

B.Sc. Honours in Computer Science

Programme Specific Outcome

- 1. Scientific knowledge:** Apply the knowledge of Mathematics, Science, and computing to the solution of complex scientific problems.
- 2. Problem analysis:** Identify, formulate, research literature, and analyse complex scientific problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and applied sciences.
- 3. Design/development of solutions:** Design solutions for complex problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- 4. Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions
- 5. Modern tools usage:** Create, select, and apply appropriate techniques, resources, and modern computing and IT tools including prediction and modelling to complex scientific activities with an understanding of the limitations.

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Course Code	Course Name	Course Outcome
COSHCC01	Computer Fundamentals using C/C++	Understanding Procedure Oriented and Object Oriented programming.
COSHCC02	Computer System Architecture	Basic knowledge of digital circuits and organizational units of a computer.
COSHCC03	Programming in Java	Understanding OOP cocepts of Java, standalone and applet programs.
COSHCC04	Discrete Structures	Perform operations on various discrete structures such as sets, functions etc
COSHCC05	Data Structures	Select appropriate data structures as applied to specified problem definition
COSHCC06	Operating Systems	Describe the role of operating system in their management policies and algorithms.
COSHCC07	Computer Networks	Understand computer network basics, network architecture, TCP/IP and OSI reference models.
COSHCC08	Design and Analysis of Algorithms	To be able to select appropriate design techniques to solve real world problems.
COSHCC09	Software Engineering	Define various software application domains and remember different process model used in software development.
COSHCC10	Database Management System	Explain the features of database management systems and Relational database.
COSHCC11	Advanced Java	Students will also be exposed to advanced topics including multithreading, internet networking, and JDBC database connectivity
COSHCC12	Theory of Computation	Understand, design, construct, analyze and interpret Regular languages, Expression and Grammars.
COSHCC13	Artificial Intelligence	Demonstrate awareness and a fundamental understanding of various applications of AI techniques in intelligent agents, expert systems, artificial neural networks and other machine learning models.
COSHCC14	Computer Graphics	To implement various algorithms to scan, convert the basic geometrical primitives, transformations, Area filling, clipping.
COSHGE01	Computer Fundamentals	Understand the fundamental concepts of Computer Science.
COSHGE02	Introduction to Database Systems	Explain the features of database management systems and Relational database.
COSHGE03	Programming using C/C++	Understanding Procedure Oriented and Object Oriented programming.
COSHGE04	Programming using Python	Understanding OOP cocepts of Python along with basic knowledge
COSHSE01	Programming with Matlab	To familiarize the student in introducing and exploring MATLAB software.
COSHSE02	HTML Programming	Basic knowledge of Web Designing.
COSHDS01	Operations Research	Identify and develop operational research models from the verbal description of the real system.
COSHDS02	Machine Learning	Identify appropriate machine learning algorithms to solve real world problems
COSHDS03	Numerical Methods	Apply numerical methods to find our solution of Mathematical problems.
COSHDS04	Data Mining	Identify appropriate data mining algorithms to solve real world problems