

Agnihotri College of Engineering

Nagthana Road, Wardha

Department of Computer Science and

Engineering

B.Tech 3rd Semester

Course Outcome's

Subject Name: Applied Mathematics - III

Subject Code: BTECHCSE301T

After successful completion of this course the student will be able to:

C01	To understand numerical methods, matrices for the solution of linear and nonlinear equations, and the solution of differential equations, among other mathematical processes and activities
C02	To analyze real world scenarios to recognize when matrices and probability are appropriate, formulate problems about the scenarios, creatively model these scenarios (using technology, if appropriate) in order to solve the problems using multiple approaches
C03	To organize, manage and present data in a clear and concise manner.
C04	To develop an ability to identify, formulate, and/or solve real world problems.
C05	To understand the impact of scientific and engineering solutions in a global and societal context.
C06	To create the groundwork for post-graduate courses, specialized study, and research in computational mathematics.

Subject Name: Object Oriented Programming with Java

Subject Code: BTECHCSE302T

After successful completion of this course the student will be able to:

C01	To identify classes, objects, members of a class and relationships among them for a specific problem
C02	To understand and demonstrate the concepts of garbage collection, polymorphism, inheritance etc.
C03	To do numeric(algebraic) and string-based computation.
C04	To understand and implement modularity as well as basic error handling techniques
C05	To develop, design and implement small multithreaded programs using Java language
C06	To apply appropriate problem-solving strategies for the implementation of small /medium scale java applications

Subject Name: Operating System

Subject Code: BTECHCSE303T

After successful completion of this course the student will be able to:

C01	To describe the important computer system resources and the role of operating system in their management policies and algorithms.
C02	To understand the process management policies and scheduling of processes by CPU.
C03	To evaluate the requirement for process synchronization and coordination handled by operating system.
C04	To describe and analyze the memory management and its allocation policies.
C05	To identify use and evaluate the storage management policies with respect to different storage management technologies.
C06	To identify the need to create the special purpose operating system

Subject Name: Computer Architecture & Digital System

Subject Code: BTECHCSE304T

After successful completion of this course the student will be able to:

C01	To memorize and understand the basic concept of digital system which will be used to design the computer system.
C02	To study and understand various instruction format used in computer design.

C03	To study and understand the details working principle of basic processing unit.
C04	To perform the arithmetic operation which is being used in the operation of computer system.
C05	To understand wide variety of memory technologies used in computer and design the memory system.
C06	To understand different ways of communicating with I/O devices and standard I/O interfaces.

Subject Name: Ethics in IT

Subject Code: BTECHCSE305T

After successful completion of this course the student will be able to:

C01	To acquire knowledge about various roles of engineers in variety of global issues and able to apply ethical principles to resolve situations that arise in their professional lives.
C02	To articulate what makes a particular course of action ethically defensible
C03	To identify the multiple ethical interests at stake in a real-world situation or practice
C04	To understand and apply Intellectual Property and related law in reality.
C05	To understand the core values that shape the ethical behavior of an engineer / IT Professional.
C06	To develop cognitive skills in solving social problems.

Subject Name: Universal Human Values

Subject Code: BTECHCSE306T

After successful completion of this course the student will be able to:

C01	To become more aware of themselves, and their surroundings (family, society, nature)
C02	To become more responsible in life, and in handling problems with sustainable solutions, while keeping human relationships and human nature in mind.
C03	They would have better critical ability.
C04	To become sensitive to their commitment towards what they have understood (human values, human relationship and human society).

Subject Name: Environmental Science

Subject Code: BTECHCSE307T

After successful completion of this course the student will be able to:

C01	Identify different types of air pollutions as well as explain their causes, detrimental effects on environment and effective control measures.
C02	Recognize various sources of water pollutants and interpret their causes and design its effective control measure
C03	Illustrate various types of pollutants and waste management
C04	Analyze various social issues related to environment and challenges in implementation of environmental laws.

