Vidya Jyothi Institute of Technology

(An Autonomous Institution)
(Accredited by NAAC & NBA, Approved by AICTE New Delhi & Permanently Affiliated to JNTUH)
Aziz Nagar Gate, C.B. Post, Hyderabad-500 075

Department of Information Technology

Course Outcomes (COs) - (R15)

Course name: English-I

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Demonstrate real life skills in the light of literature.
CO2	Understand influential personalities, and practice human and professional values
CO3	Explain new versions of technology for effective usage of human resources towards development and to avoid risks
CO4	Identify principles and values to build collaborative knowledge and to cultivate social responsibility
CO5	Enhance communication skills through grammar, vocabulary with emphasis on LSRW skills.

Course name: Mathematics-I

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Understand the term rank and Elementary Transformations of a Matrix, System of Equations.
CO2	Compute Eigen values and corresponding Eigen vectors of a square matrix, finding Inverse and method of Diagonalization
CO3	Evaluate the Mean value theorems and maxima and minima of functions of two variables
CO4	Evaluate of improper integrals by using beta gamma functions and evaluation of double and triple integrals by tracing the region of integration
CO5	Apply Laplace transform of various functions and solve the initial value problems by using Laplace transforms.

Course name: Engineering Physics-I

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Analyze the crystal structures, properties and to identify defects in crystals
CO2	Explain the diffraction, interference and polarization phenomenon of light rays
CO3	Identify the basics of statistical mechanics and applications of LASERs in various fields
CO4	Interpret the significance of Magnetic materials
CO5	Explain fundamentals of Dielectrics and their applications

Course name: C Programming-I

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Explain the basics of computers and its Generations
CO2	Able to solve problems using flowcharts,algortihms and programs
CO3	Able to develop programs on control structures.
CO4	Develop programs using Arrays, Strings and derived data types
CO5	Design programs on functions

Course name: Engineering Graphics

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Explain the applications of different curves ,usage of different drawing instruments

Vidya Jyothi Institute of Technology

(An Autonomous Institution)
(Accredited by NAAC & NBA, Approved by AICTE New Delhi & Permanently Affiliated to JNTUH)
Aziz Nagar Gate, C.B. Post, Hyderabad-500 075

Department of Information Technology

Course Outcomes (COs) - (R15)

	and projections in first angle.
CO2	Generate various scales used in engineering practice.
CO3	Draw the projections of points and straight lines.
CO4	Visualize and project different views of a planes.
CO5	Visualize and draw the views of a given solid.

Course name: Engineering Chemistry

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Ability to explain the various processes of treatment of water for both industrial and domestic purpose
CO2	Identify the operating principles and the reaction mechanisms of batteries and fuel cells
CO3	Apply the knowledge for protection of different metals from corrosion
CO4	An ability to identify engineering applications of polymers
CO5	Able to list advanced engineering materials and their applications.

Course name: C Programming Lab - I

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Understand basic commands in Linux.
CO2	Able to explain the process of execution of programs written in C language
CO3	Develop programs in C language
CO4	Analyze and design C program for a particular problem
CO5	Solve computing problems using control structures and arrays

Course name: English Language Communication Skills Lab-I

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Facilitate computer-aided multimedia instruction enabling individualized and independent language learning.
CO2	Improve accent and intelligibility in pronunciation of English through Ice breaking and JAM sessions
CO3	Use vocabulary, glosses and pronunciation for appropriate usage of the target language.
CO4	Develop learners' communicative ability through frequent exchange of ideas and discussions.
CO5	Explain the concepts of verbal and non-verbal skills of communication useful in day-to- day life

Course name: Engineering Physics and Engineering Chemistry Lab

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Experiment on Melde's and Torsional pendulum with knowledge in waves and mechanics
CO2	Visualize the fundamental optical phenomenon like Interference, diffraction and Dispersion
CO3	Identify the basic Electrical characteristics of LED, RC circuits

Department of Information Technology

Course Outcomes (COs) - (R15)

CO4	Apply Titrimetric analysis for estimating the quantity of the compound accurately.
CO5	Handle instruments like conductometer and potentiometer for measuring conductance & emf value.
CO6	Evaluate and record the physical properties like Viscosity and Surface tension

Course name: IT Workshop Lab

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Identify the various components of computer system
CO2	Get hands on experience in software Installation
CO3	Explain the trouble shooting problems
CO4	Use the tools Power Point ,Documentation, Tabulation and Calculations
CO5	Use Internet and World Wide Web

Course name: English-II

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Acquire the real life skills in the light of literature.
CO2	Develop managerial skills for successful careers. By making critical decisions
CO3	Demonstrate physical and mental fitness with true sportsman spirit.
CO4	Build collaborative knowledge and cultivate social responsibility.
CO5	Enhance communication skills through grammar, vocabulary with emphasis on LSRW skills.

