IMCA Course Outcomes Syllabus 2022-23

CA 1.1 - COMPUTER ESSENTIALS	CA 1.2 - Professional Communication
Course Outcomes: At the end of the course, students will be able to CO1: To understand basics of computer system. CO2: To Understand Data Representation and Basic of Algorithm. CO3: To understand concept and functioning of Operating System CO4: To acquire knowledge of Software & Computer Viruses. CO5: To understand Fundamental of Internet & Advanced Application of Computer System in Real Life.	Course Outcomes: At the end of the course, students will be able to CO1: To demonstrates his verbal and non-verbal communication ability CO2: To demonstrate his/her ability to write error free while making an optimum use of correct Business Vocabulary & Grammar. CO3: To distinguish among various levels of organizational communication and communication barriers while developing an understanding of Communication as a process in an organization. CO4: To draft effective business correspondence with brevity and clarity. CO5: To stimulate their Critical thinking by designing and developing clean and lucid writing skills.
CA 1.3 – Mathematical Foundations in Computer Science-I Course Outcomes: At the end of the course, students will be able to CO1: Apply mathematical logic to solve problems CO2: Understand sets; apply operations on sets and algebraic structures. CO3: Model and solve real world problems using graphs and trees. CO4: Use mathematical concepts such as relations and functions. CO5: Analyze and understand the mathematical operations on vectors.	CA 1.4 – C Programming Course Outcomes: At the end of the course, students will be able to CO1: Gain basic knowledge of C Language. CO2: Develop logics which will help them to create programs, applications in C programming. CO3: Learn the decision making ability to construct the C Programs. CO4: Apply user defined functions for solving the problem. CO5: Understand the use of structure and union to solve the complex problem. CO6: Analyze problems in different applications and develop logic to implement their solutions.
CA 1.5 – Lab on Professional Communication Course Outcomes: At the end of the course, students will be able to CO1: To demonstrates his verbal and non-verbal communication ability CO2: To demonstrate his/her ability to write error free while making an optimum use of correct communication Business Vocabulary & Grammar.	CA 1.6 – Lab on Problem Solving and Algorithmic Thinking-I Course Outcomes: At the end of the course, students will be able to CO1: Apply and practice logical ability to solve the problems on matrices. CO2: Apply and practice different operations on sets. CO3: Demonstrate the use of Strings and string handling functions.

CO3: To distinguish among various levels of organizational communication and communication barriers while developing an understanding of Communication as a process in an organization. CO4: To draft effective business correspondence with brevity and clarity. CO5: To stimulate their Critical thinking by designing and developing clean and lucid writing skills.	CO4: Demonstrate the use of graphs and trees. CO5: Learn to develop complex C Programs.
CA 2.1- Computer Organization & Architecture Course Outcomes: At the end of the course, students will be able to CO1:Describe the fundamental organization of a computer system. CO2: Understand the basics of instructions sets and their impact on processor design. CO3: Perform computer arithmetic operations and control unit operations. CO4: Understanding of the addressing modes, instruction formats and program control statements. CO5: Measure the performance of CPU, memory and I/O operations.	CA 2.2 Web Designing Course Outcomes: At the end of the course, students will be able to CO1: Design the web Pages using HTML / HTML 5 Tags. CO2: Use Hyperlink, Tables in web page. CO3: Use CSS to apply effect to webpage text / Controls.
CA 2.3 – Mathematical Foundations in Computer Science-II Course Outcomes: At the end of the course, students will be able to CO1: Solve applications involving permutations and combinations. CO2: Analyze statistical data using measures of central tendency, dispersion and location. CO3: Organize, manage and present data using statistics. CO4: Develop and apply problem-solving techniques needed to accurately calculate probabilities CO5: Provide the students with a fundamental understanding of probabilistic methods	CA 2.4 - C++ Programming Course Outcomes: At the end of the course, students will be able to CO1: Understand the difference between the top-down and bottom-up approach CO2. Describe the object-oriented programming approach in connection with C++ CO3. Apply the concepts of object-oriented programming CO4. Illustrate the process of data file manipulations using C++ CO5. Apply virtual and pure virtual function & complex programming situations.
CA 2.5–Lab on Essentials of Web Designing Course Outcomes: At the end of the course, students will be able to CO1: Design the web Pages using HTML / HTML 5 Tags. CO2: Use Hyperlink, Tables in web page. CO3: Use CSS to apply effect to webpage text / Controls.	CA 2.6 – Lab on Problem Solving and Algorithmic Thinking-II Course Outcomes: At the end of the course, students will be able to CO1: Apply and demonstrate the concept of Permutation and Combination. CO2: Apply and demonstrate the measure of Central Tendency

