

Course Outcomes (COs)

On completion of these courses, the students will be able to:

Course Code - Name	Course Outcomes
2110002- COMMUNICATION SKILLS	<p>CO1: aware of the elements of functional English in order to make them authentic users of language in any given academic and/or professional situation</p> <p>CO2: proficient in making academic presentations</p> <p>CO3: exposed to the real-time career oriented environment</p> <p>CO4: Develop felicity of expression and familiarity with technology enabled communication</p> <p>CO5: exposed to the corporate etiquette and rhetoric</p>
2110003- COMPUTER PROGRAMMING AND UTILIZATION	<p>CO1: Recognize the changes in hardware and software technologies with respect to the evolution of computers and describe the function of system softwares (operating Systems) and application softwares</p> <p>CO2: Illustrate the flowchart and inscribe an algorithm for a given problem Inscribe C programs using operators</p> <p>CO3: Develop conditional and iterative statements to write C programs</p> <p>CO4: Exercise user defined functions to solve real time problems</p> <p>CO5: Inscribe C programs that use Pointers to access arrays, strings and functions.</p> <p>CO6: Exercise user defined data types including structures and unions to solve problems</p>
2110005- ELEMENT OF ELECTRICAL ENGINEERING	<p>CO1: Identify the basic elements of the electrical engineering</p> <p>CO2: To write the programs for controlling electrical elements</p> <p>CO3: The significance of electrical engineering for software fields</p>
2110006- ELEMENTS OF MECHANICAL ENGINEERING	<p>CO1: Identify the basic elements of the mechanical engineering</p> <p>CO2: To write the programs for controlling mechanical elements</p> <p>CO3: The significance of mechanical engineering for software fields</p>
2110007- ENVIRONMENTAL STUDIES	<p>CO1: Understand the importance of environment</p> <p>CO2: Identify the environmental problems and issues on local, regional and global scale</p> <p>CO3: Identify problems due to human interactions with the environment</p> <p>CO4: Get encouragement to contribute solutions for the existing environmental issues</p> <p>CO5: Understand the enforcement of environmental acts in our constitution</p>
2110014- CALCULUS	<p>CO1: Determine the convergence of infinite series</p> <p>CO2: Calculate the derivatives of functions of several variables</p>

	<p>CO3: Graphing and optimization of the functions</p> <p>CO4: Compute the basic multiple integrals</p>
2110015-VCLA	<p>CO1: Calculate the limits and derivatives</p> <p>CO2: Determine convergence of sequence and series</p>
2110011-PHYSICS	<p>CO1: Analyse and understand the basics of electricity and how these basic ideas are used to enhance our current prosperity.</p> <p>CO2: Understand the differences between classical and quantum mechanics and learn about semiconductor technology.</p> <p>CO3: Analyse and learn about how materials behave at low temperature, causes for their behaviour and applications.</p> <p>CO4: Analyse and understand various types of lasers and optical fibers and their applications.</p> <p>CO5: Understand the fabrication of nanomaterials, carbon nanotubes and their applications in various fields.</p>
2110012- *WORKSHOP	<p>CO1: Model and design various basic prototypes in the carpentry trade such as Lap joint, Lap Tee joint, Dove tail joint, Mortise & Tenon joint, Cross-Lap joint</p> <p>CO2: Design and model various basic prototypes in the trade of Welding such as Lap joint, Lap Tee joint, Edge joint, Butt joint and Corner joint.</p> <p>CO3: Make various basic prototypes in the trade of Tin smithy such as plain Cylindrical pipe, Cylindrical pipe one end inclined, Cylindrical pipe both ends inclined, Hexagonal pipe one end inclined, and funnel preparations.</p>
2110013- ENGINEERING GRAPHICS	<p>CO1: Representing various conics and curves.</p> <p>CO2: Perform dimensioning to a given drawing.</p> <p>CO3: Construction of Plain and Diagonal scales.</p> <p>CO4: Orthographic projections of Lines, Planes, and Solids.</p> <p>CO5: Construction of Isometric Scale, Isometric Projections and Views.</p> <p>CO6: Sectioning of various Solids and their representation.</p> <p>CO7: Understand Development of surfaces and their representation.</p> <p>CO8: Conversion of Pictorial views to Orthographic Projections</p>
2110004- ELEMENTS OF CIVIL ENGINEERING	<p>CO1: Carry out simple land survey to prepare maps with existing details.</p> <p>CO2: Find out area of irregular shaped plane figures.</p> <p>CO3: Understand building plan elevation and section.</p> <p>CO4: Get acquainted with construction materials.</p> <p>CO5: Get acquainted with hydrological cycle and hydraulic structures</p> <p>CO6: Get acquainted with mass transportation systems.</p>
2130002- ADVANCE	<p>CO1: Provide the Knowledge of solving linear differential equations with constant</p>

