



**ESWAR COLLEGE OF ENGINEERING: NARASARAOPET**  
Approved by AICTE, New Delhi., Affiliated to JNTUK, Kakinada  
Kesanupalli Village, Narasaraopet – 522 601,  
Palnadu Dist. A.P.

**Department Of Computer Science and Engineering**

**Course Outcomes**

**Regulation R20**

**Year/Sem: II B.Tech I Sem**

**A.Y: 2018-19**

<b>Course Name: Statistics with R Programming</b>	
<b>Course Code: CSE2101</b>	
<b>CSE2101.1</b>	List motivation for learning a programming language
<b>CSE2101.2</b>	Access online resources for R and import new function packages into the R workspace
<b>CSE2101.3</b>	Import, review, manipulate and summarize data-sets in R
<b>CSE2101.4</b>	Explore data-sets to create testable hypotheses and identify appropriate statistical tests
<b>CSE2101.5</b>	Perform appropriate statistical tests using R Create and edit visualizations with
<b>CSE2101.6</b>	Use R in their own research,

<b>Course Name: Mathematical Foundations of Computer Science</b>	
<b>Course Code: CSE2102</b>	
<b>CSE2102.1</b>	Student will be able to demonstrate skills in solving mathematical problems
<b>CSD2102.2</b>	Student will be able to comprehend mathematical principles and logic
<b>CSD2102.3</b>	Student will be able to demonstrate knowledge of mathematical modeling and proficiency in using mathematical software
<b>CSD2102.4</b>	Student will be able to manipulate and analyze data numerically and/or graphically using appropriate Software
<b>CSD2102.5</b>	Student will be able to communicate effectively mathematical ideas/results verbally or in writing
<b>CSD2102.6</b>	To introduce the students to the topics and techniques of discrete methods and combinatorial reasoning.

<b>Course Name: Digital Logic Design</b>	
<b>Course Code: CSE2103</b>	
<b>CSE2103.1</b>	An ability to define different number systems, binary addition and subtraction, 2's complement representation and operations with this representation.
<b>CSE2103.2</b>	An ability to understand the different switching algebra theorems and apply them for logic functions.
<b>CSE2103.3</b>	An ability to define the Karnaugh map for a few variables and perform an algorithmic reduction of logic functions.
<b>CSE2103.4</b>	An ability to define the other minimization methods for any number of variables Variable Entered Mapping (VEM)
<b>CSE2103.5</b>	Quine-McCluskey (QM) Techniques and perform an algorithmic reduction of logic functions

<b>CSE2103.6</b>	To introduce the basic tools for design with combinational and sequential digital logic and state machines.
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<b>Course Name: Python Programming</b>	
<b>Course Code: CSE2104</b>	
<b>CSE2104.1</b>	Making Software easily right out of the box.
<b>CSE2104.2</b>	Experience with an interpreted Language.
<b>CSE2104.3</b>	To build software for real needs.
<b>CSE2104.4</b>	Prior Introduction to testing software
<b>CSE2104.5</b>	Demonstrate to Scripting Language
<b>CSE2104.6</b>	Exposure to various problems solving approaches of computer science

<b>Course Name: Data Structures through C++</b>	
<b>Course Code: CSE2105</b>	
<b>CSE2105.1</b>	Distinguish between procedures and object oriented programming.
<b>CSE2105.2</b>	Apply advanced data structure strategies for exploring complex data structures.
<b>CSE2105.3</b>	Compare and contrast various data structures and design techniques in the area of Performance.
<b>CSE2105.4</b>	Implement data structure algorithms through C++. • Incorporate data structures into the applications such as binary search trees, AVL and B Trees
<b>CSE2105.5</b>	Implement all data structures like stacks, queues, trees
<b>CSE2105.6</b>	Implement lists and graphs and compare their Performance and trade offs

<b>Course Name: Computer Graphics</b>	
<b>Course Code: CSE2106</b>	
<b>CSE2106.1</b>	Know and be able to describe the general software architecture of programs that use 3D computer graphics.
<b>CSE2106.2</b>	Know and be able to discuss hardware system architecture for computer graphics.
<b>CSE2106.3</b>	This Includes, but is not limited to: graphics pipeline, frame buffers, and graphic accelerators/co-processors
<b>CSE2106.4</b>	Know and be able to select among models for lighting/shading: Color, ambient light;
<b>CSE2106.5</b>	distant and light with sources;
<b>CSE2106.6</b>	Phong reflection model; and shading (flat, smooth, Gourand, Phong).