Course name: Mathematics-II

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Able to solve first order differential equations and their applications.
CO2	Identify different types of higher order differential equations and their applications in engineering problems
CO3	Apply Fourier series and defining it for various types of functions
CO4	Evaluating the Fourier transforms of functions of single variable
CO5	Justify integrals of functions or vector-related quantities over curves, surfaces, and domains in two- and three-dimensional space.

Course name: Engineering Physics-II

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Able to solve first order differential equations and their applications.
CO2	Identify different types of higher order differential equations and their applications in engineering problems
CO3	Apply Fourier series and defining it for various types of functions
CO4	Evaluating the Fourier transforms of functions of single variable
CO5	Justify integrals of functions or vector-related quantities over curves, surfaces, and domains in two- and three-dimensional space.

Course name: C Programming -II

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Develop various sorting and searching algorithms

Vidya Jyothi Institute of Technology

(An Autonomous Institution)
(Accredited by NAAC & NBA, Approved by AICTE New Delhi & Permanently Affiliated to JNTUH)
Aziz Nagar Gate, C.B. Post, Hyderabad-500 075

Department of Information Technology

Course Outcomes (COs) - (R15)

CO2	Design solutions using derived data types and user defined data types- structures, arrays, pointers
CO3	Develop programs on dynamic memory allocation for effective memory utilization
CO4	Implement linear data structures-list, stack and queue
CO5	Apply various file handling techniques for better data management

Course name: Mathematics -III

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Solve engineering problems involving Algebraic and transcendental equations
CO2	Acquires the knowledge of interpolation in predicting future out comes based on the present knowledge
CO3	Evaluating the Numerical Solutions for Integrals and Fitting of different types of curves to the given data
CO4	Solve Initial Value Problems by Numerical Methods
CO5	Explain the applications of Partial Differential Equations

Course name: Basic Electrical Engineering

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Explain the basic electrical circuit parameters and the concepts of AC/DC circuits. Apply theorems to solve both AC and DC circuits.
CO2	List RMS and Average value calculations for different alternating quantities and the representation of alternating quantities in Phasor form.
CO3	Identify the process of construction and operation of the transformer, calculation of efficiency and regulation at different operating power factors.
CO4	Identify the construction and operation of DC/AC machines and their applications
CO5	Use the measuring instruments and their operational aspects in detail.

Course name: English Language Communication Skills Lab-II

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Build the language proficiency in English with emphasis on LSRW skills.
CO2	Develop communication skills through various language learning activities.
CO3	Summarize the nuances of English speech sounds, stress, rhythm, intonation and syllable division.
CO4	Acquire and exhibit acceptable etiquette essential in social & professional settings.
CO5	Improve the fluency in spoken English and neutralize mother tongue influence.

Course name: C Programming Lab- II

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Develop various sorting and searching algorithms
CO2	Design solutions using derived data types and user defined data types- structures, arrays, pointers
CO3	Develop programs on dynamic memory allocation for effective memory utilization
CO4	Implement linear data structures-list, stack and queue
CO5	Apply various file handling techniques for better data management

Vidya Jyothi Institute of Technology

(An Autonomous Institution)
(Accredited by NAAC & NBA, Approved by AICTE New Delhi & Permanently Affiliated to JNTUH)
Aziz Nagar Gate, C.B. Post, Hyderabad-500 075

Department of Information Technology

Course Outcomes (COs) - (R15)

Course name: Engineering Workshop

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Recite workshop tools and their operations.
CO2	Use wooden and metallic components by carpentry and foundry respectively.
CO3	Use welding equipment.
CO4	Use black smithy technique to fabricate ferrous component
CO5	Demonstrate skills on plumbing and machine shops trades.