ENGINEERING MATHS	<p>coefficients.</p> <p>CO2: Analyze general periodic functions in the form of an infinite convergent series of sine and cosines .</p> <p>CO3: Apply the numerical methods for transitioning a mathematical model of a problem to an programmable algorithm obtaining solution numerically or graphically</p> <p>CO4: Afford Mathematical devices through which solutions of numerous boundary value problems of engineering can be obtained</p>
2130004- ENGINEERING ECONOMICS AND MANAGEMENT	<p>CO1: To impart knowledge, with respect to concepts, principles and practical applications of Economics, which govern the functioning of a firm /organization under different market conditions</p> <p>CO2: To help the students to understand the fundamental concepts and principles of management; the basic roles, skills, functions of management, various organizational structures and basic knowledge of marketing.</p>
2130702- DATA STRUCTURES	<p>CO1: Differentiate primitive and non primitive structures</p> <p>CO2:Design and apply appropriate data structures for solving computing problems.</p> <p>CO3:Apply sorting and searching algorithms to the small and large data sets</p>
2130703- DATABASE MANAGEMENT SYSTEMS	<p>CO1:Evaluate business information problem and find the requirements of a problem in terms of data.</p> <p>CO2:Understand the uses the database schema and need for normalization.</p> <p>CO3:Design the database schema with the use of appropriate data types for storage of data in database.</p> <p>CO4:Use different types of physical implementation of database</p> <p>CO5:Use database for concurrent use</p> <p>CO6:Backup data from database</p>
2131004- DIGITAL ELECTRONICS	<p>CO1:After learning the course the students should be able to explain about digital number systems and logic circuits.</p> <p>CO2:The student should be able to solve logic function minimization.</p> <p>CO3:The students should be able to differentiate between combinational and sequential circuits such as decoders, encoders, multiplexers, demultiplexers, flip-flops, counters, registers.</p> <p>CO4:They should be able to design using FSM. In the laboratory, they should be able to verify the functions of various digital integrated circuits.</p> <p>CO5: The students should be able state the specifications of logic families.</p> <p>CO6:They should be able to start writing HDL codes for various digital circuits.</p>