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B.Tech 4th Semester

Course Outcome's

Subject Name: Discrete Mathematics and Graph Theory

Subject Code: BTECHCSE401T

After successful completion of this course the student will be able to:

C01	Apply graph theory models of data structures and state machines to solve problems of connectivity and constraint satisfaction.
C02	How mathematical models for engineering are designed, analyzed and implemented in industry and organizations.
C03	Mathematically identify basic data types and structures (such as numbers, sets, graphs, and trees) used in computer algorithms and systems; distinguish rigorous definitions and conclusions from merely plausible ones.
C04	Analyze real world scenarios to recognize when Logic, sets, functions are appropriate, formulate problems about the scenarios, creatively model these scenarios (using technology, if appropriate) in order to solve the problems using multiple approaches.
C05	Apply knowledge of mathematics, physics and modern computing tools to scientific and engineering problems and in life-long learning.

Subject Name: Data Structure and Program Design

Subject Code: BTECHCSE402T

After successful completion of this course the student will be able to:

C01	Analyze the complexity of algorithms and sorting techniques.
C02	Apply the concept of stack and queues to solve real world problem.
C03	Describe and implement linked list operation.
C04	Demonstrate different methods for traversing trees.
C05	Utilize the concepts of graphs to build solution. Design and implement searching techniques and hashing function

Subject Name: Database Management Systems

Subject Code: BTECHCSE403T

After successful completion of this course the student will be able to:

C01	Understand basic database concepts and data modeling techniques used in database design.
C02	Study the concept of functional dependency and Perform the calculus with Design database by using different normalization technique.
C03	Study query processing and Perform optimization on query processing.
C04	Understand the concept of transaction processing and different recovery technique used in RDBMS.
C05	Study and Implement advanced databases which are used real time system.

Subject Name: Computer Networks

Subject Code: BTECHCSE404T

After successful completion of this course the student will be able to:

C01	Describe the functions of each layer in OSI model along with basic networking concepts.
C02	Explain physical layer functionality and its working along with transmission media with real time applications.

C03	Describe the function of data link layer and explain the protocols used in data link layer.
C04	Classify the routing protocols and analyze how to map IP addresses. Identify the issues related to transport layer, congestion control
C05	Describe Quality of Service, DNS, Application layer protocols & Network security issues.

Subject Name: Theory of Computation

Subject Code: BTECHCSE405T

After successful completion of this course the student will be able to:

C01	Design finite automata and its minimization along with Moore and Mealy machines.
C02	Apply regular expression and create grammar for the same.
C03	Deal with context free grammar and various normal forms of CFGs.
C04	Create Push Down Automata for the given CFG and inter-conversion of the same.
C05	Create Turning Machine for the grammar and Deal with Recursive and Recursively Enumerable Languages

Subject Name: System Programming

Subject Code: BTECHCSE406T

After successful completion of this course the student will be able to:

C01	Identify the relevance of different system programs.
C02	Describe the various data structures and passes of assembler design.
C03	Identify the need for different features and designing of macros
C04	Distinguish different loaders and linkers and their contribution in developing efficient user applications.
C05	Grab the concepts of phases of compiler, LEX and YACC

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B.Tech 5th Semester

Course Outcome's

Subject Name: Artificial Intelligence

Subject Code: BTECHCSE501T

After successful completion of this course the student will be able to:

C01	Demonstrate knowledge of the building blocks of AI as presented in terms of intelligent agents.
C02	Analyze and formalize the problem as a state space, graph, design heuristics and select amongst different search or game based techniques to solve them.
C03	To create understanding of the basic issues of knowledge representation.
C04	Formulate and solve problem with uncertain approach using Bayesian Approach.
C05	Attain the capability to represent various real life problem domain using logic based techniques.

