

Id	Program	CourseCode	CourseName	COCode	CO
1911	Civil Engineering	8CE04	Elective -Dam Engineering	CO1	Deliberate the classification and characteristics of Dam Engineering
1911	Civil Engineering	5CE06	Communication Skill	CO1	Learn the characteristics of Communication Skills
1911	Civil Engineering	4CE05	Reinforced Cement Concrete-I	CO1	Identify Quality Control tests on concrete making materials.
1911	Civil Engineering	4CE05	Reinforced Cement Concrete-I	CO2	Understand the behavior of fresh and hardened concrete.
1911	Civil Engineering	4CE05	Reinforced Cement Concrete-I	CO5	Understand the need for special concretes.
1911	Civil Engineering	4CE05	Reinforced Cement Concrete-I	CO3	Design concrete mixes as per IS and ACI codes
1911	Civil Engineering	4CE05	Reinforced Cement Concrete-I	CO4	Understand the durability requirements of concrete.
1911	Civil Engineering	4CE01	Geotechnical Engineering-I	CO1	Find out various parameters of soil.
1911	Civil Engineering	4CE01	Geotechnical Engineering-I	CO2	Calculate stresses and settlement in soil.
1911	Civil Engineering	4CE01	Geotechnical Engineering-I	CO3	To understand Laplace equation for flow net and its discharge calculation.
1911	Civil Engineering	4CE01	Geotechnical Engineering-I	CO5	Calculate shear strength for various types of soil.
1911	Civil Engineering	4CE01	Geotechnical Engineering-I	CO4	Find permeability of soil layer.
1911	Civil Engineering	6CE02	Structural Design-I	CO1	Design various Types of connections
1911	Civil Engineering	6CE02	Structural Design-I	CO3	Design simple,compound Beams,and Plate girder.
1911	Civil Engineering	8CE02	Enviromental Engineering-II	CO1	Find out biological parameter and treatment of water.
1911	Civil Engineering	6CE02	Structural Design-I	CO4	Design column and column bases.
1911	Civil Engineering	8CE02	Enviromental Engineering-II	CO2	Know about various charateristics of water and methods use to calculate them.
1911	Civil Engineering	6CE02	Structural Design-I	CO2	Design tension and compression members.
1911	Civil Engineering	6CE03	Water Resource Engineering-I	CO1	Find Crop water requirement and design for the same
1911	Civil Engineering	6CE03	Water Resource Engineering-I	CO2	Calculate evaporation and its control measures.
1911	Civil Engineering	6CE03	Water Resource Engineering-I	CO3	Make flood measurement and its control.
1911	Civil Engineering	6CE03	Water Resource Engineering-I	CO4	Understand various irrigation techniques
1911	Civil Engineering	8CE02	Enviromental Engineering-II	CO3	Understand effects of airpolution and its control measures.
1911	Civil Engineering	6CE04	Transportation Engineering-II	CO1	Plan railway way network
1911	Civil Engineering	6CE04	Transportation Engineering-II	CO2	Design Railway geometric.
1911	Civil Engineering	8CE02	Enviromental Engineering-II	CO4	Design low cost treatment plant for sewer.
1911	Civil Engineering	6CE04	Transportation Engineering-II	CO3	Design airport layout.

1911	Civil Engineering	8CE02	Enviromental Engineering-II	CO5	Design sewer system its testing and maintenance .
1911	Civil Engineering	6CE04	Transportation Engineering-II	CO4	Understand the principles of construction and maintenance of airport
1911	Civil Engineering	4CE02	Fluid Mechanics-I	CO1	An ability to apply conservation laws to derive governing equations of fluid flows
1911	Civil Engineering	4CE02	Fluid Mechanics-I	CO2	To understand compute hydrostatic and hydrodynamic forces.
1911	Civil Engineering	6CE04	Transportation Engineering-II	CO5	Design intersections and prepare traffic management plans.
1911	Civil Engineering	4CE02	Fluid Mechanics-I	CO3	To understand analyze and design simple pipe systems.
1911	Civil Engineering	5CE01	Reinforced Cement Concrete-II	CO1	Design the Reinforced Concrete beams using limit state and working stress methods
1911	Civil Engineering	5CE01	Reinforced Cement Concrete-II	CO2	Design Reinforced Concrete slabs
1911	Civil Engineering	5CE01	Reinforced Cement Concrete-II	CO3	Design the Reinforced Concrete Columns and footings
1911	Civil Engineering	5CE01	Reinforced Cement Concrete-II	CO4	Design structures for serviceability
1911	Civil Engineering	5CE01	Reinforced Cement Concrete-II	CO5	Design stair cases, canopy, retaining wall and water tanks
1911	Civil Engineering	8CE04	Elective -Advanced Design Of Reinforced Cement Cocrete Structures	CO3	Analysis of multistoried frame by seismic coefficient method.
1911	Civil Engineering	8CE04	Elective -Advanced Design Of Reinforced Cement Cocrete Structures	CO4	Design of square bunkers Silos
1911	Civil Engineering	8CE04	Elective -Advanced Design Of Reinforced Cement Cocrete Structures	CO5	Design of R.C.C. Intze tanks, staging for Intze tanks.
1911	Civil Engineering	7CE04	Enviromental Engineering-I	CO1	Calculate water requirement and consumption.
1911	Civil Engineering	5CE04	Surveying-II	CO1	To understand the working principles of survey instruments.
1911	Civil Engineering	7CE04	Enviromental Engineering-I	CO2	Know about various water distribution systems.
1911	Civil Engineering	5CE04	Surveying-II	CO2	An ability to calculate angles,distances and levels.
1911	Civil Engineering	7CE04	Enviromental Engineering-I	CO3	Understand various processes of water purification.
1911	Civil Engineering	5CE04	Surveying-II	CO3	To understand identify data collection methods and prepare field notes.
1911	Civil Engineering	7CE04	Enviromental Engineering-I	CO4	Design various filters for water purification.
1911	Civil Engineering	7CE04	Enviromental Engineering-I	CO5	Calculate quantity of disinfectant.
1911	Civil Engineering	5CE04	Surveying-II	CO4	An ability to estimate measurement errors and apply corrections.
1911	Civil Engineering	5CE04	Surveying-II	CO5	To understand interpret survey data and compute areas and volume.

