



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.



**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 |         |
| CSC5072              | 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% |

**CSC5072 – C++**

**Module 1**

Introduction to C++: Introduction to C++, structure of C++ program, Compiling and Executing C++ Program. Selection control statements in C++. Data types, expressions and control statements. Scope and Visibility of variables in Functions.

**Module 2**

Classes, objects, user defined types, constructors/destructors, object oriented design, streams, cout/cin, overloading <<, class conversion, class scope, static data, static member functions.

**Module 3**

Class inheritance, private/public/protected, polymorphism, virtual functions, abstract classes. Overloading vs. overriding, multiple inheritance, file streams, friends, Object Oriented Design and Patterns. Structures, records, dynamic allocation, new/delete, linked lists

**Module 4**

Exception handling, overloaded constructors/functions/operators. Case Studies

**References**

1. C++ common knowledge : essential intermediate programming / C++ (Computer program language) , Dewhurst, Stephen C. Addison-Wesley, Upper Saddle River, N. J.: 2005.
2. C++ programming cookbook Herb Schildt's C++ programming cookbook / C++ (Computer program language), Schildt, Herbert. McGraw-Hill, New York: c2008.
3. Problem solving with C++: The object of programming/ C++ (Computer program language). Savitch, Walter. Pearson Addison Wesley, Boston: 2005. Fifth Edition (International ed. )
4. C++ programming: From Problem Analysis to Program Design / C plus plus programming. : Malik, D S. Course Technology, Boston, MA : c2009. Fourth Edition.
5. Problem solving with C++ / Savitch, Walter J, 1943- Pearson/Addison-Wesley, Boston : c2006. Sixth Edition.