<b>Course Name: Data Structures through C++Lab</b>	
<b>Course Code: CSE2107</b>	
<b>CSE2107.1</b>	Be able to design and analyze the time and space efficiency of the data structure
<b>CSE2107.2</b>	Be capable to identify the appropriate data structure for given problem
<b>CSE2107.3</b>	To develop skills to design and analyze simple linear and
<b>CSE2107.4</b>	To develop skills to design and analyze non linear data structures
<b>CSE2107.5</b>	To Strengthen the ability to identify and apply the suitable data structure for the given real world problem
<b>CSE2107.6</b>	To Gain knowledge in practical applications of data structures

<b>Course Name: Python Programming Lab</b>	
<b>Course Code: CSE2108</b>	
<b>CSE2108.1</b>	The student is able to Write, Test
<b>CSE2108.2</b>	The student is able to Use Conditionals
<b>CSE2108.3</b>	The student is able to Debug Python Programs
<b>CSE2108.4</b>	The student is able to Loops for Python Programs
<b>CSE2108.5</b>	Use functions and represent Compound data using Lists, Tuples and Dictionaries
<b>CSE2108.6</b>	Use various applications using python

**Year/Sem: II B.Tech II Sem**

<b>Course Name: Software Engineering</b>	
<b>Course Code: CSE2201</b>	
<b>CSE2201.1</b>	Define and develop a software project from requirement gathering to implementation
<b>CSE2201.2</b>	Obtain knowledge about principles
<b>CSE2201.3</b>	practices of software engineering
<b>CSE2201.4</b>	Focus on the fundamentals of modeling a software project
<b>CSE2201.5</b>	Obtain knowledge about estimation
<b>CSE2201.6</b>	maintenance of software systems

<b>Course Name: Java Programming</b>	
<b>Course Code: CSE2202</b>	
<b>CSE2202.1</b>	Understand Java programming concepts and utilize Java Graphical User Interface in Program writing.
<b>CSE2202.2</b>	Write, compile, execute and troubleshoot Java programming for networking concepts.
<b>CSE2202.3</b>	Build Java Application for distributed environment.
<b>CSE2202.4</b>	Design applications.
<b>CSE2202.5</b>	Develop multi-tier applications.
<b>CSE2202.6</b>	Identify and Analyze Enterprise applications

<b>Course Name: Advanced Data Structures</b>	
<b>Course Code: CSE2203</b>	
<b>CSE2203.1</b>	Be able to understand and apply amortised analysis on data structures, including binary search trees, mergable heaps, and disjoint sets.
<b>CSE2203.2</b>	Understand the implementation and
<b>CSE2203.3</b>	complexity analysis of fundamental algorithms such as RSA, primality testing, max flow, discrete Fourier transform
<b>CSE2203.4</b>	Have an idea of applications of algorithms in a variety of areas,
<b>CSE2203.5</b>	including linear programming
<b>CSE2203.6</b>	duality, string matching, game-theory

<b>Course Name: Computer Organization</b>	
<b>Course Code: CSE2204</b>	
<b>CSE2204.1</b>	Students can understand the architecture of modern computer.
<b>CSE2204.2</b>	They can analyze the Performance of a computer using performance equation
<b>CSE2204.3</b>	Understanding of different instruction types.
<b>CSE2204.4</b>	Students can calculate the effective address of an operand by addressing modes
<b>CSE2204.5</b>	They can understand how computer stores positive and negative numbers.
<b>CSE2204.6</b>	Understanding of how a computer performs arithmetic operation of positive and negative numbers.

