



Mahavir Polytechnic

Mhasrul Varvandi Road , Nashik, Maharashtra
Department of Computer Engineering

Course Outcomes

- **English**

1	Formulate grammatically correct sentences.
2	Summarize comprehensive passages
3	Compose Dialogues and paragraphs for different situation
4	Use relevant words as per context
5	Deliver prepared speeches to express ideas, thoughts and emotions.

- **Basic Science (Physics & Chemistry)**

1	Estimate errors in measurement of physical quantities.
2	Apply the principles of electricity and magnetism to solve engineering problems.
3	Use basic principles of heat and optics in related engineering applications.
4	Apply the catalysis process in industries.
5	Use corrosion preventive measures in industry.
6	Use relevant engineering materials in industry.

- **Mathematics**

1	Apply the concepts of algebra to solve engineering related problems.
2	Utilize basic concepts of trigonometry to solve elementary engineering problems.
3	Solve basic engineering problems under given conditions of straight lines.
4	Solve the problems based on measurement of regular closed figures and regular solids.
5	Use basic concepts of statistics to solve engineering related problems.

- **Engineering Graphics**

1	Draw regular geometric figures.
2	Use drawing codes. Convention and symbols as per IS SP-46 in engineering drawing.
3	Draw the views of given object using principles of orthographic projection.
4	Draw Isometric views of given component or from orthographic projections.
5	Draw free hand sketches of given engineering elements.
6	Use computer aided drafting approach to create engineering drawings.

- **Fundamentals Of ICT**

1	Use Computer System and its peripherals.
2	Prepare business document using word processing tool.
3	Interpret data and represent it graphically using spreadsheet.
4	Prepare professional presentations.
5	Use different types of web browsers.

- **Workshop Practice**

1	Use Electrical tools, instruments, Devices and equipments for basic level maintenance of computers and peripherals.
2	Identify active and passive electronic components.
3	Understand basic level maintenance of PC.
4	Use different kind of printers and scanners.
5	Identify the layout of wired and wireless LAN environment.

- **Elements of Electrical Engineering**

1	Use principles of magnetic circuits.
2	Use single phase AC supply for electrical and electronics equipments.
3	Use three phase AC supply for industrial equipments and machines.
4	Connect transformers and DC motors for specific requirements.
5	Use FHP motors for diversified applications.
6	Use relevant protective devices/switchgear for different requirements.

- **Applied Mathematics**

1	Calculate the equation of tangent, maxima, minima, radius of curvature by differentiation.
2	Solve the given problems of integration using suitable methods.
3	Apply the concept of integration to find area and volume.
4	Solve the differential equation for first order and first degree using suitable methods.
5	Apply the concepts of numerical methods in computer programming Language.

- **Basic Electronics**

1	Identify electronic component in electronic circuit.
2	Use diodes in different applications.
3	Interpret the working of junction transistors in electronic circuit.
4	Interpret the working of Unipolar device in electronic circuit.
5	Use sensors and transducer.

- **Programming in C**

1	Develop flowchart and algorithm to solve problems logically.
2	Write simple programs using Arithmetic Expression.
3	Develop C program's using control structure.
4	Develop C programs using arrays and structures.
5	Develop/Use functions in C programs to modular programming approach.
6	Develop C programs using Pointers.

- **Computer Peripheral and Hardware Maintenances**

1	Identify different types of computer systems.
2	Troubleshoot common motherboard problems.
3	Select processors required for relevant systems.
4	Partition/format hard disk drives.
5	Troubleshoot peripherals and networks.
6	Test power supplies.

- **Web Page Designing With HTML**

1	Use Block Level Formatting Tags To Present Content On Web Page.
2	Use Text Level Formatting Tags To Present Content On Web Page.
3	Apply Hyper linking On Webpage.
4	Organize The Content Using Tables And Frames.
5	Apply Presentation Schemes on Contents Using CSS.
6	Publish Websites On Internet or Intranet.

- **Object Oriented Programming Using C++**

1	Develop C++ program to solve problems using procedure oriented approach.
2	Develop C++ program using classes and objects.
3	Implement inheritance in C++ program.
4	Use polymorphism in C++ program.
5	Develop C++ program to perform file operations.

- **Data Structure Using 'C'**

1	Perform basic operations on arrays.
2	Apply different searching and sorting techniques.
3	Implement basics operations on stack and queue using array representation.
4	Implement basics operations on linked list.
5	Implement a program to create and traverse tree to solve problems.

- **Computer Graphics**

1	Manipulate visual and geometric information of images.
2	Implement standard algorithms to draw various graphics object using C program.
3	Develop programs for 2D-3D transformations.
4	Using projections to visualize objects on view plane.
5	Implement various clipping algorithms.
6	Develop programs to create curves using algorithms.

- **Database Management System**

1	Design normalize database on given data.
2	Create and manage database using SQL commands.
3	Write PL/SQL code for given database.
4	Apply trigger ob database also create procedure and functions according to condition.
5	Apply security and confidentiality on given database.

