COURSE OBJECTIVES & OUTCOMES

DEPARTMENT OF COMPUTER SCIENCE / APPLICATIONS

S.NO	COURSE CODE	COURSE NAME	OBJECTIVES	OUTCOMES
1		Computer Fundamentals and Photoshop	1. Use basic selection tools and edge refinement to isolate and edit parts of an image. 2. Manipulate layers through ordering, positioning, scaling, rotation and adjustments.	**1:** The student is able to explore the basic knowledge of computer hardware and software. 2. The student will learn the basics of windows operating system. **3:** The student is able to learn and work on adobe Photoshop applications. **4:** The student is able to create and edit images. **5:** The student is able to design Logos, Banners and visiting
2		Programming in C	1. Learn how to solve common types of computing problems 2. Learn data types and control structures of C 3. Learn to map problems to programming features of C 4. Learn to write good portable C	1.Analyze a given problem and develop an algorithm to solve the problem 2. Improve upon a solution to a problem 3.Use the 'C' language constructs in the right way 4. Design, develop and test programs written in 'C'

			programs	
3		Object Oriented Programming Using JAVA	1. As the business environment becomes more sophisticated, the software development is becoming increasingly common. As of the best programming paradigm which helps to eliminate complexity of large projects, OOP has become the predominant technique for writing software in the past decade. Many other important software development techniques are based	1.Understand the concept and underlying principles of Object-Oriented programming 2. Understand how object-oriented concepts into the Java Programming languages 3.Develop problem-solving and programming skills using OOP concept 4. Understand the benefits of a well-structured program 5. Develop the ability to solve real-world problems through software development in high-level programming language like Java 6. Develop efficient Java applets and applications using OOP concept
4		Data Structures	1. To introduce the fundamental concept of Data structures and to emphasize the importance of Data structures in developing and implementing the efficient algorithm	1.Develop knowledge of basic data structures for storage and retrieval of ordered or unordered data. 2. Choose appropriate data structure as applied to specified problem definition. 3. Design and implement algorithms of various data structures. 4. Handle operations like searching, insertion, deletion, traversing mechanism etc. on various data structures. 5. Implement appropriate sorting/searching technique for a given problem.

5.		Database Management Systems (Paper-V)	Design & develop database for large volumes & varieties of data with optimized data processing techniques	1: Master the basic concepts and appreciate the applications of database systems. 2: Understand the basic concepts of File based system, relational data model. 3: Design ER models to represent simple database application scenarios & Improve the database design by normalization. 4: Master the basics of SQL and construct queries using SQL. 5: Solve database problems using PL/SQL.
6.		Software Engineering (Paper-VI)	The objective of the course is to assist the student in understanding the basic theory of software engineering, and to apply these basic theoretical principles to a group software development process	1: Understand and demonstrate basic knowledge in software engineering. 2: Plan, schedule and track the progress of the projects. 3: Identify requirements, analyze and prepare models. 4: Design and develop the software projects & Identify the risks, manage the change to assure quality in software projects. 5: Apply testing principles on software project and understand the maintenance concepts
7.		Web Technologies (Paper-VIIC)	To provide knowledge on web architecture, web services, client side and server side scripting technologies to focus on the development of web-based information systems and web services	1: Understand the basic concepts of Internet programming and protocols used. 2: Understand the inner working of E-mail. 3: Develop simple web pages 4: Design web pages using HTML. 5: Design interactive web pages using HTML and Style sheets.

8.		Visual Basic Programming (Cluster VIIIA)	To provide knowledge on GUI programming concepts	1: Understand the basic concepts of Object Oriented Programming. 2: Use a modern IDE to visually and programmatically create programs with GUI. 3: Understand and use the event-driven model and its interaction with the modern multitasking operating system. 4: Write Code in VB and develop applications using VB Controls. 5: Design menus and MDI form.
9.		PHP (Cluster VIIIB)	To provide knowledge on web architecture, web services, client side and server side scripting technologies to focus on the development of web-based information systems and web services To provide skills to design interactive and dynamic web sites	1: Understand how server-side programming works on the web. 2: Understand the fundamental programming concepts in PHP. 3: Create PHP programs that use Arrays and Functions. 4: Understand the basic concepts of OOP and work with Objects. 5: Design interactive and dynamic
		B.Com (Computer Applications)		
10.		Computer Fundamentals and Photoshop (Paper-I)	1. Use basic selection tools and edge refinement to isolate and edit parts of an image. 2.Manipulate layers through ordering, positioning, scaling, rotation and adjustments	1: Understand the fundamental concepts of computers and number systems. 2: Familiarize peripheral devices, operating systems, and storage devices 3: Gain a working knowledge of Photoshop and develop their skills in editing and altering photographs.

