

Department of Second Year Engineering

Course Outcomes [CO'S]

CLASS: SECOND YEAR (COMPUTER) [2019 COURSE]

| Course Outcome | |
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| Sr.No | Name of Subject |
| 1 | 210241: Discrete Mathematics |
| | CO1: Design and analyze real world engineering problems by applying set theory, propositional logic and mathematical induction CO2: Develop skill in expressing mathematical properties of relation and function CO3: Identify number of logical possibilities of events to design professional engineering Solutions CO4: Model and solve computing problem using tree and graph Analyze the properties of binary operations and evaluate the algebraic structure CO5: Apply abstract algebra in combinatorics, coding theory and questions regarding geometric constructions |
| 2 | 210242: Fundamentals of Data Structures |
| | CO1: To demonstrate a detailed understanding of behavior of data structures like array, linked list, stack, and queue by developing programs. CO2: To use appropriate algorithmic strategy for better efficiency CO3: To summarize data searching and sorting techniques. CO4: To discriminate the usage of various structures in approaching the problem solution. CO5: To analyze and use effective and efficient data structures in solving various Computer Engineering domain problems. CO6: To design the algorithms to solve the programming problems. |
| 3 | 210243: Object Oriented Programming |
| | CO1: Analyze the strengths of object oriented programming CO2: Design and apply OOP principles for effective programming CO3: Develop the application using object oriented programming language(C++) CO4: Apply object-oriented concepts for advanced programming. |
| 4 | 210244: Computer Graphics |
| | CO1: Define basic terminologies of Computer Graphics, interpret the mathematical foundation of the concepts of computer graphics and apply mathematics to develop Computer programs for elementary graphic operations. CO2: Define the concept of windowing and clipping and apply various algorithms to fill and clip polygons. CO3: Explain the core concepts of computer graphics, including transformation in two and three dimensions, viewing and projection. |



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| | CO4: Explain the concepts of color models, lighting, shading models and hidden surface elimination. CO5: Describe the fundamentals of curves, fractals, animation and gaming. |
| 5 | 210245: Digital Electronics and Logic Design |
| | CO1: Simplify Boolean Expressions using K Map. CO2: Design and implement combinational circuits. CO3: Design and implement sequential circuits. CO4: Develop simple real-world application using ASM and PLD. CO5: Choose appropriate logic families IC packages as per the given design specifications. CO6: Explain organization and architecture of computer system |
| 6 | 210246: Humanity & Social Science |
| | CO1: Aware of the various issues concerning humans and society. CO2: Aware about their responsibilities towards society. CO3: Sensitized about broader issues regarding the social, cultural, economic and human aspects, involved in social changes. CO4: Able to understand the nature of the individual and the relationship between self and the community. CO5: Able to understand major ideas, values, beliefs, and experiences that have shaped human history and cultures. |
| 7 | 210252: Mathematics III |
| | CO1: Solve Linear differential equations, Essential in modeling and design of computer-based System. CO2: Apply concept of Fourier transform and Z-transform and its application to continuous and discrete system and image processing. CO3: Apply statistical methods like correlation and regression analysis and probability theory for Data analysis and predictions in machine learning. CO4: Solve Algebraic and Transcendental equations and system of linear equations using numerical techniques CO5: Obtain interpolating polynomials, numerical differentiation and integration, numerical solutions of ordinary differential equations used in modern scientific computing. |
| 8 | 210253: Data Structures & Algorithms |
| | CO1: To identify & articulate the complexity goals and benefits of a good hashing scheme for real- world applications. CO2: To apply non-linear data structures for solving problems of various domain. CO3: To design and specify the operations of a nonlinear-based abstract data type and implement them in a high-level programming language. CO4: To analyze the algorithmic solutions for resource requirements and optimization CO5: To use efficient indexing methods and multiway search techniques to store and |



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| | maintain data. CO6: To use appropriate modern tools to understand and analyze the functionalities confined to the secondary storage. |
| 9 | 210254: Software Engineering |
| | CO1: Apply software engineering principles to develop software. CO2: Analyze software requirements and formulate design solution for a software. CO3: Explain concepts of project estimation, planning and scheduling. CO4: Explain risk management and software configuration management. CO5: Explain various types of software testing. |
| 10 | 210255: Microprocessor |
| | CO1: To apply the assembly language programming to develop small real life embedded application. CO2: To understand the architecture of the advanced processor thoroughly to use the resources for programming CO3: To understand the higher processor architectures descended from 80386 architecture |
| 11 | 210256: Principles of Programming Languages |
| | CO1: Make use of basic principles of programming languages CO2: Able to develop a program with Data representation and Computations CO3: Able to develop programs using Object Oriented Programming language : Java CO4: Develop application using inheritance, encapsulation, and polymorphism CO5: Able to demonstrate Applet and Multithreading for robust application development CO6: Able to develop a simple program using basic concepts of Functional and Logical programming paradigm |

Third Year Computer Engineering

| Course Outcome | |
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| Sr. No | Name of Subject |
| 1 | 310241: Database Management Systems |
| | CO1: Analyze and design Database Management System using ER model CO2: Implement database queries using database languages CO3: Normalize the database design using normal forms CO4: Apply Transaction Management concepts in real-time situations CO5: Use NoSQL databases for processing unstructured data CO6: Differentiate between Complex Data Types and analyze the use of appropriate data types |
| 2 | 310242: Theory of Computation |