<b>Course Name: Formal Languages and Automata Theory</b>	
<b>Course Code: CSE2205</b>	
<b>CSE2205.1</b>	Classify machines by their power to recognize languages,
<b>CSE 2205.2</b>	Employ finite state machines to solve problems in computing,
<b>CSE 2205.3</b>	Explain deterministic and non-deterministic machines,
<b>CSE2205.4</b>	Comprehend the hierarchy of problems arising in the computer science
<b>CSE2205.5</b>	Introduce the student to the concepts of Theory of computation in computer science
<b>CSE2205.6</b>	The students should acquire insights into the relationship among formal languages, formal Grammars and automat.

<b>Course Name: Principles of Programming Languages</b>	
<b>Course Code: CSE2206</b>	
<b>CSE2206.1</b>	Describe syntax and semantics of programming languages□
<b>CSE2206.2</b>	Explain data, data types, and basic statements of programming languages
<b>CSE2206.3</b>	Design and implement subprogram constructs, Apply object - oriented,
<b>CSE2206.4</b>	concurrency, and event handling programming constructs
<b>CSE2206.5</b>	Develop programs in Scheme, ML, and Prolog
<b>CSE2206.6</b>	Understand and adopt new programming languages

<b>Course Name: Advanced Data Structures Lab</b>	
<b>Course Code: CSE2207</b>	
<b>CSE2207.1</b>	Implement heap and various tree structure like AVL, Red-black, B and Segment trees
<b>CSE2207.2</b>	Solve the problems such as line segment intersection,
<b>CSE2207.3</b>	Solve the problems such as convex shell and Voronoi diagram
<b>CSE2207.4</b>	To understand heap and various tree structures like AVL, Red-black, B and Segment trees
<b>CSE2207.5</b>	To understand the problems such as line segment intersection,
<b>CSE2207.6</b>	To understand the problems such as convex shell and Voronoi diagram

<b>Course Name: Java Programming Lab</b>	
<b>Course Code: CSE2208</b>	
<b>CSE2208.1</b>	student will be able to write java program for Evaluate default value of all primitive data type
<b>CSE2208.2</b>	Evaluate , Operations, Expressions, Control-flow, Strings
<b>CSE2208.3</b>	Determine Class, Objects, Methods, Inheritance, Exception,
<b>CSE2208.4</b>	Determine Runtime Polymorphism, User defined Exception handling mechanism
<b>CSE2208.5</b>	Illustrating simple inheritance, multi-level inheritance, Exception handling mechanism
<b>CSE2208.6</b>	Construct Threads, Event Handling, implement packages, developing applets

**Year/Sem: III B.Tech I Sem**

<b>Course Name: Compiler Design</b>	
<b>Course Code : CSE3101</b>	
<b>CSE3101.1</b>	Acquire knowledge in different phases and passes of Compiler, and specifying different types of tokens by lexical analyzer, and also able to use the Compiler tools like LEX, YACC, etc.
<b>CSE3101.2</b>	Parser and its types i.e. Top-down and Bottom-up parsers.
<b>CSE3101.3</b>	Construction of LL, SLR..
<b>CSE3101.4</b>	Construction of LALR parse table.
<b>CSE3101.5</b>	Syntax directed translation, synthesized and inherited attributes
<b>CSE3101.6</b>	Techniques for code optimization

<b>Course Name: Unix Programming</b>	
<b>Course Code: CSE3102</b>	
<b>CSE3102.1</b>	Documentation will demonstrate good organization and readability.
<b>CSE3102.2</b>	File processing projects will require data organization, problem solving and research.
<b>CSE3102.3</b>	Scripts and programs will demonstrate simple effective user interfaces.
<b>CSE3102.4</b>	Scripts and programs will demonstrate effective use of structured programming.
<b>CSE3102.5</b>	Scripts and programs will be accompanied by printed output demonstrating completion of a test plan.
<b>CSE3102.6</b>	Testing will demonstrate both black and glass box testing strategies

<b>Course Name: Object Oriented Analysis and Design using UML</b>	
<b>Course Code: CSE3103</b>	
<b>CSE3103.1</b>	Ability to find solutions to the complex problems using object oriented approach
<b>CSE3103.2</b>	Represent classes, responsibilities.
<b>CSE3103.3</b>	Represent states using UML notation
<b>CSE3103.4</b>	Identify classes and responsibilities of the problem domain
<b>CSE3103.5</b>	Analyze and design solutions to problems using object oriented approach
<b>CSE3103.6</b>	Study the notations of Unified Modeling Language

