

PO1 : M.Sc. IT

This Program will educate students to analyze, design, integrate and manage information systems using information technology. Students post-graduating from our Program will be able to choose many different roles becoming IT and IS Consultants, Project planners, managers, interface designers, web developers etc.

PSO- I

After Completing the first semester students will have the basic knowledge of basic programming skills and software fundamentals.

CO-1: Relational Database Management System and Software Lab-II (SQL): The student after completing the course will be able to: Understand the current theory and practice of database management systems. These include data independence, integrity, security, recovery, performance, database design principles, and database administration.

CO-2 Programming using ‘C’ and Software Lab II :The student after completing the course will be able to: Understand the basic terminology used in computer programming, Writing, Compiling and Debugging involving decision structures, loops and functions, arrays, strings and pointers.

CO-3: System Software: The student after completing the course will be able to: To understand the concepts of user, system, functional and non-functional requirements and will be able to explain how software requirements may be organized in a requirements document.

CO-4: Discrete Structure: The student after completing the course will be able to: Understand the notion of mathematical thinking, mathematical proofs, and algorithmic thinking, and be able to apply them in problem solving. Understand the basics of discrete probability and number theory, basic properties of graphs and related discrete structures, and be able to apply the methods from these subjects in problem solving.

CO-5: Workshop-I (Reasoning and Research Aptitude):The student after completing the course will be : Content with skills such as aptitude, reasoning, technical and soft skills that would aid in the employability of the students.

PSO- II

After Completing the second semester students will have the basic knowledge of digital circuits and Data structures concepts.

CO-1 Operating System: The student after completing the course will be able to:

Understand the main components of an OS & their functions, working of an OS as a resource manager, file system manager, process manager, memory manager and I/O manager and methods used to implement the different parts of OS

CO-2 Data Structures and Software Lab III: The student after completing the course will be able to: Understand the memory management Concepts, Work on different data structures like linked lists, arrays, stacks, queues etc.

CO-3 Computer Organization & Architecture: The student after completing the course will be able to: Understand and Conceptualize the Logic Systems and Circuits, the basics of organizational and architectural issues of a digital computer, Study various data transfer techniques in digital computer. Identify and compare different methods for computer I/O mechanisms.

CO-4 E-Technologies: The student after completing the course will be able to: understand the fundamentals principles of e-Business, e- Commerce along with the role of Management. This course work emphasis on Internet Technologies, and the application of tools and services for the development of small scale e-Commerce application, concepts and applications of data warehousing and data mining.

CO-5 Object oriented programming using C++ and Software Lab-IV (OOP's using C++): The student after completing the course will be able to: The student will gain knowledge of objects, Class, Data Abstraction, Encapsulation, inheritance, Polymorphism and Dynamic Binding. Will able to develop and construct programs using Bottom up design approach.

PSO- III

After Completing the third semester students will have the basic knowledge of current IT trends and networking

CO-1 Web Technologies and Software Lab IV: The student after completing the course will be able to: Design and create a media-rich website to meet the specifications of a client using text, fonts, colors, images, tables, hyperlinks, language and terminology. Create a static website using HTML and add dynamic functionality to it by using java Script.

CO-2 Java Programming and Software Lab V:The student after completing the course will be able to: Understand the basic terminology used in computer programming, Writing, Compiling and Debugging involving decision structures,loops, Exception handling and threads.

CO-3 Software Engineering: The student after completing the course will be able to: Understand the development, operation, maintenance, re-engineering and retirement of software.

CO-4 Computer Networks: The students after completing the course will be able to: to understand the basic terminology of computer networks and networks security threats, security

services and mechanisms to counter them and will be able to explain how communication works in computer .

CO-5 Workshop II (Communication & General ICT):The student after completing the course will be able to: equip learners with the appropriate social skills required for basic communication for a more productive learning experience. It empowers students who are unable to use this technology outside the college premises by ensuring sufficient access to those students.

PSO- IV

After Completing the IV semester students will have the basic knowledge of management skills and software development

CO-1 Computer Graphics and Software Lab VI: The student after completing the course will be able to: provide comprehensive introduction about computer graphics system, design algorithms and two dimensional transformations.To make the students familiar with techniques of clipping, three dimensional graphics and three dimensional transformations. To implement various graphics drawing algorithms, 2D-3D transformations and clipping techniques.

