

# P G DEPARTMENT OF COMPUTER SCIENCE

## COURSE OUTCOME

| <b>Sl. No.</b> | <b>Core</b> | <b>COURSE OUTCOME</b>   |
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| 1              | CS-1.1      | <p><b>Data Structure and Algorithms:</b><br/>           The students learn the basic knowledge of data structures and their implementations, understand importance of data structures in context of writing efficient programs &amp; develop skills to apply appropriate data structures in problem solving.</p>        |
| 2              | CS-1.2      | <p><b>Computer System Architecture:</b><br/>           It gives the basic structure, function, characteristics, design of the various functional units and components of computer system.</p>   |
| 3              | CS-1.3      | <p><b>Database Systems &amp; Implementation:</b><br/>           This paper provides the basic introduction to database system technologies like - design, concurrency, security and backup/recovery issues of database management systems.</p>  |
| 4              | CS-1.4      | <p><b>Discrete Mathematical Structures:</b><br/>           The course provides the students with an overview of discrete mathematics. Students will learn about topics such as logic and proofs, sets and functions, recursion, graph theory, matrices, Boolean algebra and other important discrete math concepts.</p> |
| 5              | CS-1.5      | <p><b>Object Oriented Design using UML:</b><br/>           This Object-Oriented Analysis and Design Using UML teaches the students how to effectively use object-oriented technologies and software modelling as applied to a software development process.</p>   |
| 6              | CS-1.6      | <p><b>Algorithms Lab:</b><br/>           This paper helps the students to write programs to solve problems using divide and conquer strategy, backtracking strategy &amp; greedy and dynamic programming techniques.</p>  |
| 7              | CS-1.7      | <p><b>Database Lab:</b><br/>           This paper provides basic database concepts, applications, data models, schemas and instances, demonstrates the use of constraints and relational algebra operations, describes the basics of SQL and construct queries using SQL.</p>   |
| 8              | CS-2.1      | <p><b>Computer Networks:</b><br/>           The course gives knowledge about computer network organization and implementation, obtaining a theoretical understanding of data communication and computer networks.</p>   |

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| 9  | CS-2.2 | <b>Advanced JAVA:</b><br>It helps students to develop error-free, well-documented Java programs, develop and test Java network, search engine, and web framework programs, learn how to write, test, and debug advanced-level Object-Oriented programs using Java.   |
| 10 | CS-2.3 | <b>Operating System Design:</b><br>It gives the ability to learn real life applications of Operating System in every field, learn different memory management techniques, understands the different services provided by Operating System at different level, understands the use of different process scheduling algorithm and synchronization techniques.                        |
| 11 | CS-2.4 | <b>Theory of Computation:</b><br>This paper introduces students to the mathematical foundations of computation including automata theory; the theory of formal languages and grammars; the notions of algorithm, decidability, complexity, and computability, enhance students' ability to understand and conduct mathematical proofs for computation and algorithms.              |
| 12 | CS-2.5 | <b>Data Mining:</b><br>It helps students to understand basic applications, concepts, and techniques of data mining, to develop skills for using recent data mining software to solve practical problems in a variety of disciplines, to gain experience doing independent study and research.  |
| 13 | CS-2.6 | <b>JAVA Programming Lab:</b><br>It provides fundamentals of object-oriented programming in Java. It helps to understand various concepts of JAVA, to familiarize Java environment to create, debug and run simple Java programs, to demonstrate java compiler and eclipse platform and learn how to use Net Beans IDE to create Java Application.                                  |
| 14 | CS-2.7 | <b>Operating Systems Lab:</b><br>It gives an understanding of the design aspects of operating system concepts through simulation, introduce basic Unix commands, system call interface for process management, interprocess communication and I/O in Unix  |
| 15 | CS-3.1 | <b>Artificial Intelligence:</b><br>The students learn to demonstrate fundamental understanding of the history of AI, its foundations & applications, to apply basic principles of AI in solutions that require problem solving, inference, perception, knowledge representation, and learning, demonstrate proficiency in applying scientific method to models of machine learning |

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| 16 | CS-3.2 | <b>Software Engineering:</b><br>It provides an understanding of the working knowledge of the techniques for estimation, design, testing and quality management of large software development projects.  |
| 17 | CS-3.3 | <b>Compiler Design:</b><br>It Provides an understanding of the fundamental principles in compiler design, the skills needed for building compilers for various situations, learn the process of translating a modern high-level language to executable code required for compiler construction.   |
| 18 | CS-3.4 | <b>Network Security:</b><br>Students will understand basics of Cryptography and Network Security, able to secure a message over insecure channel by various means, learn about how to maintain the Confidentiality, Integrity and Availability of a data, understand various protocols for network security to protect against the threats in the networks. |
| 19 | CS-3.5 | <b>Mobile Computing:</b><br>Student will be able to understand the basic concepts of mobile computing, learn the basics of mobile telecommunication system, familiar with the network layer protocols and Ad-Hoc networks, gain knowledge about different mobile platforms and application development  |
| 20 | CS-3.6 | <b>AI Programming Lab:</b>  |
| 21 | CS-3.7 | <b>Software Engineering Lab:</b>  |
| 22 | CS-4.1 | <b>Comprehensive Viva:</b>  |
| 23 | CS-4.2 | <b>Project Work and Viva Voce:</b>  |