Course name: Probability and Statistics

After completing this course the student must demonstrate the knowledge and ability to	
CO1	To differentiate among random variables involved in the probability models which are useful for all branches of engineering
CO2	Derive relationship among variety of performance measures using probability distributions.
CO3	Acquire elementary knowledge of parametric and non parametric tests and understand the use of observing state analysis for predicting future conditions
CO4	Identify and examine situations that generate using problems and able to solve the tests of ANOVA for classified data.
CO5	Apply proper measurement, Indicators and techniques of correlation and Regression analysis.

Course name: Mathematical Foundation of Computer Science

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Evaluate elementary mathematical arguments and identify fallacious reasoning (not just fallacious conclusions).
CO2	Solve discrete mathematics problems that involve: computing permutations and combinations of a set.
CO3	Analyze and deduce problems involving recurrence relations and generating functions.
CO4	Perform operations on discrete structures such as sets, functions, relations and sequences.
CO5	Apply Graph theory models to solve problems of Computer Science & Engineering.

Course name: Data Structures

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Analyze the representation of various data structures and implement the mechanisms of Stacks and Queues with their applications.
CO2	Implement the operations like searching, insertion, deletions and traversing mechanisms on Binary Trees.
CO3	Implement various advance concepts of trees with real time applications.
CO4	Implement various algorithms on graph data structures, including finding the minimum spanning tree, shortest path with real time applications, etc.
CO5	Outline the concepts of hashing, collision and its resolution methods using hash function.

Department of Information Technology

Course Outcomes (COs) - (R15)

Course name: Digital Logic Design

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Understand various number systems, conversions, range and error detecting and correcting codes and their significance.
CO2	Evaluate the minimization of logic gates using Boolean algebraic principles and k-maps.
CO3	Design various simple and complex combinational circuits with real time applications.
CO4	Analyze the basic principles behind Flip flops & the design of sequential circuits with real time applications.
CO5	Illustrate various types of memory devices and their design.

Course name: Object Oriented Programming

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Describe importance concepts of Object Oriented Programming
CO2	Develop the applications using Object Oriented Programming through C++
CO3	Implements the concepts of inheritance and polymorphism
CO4	Apply the IO Streams and files to develop a program for real time problems
CO5	Apply advanced features like templates and exception handling to make programs supporting reusability and sophistication

Course name: Electronic Devices &Circuits

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Understand and Analyze the different types of diodes, operation and its characteristics.
CO2	Analyze and design diode application circuits(rectifiers and filters).
CO3	Design and analyze the DC bias circuitry of BJT and FET Design biasing circuits using diodes and transistors.
CO4	Analyze and design amplifier circuits and oscillators employing BJT, FET devices.

Course name: Data Structures Lab

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Develop the programs on stack and its applications
CO2	Demonstrate the operations on trees
CO3	Demonstrate the implementations of various advanced trees
CO4	Design and implementation of programs on BST and graph traversals
CO5	Understand the C++ program structure and also basics of C++ programming.

Course name: Electronic Devices & circuits and Digital Logic Design lab

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Understand and use the basic components and instruments of the electronics laboratory.

Department of Information Technology

Course Outcomes (COs) - (R15)

CO2	Understand and verify the characteristics and applications of diodes and transistors.
CO3	Implement and verify logic gates and its applications.
CO4	Design and verify functionality of different circuits using ICs

Course name: Design and Analysis of Algorithms

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Analyze the efficiency of algorithms
CO2	Develop algorithms divide & conquer, greedy and related problems
CO3	Examine the performance of Dynamic programming
CO4	Explain performance of algorithm using Backtracking
CO5	Analyze NP-Hard and NP-Complete problems

Course name: Computer Organization

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Understanding the basic organization of computer and different instruction formats and addressing modes.
CO2	Analyze the concept of pipelining, segment registers and pin diagram of CPU.
CO3	Write simple programs on assembly language.
CO4	Evaluate various modes of data transfer between CPU and I/O devices.
CO5	Examine various inter connection structures of multi processors.