CO-2 Linux Administration and Software Lab VII: The student after completing the course will be able to: learn how to install, configure and maintain an Enterprise Linux system in a networked environment, Creating and maintaining system users and groups, Understanding and administering file permissions on directories and regular files

CO-3 Modern Information System: The student after completing the course will be able to: Get familiar with different types of information systems and methodologies of developing information systems (eg MIS) and Work in the fields of decision support systems, executive information systems, neural networks and expert systems.

CO-4 Artificial Intelligence: The student after completing the course will be able to:The basic objective of AI is to enable computers to perform such intellectual tasks as decision making, problem solving, perception, understanding human communication .

CO-5 Project: The student after completing the course will be able to: learn about different software development process models and software engineering principles and develop an ability to a apply them to software design of real life problems and plan, analyze, design and implement a software project using programming languages like Java, ASP, PHP etc

PO 2 : BCA

This Program is focused to enable students to adapt the rapidly changing technology with strong fundamentals. After completing the course the student can opt for the career in the programming

and software development.

PSO- I

After Completing the first semester students will have the basic knowledge of computer fundamentals and basic programming skills.

CO-1 Fundamentals of IT and Software Lab I :The student after completing the course will be able to:

Describe the computer terms and its components, Work on software package like MS office for advanced documentation, creating efficient presentation, handling worksheets.

CO-2 Computer Programming and Software Lab II :The student after completing the course will be able to: Understand the basic terminology used in computer programming, Writing, Compiling and Debugging involving decision structures, loops and functions, arrays, strings and pointers.

PSO- II

After Completing the second semester students will have the basic knowledge of digital circuits and Data structures concepts.

CO-1 Digital Electronics: The student after completing the course will be able to: Understand the Logic Systems and Circuits.

CO-2 Data Structures and Software Lab III: The student after completing the course will be able to: Understand the memory management Concepts, Work on different data structures like linked lists, arrays, stacks, queues etc.

PSO-III

After Completing the IIIrd semester students will have the knowledge of Data Structures, Databases and Computer architecture concepts.

CO-1 Data and File Structure and Software Lab III:The student after completing the course will be able to: Understand the memory management Concepts, Work on different data structures like linked lists, arrays, stacks, queues etc.

CO-2 Database Management System and Software Lab IV:The student after completing the course will be able to : explore database concepts and the Microsoft office access environment,Designing and building database with related tables in datasheet view or by using the table wizard and generating reports.

CO-3 Computer System Architecture: The student after completing the course will be able to: understand the basic structure of computer, able to perform computer arithmetic operations, understand control unit operations,design memory organization, understand the concept of I/O organization.

PSO-IV

After Completing the IVth semester students will have the knowledge of Relational Databases, Operating system and Computer Networks.

CO-1 RDBMS with ORACLE and Software Lab V: The student after completing the course will be able to: Describe data models and schemas in RDBMS, understand the features of Relational database, use SQL- the standard language, understand the concept of Transaction and Query processing.

CO-2 Operating System and Software Lab VI:The student after completing the course will be able to:Understand basicfunctions and types of operating systems, various process management concepts including scheduling, synchronization, deadlocks, familiar with protection and security mechanisms, familiar with basic commands of LINUX.

CO-3 Computer Network:The student after completing the course will be able to:Understand the different models and the protocols, familiar with wireless networking concepts.

PSO-V

After Completing the Vth semester students will be able to have skills in Java programming and web designing.

CO-1 JAVA Programming and Software Lab VII:The student after completing the course will be able to: Describe the major features of object oriented programming, use Java programming constructs to develop object based programs, use inbuilt library functions to enable exception handling and create threads for efficient use of system resource.

CO-2 Web Technology-I and Software Lab –VIII:The student after completing the course will be able to: Design and create a media-rich website to meet the specifications of a client using text, fonts, colors, images, tables, hyperlinks, language and terminology and basic concepts of PhotoShop.

CO-3 System Software:The student after completing the course will be able to:understand the concepts of system programs like editors, compiler, assembler, linker, loader, interpreter and debugger.

CO-4 Management Information System:The student after completing the course will be able to:Understand the role of Management Information Systems in achieving competitive advantage in various fields through decision making.

PSO-VI

After Completing the VIth semester students will have the knowledge of Data warehouses, data mining,Cloud computing and software engineering.

CO-1 Web Technology-IIand Software Lab –IX: The student after completing the course will be able to: Develop web application using server side PHP programing and Database Connectivity using MySQL.

CO-2 E-Technologies : The student after completing the course will be able to: understand the E-Commerce models, concepts of data-mining and data warehouse, learning how to gather and analyze large sets of data to gain useful business understanding.

