Course Outcome

Second Year EngineeringSEM I 2019

Course code and Name: 210243- Object Oriented Programming, 210243- Object Oriented Programming Lab	
210243.1	Analyze the strengths of object oriented programming
210243.2	Design and apply OOP principles for effective programming
210243.3	Develop programming application using object oriented programming language C++
210243.4	Percept the utility and applicability of OOP
210243.5	Apply object-oriented concepts for advanced programming.
210243.6	Design complex software tools through effective teamwork

Course code and Name: 210242 – Fundamentals of Data Structure	
210242.1	To demonstrate a detailed understanding of behavior of data structures like array, linked list, stack, and queue by developing programs.
210242.2	To use appropriate algorithmic strategy for better efficiency
210242.3	To summarize data searching and sorting techniques.
210242.4	To discriminate the usage of various structures in approaching the problem solution.
210242.5	To analyze and use effective and efficient data structures in solving various Computer Engineering domain problems.
210242.6	To design the algorithms to solve the programming problems.
Course code and Name: 210241 : Discrete Mathematics	

210241.1	**Formulate** problems precisely, solve the problems, apply formal proof techniques, and explain the reasoning clearly
210241.2	**Apply** appropriate mathematical concepts and skills to solve problems in both familiar and unfamiliar situations including those in real-life contexts
210241.3	**Design and analyze** real world engineering problems by applying set theory, propositional logic and to construct proofs using mathematical induction
210241.4	**Specify, manipulate and apply** equivalence relations; construct and use functions and apply these concepts to solve new problems
210241.5	**Calculate** numbers of possible outcomes using permutations and combinations; to model and analyze computational processes using combinatorics
210241.6	**Model and solve** computing problem using tree and graph and solve problems using appropriate algorithms
210241.7	**Analyze** the properties of binary operations, apply abstract algebra in coding theory and evaluate the algebraic structures

Course code and Name: 210245 - Digital Electronics and Logic Design	
210245.1	Simplify Boolean Expressions using K Map
210245.2	Design and implement Combinational digital circuits
210245.3	Design and implement Sequential digital circuits
210245.4	Develop simple real-world application using ASM and PLD.
210245.5	Choose appropriate logic families IC packages as per the given design specifications.
210245.6	Explain organization and architecture of computer system
Course code and Name: 210244 - Computer Graphics	
210244.1	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

210244.2	Define the concept of windowing and clipping and apply various algorithms to fill and clip polygons
210244.3	Explain the core concepts of computer graphics, including transformation in two and three dimensions, viewing and projection
210244.4	Explain the concepts of color models, lighting, shading models and hidden surface elimination.
210244.5	Describe the fundamentals of curves, fractals, animation and gaming
210244.6	Apply the logic to develop animation and gaming programs

Third Year Engineering SEM I 2015

Course code and Name: 310241- Theory of Computation	
310241.1	Design finite automata and finite state machine for a given regular language
310241.2	Construct regular expression and perform interconversion between FA and RE for a given regular language
310241.3	Explain the models of computation, including formal languages, grammars and automata, and their connections.
310241.4	Design deterministic Turing machine for Regular, CFL and Context Sensitive languages
310241.5	Design Push Down Automata and the equivalent context free grammar
310241.6	Solve computational problems regarding their computability and complexity and prove the basic results of the theory of computation.

Course code and Name: 310243- Software Engineering and Project Management	
310243.1	To learn and understand principles of Software Engineering.
310243.2	To be acquainted with methods of capturing ,specifying, visualizing and analyzing software requirement

310243.3	To apply design and testing Principles to s/w project development
310243.4	To understand project management through life cycle of the project
310243.5	To understand software quality attributes
310252.6	To understand overall development of software

Course code and Name: 310242 – Database Management Systems	
310242.1	Design E-R Model for given requirements and convert the same into database tables.
310242.2	Use database techniques such as SQL & PL/SQL.
310242.3	Use modern database techniques such as NOSQL.
310242.4	Explain transaction Management in relational database System.
310242.5	Describe different database architecture and analyses the use of appropriate architecture in real time environment.
310242.6	Students will be able to use advanced database Programming concepts Big Data – HADOOP
Course code and Name: 310248 – Computer Networks	
310248.1	Analyze the requirements for a given organizational structure to select the most appropriate networking architecture, topologies, transmission mediums, and technologies
310248.2	Demonstrate design issues, flow control and error control
310248.3	Analyze data flow between TCP/IP model using Application, Transport and Network Layer Protocols.
310248.4	Illustrate applications of Computer Network capabilities, selection and usage for various sectors of user community.

310248.5	Illustrate Client-Server architectures and prototypes by the means of correct standards and technology.
310248.6	Demonstrate different routing and switching algorithms

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Course code and Name: 310254 - Web Technology	
310254.1	Analyze given assignment to select sustainable web development and design methodology.
310254.2	Develop web based application using suitable client side and server side web technologies.
310254.3	Develop solution to complex problems using appropriate method, technologies of web development.
310254.4	Develop solution to complex problems using frameworks, web services and content management.
310254.5	Apply different client side and server side framework technologies.
310254.6	Apply different web service framework technologies

Course code and Name: 310251 - Systems Programming and Operating System	
310251.1	Demonstrate the knowledge of Systems Programming
310251.2	Demonstrate the knowledge of Operating Systems
310251.3	Formulate the Problem and develop the solution for same
310251.4	Compare the different implementation approach of system programming and operating system abstractions

310251.5	Analyze the different implementation approach of system programming and operating system abstractions
310251.6	Interpret various OS functions used in Linux / Ubuntu

Course code and Name: 310253 - Software Modeling and Design	
310253.1	Analyze the problem statement and choose proper design technique for designing application
310253.2	Design and analyze an application using UML modeling as fundamental tool
310253.3	Decide and apply appropriate modern tool for designing and modeling
310253.4	Apply proper architecture design technique for designing application
310253.5	Apply design patterns to understand reusability in OO design
310253.6	Decide and apply appropriate modern testing tool for testing application

Course code and Name: 310243- Embedded Systems and Internet of things	
310252.1	To understand fundamentals of IoT and Embedded System
310252.2	To extend advanced topics in embedded IoT and apply them in related research of IoT
310252.3	To discover various components of IoT to build IoT System
310252.4	To identify IoT protocols and apply security mechanism to solve security issues in IoT
310252.5	To analyze and compare components of WoT with IoT
310252.6	To compare and contrast various applications with real world scenario