Subject Name: Design And Analysis of Algorithm

Subject Code: BTECHCSE504T

After successful completion of this course the student will be able to:

C01	Illustrate different approaches for analysis and design of efficient algorithms and Analyze performance of various algorithms using asymptotic notations.
C02	Determine and Apply various divide & conquer strategies and greedy approaches for solving a given computational problem
C03	Demonstrate and Solve various real-time problems using the concepts of dynamic programming
C04	Make use of backtracking and graph traversal techniques for solving real- world problems.
C05	Recall and Classify the NP-hard and NP-complete problems

Subject Name: Software Engineering And Project Management

Subject Code: BTECHCSE502T

After successful completion of this course the student will be able to:

C01	Understand software engineering methods, practices, process models and application.
C02	Analyse various software engineering life cycle models and apply methods for design and development of software projects.
C03	Analyze and extract requirements for product and translate these into a documented design using different modeling techniques.
C04	Understand and apply software testing methods and types, And to understand debugging concept with various testing methods.
C05	Identify and apply the principles, processes and main knowledge areas for Software Project Management

Subject Name: Elective I:TCP/IP

Subject Code: BTECH_CSE-504.1T

After successful completion of this course the student will be able to:

C01	Enumerate the layers of the TCP/IP model.
C02	Analyze the services of TCP/IP protocol and be able to deal with its layers. Also the concepts of IP addressing
C03	Acquire the knowledge of routing protocols
C04	Familiarize students with the basic computer network protocols, and how they can be used to help develop and execute networks.

C05	Generate the solution for basic issues of Internet Mechanism and its security.
Subject Name: Effective Technical Communication	
Subject Code: BTECHCSE503T	
After successful completion of this course the student will be able to:	
C01	Acquire knowledge of structure of language.
C02	Be able to face competitive exams and the interview process and can become employable.
C03	Develop business writing skills.
C04	Become familiar with technology enabled communication and can develop technical and scientific writing skills
Subject Name: Yoga and meditation	
Subject Code: BTECH_CSE-507T	
After successful completion of this course the student will be able to:	
C01	Learn the rules, fundamentals, skills & strategies of yoga.
C02	Teach various asanas (postures) using hatha yoga & the lyengar method.
C03	Learn breathing techniques.
C04	Improve strength, flexibility and the sense of well-being.
C05	Increase relaxation of body and soul

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B.Tech 6th Semester

Course Outcome's

Subject Name: Compiler Design	
Subject Code: BTECH_CSE-601T	
After successful completion of this course the student will be able to:	
C01	Define the Compiler along with phases and basic programs in LEX.
C02	Develop programs for various kinds of the Parsers.
C03	Write simple programs related to Type Checking, Parameter Passing and Overloading
C04	Implement the concepts of Code Optimizations and Code Generations.
C05	Provide the Case Studies of Object-Oriented Compilers
Subject Name: Elective-II: Clustering & Cloud Computing	
Subject Code: BTECH_CSE-602T	
After successful completion of this course the student will be able to:	
C01	Understand the different Cloud Computing environment
C02	Analyze virtualization technology and install virtualization software
C03	Use appropriate data storage technique on Cloud, based on Cloud application
C04	Apply security in cloud applications
C05	Use advance techniques in Cloud Computing
Subject Name: Elective-III Distributed Operating Systems	
Subject Code: BTECH_CSE-603.2T	
After successful completion of this course the student will be able to:	
C01	Learn the principles, architectures, algorithms and programming models used in distributed systems.
C02	Understand the core concepts of distributed systems.
C03	Design and implement sample distributed systems, using different algorithms.
C04	Understand the Distributed File System, Architecture, and Mechanism.
C05	Analyze the Distributed Scheduling, Issues in Load Distributing, components of a Load Distributing Algorithm, Load Distributing Algorithms
Subject Name: Economics of IT Industry	
Subject Code: BTECH_CSE-608T	
After successful completion of this course the student will be able to:	
C01	To learn the different types of economics models with the concept of elasticity of demand and various factors of recession
C02	To learn the concept of various intensive and digital economy with business cycles impact on economics.
C03	To understand the Merger and Acquisition concept with the challenges of E-Waste management.