<b>Course Name: Database Management Systems</b>	
<b>Course Code: CSE3104</b>	
<b>CSE3104.1</b>	Describe a relational database and object-oriented database
<b>CSE3104.2</b>	Create, maintain and manipulate a relational database using SQL
<b>CSE3104.3</b>	Describe ER model and normalization for database design
<b>CSE3104.4</b>	Examine issues in data storage and query processing and can formulate appropriate solutions.
<b>CSE3104.5</b>	Understand the role and issues in management of data such as efficiency, privacy, security, ethical responsibility, and strategic advantage.
<b>CSE3104.6</b>	Design and build database system for a given real world problem

<b>Course Name: Operating Systems</b>	
<b>Course Code: CSE3105</b>	
<b>CSE3105.1</b>	Design various Scheduling algorithms
<b>CSE3105.2</b>	Apply the principles of concurrency
<b>CSE3105.3</b>	Design deadlock, prevention and avoidance algorithms
<b>CSE3105.4</b>	Compare and contrast various memory management schemes
<b>CSE3105.5</b>	Design and Implement a prototype file systems.
<b>CSE3105.6</b>	Perform administrative tasks on Linux Servers

<b>Course Name: Unified Modeling Lab</b>	
<b>Course Code: CSE3106</b>	
<b>CSE3106.1</b>	Understand the Case studies and design the Model.
<b>CSE3106.2</b>	Understand how design patterns solve design problems.
<b>CSE3106.3</b>	Develop design solutions using creational patterns.
<b>CSE3106.4</b>	Construct UML diagrams for static view and dynamic view of the system.
<b>CSE3106.5</b>	Generate creational patterns by applicable patterns for given context.
<b>CSE3106.6</b>	Create refined model for given Scenario using structural patterns.

<b>Course Name: Operating System &amp; Linux Programming Lab</b>	
<b>Course Code: CSE3107</b>	
<b>CSE3107.1</b>	To use Unix utilities and perform basic shell control of the utilities
<b>CSE3107.2</b>	To use the Unix file system and file access control.
<b>CSE3107.3</b>	To use of an operating system to develop software
<b>CSE3107.4</b>	Students will be able to use Linux environment efficiently
<b>CSE3107.5</b>	Solve problems using bash for shell scripting
<b>CSE3107.6</b>	Will be able to implement algorithms to solve data mining problems using weka tool

<b>Course Name: Database Management System Lab</b>	
<b>Course Code: CSE3108</b>	
<b>CSE3108.1</b>	Understand, appreciate and effectively explain the underlying concepts of database technologies
<b>CSE3108.2</b>	Design and implement a database schema for a given problem-domain
<b>CSE3108.3</b>	Normalize a database. Design and build a GUI application using a 4GL
<b>CSE3108.4</b>	Populate and query a database using SQL DML/DDDL commands.
<b>CSE3108.5</b>	Declare and enforce integrity constraints on a database using a state-of-the-art RDBMS
<b>CSE3108.6</b>	Programming PL/SQL including stored procedures, stored functions, cursors, packages



**Year/Sem: III B.Tech II Sem**

<b>Course Name: Computer Networks</b>	
<b>Course Code: CSE3201</b>	
<b>CSE3201.1</b>	Understand OSI and TCP/IP models □
<b>CSE3201.2</b>	Analyze MAC layer protocols and LAN technologies
<b>CSE3201.3</b>	Design applications using internet protocols
<b>CSE3201.4</b>	Understand routing
<b>CSE3201.5</b>	congestion control algorithms
<b>CSE3201.6</b>	Understand how internet works

<b>Course Name: Data Warehousing and Mining</b>	
<b>Course Code: CSE3202</b>	
<b>CSE3202.1</b>	Understand stages in building a Data Warehouse
<b>CSE3202.2</b>	Understand the need and importance of preprocessing techniques
<b>CSE3202.3</b>	Understand the need and importance of Similarity.
<b>CSE3202.4</b>	Understand the need and importance of dissimilarity techniques.
<b>CSE3202.5</b>	Analyze and evaluate performance of algorithms for Association Rules.
<b>CSE3202.6</b>	Analyze Classification and Clustering algorithms