	CO3: Apply and demonstrate the concepts of probability
CA 2.7 – Lab on C++ Programming Course Outcomes: At the end of the course, students will be able to CO1: To describe the advantages of a high level language like C++, the programming process, and the compilation process. CO2: To describe and use software tools in the programming process. CO3: To apply good programming principles to the design and implementation of C++ programs. CO4: To design, implement, debug and test programs using the fundamental elements of C++. CO5: To demonstrate an understanding of primitive data types, values, operators and expressions in C++.	CA-3.1 Operating System Course Outcomes: At the end of the course, students will be able to CO1 :Recall the basic concept of operating system CO2: Summarize fundamental concepts of computer system architecture CO3:Understand the theory of: processes, resource control, physical and virtual memory, scheduling and system calls CO4:Recall the basic concept of memory management, processes and file system CO5:Understand the concept of page replacement algorithms Mass Storage
CA-3.2 C# Programming Language Course Outcomes: At the end of the course, students will be able to CO1: Describe the C# language components CO2: Explain Object Oriented Programming In C# CO3: Explain Advanced Features In C# & Exception Handling CO4: Understand the concept of .Net Framework and C# language fundamentals CO5: Develop the console and GUI applications using C# .Net	CA3.3-Data Structures And Algorithm Course Outcomes: At the end of the course, students will be able to CO1: Recall the concept of abstract data types and types of data structures CO2: Apply the different linear data structures like array, stack and queue to various computing problems. CO3: Illustrate the various types of linked list structures with their applications including representations and operations. CO4: Students will be able to develop Linear and Non-Linear data structures such as Trees, Graphs etc. CO5: Students compare various important concepts of sorting and searching techniques
CA 3.4 - Object oriented programming using Java Course Outcomes: At the end of the course, students will be able to CO1: Recall basic programming skills in object oriented programming CO2: Summarize Fundamental concepts of object oriented programming using Java technology. CO3: Apply the concepts of Exception handling to develop efficient and error free codes CO4: Analyze the concept of Array, String and Vector.	CA-3.5 Lab on C# Programming Language Course Outcomes: At the end of the course, students will be able to CO1:Demonstrate the concept of boxing and unboxing CO2:Demonstrate the use of Timer control in C# CO3: Demonstrate Simple Database Connectivity using wizard. CO4:Demonstrate a C# application using PictureBox, ScrollBar control CO5:Develop the console and GUI applications using C# .Net.

CO5: Justify Why swing component is better than Awt component ?	
CA3.6–Lab on Data Structures and Algorithm Course Outcomes: At the end of the course, students will be able to CO1:Recall the concept of abstract data types and types of data structures CO2: Apply the different linear data structures like array, stack and queue to various computing problems. CO3: Illustrate the various types of linked list structures with their applications including representations and operations. CO4: Students will be able to develop Linear and Non-Linear data structures such as Trees, Graphs etc. CO5:Students compare various important concepts of sorting and searching techniques	CA 3.7 – Lab on Object oriented programming using Java Course Outcomes: At the end of the course, students will be able to CO1: To demonstrates his verbal and non-verbal communication ability CO2: To demonstrate his/her ability to write error free while making an optimum use of correct Business Vocabulary & Grammar. CO3: To distinguish among various levels of organizational communication and communication barriers while developing an understanding of Communication as a process in an organization. CO4: To draft effective business correspondence with brevity and clarity. CO5: To stimulate their Critical thinking by designing and developing clean and lucid writing skills.
CA 4.1 - Principles of Management & Accounting Course Outcomes: At the end of the course, students will be able to CO1: To familiarize the students with the basic Management concept. CO2: To provide a basis of understanding with reference to the working of business management. CO3: To develop the foundation in the field of accounting. CO4: To study the fundamental Accounting concepts and terms CO5: To learn the process of recording of financial transactions in the books of Accounts.	CA-4.2 Database Management System Course Outcomes: At the end of the course, students will be able to CO1: To recall knowledge of fundamentals of DBMS, database design and normal forms CO2: To define various normal forms CO3: To describe basics of SQL for retrieval and management of data CO4: To discuss basics of transaction processing and concurrency control CO5: To Classify database access techniques
CA-4.3 PHP Programming Course Outcomes: At the end of the course, students will be able to CO1: Students can define structure and syntax of php CO2:Students can recall arrays CO3:Students can use php function CO4:Students can compare $_GET and $_POST	CA 4.4–Advanced Java Course Outcomes: At the end of the course, students will be able to CO1:Explain advanced java technology CO2:Apply knowledge of servlet to create server side programs CO3:Evaluate the performance of JSP over servlet CO4:To develop programs using java script and java beans.
CA4.5–Lab on Database Management System Course Outcomes: At the end of the course,	CA4.6.Lab on PHP Programming Course Outcomes: At the end of the course, students will be able to

students will be able to CO1:To recall knowledge of fundamentals of DBMS, database design and normal forms CO2:To define various normal forms CO3: To describe basics of SQL for retrieval and management of data CO4:To discuss basics of transaction processing and concurrency control CO5:To Classify database access techniques	CO1: Students can define structure and syntax of php CO2:Students can recall arrays CO3:Students can use php function CO4: Students can compare $_GET and $_POST
CA4.7–Lab on Advanced Java Course Outcomes: At the end of the course, students will be able to CO1: Explain advanced java technology CO2: Apply knowledge of servlet to create server side programs. CO3: Evaluate the performance of JSP over servlet CO4: To develop programs using java script and java beans.	