Course name: Database Management Systems

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Design Entity-Relationship Model for enterprise level databases.
CO2	Develop the database and provide restricted access to different users of database and formulate the Complex SQL queries.
CO3	Analyze various Relational Formal Query Languages and various Normal forms to carry out Schema refinement.
CO4	Use of suitable Indices and Hashing mechanisms for real time implementation.
CO5	Analyze various concurrency control protocols and working principles of recovery algorithms

Course name: Software Engineering

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Choose a process model to apply for given project requirements
CO2	Analyze and apply the framework activities for a given project
CO3	Design various system models for a given scenario
CO4	Design and apply various testing techniques
CO5	Understand metrics for Process and Products

Course name: Java Programming

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Understand OOP concepts to apply basic Java constructs
CO2	Analyze different forms of inheritance and handle different kinds of file I/O

Department of Information Technology

Course Outcomes (COs) - (R15)

CO3	Evaluate the usage of Exception Handling and Multithreading in complex Java programs
CO4	Contrast different GUI layouts and design GUI applications
CO5	Construct a full-fledged Java GUI application, and Applet with database connectivity

Course name: Environmental Science

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Understand the importance of Ecosystem and its Resources
CO2	Be aware on the Variety of Living organism and the need to conserve them
CO3	Understand the impacts of Developmental Activities.
CO4	Understand the Environmental Policies, Management Plan and Regulations
CO5	Sensitize on a Sustainable Future.

Course name: Java Programming Lab

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Familiarize with Java Environment and use of Java Development Kit for the creation and execution of java programs
CO2	Develop programs on various concepts like data abstraction & data hiding, encapsulation, inheritance, polymorphism.
CO3	Create and use threads, handle exceptions and write applets.
CO4	Develop the programs using interfaces, inner classes, wrapper classes and generics.
CO5	Develop GUI applications

Course name: Database Management Systems Lab

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Apply SQL statements including DDL, DML and DCL statements to perform different operations.
CO2	Design different views of tables for different users.
CO3	Apply various integrity Constraints on the database tables
CO4	Apply the Normalization techniques to the data base for consistency.
CO5	Implement PLSQL concepts like cursors, procedures and triggers.

Course name:MC1(Intellectual Property rights & Cyber laws)

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Understand the need for cyber laws in global context
CO2	Analyze Cyber Crimes & legal framework
CO3	Identify the application of Cyber laws in India
CO4	Outline the features of IT Act 2000
CO5	Analyze the E commerce governing laws in India

Course name: MC2 (Professional Ethics, Human Values & Self Development)

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Practice optimistic attitude for an efficient socially viable and multi-faceted

Vidya Jyothi Institute of Technology

(An Autonomous Institution)
(Accredited by NAAC & NBA, Approved by AICTE New Delhi & Permanently Affiliated to JNTUH)
Aziz Nagar Gate, C.B. Post, Hyderabad-500 075

Department of Information Technology

Course Outcomes (COs) - (R15)

	personality.
CO2	Demonstrate functions of non-verbal communication in formal context.
CO3	Build effective individual & team dynamics for professional accomplishments.
CO4	Analyze appropriate strategic Interpersonal Skills for productive workplace relationships.
CO5	Correspond in multiple contexts, for varied audiences, across genres and modalities.

Course name: Linux Programming

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Understand and make effective use of Linux utilities.
CO2	Able to write shell scripts to solve the problems.
CO3	Develop the skills necessary for file system and directory handling.
CO4	Learn the concepts of process and signal system calls.
CO5	Implement inter process communication mechanisms.

Course name: Computer Networks

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Understand the concept of network reference models
CO2	To Analyze various connecting devices of a network and describe multichannel access protocols
CO3	Analysis of routing algorithm and congestion algorithms and classify IPV4 addressing scheme
CO4	Understand Transport layer protocols
CO5	Discuss Application layer protocols

Course name: Operating systems

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Understanding the operating system concepts and process management
CO2	Analyze process scheduling and synchronization.
CO3	Understand memory management concepts.
CO4	Illustrate File System implementation and Mass Storage Structure.
CO5	Analyze Deadlock mechanisms.

Course name: Cloud Computing

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Understand Systems Modeling, Clustering and Virtualization Concepts.
CO2	Analyze different cloud deploy & service models.
CO3	Design the Cloud Virtual Machines Migration and Cloud enhancing service.
CO4	Understand Monitoring, Management and Applications in Cloud Computing.
CO5	Understand Data security mechanism and SLA Management in Cloud.

