PG Diploma in Computer Applications (PGDCA)

Programme Outcomes (PO)

Upon completion of the programme, the student will attain the ability to:

- **PO1:** Explain different computing paradigms (hardware & software) needed for a proper understanding of Computer Applications as a subject.
- **PO2:** Comprehend, explore and develop computer programs in the allied area like algorithms, web design, data analytics etc. for efficient design of computer based systems.
- **PO3:** Apply domain knowledge and expertise for enhancing educational pursuit and research capability.
- **PO4:** Develop a range of Software skills applicable for employment.
- **P05:** Recognize and apply computing principles and Project Management in multidisciplinary environment.
- **PO6:** Use the knowledge of advance technologies for developing customized solutions via startups and entrepreneurship.

Programe Specific Outcome (PSO)

Upon completion of the programme, the student will attain the ability to:

- **PSO1:** Aspiring for higher degrees and research work in computers.
- **PSO2:** Attain specialization in specific domains of Computer Applications.
- PSO3: Apply Knowledge in Software Development/ IT Sectors
- **PSO4:** Apply skilled knowledge in Banking, Insurance, Teaching and other services in Corporate and Government sectors.
- **PSO5:** Initiate startups and perform task as entrepreneurs in IT sectors

<u>SEMESTER – I</u>

PGDCA C101: Computer Fundamentals

COURSE OUTCOME

After completion of the course, the student will be able to:

- **CO1:** Explain basic components, structure and functions of a Computer System
- CO2: Classify the types of Software, Hardwares and Peripherals of Computer System
- CO3: Outline the functions of Operating systems and Programming languages
- CO4: Create and execute Batch files in DOS Environment.

SEMESTER - I

PGDCA C102: Programming Using C

COURSE OUTCOME

After completion of the course, the student will be able to:

- **CO1:** Recognize the basics of computer programming concepts using C Programming Language.
- **CO2:** Explain the concept of C character set, identifiers and keywords, variable different data types, operators and programming constructs.
- **CO3:** Apply the concept of advanced topics like Arrays, Functions, Pointers, Structures, Unions and Dynamic Memory Allocations and File Handling in various programmes
- **CO4:** Create and execute different programmes using Procedural programming method.

SEMESTER - I

PGDCA C103: MS-Office

COURSE OUTCOME

After completion of the course, the student will be able to:

- **CO1:** Recognize the basic knowledge of Windows Operating System.
- CO2: Apply Microsoft Word tools to create professional documents.
- **CO3:** Design, construct and analyze data using MS-Excel.
- **CO4:** Create Presentations using MS- PowerPoint.

SEMESTER - I

PGDCA C104: Database Management Systems

COURSE OUTCOME

After completion of the course, the student will be able to:

- **CO1:** Understand the fundamental elements of Database Management System using basic concepts of data model, entity-relationship model, database design etc.
- **CO2:** Design ER-Models to represent simple database application scenarios and convert them into tables.
- CO3: Implement Normalization for the optimization of Database Design
- **CO4:** Formulate queries using SQL for effective information storage and retrieval in a Database

SEMESTER - I

PGDCA C105: Data Communications & Networks

COURSE OUTCOME

After completion of the course, the student will be able to:

- **CO1:** Recognise the structure of Data Communications System and its components and basics of Networking.
- **CO2:** Explain the concepts of Network models (OSI and the TCP/IP Reference models), their functions of OSI Layers and different Protocols used in these Model..

- **CO3:** Illustrate various Networking devices and their functions, Multiplexing, Switching Techniques, IP Addressing.
- **CO4:** Illustrate different Transmission media, Flow control and Error Detection Techniques.

SEMESTER II

PGDCA C206: Software Engineering

COURSE OUTCOME

After completion of the course, the student will be able to:

- **CO1:** Illustrate the basics of software its characteristics, SRS and its components.
- **CO2:** Classify the fundamentals of different software process models & techniques to construct larger and more complex software systems
- **CO3:** Apply software engineering concepts to design, develop and maintain the software.
- **CO4:** Implement Software Testing for good Software Quality Assurance.

<u>SEMESTER – II</u>

PGDCA C207: Programming in JAVA

COURSE OUTCOME

After completion of the course, the student will be able to:

- **CO1:** Describe the fundamental concepts and features of Java Programming language.
- **CO2:** Implement Object Oriented Programming Concepts (class, constructor, overloading, inheritance, overriding) in java.
- **CO3:** Implement concepts of Multithreading and Exception Handling in Java.
- **CO4:** Create and Use Packages and Interfaces in a Java program and Develop Graphical User Interface applications and Web based applications in Java by importing applet, AWT.

SEMESTER - II

PGDCA C208: Operating System

COURSE OUTCOME

After completion of the course, the student will be able to:

- **CO1:** State the Role of System Software (Operating System) in Computers.
- **CO2:** Describe the important Computer System resources and the Role of OS in their management policies and algorithms
- CO3: Analyse different types of Operating Systems (DOS, Windows, UNIX).
- **CO4:** Create and execute Shell Scripts in Linux.

SEMESTER - II

PGDCA C209: Internet and its Applications

COURSE OUTCOME

After completion of the course, the student will be able to:

- **CO1:** Understand the basics of Internet and its usage as a learning resource and communication system.
- **CO2:** Apply HTML for Website development.
- **CO3:** Analyse the basics of E-Commerce and digital payment.
- CO4: Use web services like E-mail, Search Engines etc.

SEMESTER- II

PGDCA DSE 201: Project Work

Course Outcomes:

After the completion of the course, the student will attain the ability to:

CO1: Formulate projects with clearly identified scope and requirements.

- **CO2**: Understand the practical implementation of Software Development Life Cycle.
- **CO3:** Implement programming theories, concepts and principles & use latest computing tools for Software Development.
- **CO4:** Develop team building capacity and work ethics for successful project development and management.