<b>Course Name: Design and Analysis of Algorithms</b>	
<b>Course Code: CSE3203</b>	
<b>CSE3203.1</b>	Argue the correctness of algorithms using inductive proofs and invariants.
<b>CSE3203.2</b>	Analyze worst-case running times of algorithms using asymptotic analysis.
<b>CSE3203.3</b>	Describe the divide-and-conquer paradigm and explain when an algorithmic design situation calls for it.
<b>CSE3203.4</b>	Recite algorithms that employ this paradigm. Synthesize divide-and conquer algorithms. Derive and solve recurrences describing the performance of divide and- conquer algorithms.
<b>CSE3203.5</b>	Describe the dynamic-programming paradigm and explain when an algorithmic design situation calls for it. Recite algorithms that employ this paradigm. Synthesize dynamic programming algorithms, and analyze them.
<b>CSE3203.6</b>	Describe the greedy paradigm and explain when an algorithmic design situation calls for it. Recite algorithms that employ this paradigm. Synthesize greedy algorithms, and analyze them.

<b>Course Name: Software Testing Methodologies</b>	
<b>Course Code: CSE3204</b>	
<b>CSE3204.1</b>	Understand the basic testing procedures. □
<b>CSE3204.2</b>	Able to support in generating test cases and test suites.
<b>CSE3204.3</b>	Able to test the applications manually by applying different testing methods
<b>CSE3204.4</b>	Able to test the applications manually by applying automation tools
<b>CSE3204.5</b>	Apply tools to resolve the problems in Real time environment.
<b>CSE3204.6</b>	Acts as the reference for software testing techniques and strategies.

<b>Course Name: Cyber Security</b>	
<b>Course Code: CSE3205</b>	
<b>CSE3205.1</b>	Cyber Security architecture principles
<b>CSE3205.2</b>	Identifying System and application security threats and vulnerabilities
<b>CSE3205.3</b>	Identifying different classes of attacks
<b>CSE3205.4</b>	Cyber Security incidents to apply appropriate response
<b>CSE3205.5</b>	Describing risk management processes and practices
<b>CSE3205.6</b>	Evaluation of decision making outcomes of Cyber Security scenarios

<b>Course Name: Network Programming Lab</b>	
<b>Course Code: CSE3206</b>	
<b>CSE3206.1</b>	Understand and explain the basic concepts of Grid Computing;
<b>CSE3206.2</b>	Explain the advantages of using Grid Computing within a given environment;
<b>CSE3206.3</b>	Prepare for any upcoming Grid deployments and be able to get started with a potentially available Grid setup.
<b>CSE3206.4</b>	Discuss some of the enabling technologies e.g. high-speed links and storage area networks.
<b>CSE3206.5</b>	Build computer grids
<b>CSE3206.6</b>	To Design reliable servers using both TCP and UDP sockets

<b>Course Name: Software Testing Lab</b>	
<b>Course Code: CSE3207</b>	
<b>CSE3207.1</b>	Find practical solutions to the problems
<b>CSE3207.2</b>	Solve specific problems alone or in teams
<b>CSE3207.3</b>	Manage a project from beginning to end
<b>CSE3207.4</b>	Work independently as well as in teams
<b>CSE3207.5</b>	Define, formulate and analyze a problem
<b>CSE3207.6</b>	Demonstrate the working of software testing tools with c language.

<b>Course Name: DATA WARE HOUSING AND DATA MINING LAB</b>	
<b>Course Code: CSE3208</b>	
<b>CSE3208.1</b>	The data mining process and important issues around data cleaning,.
<b>CSE3208.2</b>	pre-processing and integration
<b>CSE3208.3</b>	The principle algorithms and techniques used in data mining, such as clustering
<b>CSE3208.4</b>	association mining, classification and prediction..
<b>CSE3208.5</b>	Exposure to real life data sets for analysis and prediction.
<b>CSE3208.6</b>	Learning performance evaluation of data mining algorithms in a supervised and an unsupervised setting.