				4: Create graphics and manipulate images using different tools and plug-ins of Photoshop 5: Understand and work with layers and filters. •
11.		Programming in C (Paper-II)	1. Learn how to solve common types of computing problems 2. Learn data types and control structures of C 3. Learn to map problems to programming features of C 4. Learn to write good portable C	1: Understand the fundamentals of C Programming. 2: Choose the loops and decision making statements to solve the problem. 3: Develop user-defined functions and use them to solve the given problem. 4: Implement different operations on Arrays. 5: Understand pointers, structures and unions.
12.		Office Automation Tools (Paper-III)	1.Merger application of technology 2.Fixing the implementation process office work 3.Increase productivity and effectiveness of work 4. Provide the ability for management to be able to suss out problems with better office	1: Learn the basic concepts of MS Word and MS Excel. 2: Use formatting options and construct formulas using built-in functions. 3: Create and modify Charts. 4: Examine database concepts and explore the Microsoft Office Access environment & Build a new database with related tables and design a form. 5: Query a database using different methods and generate a Report
13.		Object Oriented Programming with C++ (Paper-IV)	▪ To understand how C++ improves C with object-oriented features. ▪ To learn how to write inline functions for efficiency and	1: Understand the concept and underlying principles of Object-Oriented Programming. 2: Develop problem-solving and programming skills.

				performance. ▪ To learn the syntax and semantics of the C++ programming language. ▪ To learn how to design C++ classes for code reuse.	3: Learn how to overload functions. 4: Design C++ classes and implement constructors. 5: Learn how inheritance and virtual functions implement dynamic binding with polymorphism.
14.			Programming in Java (Paper-V)	As the business environment becomes more sophisticated, the software development is becoming increasingly common. As of the best programming paradigm which helps to eliminate complexity of large projects, OOP has become the predominant technique for writing software in the past decade. Many other important software development techniques are based	1: Understand the basic concepts of Object-Oriented Programming and Java programming. 2: Develop problem-solving and programming skills in Java. 3: Work with Input, Output and Control statements. 4: Gain knowledge on the use of classes and objects. 5: Understand the use of arrays and threads
15.			Web Technology (Paper-VI)	To provide knowledge on web architecture, web services, client side and server side scripting technologies to focus on the development of web-based information systems and web services	1: Understand the basic concepts of Internet programming and protocols used. 2: Understand the inner working of E-mail. 3: Develop simple web pages 4: Design web pages using HTML. 5: Design interactive web pages using HTML and Style sheets.
16.			E-commerce Applications (Paper-VII)	1. Tailor-made design with value-added features for gaining and retaining customers on the site ·2. Unlimited changes without functional difficulties for addressing ever-changing business requirements	1: Understand the concepts of Electronic Commerce. 2: Learn the concepts of Supply Chain Management. 3: Differentiate the types of Electronic Payment System.

				· 3.Safe and secure payment options and mechanism for generating trust among customers and building up their confidence for the particular site ·4. Technical assistance for any difficulty for seamless operation of the site	4: Understand and use of scripting language, Javascript. 5: Learn Javascript control constructs.
17.			Database Management System (Paper-VIII)	Design & develop database for large volumes & varieties of data with optimized data processing techniques	1: Master the basic concepts and appreciate the applications of database systems. 2: Understand the basic concepts of File based system, relational data model. 3: Design ER models to represent simple database application scenarios & Improve the database design by normalization. 4: Master the basics of SQL and construct queries using SQL. 5: Solve database problems using PL/SQL.
18.			Computer fundamentals and office tools(ICT 1) (FC-3)	0ffice tools course would enable the students in crafting professional word documents, excel spread sheets, power point presentations using the Microsoft suite of office tools. To familiarize the students in preparation of documents and presentations with office automation tools	1: Understand the fundamental concepts of computers. 2: Create, edit and print documents. 3: Create and manipulate slides with outlines & notes and Design and create worksheets
19.			Internet Fundamentals and Web Tools (ICT-2) (FC-5)	This course is intended to teach the basics involved in publishing content on the World Wide Web. This includes the 'language of the Web' – HTML, the fundamentals of how the Internet and	1: Write well-structured professional emails. 2: Understand the importance of

			the Web function, a basic understanding of graphic production with a specific stress on creating graphics for the Web, and a general grounding introduction to more advanced topics such as programming and scripting. This will also expose students to the basic tools and applications used in Web publishing.	communicating safely and respectfully online. 3: Create web pages.