# LORETO COLLEGE COMPUTER DEPARTMENT

## COURSE OUTCOMES (CO)

## SEC (SKILL ENHANCEMENT COURSE)-2

## **ARTIFICIAL INTELLIGENCE**

- CO1. Understand core concepts of Artificial Intelligence (AI) and machine learning.
- CO2. Apply AI techniques to solve basic real-world problems.
- CO3. Develop an understanding of neural networks and their applications.
- CO4. Explore ethical implications of AI in society.
- CO5. Implement AI models using Python-based libraries.

## DIGITAL EMPOWERMENT

- CO1. Develop skills in using digital platforms for communication, collaboration, and learning.
- CO2. Gain hands-on experience in using tools for digital content creation and online services.
- CO3. Understand data privacy, security, and responsible use of technology.
- CO3. Empower students with tools for digital financial literacy.
- CO4. Promote an inclusive digital culture, bridging the digital divide.

## **ADVANCED COMPUTER**

## WINDOWS OPERATING SYSTEM (WINDOWS 10)

- CO1. Starting computer system and acquiring confidence in using computer techniques available to users.
- CO2. Recognizing the basic components of computers and terminology.
- CO3. Understanding data, information and file management.
- CO4. Understanding computer networks and Internet
- CO5. Overviewing Windows 10.

## C PROGRAMMING LANGUAGE

- CO1. Understand the fundamental syntax and semantics of the C programming language.
- CO2. Develop programs to solve basic and intermediate computational problems.
- CO3. Implement control structures, functions, and arrays for problem-solving.
- CO4. Use pointers and dynamic memory allocation effectively in programs.
- CO5. Design and implement file handling and modular programming techniques.

#### MICROSOFT EXCEL

- CO1. Demonstrating the basic mechanics and navigation of an Excel spreadsheet.
- CO2. Learning the use and utility of functions and formulas on excel spreadsheet.
- CO3. Working knowledge of organizing and displaying large amounts and complex data.
- CO4. Manipulate data using data names and ranges, filters and sort, and validation lists
- CO5. Learning formulas, creating charts and graphs that can easily explain or simplify complex information or data.

#### **MICROSOFT ACCESS**

- CO1. Examine database concepts and explore the Microsoft Office Access environment.
- CO2. Designing and building database with related tables in datasheet view or by using the table wizard
- CO3. Managing data in tables

- CO4. Develop simple, multiple-criteria, calculated fields, parameter, totaling and action-based queries
- CO5. Learning the advanced form design features such as use of the toolbox, command buttons, option groups, combo-boxes, lines or rectangles, or designing a form from scratch in Design view.
- CO6. Generating Reports and creating report based application.
- CO7. Import and export data.
- CO8. Sorting, Retrieving and Analyzing Data

## MICROSOFT PUBLISHER: DESKTOP PUBLISHING PROGRAMME

- CO1. Looking at the Publisher Interface, its layout, commands and creating a basic Publication
- CO2. Learning to import text and organize the layout of text boxes and placeholders within a publication and other related features.
- CO3. Formatting text and paragraphs as well as applying Microsoft's supplied styled and themes to enhance the overall look of your publication.
- CO4. Introducing tools and features to edit/review your text as well as using tables for a more organized layout
- CO5. Using Publisher's tools to check on your design, preview, print and sent by email

# **ENRICHMENT PROGRAMMES**

## WEB DESIGNING: HTML/CSS

- CO1. Understand the structure of web pages using HTML5.
- CO2. Design and style responsive web pages using CSS3.
- CO3. Create interactive web content through JavaScript integration.
- CO4. Develop websites with modern design principles, focusing on user experience.
- CO5. Implement SEO-friendly (Search Engine **O**ptimization friendly) designs and accessible web content

# **PYTHON PROGRAMMING**

- CO1. Understand Python syntax and semantics to write basic and advanced programs.
- CO2. Apply Python for data handling, manipulation, and visualization.
- CO3. Develop object-oriented programs using Python.
- CO4. Use Python libraries for automation, web scraping, and basic artificial intelligence applications.
- CO5. Write efficient, reusable code following best practices.

# PROGRAM OUTCOMES (PO)

- PO1. Basic knowledge in hardware/software methods and tools for solving real-life and practical problems with an orientation to lifelong learning.
- PO2. Educating students towards the design and development of applications and projects with advanced programming skills.
- PO3. Understanding and demonstrating the use of various modern technical tools like table styles, shapes, charts, graphs, data tools and solve basic and logical-mathematical problems and statistics in excel.
- PO4. Equip students with a solid foundation in programming languages such as C and Python, enabling them to solve complex computational problems.
- PO5. Develop the ability to analyse, design, and implement solutions to real-world problems using web development and artificial intelligence technologies.
- PO6. Foster digital literacy and awareness through Digital Empowerment courses, ensuring students are proficient in using digital tools and technologies.
- PO7. Project Management skills are recognized through designing and creating webpages and web applications.
- PO8. Knowledge in data management systems, like data acquisition, report generation so as to enable students in solving problems using the techniques of data analytics.
- PO9. Help students in Critical / Computational Thinking through different computer program coding in C, HTML, CSS, and Python .Apply Computational Thinking to communicate thoughts in a structured and logical way for easier problem solving.

## PROGRAM SPECIFIC OUTCOMES (PSO)

- PSO1. An ability to practically use hardware and software and design and develop projects in emerging technology environments.
- PSO2. Knowledge of data management system that helps in storing information for reference, reporting, and analysis. Database Management System helps in analyzing large amounts of information, and manage related data more efficiently.
- PSO3. Ability to understand the structure and development methodologies of software systems. Possess professional skills and knowledge of software design process. Familiarity and practical competence with a broad range of programming language and open source platforms.
- PSO4. Ability to interpret, understand and demonstrate understanding of the fundamental concepts and principles of Artificial Intelligence and Digital Empowerment and working of the hardware and software aspects of computer systems.
- PSO5. Project-based learning (PBL) gives students the opportunity to explore problems and challenges that have real-world applications, increasing the possibility of long-term retention of skills and concepts.
- PSO6. Familiarity and practical proficiency with a broad area of programming concepts and provide new ideas and innovations through different Enrichment Courses.