CO-3 Software Engineering :The student after completing the course will be able to:apply the software engineering lifecycle by demonstrating competence in communication, planning, analysis, design, construction, and deployment.

CO-4 Cloud Computing :The student after completing the course will be able to: understand cloud architecture and model, Explore some important cloud computing driven commercial systems such as Google Apps, Microsoft Azure and Amazon Web Services and other businesses cloud applications.

PO 3 : PGDCA

Post Graduate Diploma in Computer Applications (PGDCA) is designed for graduate students who are interested in computer applications. This course has been made for students who want to learn computer applications in different fields like banking, insurance and accounting. This program allows students to seek professional knowledge in computer applications.

PSO- I

The curriculum of this programme ensures that students gain the basic knowledge of computer fundamentals and basic programming skills.

CO-1 Fundamentals of Information Technology and Software Lab I: The student after completing the course will be able to: Describe the computer terms and its components, Work on software package like MS office for advanced documentation, creating efficient presentation, handling worksheets.

CO-2 Operating System: The student after completing the course will be able to: Understand the basic terminology related to operating systems, like process management, concept of processes, deadlocks, memory management, processor and disk scheduling, and file system organization and implementation. Also to study the basic commands of unix and unix administration.

CO-3 Programming Fundamentals through 'C' Language and Software Lab II : The student after completing the course will be able to: Understand the basic terminology used in computer programming, Writing, Compiling and Debugging involving decision structures, loops and functions, arrays, strings and pointers.

CO-4 Computer Organisation and Architecture: The student after completing the course will be able to: Understand the hardware design including logic design, basic structure and behavior of the various functional modules of the computer and how they interact to provide the processing needs of the user.

PSO- II

The curriculum of this programme ensures that students gain the basic knowledge of Data structures, concepts like database, object oriented programming and computer networking.

CO-1 Data Structures: The student after completing the course will be able to: Understand the memory management Concepts, Work on different data structures like linked lists, arrays, stacks, queues etc.

CO-2 Object Oriented Programming using C++ and Software Lab III : The student after completing the course will be able to: The student will gain knowledge of objects, Class, Data Abstraction, Encapsulation, inheritance, Polymorphism and Dynamic Binding and able to develop and construct programs using Bottom up design approach.

CO-3 Database Management System with MS-Access: The student after completing the course will be able to: To examine database concepts and explore the Microsoft office access environment. Designing and building database with related tables in datasheet view or by using the table wizard and generating reports.

CO-4 Fundamentals of Computer Networks, Internet and Scripting Languages and Software Lab IV: The student after completing the course will be able to: Understand the basic terminology about the communication and how communication works in computer networks. To familiarize students about various types of cables used in guided media like coaxial cable, optical fiber cable, twisted pair cables and its categories.

PO 4 : DCHN

Diploma in Computer Hardware and Networking is designed for 10+2 Level students who are interested in computer hardware. This course would help the students to prepare for entry level Hardware job opportunities in the IT industry. The student's skill set in troubleshooting Hardware related problems, designing networks and troubleshooting the same will be enhanced to a considerable level to match the requirements of the Industry.

PSO- I

The curriculum of this programme ensures that students gain the basic knowledge of computer fundamentals and PC assembling and troubleshooting.

CO-1 Fundamentals of Information Technology and MS-Office and Software Lab I: The student after completing the course will be able to: Describe the computer terms and its components, Work on software package like MS office for advanced documentation, creating efficient presentation, handling worksheets.

CO-2 PC Assembling and Troubleshooting: The main objective of this course is to introduce PC maintenance, upgrading, repairing. This course discusses most areas of system improvements, such as motherboards, processors, memory, and even case and power supply improvements. Students will learn about powerful diagnostics hardware and software that enable a system to help them determine the cause of a problem and how to repair it.

PSO- II

The curriculum of this programme ensures that students gain the basic knowledge of computer networking and to provide complete knowledge of windows server.

CO-1 Network Essentials: The main objective of this course is to introduce local, metropolitan, and wide area networks using the standard OSI reference model as a framework; introduction to the Internet protocol suite and network tools and programming; discussion of various networking technologies.

CO-2 Server Administration and Software Lab II: The main objective of this course is to provide complete knowledge of Windows Server OS. This course provides a practical introduction to Microsoft Windows systems administration. Installation, configuration and management of both the server and workstation versions of the Microsoft operating systems are covered.