C04	To adapt various funding source in economy with 5 level maturity model of IT industry.
Subject Name: Open Elective 1:Environmental Engineering	
Subject Code: BECVE605T	
After successful completion of this course the student will be able to:	
C01	Explore the components of biosphere and impact of human activity on environment.
C02	Summarize the causes and sources of pollutants, and their impact on global environment.
C03	Develop ethics and scientific awareness about waste generation and treatment.
C04	Identify sources and types of wastes and its management.
C05	Understand noise, noise pollution and control.
Subject Name: Intellectual Property Rights (Audit Course)	
Subject Code: BTECH_CSE-609T	
After successful completion of this course the student will be able to:	
C01	Understand fundamental aspects of Intellectual property Rights
C02	Apply knowledge on patents, patent regime in India and abroad and registration aspects
C03	Be capable of getting copyrights and its related rights and registration aspects
C04	Be capable of getting trademarks and registration aspects
C05	Apply knowledge on Design, Geographical Indication (GI), Plant Variety and Layout Design

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B.Tech 7th Semester

Course Outcome's

Subject Name: Cryptography and Network Security	
Subject code: BTECHCSE701T	
After successful completion of this course the student will be able to:	
C01	Acquire knowledge about security goals, background of cryptographic mathematics and identification of its application
C02	Understand analyze and implement the symmetric key algorithm
C03	Acquire knowledge about the background of mathematics of asymmetric key cryptography and understand and analyze asymmetric key encryption algorithms, digital signatures.
C04	Analyze the concept of message integrity and the algorithms for checking the integrity of data.
C05	Understand and analyze the existing cryptosystem used in networking
Subject Name: Elective IV: Gaming Architecture	
Subject code: BTECHCSE702T	
After successful completion of this course the student will be able to:	
C01	Discuss the concepts of game design and development.
C02	Design the processes, and use mechanics for game development.
C03	Explain the core architecture of game programming.
C04	Use game programming platforms, frame works and engines.
C05	Create interactive games.
Subject Name: Elective IV: Mobile Computing	
Subject code: BTECHCSE703T	
After successful completion of this course the student will be able to:	
C01	Understand the basic concepts of Wireless Communication with Cellular system.
C02	To learn about GSM System with Cell layout, Radio, Network Switching and Operation Subsystem, HLR & VLR.
C03	To learn Wireless LAN with its Architecture and MAC Layer.
C04	To learn Mobile IP, Dynamic Host Configuration Protocol, Mobile Ad hoc Networks
C05	To learn about TCP over Wireless Networks. with Wireless Application protocol
Subject Name: INTRODUCTION TO RENEWABLE ENERGY RESOURCES (OPEN ELECTIVE-I)	
Subject Code: BTME703T	
After successful completion of this course the student will be able to:	
C01	Recognize the need of renewable energy sources.
C02	Understand various solar thermal energy conversion systems and solar photovoltaic systems in detail
C03	Describe different biogas plants, bio-diesel production method and potential of hydrogen as a fuel
C04	Explain the working principle of Wind energy systems and ocean thermal energy conversion systems

C05

Describe the working of Fuel cell system, Geothermal & Magneto hydro dynanie(MHD) power generation systems and Understand the principles of energy conservation.

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B.Tech 8th Semester

Course Outcome's

Subject Name: social Network	
Subject code: BTEHCSE802T	
After successful completion of this course the student will be able to:	
C01	Learn social network, its types and representation
C02	Understand weak ties, strong and weak relationship, homophily and calculate
C03	Analyse links
C04	Understand power laws and Rich-Get-Richer phenomena.
C05	Understand small world phenomena.
Subject Name: Block chain and its Applications	
Subject code: BTEHCSE803T	
After successful completion of this course the student will be able to:	
C01	Understand basic crypto primitives
C02	Understand elements and evolution of block chain.
C03	Understand consensus in permissionless and permissioned models.
C04	Hands on ethereum smart contracts and hyperledgers.
C05	Perform decentralized identity management, interoperability.