**Year/Sem: IV B.Tech I Sem**

<b>Course Name: Cryptography and Network security</b>	
<b>Course Code: CSE4101</b>	
<b>CSE4101.1</b>	To be able to individually reason about software security problems
<b>CSE4101.2</b>	Protection techniques on an abstract
<b>CSE4101.3</b>	Protection techniques on a more technically advanced level
<b>CSE4101.4</b>	Be able to individually explain how software exploitation techniques used by adviosaries,functions
<b>CSE4101.5</b>	How to protect against them
<b>CSE4101.6</b>	How to address various software security problems in a secure and controlled environment.

<b>Course Name: UML &amp; Design Patterns</b>	
<b>Course Code: CSE4102</b>	
<b>CSE4102.1</b>	identify the purpose and methods of use of common object-oriented design patterns
<b>CSE4102.2</b>	Select and apply these patterns in their own designs for simple programs
<b>CSE4102.3</b>	represent the data dependencies of a simple program using UML
<b>CSE4102.4</b>	Represent user and programmatic interactions using UML
<b>CSE4102.5</b>	Create design documentation outlining the testable and complete design of a simple program
<b>CSE4102.6</b>	Produce and present documents for the purpose of capturing software requirements and specification

<b>Course Name: Mobile Computing</b>	
<b>Course Code: CSE4103</b>	
<b>CSE4103.1</b>	Able to think and develop new mobile application.
<b>CSE4103.2</b>	Able to take any new technical issue related to this new paradigm
<b>CSE4103.3</b>	come up with a solution(s)
<b>CSE4103.4</b>	Able to develop new adhoc network applications and/or algorithms/protocols
<b>CSE4103.5</b>	Able to understand & develop any existing or new protocol related to mobile environment
<b>CSE4103.6</b>	To understand the database issues in mobile environments & data delivery models.

<b>Course Name: Software Testing Methodologies</b>	
<b>Course Code: CSE4104</b>	
<b>CSE4104.1</b>	Have an ability to apply software testing knowledge and engineering methods.
<b>CSE4104.2</b>	Have an ability to design and conduct a software test process for a software testing project.
<b>CSE4104.3</b>	Have an ability to identify the needs of software test automation, and define and develop a test tool to support test automation.
<b>CSE4104.4</b>	Have an ability understand and identify various software testing problems, and solve these problems by designing and selecting software test models, criteria, strategies, and methods.
<b>CSE4104.5</b>	Have an ability to use various communication methods and skills to communicate with their team mates to conduct their practice-oriented software testing projects.
<b>CSE4104.6</b>	Have ability to uses of software testing methods and modern software testing tools for their testing projects.

<b>Course Name: Hadoop and BigData</b>	
<b>Course Code: CSE4105</b>	
<b>CSE4105.1</b>	Preparing for data summarization, query, and analysis
<b>CSE4105.2</b>	Applying data modeling techniques to large datasets
<b>CSE4105.3</b>	Creating applications for Big Data analytics
<b>CSE4105.4</b>	Building a complete business data analytic solution
<b>CSE4105.5</b>	Derive business benefit from unstructured data
<b>CSE4105.6</b>	Imparting the architectural concepts of Hadoop and introducing map reduce paradigm.

<b>Course Name: UML &amp; Design Patterns Lab</b>	
<b>Course Code: CSE4106</b>	
<b>CSE4106.1</b>	student will be able to Know the syntax of different UML diagrams
<b>CSE4106.2</b>	Create use case documents that capture requirements for a software system
<b>CSE4106.3</b>	Create class diagrams that model both the domain model and design model of a software system
<b>CSE4106.4</b>	Create interaction diagrams that model the dynamic aspects of a software system
<b>CSE4106.5</b>	Write code that builds a software system
<b>CSE4106.6</b>	Develop simple applications