Department of Information Technology

Course Outcomes (COs) - (R15)

Course name: Principles of Programming Languages

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Ability to apply suitable programming paradigm for the application.
CO2	Ability to express syntax and semantics in formal notation.
CO3	Apply Object Oriented, concurrency programming constructs.
CO4	Comparing features of different programming languages.
CO5	Ability to write programs in various programming languages

Course name: OE(IME)

At the end of the course the student should be able to	
CO1	Describe the architecture of 8051 with its special function registers
CO2	Interpret the internal organization of 8051 with its unique features.
CO3	Infer and give examples about the various addressing modes, instruction formats and instructions of 8051.
CO4	Construct the hardware and software interaction with each other using programming
CO5	Summarize the features of the advanced architecture using ARM controller.

Course name: OE (BEI)

At the end of the course the student should be able to	
CO1	Summarize the concepts of different Diode devices with its characteristics
CO2	Summarize the concepts of different Transister devices with its characteristics.
CO3	Describe the fundamental concepts and basic principle of meters.
CO4	Categorize different transducers and their working principles.
CO5	Explain different bridges and understand how different physical parameters can be acquired.

Course name: OE(Total quality management)

After completing this course the student must demonstrate the knowledge and ability to	
CO1	To explore the quality framework in production and operational aspects.
CO2	To evaluate the role of quality in product design and analysis.
CO3	To analyze quality in process improvement and modern production management tools.
CO4	To analyze the requirements of quality management system.

Course name: Operating Systems & Computer Networks Lab

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Implement Data link layer framing methods.
CO2	Implement various algorithms for error detection and correction.
CO3	Simulate various routing algorithms.
CO4	Implement CPU scheduling ,deadlock avoidance and prevention algorithms
CO5	Simulate various page replacement techniques and file allocation methods.

Vidya Jyothi Institute of Technology

(An Autonomous Institution)
(Accredited by NAAC & NBA, Approved by AICTE New Delhi & Permanently Affiliated to JNTUH)
Aziz Nagar Gate, C.B. Post, Hyderabad-500 075

Department of Information Technology

Course Outcomes (COs) - (R15)

Course name: Advanced Communication Skills Lab

After completing this course the student must demonstrate the knowledge and ability to	
CO1	The student will be able to build communication competence in person-to-person interactions to build self-efficacy and to manage relationships and improve communicative behaviour of dyadic interactions in various contexts.
CO2	The student will be able to annotate effectively for active reading, increased comprehension & retention while synthesizing information both print and online sources for their relevance, accuracy and appropriateness.
CO3	The student will be able to develop unique qualities of professional rhetoric and writing style and explore different format features in both print, multimedia documents, and develop document design skills.
CO4	The student will be able to identify essential components of Presentation and will be able to speak with greater control and charisma in front of a larger audience.
CO5	The students will be able to know the significance of group activities and acquire oral skills & body language used for effective Group discussion and prepared to face interviews.

Course name: PDBS

After completing this course the student must demonstrate the knowledge and ability to	
CO1	To develop sharpened personality for an efficient socially viable, multi-faceted and impressive personality.
CO2	To perform well during campus drives and different interviews.
CO3	To build effective team dynamics for professional accomplishments.
CO4	To communicate with more confidence using better written and spoken English.
CO5	To give better presentations and explanation with the use of digital inventions.

Course name: Web Technologies

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Create static and dynamic web pages using HTML and java script
CO2	Analyze the XML and how to parse XML data with java
CO3	Develop web applications using server side scripting language-PHP
CO4	Implement the web applications using JDBC and java servlets
CO5	Apply web applications with Java Server Pages

Course name: Automata & Compiler Design

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Understand & analyze the phases in compilation & parsing
CO2	Identify the process in parsing and semantic analysis
CO3	Apply type checking and also perform type conversions.
CO4	Understand Symbol tables and code optimization methods
CO5	Analyze data flow and generate object code

Vidya Jyothi Institute of Technology

(An Autonomous Institution)
(Accredited by NAAC & NBA, Approved by AICTE New Delhi & Permanently Affiliated to JNTUH)
Aziz Nagar Gate, C.B. Post, Hyderabad-500 075

Department of Information Technology

Course Outcomes (COs) - (R15)

Course name: Data Warehousing and Data Mining

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Understand the fundamentals of Data warehousing and OLAP technology.
CO2	Understand Data Mining and Data Pre-processing
CO3	Analyze and apply association algorithms on large data sets.
CO4	Analyze and apply classification algorithms on large data sets.
CO5	Analyze and apply clustering techniques on large data.