	<p>CO7:The student should be able to compare the design using digital circuits and PLDs.</p>
<p>2140705- OBJECT ORIENTED PROGRAMMING WITH C++</p>	<p>CO1:Describe the important concepts of object oriented programming like object and class, Encapsulation, inheritance and polymorphism.</p> <p>CO2:Write the skeleton of C++ program.</p> <p>CO3:Write the simple C++ programs using the variables, operators, control structures, functions and I/O objects cin and cout</p> <p>CO4:Write the simple object oriented programs in C++ using objects and classes.</p> <p>CO5:Use features of C++ like type conversion, inheritance, polymorphism, I/O streams and files to develop programs for real life problems.</p> <p>CO6:Use advance features like templates and exception to make programs supporting reusability and sophistication.</p> <p>CO7:Use standard template library for faster development.</p> <p>CO8:Develop the applications using object oriented programming with C</p>
<p>2140706- NUMERICAL AND STATISTICAL METHODS FOR COMPUTER ENGINEERING</p>	<p>CO1:Solve system of linear equations.</p> <p>CO2:Understand various methods of modeling.</p> <p>CO3:Apply Mathematical Modeling and for Engineering Problem Solving.</p> <p>CO4:Solve Mathematical Equations by various methods.</p> <p>CO5:Find Best Curve fitting for given data.</p> <p>CO6:Apply Numerical Integration.</p> <p>CO7:Solve Differential Equations.</p> <p>CO8:Understand Statistical Methods for Data Analysis and sampling techniques.</p> <p>CO9:Write programs for various numerical and statistical method</p>
<p>2140707- COMPUTER ORGANIZATION</p>	<p>CO1:To apply knowledge of the processor's internal registers and operations by use of a</p> <p>CO2:PC based microprocessor simulator.</p> <p>CO3:To write assembly language programs and download the machine code that will</p> <p>CO4:provide solutions real-world control problems.</p> <p>CO5:To eliminate or remove stall by altering order of instructions</p> <p>CO6:To write programs using the capabilities of the stack, the program counter, the status register and show how these are used to execute a machine code program</p>
<p>2140709- COMPUTER NETWORKS</p>	<p>CO1:analyze the requirements for a given organizational structure and select the most appropriate networking architecture and technologies.</p> <p>CO2:specify and identify deficiencies in existing protocols, and then go onto formulate new and better Protocols.</p> <p>CO3:analyze,specify and design the topological and routing strategies for an IP based networking infrastructure</p>

	CO4: Have a working knowledge of datagram and internet socket programming
2150703- ANALYSIS AND DESIGN OF ALGORITHMS	<p>CO1:Analyze the asymptotic performance of algorithms.</p> <p>CO2:Derive and solve recurrences describing the performance of divide-and-conquer algorithms.</p> <p>CO3:Find optimal solution by applying various methods.</p> <p>CO4:Apply pattern matching algorithms to find particular pattern.</p> <p>CO5:Differentiate polynomial and nonpolynomial problems.</p> <p>CO6:Explain the major graph algorithms and their analyses. Employ graphs to model engineering problems, when appropriate.</p>
2150704- OBJECT ORIENTED PROGRAMMING USING JAVA	<p>CO1:Undertand object oriented programming concepts and implement in java.</p> <p>CO2:Comprehend building blocks of OOPs language, inheritance, package and interfaces.</p> <p>CO3:Identify exception handling methods.</p> <p>CO4:Implement multithreading in object oriented programs.</p> <p>CO5:Prepare UML diagrams for software system</p>
2150707- MICROPROCESSOR AND INTERFACING	<p>CO1:List and specify the various features of microprocessor, memory and I/O devices including concepts of system bus.</p> <p>CO2:Identify the various elements of 8085 microprocessor architecture, its bus organization including control signals.</p> <p>CO3:List the pin functions of the 8085 microprocessor.</p> <p>CO4:Describe the 8085 processor addressing modes, instruction classification and function of each instruction and write the assembly language programs using 8085 instructions.</p> <p>CO5:Explain the concepts of memory and I/O interfacing with 8085 processor with Programmable devices.</p> <p>CO6:List and describe the features of advance microprocessor.</p>
2150708- SYSTEM PROGRAMMING	<p>CO1:To understand the execution process of HLL programs.</p> <p>CO2:To understand the working of scanners and parser</p> <p>CO3:To understand the basic design of various system software.</p> <p>CO4:To implement various system software</p>
160703- COMPUTER GRAPHICS	<p>CO1:Students will have an appreciation of the history and evolution of computer graphics, both hardware and software. Assessed by written homework assignment.</p> <p>CO2:Students will have an understanding of 2D graphics and algorithms including: line drawing, polygon filling, clipping, and transformations. They will be able to implement these. Assessed by tests and programming assignments.</p>