<b>Course Name: Mobile application development lab</b>	
<b>Course Code: CSE4107</b>	
<b>CSE4107.1</b>	Identify various concepts of mobile programming that make it unique from programming for other platforms
<b>CSE4107.2</b>	Critique mobile applications on their design pros and cons
<b>CSE4107.3</b>	Utilize rapid prototyping techniques to design and develop sophisticated mobile interfaces,
<b>CSE4107.4</b>	Program mobile applications for the Android operating system that use basic
<b>CSE4107.5</b>	advanced phone features
<b>CSE4107.6</b>	Deploy applications to the Android marketplace for distribution

<b>Course Name: Software testing lab</b>	
<b>Course Code: CSE4108</b>	
<b>CSE4108.1</b>	Find practical solutions to the problems
<b>CSE4108.2</b>	Solve specific problems alone or in teams
<b>CSE4108.3</b>	Manage a project from beginning to end
<b>CSE4108.4</b>	Work independently as well as in teams
<b>CSE4108.5</b>	Define, formulate and analyze a problem
<b>CSE4108.6</b>	Demonstrate the working of software testing tools with c language.

<b>Course Name: Hadoop and big data lab</b>	
<b>Course Code: CSE4109</b>	
<b>CSE4109.1</b>	Preparing for data summarization, query, and analysis
<b>CSE4109.2</b>	Applying data modeling techniques to large datasets
<b>CSE4109.3</b>	Creating applications for Big Data analytics
<b>CSE4109.4</b>	Building a complete business data analytic solution
<b>CSE4109.5</b>	Derive business benefit from unstructured data
<b>CSE4109.6</b>	Imparting the architectural concepts of Hadoop and introducing map reduce paradigm.

**Year/Sem: IV B.Tech II Sem**

<b>Course Name: Cloud Computing</b>	
<b>Course Code: CSE4201</b>	
<b>CS4201.1</b>	Understanding the key dimensions of the challenge of Cloud Computing
<b>CS4201.2</b>	Assessment of the economics, financial, and technological implications for selecting cloud computing for own organization
<b>CS4201.3</b>	Assessing the financial, technological, and organizational capacity of employer's for actively initiating.
<b>CS4201.4</b>	Assessment of own organizations' needs for capacity building
<b>CS4201.5</b>	training in cloud computing-related IT areas
<b>CS4201.6</b>	Installing cloud-based applications.

<b>Course Name: Distributed Systems</b>	
<b>Course Code: CSE4202</b>	
<b>CSE4202.1</b>	Develop a familiarity with distributed file systems.
<b>CSE4202.2</b>	Describe important characteristics of distributed systems
<b>CSE4202.3</b>	Describe the features
<b>CSE4202.4</b>	Gaining practical experience of inter-process communication in a distributed environment
<b>CSE4202.5</b>	The salient architectural features of such systems.
<b>CSE4202.6</b>	Applications of important standard protocols which are used in distributed systems.

<b>Course Name: Human Computer Interaction</b>	
<b>Course Code: CSE4203</b>	
<b>CSE4203.1</b>	Explain the capabilities of both humans and computers from the view point of human information processing.
<b>CSE4203.2</b>	Describe typical human-computer interaction(HCI)models, styles,and various historic HCI paradigms
<b>CSE4203.3</b>	Apply an interactive design process and universal design principles to designing HCI systems.
<b>CSE4203.4</b>	Describe and use HCI design principles, standards and guidelines.
<b>CSE4203.5</b>	Analyze and identify user models, user support, socio-organizational issues, and stakeholder requirements of 1-ICI systems
<b>CSE4203.6</b>	Discuss tasks and dialogs of relevant HCI systems based on task analysis and dialog design

<b>Course Name: Management Science</b>	
<b>Course Code: CSE4204</b>	
<b>CSE4204.1</b>	After completion of the Course the student will acquire the knowledge on management functions
<b>CSE4204.2</b>	After completion of the Course the student will acquire the knowledge on organizational behavior.
<b>CSE4204.3</b>	After completion of the Course the student will acquire the knowledge on global leadership
<b>CSE4204.4</b>	Will familiarize with the concepts of project management
<b>CSE4204.5</b>	Will familiarize with the concepts of functional management
<b>CSE4204.6</b>	Will familiarize with the concepts of strategic management.