Course name: Managerial Economics and Financial Analysis

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Understand the importance of certain basic issues governing the business operations namely demand and supply, production function, cost analysis
CO2	Apply managerial tools and techniques in obtaining optimal solutions for business problems
CO3	Differentiate the various forms of business organizations
CO4	Evaluate and interpret the financial statements of companies using ratios
CO5	Apply the methods of capital budgeting in effective investment decision making

Course name: Object Oriented Analysis And Design

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Understand object oriented software development process
CO2	Gain exposure to object oriented methodologies & UML diagrams
CO3	Use object oriented behavioral modeling analysis for project
CO4	Apply object oriented Architectural modeling analysis for project
CO5	Construct for developing structural design of a given project by using

Course name: OE (PRINCIPLES OF COMMUNICATIONS)

At the end of the course the student should be able to	
CO1	Understanding the fundamentals of communications
CO2	Summarize the different modulation techniques involved in analog Communication
CO3	Summarize the different modulation techniques involved in digital Communication.
CO4	Identify the applications of various wired and wireless communications in real time.
CO5	Elaborate the fundamentals of satellite and optical communications.

Course name: OE (Fundamentals of Embedded systems)

At the end of the course the student should be able to	
CO1	Contrast the basics of embedded system with its application
CO2	Illustrate the components required for embedded system design.
CO3	Summarize the different development tool for embedded system
CO4	Relate the concepts of RTOS in real time programming
CO5	Outline the features of advanced buses for distributed data transfer in system design

Vidya Jyothi Institute of Technology

(An Autonomous Institution)
(Accredited by NAAC & NBA, Approved by AICTE New Delhi & Permanently Affiliated to JNTUH)
Aziz Nagar Gate, C.B. Post, Hyderabad-500 075

Department of Information Technology

Course Outcomes (COs) - (R15)

Course name: OE (Financial institutions & markets)

After completing this course the student must demonstrate the knowledge and ability to	
CO1	To explore Indian investment environment.
CO2	To evaluate available investment avenues.
CO3	To analyze the role of regulatory bodies in Indian Financial system.
CO4	To identify recent trends and challenges in Indian banking sector

Course name: Web Technologies Lab

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Design and implement static & dynamic web pages
CO2	Implement the concepts of XML and apply parsing of XML data with Java
CO3	Develop web applications using PHP, Servlets, JSP & MySQL

Course name: Data Mining and case tools lab

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Ability to understand various data mining tools and demonstrate the classification clusters etc in data sets.
CO2	Design & Model ATM system and real world problems using UML

Course name: QMLR

After completing this course the student must demonstrate the knowledge and ability to	
CO1	To perform well in various competitive exams and placement drives.
CO2	To solve basic and complex mathematical problems in short time.
CO3	To become strong in Quantitative Aptitude and Reasoning which can be applied
CO4	To develop problem solving skills and analytical abilities, which play a great role in corporate and industry set up.

Course name: Mobile Application Development

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Understand and analyze the limitations and challenges of working in a mobile and wireless environment to implement mobile applications
CO2	Understand the concepts of J2ME
CO3	Understand and apply the knowledge of J2ME packages to design and develop user interfaces for mobile applications
CO4	Apply the concepts of JDBC & Embedded SQL for implementing database applications
CO5	Understand the generic connection framework.

Course name: Information Security

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Identify various security attacks.

Vidya Jyothi Institute of Technology

(An Autonomous Institution)
(Accredited by NAAC & NBA, Approved by AICTE New Delhi & Permanently Affiliated to JNTUH)
Aziz Nagar Gate, C.B. Post, Hyderabad-500 075

Department of Information Technology

Course Outcomes (COs) - (R15)

CO2	Understand various encryption principles and algorithms.
CO3	Analyze different Cryptography algorithms.
CO4	Understand various security associations and key management.
CO5	Design a firewall for security.

Course name: Software Testing Methodologies

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Understand the purpose of Software testing.
CO2	Analyze various flow testing techniques.
CO3	Understand domain testing.
CO4	Construct decision tables for Logic Based Testing.
CO5	Understand and apply node reduction algorithm.

