4. Mr. Ragesh N.K., Specialist, DSP & Multimedia, Tata Elxsi Ltd., Thiruvananthapuram
5. Mr. Fasil O.K., Software Engineer, NuCore Software Solutions

1) The BOS members have gone through the previous syllabus and current syllabus. The BOS observes the improvement in the curriculum/syllabus. The BOS members also suggested to include some industry related electives. The BOS approved the syllabus.
2) The feedback of 2014-16 batch students and 2015 admitted students were obtained. The BOS members has gone through the measures taken by the Faculty Council and approved the same.
3) The BOS members has gone through the previous question papers. The BOS members also verified (i) whether the question paper covers the entire syllabus, (ii) whether the question papers are upto the mark, (iii) whether the evaluation strategies of the answer papers are good. The BOS members were satisfied with procedures for the same.

Dr. P. S. Hiremath

Dr. Rajesh R.

Dr. T.M. Thasleema

Mr. Ragesh N.K.

Mr. Fasil O.K.

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CENTRAL UNIVERSITY OF KERALA
DEPARTMENT OF COMPUTER SCIENCE
M.Sc. COMPUTER SCIENCE

OPEN ELECTIVE COURSE					
COURSE CODE	COURSE TITLE	CONTACT HRS/WEEK			CREDITS
		LEC	LAB	TUT	
CSC5071	C	2	2	1	4

Lec = Lecture, Tut = Tutorial, Lab = Practical

This is a problem solving **skill development course**.

Course Objective:
The objective of the course is to provide theoretical and practical aspects of programming using C.

By completing this course, students will obtain the following course/learning outcomes:
1. Knowledge to be gained:
   (i) fundamental concepts of design of algorithms using C
2. Skill to be gained:
   (ii) Critical analyzing and choosing appropriate data structures and algorithms to solve a specific problem using C
3. Competency to be gained:
   (iii) Design algorithms with appropriate data structure for real world problems using C

Prerequisites: Nil

Grading:

Lab implementation	– 20%
Assignment/Quiz/presentation	– 10%
Class Test	– 10%
Final Exam	– 60%

CSC5071 – C

Module 1
Introduction: Introduction to C, structure of C program, C programming, data types, storage classes, constants, keywords and operators: precedence and associativity, expressions, input/output statements, assignment statements, decision making statements, switch statement, looping statements.

Module 2
Arrays: Introduction to arrays, declaration, initialization one-dimensional array, operations on one-dimensional arrays, two dimensional arrays, operations on two-dimensional arrays, example programs on arrays.
Strings: Introduction to strings, string operations: length, compare, concatenate, copy, etc., programs on strings, programs on strings and arrays, selection sort, linear-search, binary-search.

Module 3
Functions: Introduction to functions, function prototype, function definition, function call, Built-in functions (string functions, math functions), recursion, example Programs: Computation of Sine series, Scientific calculator using built-in functions, Binary Search using recursive functions.
Pointers: Introduction to pointers, operators, pointer arithmetic, arrays and pointers, array of pointers, example programs, parameter passing: pass by value, pass by reference, example programs: Swapping of two numbers and changing the value of a variable using pass by reference.

Module 4
Structures: Introduction to structures, operations on structures, nested structures, array of structures, example Program using structures, self-referential structures, dynamic memory allocation, singly linked list, type-definition.

References

1. E Balagurusamy, Programming in ANSI C, 8/e, McGraw Hill Education, 2019.
2. Kernighan, B.W and Ritchie,D.M, The C Programming language, Second Edition, Pearson Education, 2006
3. Paul Deitel and Harvey Deitel, C How to Program, Seventh edition, Pearson Publication
4. Juneja, B. L and Anita Seth, Programming in C, CENGAGE Learning India pvt. Ltd., 2011
5. Pradip Dey, Manas Ghosh, Fundamentals of Computing and Programming in C, First Edition, Oxford University Press, 2009.