

Department of Computer Science

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Program Outcomes, Program Specific Outcomes and Course Outcomes

PROGRAMME OUTCOMES: B. Sc. Computer Science

Department of Computer Science	After successful completion of three year degree program in Computer Science a student should be able to.
Programme Outcomes	1- Engineering Knowledge 2- Modern tool Usage 3- Project Management and Finance 4- Life long learning 5- To imbibe quality software development practices. 6- To help students build-up a successful career in Computer Science
Program Specific Outcomes	1- Ability to design manufacturing process products the equipment tooling and necessary environment for the manufacture of products that meet specific material and other requirements. 2- Design, implements, test, and evaluate a computer system, component, or algorithm to meet desired needs and to solve a computational problem. 3- To Enhance skills and adapt new computing technologies for attaining professional excellence and carrying research

Course Outcomes BSc. Computer Science

Course	Outcomes
Fundamental of computer	Upon completion of this course, the student will be able apply technical knowledge and perform specific technical skills, including. 1) Describe the usage of computers and why computers are essential components in business and society. 2) Utilize the Internet Web resources and evaluate on-line e-business system. 3) Solve common business problems using appropriate Information Technology applications and systems. 4) Identify categories of programs, system software and

	applications. Organize and work with files and folders. 5) Describe various types of networks network standards and communication software.
Programing language c	To Understand the basic language implementation techniques Develop ability to learn new languages more quickly To understand the concept of functional programming language Develop ability to learn and write small programs in different programming Languages.
Data structure	a) Understand the concept of Dynamic memory management, data types, algorithms, Big O notation. b) Understand basic data structures such as arrays, linked lists, stacks and queues. c) Describe the hash function and concepts of collision and its resolution methods d) Solve problem involving graphs, trees and heaps e) Apply Algorithm for solving problems like sorting, searching, insertion and deletion of data . Students will try to learn: 1 Understand and remember algorithms and its analysis procedure. 2 Introduce the concept of data structures through ADT including List, Stack, Queues. 3 To design and implement various data structure algorithms. 4 To introduce various techniques for representation of the data in the real world. 5 To develop application using data structure algorithms. 6 Compute the complexity of various algorithms.
Object Oriented programming (OOPS)	a) Describe the procedural and object oriented paradigm with concepts of streams, classes, functions, data and objects. b) Understand dynamic memory management techniques using pointers, constructors, destructors, etc . c) Describe the concept of function overloading, operator overloading, virtual functions and polymorphism. d) Classify inheritance with the understanding of early and late binding, usage of exception handling, generic programming. e) Demonstrate the use of various OOPs concepts with the help of programs. Software Lab-1 (DSPM) (BTCS306) a) Implement basic dat.
Operating system	(a) Understand the basics of operating systems like kernel, shell, types and views of operating systems (b) Describe the various CPU scheduling algorithms and remove deadlocks. (c) Explain various memory management techniques and concept of thrashing (d) Use disk management and disk scheduling algorithms for better utilization of external memory.

	(e) Recognize file system interface, protection and security mechanisms. (f) Explain the various features of distributed OS like Unix, Linux, windows etc. elated algorithms
DBMS	(a) Define database system concepts and apply normalization to the database. b) Explain the basic processing and optimization techniques for high level query. (c) Describe different transaction processing concepts and use different concurrency control techniques. (d) Discuss different types of databases such as object oriented and distributed databases. (e) Identify different types of database failures and techniques to recover from such failures. (f) Discuss advanced database technologies and products used in enterprise. DBMS LAB:- a) Implement Basic DDL, DML and DCL commands. (b) Understand Data selection and operators used in queries and restrict data retrieval and control the display order. (c) Write sub queries and understand their purpose. (d) Use Aggregate and group functions to summarize data. (e) Join multiple tables using different types of joins f) Understand the PL/SQL architecture and write PL/SQL code for proc
Artificial Intelligence (AI)	1- Importance of AI and AI Techniques 2- Problem solving and search 3- Knowledge representation and logic 4- Natural language processing 5- Expert system
Software Engineering	1- Software quality attributes 2- Software testing principles 3- RAD model (Rapid application development) 4- Software testing tools 5- Software project management