	<p>CO3:Students will understand the concepts of and techniques used in 3D computer graphics, including viewing transformations, hierarchical modeling, color, lighting and texture mapping. Students will be exposed to current computer graphics research areas. Assessed by tests, homework and programming assignments.</p> <p>CO4:Students will be able to use a current graphics API (OpenGL). Assessed by programming assignments.</p> <p>CO5:Students will be introduced to algorithms and techniques fundamental to 3D computer graphics and will understand the relationship between the 2D and 3D versions of such algorithms. Students will be able to reason about and apply these algorithms and techniques in new situations. Assessed by tests and programming assignments.</p>
160702- INFORMATION SECURITY	<p>CO1:how you select appropriate techniques to tackle and solve problems in the discipline of information security management;</p> <p>CO2:why security and its management are important for any modern organisation;</p> <p>CO3:how an information security management system should be planned, documented, implemented and improved, according to the BSi standard on information security management.</p>
160701- SOFTWARE ENGINEERING	<p>CO1:The ability to analyze, design, verify, validate, implement, apply, and maintain software systems</p> <p>CO2:The ability to appropriately apply discrete mathematics, probability and statistics, and relevant topics in computer science and supporting disciplines to complex software systems</p> <p>CO3:The ability to work in one or more significant application domains</p> <p>CO4:The ability to manage the development of software systems</p>
160704- THEORY OF COMPUTATION	<p>CO1:Have a good knowledge of formal computation and its relationship to languages</p> <p>CO2:Be able to classify languages into their types.</p> <p>CO3:Be able to understand formal reasoning about languages.</p> <p>CO4:Understand the basic concepts of complexity theory.</p>
160705- WEB APPLICATION DEVELOPMENT	<p>CO1:Installing and configuring a web server</p> <p>CO2:Writing dynamic web pages, accessing data bases and using web services</p> <p>CO3:Applying security concepts to web servers</p> <p>CO4:Designing and implementing web applications</p>
170701- COMPILER DESIGN	<p>CO1:Learn how a compiler works</p> <p>CO2:Know about the powerful compiler generation tools, which are useful to the other non-compiler applications</p>

	<p>CO3:Learn how to write programs that execute faster</p> <p>CO4:Gain teamwork experience working on a large, complex software project</p> <p>CO5:Realize that computing science theory can be used as the basis for real applications</p>
170703- ADVANCE JAVA TECHNOLOGY	<p>CO1:Design/Develop Program</p> <p>CO2:Develop appropriate data model and database scheme</p> <p>CO3:Create and test prototypes</p> <p>CO4:Develop Structure</p> <p>CO5:Identify major subsystems and interfaces</p> <p>CO6:Validate design scheme and models</p> <p>CO7:Implement Program</p> <p>CO8:Write code</p> <p>CO9:Perform unit testing</p> <p>CO10:Integrate subsystems</p> <p>CO11:Test and Validate Program</p> <p>CO12:Develop test procedures</p>
170702N- WIRELESS COMMUNICATION AND MOBILE PROGRAMMING	<p>CO1:Describe the basic concepts and principles in mobile computing</p> <p>CO2:Understand the concept of Wireless LANs, PAN, Mobile Networks, and Sensor Networks</p> <p>CO3:Explain the structure and components for Mobile IP and Mobility Management</p> <p>CO4:Understand positioning techniques and location-based services and applications</p> <p>CO5:Describe the important issues and concerns on security and privacy.</p>
180702- PARALLEL PROCESSING	<p>CO1:Analyse the requirements for programming parallel systems and critically evaluate the strengths and weaknesses of parallel programming models and how they can be used to facilitate the programming of concurrent systems.</p> <p>CO2: Discuss the difference between the major classes of parallel processing systems and design software solutions for a number of parallel processing models.</p> <p>CO3: Design and implement a SIMD and MIMD parallel processing solution.</p> <p>CO4: Analyse the efficiency of a parallel processing system and evaluate the types of application for which parallel programming is useful.</p>
180701-	<p>CO1:Explain what a distributed system is, and what the desired properties of such systems are.</p>

DISTRIBUTED SYSTEMS	CO2: Apply the basic theoretical concepts of distributed systems. CO3: Design and implement simple distributed system. CO4: Examine how modern distributed systems meet the demands of contemporary distributed applications.
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