Course name: Big Data Analytics

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Understand the foundations, definitions, and challenges of Big Data.
CO2	Apply Hadoop file system interfaces.
CO3	Understand Map Reduce features
CO4	Understand various Hadoop Eco Systems.
CO5	Understand and analyze various data visualization tools

Course name: OE (INTRODUCTION TO MATLAB)

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Break down computational problems into a series of simple steps.
CO2	Create programs in the MATLAB language for engineering applications.
CO3	Apprise and get familiarized with the visualization techniques
CO4	Formalized with different applications tools required different area of domain.
CO5	Expose to the common algorithms and techniques that are the Building blocks of MATLAB.

Course name: OE(Fundamentals of Entrepreneurship)

After completing this course the student must demonstrate the knowledge and ability to	
CO1	To provide awareness about entrepreneurship
CO2	To develop idea generation, creative and innovative skills among students
CO3	To self-motivate the students by making aware of different opportunities by exploring themselves by discussing successful growth/failure stories
CO4	To learn to start an enterprise and design business plans those are suitable for funding by considering all dimensions of business.

Course name: Advanced Databases

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Understand the concepts of Distributed Database Systems.
CO2	Identify different Architectural Models for Distributed DBMS.
CO3	Analyze the query processors.

Vidya Jyothi Institute of Technology

(An Autonomous Institution)
(Accredited by NAAC & NBA, Approved by AICTE New Delhi & Permanently Affiliated to JNTUH)
Aziz Nagar Gate, C.B. Post, Hyderabad-500 075

Department of Information Technology

Course Outcomes (COs) - (R15)

CO4	Design Algorithms for Concurrency control Mechanisms.
CO5	Analyze different Parallel DBMS Techniques based on given constraints.

Course name: Hadoop & Bigdata Lab

**After completing this course the student must demonstrate the knowledge and ability to**	
CO1	Understand java programs required for developing map reduce programs in Hadoop.
CO2	Analyze Installation of Hadoop environment and learn Unix file system commands.
CO3	Impart Knowledge of map reduce paradigm to solve complex problems.
CO4	Implement best practices Hadoop programming tool PIG in Hadoop eco system.
CO5	Apply HIVE scripting in Hadoop eco system.

Course name: Mobile Application Development Lab

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Analyze and understand the Mobile Applications Development environment and J2ME wireless tool kit
CO2	Design and develop real time GUI based mobile applications
CO3	Design and implement real time J2ME applications

Course name: Mini Project

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Analyze and communicate software requirement specifications
CO2	Apply design and development principles in the construction of software systems of varying complexity.
CO3	Able to function effectively on team to accomplish a common goal
CO4	Exhibit documentation skills to generate project reports

Course name: Design Patterns

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Understand the Design patterns in software applications.
CO2	Discuss the Creational Patterns
CO3	Categorize the Structural Pattern.
CO4	Investigate Behavior Patterns
CO5	Construct the good design pattern structures

Course name: E-Commerce

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Identify the anatomy of E-Commerce applications.
CO2	Categorize different Electronic payment systems.
CO3	Examine Supply chain Management.
CO4	Analyze the various marketing strategies for an online business.
CO5	Design strategies for E-Commerce Catalogues.

Vidya Jyothi Institute of Technology

(An Autonomous Institution)
(Accredited by NAAC & NBA, Approved by AICTE New Delhi & Permanently Affiliated to JNTUH)
Aziz Nagar Gate, C.B. Post, Hyderabad-500 075

Department of Information Technology

Course Outcomes (COs) - (R15)

Course name: Semantic Web and Social Networks

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Understand knowledge representation for the Semantic Web Intelligence
CO2	Identify the role of Ontologies in the semantic web.
CO3	Learn Ontology Engineering.
CO4	Develop Semantic Web Applications and Services.
CO5	Create OWL-S Ontology for Web Services.

Course name: Technical Seminar

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Student able to Communicate effectively
CO2	Student able to develop good presentation skills
CO3	Student able to analyze and consolidate the presentation
CO4	Student able to effectively interact with others
CO5	Student able to explain the latest technologies and trends in computing.

Course name: Comprehensive viva

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Student able to develop self-confidence, spontaneity and communication skills
CO2	Comprehend for all the courses studied in the entire programme and Continue to advance their knowledge

Course name: Major Project

After completing this course the student must demonstrate the knowledge and ability to	
CO1	Analyze and communicate software requirement specifications
CO2	Apply design and development principles in the construction of software systems of varying complexity.
CO3	Able to function effectively on team to accomplish a common goal
CO4	Exhibit documentation skills to generate project reports