- **Digital Techniques**

1	Use number system and code for interpreting working of digital system.
2	Use Boolean expressions to realize logic circuits.
3	Build simple combinational circuits.
4	Build simple sequential circuits.
5	Test data converters and PLD's in digital electronics system.

- **Java Programming**

1	Develop programs using object oriented methodology in java.
2	Apply concept of inheritance for code reusability.
3	Develop programs using multithreading.
4	Implement Exception Handling.
5	Develop programs using graphics and applet.
6	Develop programs for handling IO and file streams.

- **Software Engineering**

1	Select suitable Software Process model for software development.
2	Prepare software requirement specifications.
3	Use software modeling to create data designs.
4	Estimate size and cost of software product.
5	Apply project management and quality assurance principles in software development.

- **Data Communication and Computer Network**

1	Analyze the functioning of data communication and computer network.
2	Select relevant transmission media and switching techniques as per need.
3	Analyze the transmission errors with respect to IEEE standards.
4	Configure various networking devices.
5	Configure different TCP/IP services.

- **Microprocessors**

1	Analyze the functional block of 8086 microprocessor.
2	Write assembly language program for the given problem.
3	Use instructions for different addressing modes.
4	Develop an assembly language program using assembler.
5	Develop assembly language program using procedures, macros and modular programming approach.

- **GUI Application Development using VB.Net**

1	Use Visual Studio IDE to design Application.
2	Develop GUI Application using form Control and its events.
3	Apply Object Oriented concepts in GUI Application.
4	Use Data Access controls to store data in Database and retrieve it.
5	Use Data Binding in GUI Application

- **Environment Studies**

1	Develop public awareness about environment.
2	Select alternative energy resources for engineering practice.
3	Conserve Ecosystem and Biodiversity.
4	Manage social issue and environment ethics as lifelong learning.

- **Operating System**

1	Install operating system and configure it.
2	Use OS tools to perform various functions.
3	Execute process commands for performing process management operation.
4	Apply scheduling algorithm to calculate turnaround time and average waiting time.
5	Calculate efficiency of different memory management techniques.
6	Apply file management techniques.

- **Software Testing**

1	Apply Various software testing methods.
2	Prepare test case for different types and level of testing.
3	Prepare test plan for an Application.
4	Identify bugs to create defect report of given application.
5	Test software for performance measure using automated testing tools.

- **Advance Java Programming**

1	Develop Program using GUI Framework.(AWT and swing)
2	Handle event of AWT and swing Components.
3	Develop program to handle event in java Programming.
4	Develop java programming using networking concept.
5	Develop Program using Database.
6	Develop a program using Servlets.

- **Client Side Scripting**

1	Create interactive web pages using program flow control structure.
2	Implement Arrays and Functions in Java script.
3	Create event based web forms using java script.
4	Use JavaScript for handling cookies.
5	Create interactive webpage using regular expressions for validations.
6	Create Means and navigations in web pages.

- **Mobile Application Development**

1	Interpreter features of android OS.
2	Configure android environment and development tools.
3	Develop reach UI by using layouts and controls.
4	Use UI for android application development.
5	Create android application using database.
6	Publish android application.

- **Web Based Application Development with PHP**

1	Develop Program Using Control Statement.
2	Perform Operations Based On Arrays and Graphics.
3	Develop Programs By Applying Various Object Oriented Concepts.
4	Use form Controls With Validation to Collect User's Input.
5	Perform Database Operations In PHP.

- **Programming with Python**

1	Display message on screen using Python script on IDE.
2	Develop Python Program to demonstrate use of operations.
3	Perform operations on data structure in Python.
4	Develop functions for given problem.
5	Design classes for given problem.
6	Handle exceptions.

- **Emerging Trends in Computer And Information Technology**

1	Describe Artificial Intelligence, machine learning and deep learning.
2	Interprete IoT concepts.
3	Compare models of digital forensic investigation.
4	Describe evidence handling procedures.
5	Describe ethical hacking process.
6	Detect Network, Operating system and applications vulnerabilities.

- **Management**

1	Use basic management principles to execute daily activities.
2	Use principles of planning and organizing for accomplishment of tasks.
3	Use Principles of directing and controlling for implementing the plans.
4	Apply principles of safety management in all activities.
5	Understand various provisions of industrial acts.

• Capstone Project Planning

1	Write the Problem or task Specification in Existing system Related to the occupation.
2	select, Collect and use required information/knowledge to solved the problem or Complete the Task
3	Logically choose relevant possible solutions.
4	Assess the impact of the project on Society.
5	Prepare 'Project proposals' with action plan and time duration scientifically before beginning of project.
6	Communicate effectively and confidently as member or leader of Team.

• Capstone Project Execution and Report Writing

1	Implement the planned activity individually or as team.
2	Select, collect and use required information/knowledge to solve the identified problems.
3	Take appropriate decisions based on collected and analyzed information.
4	Ensure quality in product.
5	Incorporate energy and environment conservation principles.
6	Consider the ethical issues related to the project.
7	Assess the impact of the project on society.
8	Communicate effectively and confidently as a member and leader of team.