DEPARTMENT OF CIVIL ENGINEERING

COURSE OUTCOMES

Year/Class/ Semester: S.E./CE/ III

Subject Code	Subject Name	CO's
CE-C301	Applied Mathematics III	At the end of the course student will be able to: **CO1-** Understand the basic concept of Laplace transform. **CO2-** Apply linear transformation and conformal mapping. **CO3-** Evaluate contour integral and solve equation using Fourier integral. **CO4-** Solve initial and B.V.P using ordinary differential equation and will be able to understand the concept of co-relation regression.
CE-C302	Surveying I	At the end of the course student will be able to: **CO1-** Understand basic principles, objectives and classifications of surveying and will be able to perform linear measurements by chain surveying along with ranging, offsetting. **CO2-** Get an idea about different bearings and shall analyse the traverse with corrections by compass surveying. **CO3-** Get the knowledge of different levelling concepts and will be able to find reduced levels at any point using different levelling instruments. **CO4-** Plot contour justifying various characteristics and shall plot traverse using plane table and compute area of survey plot and volume of earthwork using different computational methods. **CO5-** Handle the theodolite operation and able to find reduced level and angular measurements using different methods and study various corrections. **CO6-** Understand tacheomertry methods and able to find linear and angular measurements in both vertical and horizontal direction.
CE-C303	Strength of Materials	At the end of the course student will be able to: **CO1-** Understand the concept of simple stress, strain and strain energy. **CO2-** Calculate the shear force and bending moment for various types of flexural members. **CO3-** Understand the principle planes, stresses and shear stresses in beam. **CO4-** Understand the theory of simple bending in flexural members. **CO5-** Students have understood with the concept of stresses in axially and eccentrically loaded vertical members. **CO6-** Understand the thin cylindrical and spherical shell sand torsion in circular shaft.

CE-C304	Engineering Geology	At the end of the course student will be able to: **CO1-** Apply the core concepts of Geology with special focus in various Civil Engineering Projects. **CO2-** Gain the knowledge and application of Tectonic plate theory, seismography & formation of various landforms existing on the Earth's Surface. **CO3-** Identify various minerals and its classification through the mode of formation, texture etc. And understand their applications in Civil Engineering Projects. **CO4-** Gain knowledge structural geology in order to understand the occurrence of various deformations on the surface of earth such as faults, folds, joints, etc, and the stratigraphy of India. **CO5-** Apply their knowledge with respect to various Geological Investigations and its importance to achieve stability and safety in various structures like dams, tunnels and reservoirs. **CO6-** Gain knowledge about Geological work of Ground water and various Geological Disasters such as Volcanoes, Landslides and Earthquakes, the information about the control measure of each phenomenon is also studied.
CE-C305	Fluid Mechanics - I	At the end of the course student will be able to: **CO1-** Understand Properties of fluid and basic concepts applicable to fluid mechanics **CO2-** Solve problems on Pascal's law, hydrostatic law and determination of Hydrostatic pressure and Centre of pressure. **CO3-** Apply the concepts of buoyancy, Metacenter, metacentric height and liquids in relative equilibrium. **CO4-** Understand the concepts of ideal fluid flow and fluid kinematics. **CO5-** Understand the concepts of fluid dynamics such as Bernoulli's theorem and its applications. **CO6-** Understand visualize the flow through orifices, mouthpieces, notches and weirs.