## COURSE OUTCOMES

**Year/Semester**: S.E/ III

| Subject Code | Subject Name | CO's |
|---|---|---|
| CSC301 | Engineering Mathematics III | At the end of the course student will be able to:<br>CO1- Understand the concept of Laplace transform and its application to solve the real integrals in engineering problems.<br>CO2- Understand the concept of inverse Laplace transform of various functions and its applications in engineering problems..<br>CO3- Expand the periodic function by using the Fourier series for real-life problems and complex engineering problems.<br>CO4- Understand complex variable theory, application of harmonic conjugate to get orthogonal trajectories and analytic functions.<br>CO5- Apply the concept of Correlation and Regression to the engineering problems in data science, machine learning, and AI.<br>CO6- Understand the concepts of probability and expectation for getting the spread of the data and distribution of probabilities. |
| CSC302 | Discrete Structures and Graph Theory | At the end of the course student will be able to:<br>CO1- Understand the notion of mathematical thinking, mathematical proofs and to apply them in problem solving.<br>CO2- Ability to reason logically.<br>CO3- Ability to understand relations, functions, Diagraph and Lattice.<br>CO4- Ability to understand and apply concepts of graph theory in solving real world problems.<br>CO5- Understand use of groups and codes in Encoding-Decoding<br>CO6- Analyze a complex computing problem and apply principles of discrete mathematics to identify solutions |
| CSC303 | Data Structure | At the end of the course student will be able to:<br>CO1- Students will be able to implement Linear and Non-Linear data structures.<br>**CO2-** Students will be able to handle various operations like searching, insertion, deletion and traversals on various data structures<br>**CO3-** Students will be able to explain various data structures, related terminologies and its types.<br>**CO4-** Students will be able to choose appropriate data structure and apply it to solve problems in various domains.<br>**CO5-** Students will be able to analyze and Implement appropriate searching techniques for a given problem.<br>**CO6-** Students will be able to demonstrate the ability to analyze, design, apply and use data structures to solve engineering problems and evaluate their solutions. |

| CSC304 | Digital Logic & Computer Organization and Architecture | At the end of the course student will be able to:<br><br>CO1- To learn different number systems and basic structure of computer system.<br>CO2- To demonstrate the arithmetic algorithms.<br>CO3- To understand the basic concepts of digital components and processor organization.<br>CO4- To understand the generation of control signals of computer.<br>CO5- To demonstrate the memory organization.<br>CO6- To describe the concepts of parallel processing and different Buses. |
|--------|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CSC305 | Computer Graphics | At the end of the course student will be able to:<br><br>CO1- Describe the basic concepts of Computer Graphics.<br>CO2- Demonstrate various algorithms for basic graphics primitives.<br>CO3- Apply 2-D geometric transformations on graphical objects<br>CO4- Use various Clipping algorithms on graphical objects<br>CO5- Explore 3-D geometric transformations, curve representation techniques and projections methods<br>CO6- Explain visible surface detection techniques and Animation |