Course Outcome of Computer Science

The main objective of Computer Science course at UG level is as follows:
- Effectively utilizing the knowledge of computing principles and mathematical theory to develop sustainable solutions to current and future computing problems.
- Analyze a complex computing problem and apply principles of computing and other relevant disciplines to identify solutions
- Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.

The University offers Under Graduate Honours course in Computer Science. The outcome of this course is as follows:

CO1 To provide fundamental idea how to program in C language and also develop problem solving logic using C language so that they can easily learn other programming languages.

CO2 To introduce students the internal organization, design and implementation of the computer system, and how to program in assembly language.

CO3 Gain knowledge of Object Oriented Programming Language using C++, to develop applications using C++

CO4 To introduce the fundamental concept of data structures and to emphasize the importance of data structures in developing and implementing efficient algorithms.

CO5 Students will be able to understand the basic components of a computer operating system, the interactions among the various component and also various OS functions.

CO6 Have a broad understanding of database concepts and database management system software and have a high-level understanding of major DBMS components and their function.

CO7 The focus of the module is on basic mathematical concepts in discrete mathematics and on applications of discrete mathematics in algorithms and data structures.

CO8 Covers software design, implementation, and testing using Java. Introduces object-oriented design techniques and problem solving.

CO9 Understand basic computer network technology. Data Communications System and its components. Familiarity with the basic protocols of computer networks, and how they can be used to assist in network design and implementation.

CO10 Basic principles and techniques for computer graphics on modern graphics hardware. Students will gain experience in interactive computer graphics using the OpenGL API.

CO11 Programming web pages with Javascript/DOM (client), Formats and languages used in modern web-pages: HTML, XHTML, CSS, XML, XSLT, Javascript, DOM and Design and development of web-pages and web-applications.

CO12 An ability to identify, formulate, and solve complex engineering problems by applying principles of software engineering, science, and mathematics, An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

CO13 To introduce the basic principles, techniques and applications of Artificial Intelligence.

CO14 Ability to understand how the choice of data structures and the algorithm design methods impact the performance of programs, usage of set of Algorithm design methods including the grasping approach, divide and conquer, dynamic programming, backtracking.

DSE1 Students will be able to analyze and evaluate the cyber security needs of an organization, determine and analyze software vulnerabilities and security solutions to reduce the risk of exploitation.

DSE2 Identify the architectural support of ARM for operating system and analyze the function of memory Management unit of ARM, aware of the Thumb mode of operation of ARM.

DSE3 Explain the core issues of cloud computing such as security, privacy, and interoperability.