1911	Civil Engineering	7CE02	Geotechnical Engineering-II	CO1	An ability to determine the earth pressures on foundations and retaining structures.
1911	Civil Engineering	7CE02	Geotechnical Engineering-II	CO2	An ability to analyze shallow and deep foundations.
1911	Civil Engineering	7CE02	Geotechnical Engineering-II	CO3	To understand calculate and bearing capacity of soils and foundations settlements.
1911	Civil Engineering	5FEME05	Elective - Project Management	CO1	Understand the Concepts of Project & Project Selection.
1911	Civil Engineering	7CE02	Geotechnical Engineering-II	CO4	To Understand soil exploration methods.
1911	Civil Engineering	5FEME05	Elective - Project Management	CO2	Understand Project organization and planning.
1911	Civil Engineering	5FEME05	Elective - Project Management	CO3	Prepare Budgeting and Cost Estimation
1911	Civil Engineering	5FEME05	Elective - Project Management	CO4	Understand Scheduling and resource allocation
1911	Civil Engineering	7CE03	Structural Design-II	CO1	Design various types of retaining walls and flat slabs.
1911	Civil Engineering	5FEME05	Elective - Project Management	CO5	Project Control
1911	Civil Engineering	7CE03	Structural Design-II	CO2	Design combined footing.
1911	Civil Engineering	5FEME05	Elective - Project Management	CO5	Understand Issues in project Management.
1911	Civil Engineering	7CE03	Structural Design-II	CO3	Analyze prestressed sections.
1911	Civil Engineering	7CE03	Structural Design-II	CO4	Design of prestressed sections and water tank.
1911	Civil Engineering	7CE01	Theory of Structure-II	CO1	Analyze the different types of fixed, continuous beams, overhang beams, two hinged, and three hinged arches.
1911	Civil Engineering	7CE01	Theory of Structure-II	CO2	Apply the basic tables and equations in analyzing the beams and portals frames by using slope deflection and moment distribution methods.
1911	Civil Engineering	3CE02	Strength of Materials	CO1	CO1 Analyse the statically determinate and indeterminate problems
1911	Civil Engineering	3CE02	Strength of Materials	CO2	Determine the stresses and strains in the members subjected to axial, bending and torsional loads
1911	Civil Engineering	3CE02	Strength of Materials	CO3	Evaluate the slope and deflection of beams subjected to loads
1911	Civil Engineering	3CE02	Strength of Materials	CO4	Determine the principal stresses and strains in structural members Topics covered
1911	Civil Engineering	3CE03	Transportation Engineering-I	CO1	Plan highway networks
1911	Civil Engineering	3CE03	Transportation Engineering-I	CO2	Design highway geometries.
1911	Civil Engineering	7CE01	Theory of Structure-II	CO3	Know various methods of analysis of beams and portal frames, such as flexibility and stiffness coefficient method.
1911	Civil Engineering	7CE01	Theory of Structure-II	CO4	Use of castiglianos theorem for analyzing beams and portals popularly called as unit load method.

1911	Civil Engineering	3CE03	Transportation Engineering-I	CO3	Design Intersections and prepare traffic management plans.
1911	Civil Engineering	3CE03	Transportation Engineering-I	CO4	Design flexible and rigid pavements.
1911	Civil Engineering	3CE03	Transportation Engineering-I	CO5	Understand the principles of construction and maintenance of highways
1911	Civil Engineering	7CE05	Elective - Advanced Concrete Technology	CO1	Admixtures and construction chemicals.
1911	Civil Engineering	3CE04	Building Construction & Materials	CO1	Know about various types of doors and windows.
1911	Civil Engineering	3CE04	Building Construction & Materials	CO2	To know the various types of stair case and its design.
1911	Civil Engineering	7CE05	Elective - Advanced Concrete Technology	CO2	To know the Durability of concrete.
1911	Civil Engineering	3CE04	Building Construction & Materials	CO3	Understand various types of stone missionary and brick masonry.
1911	Civil Engineering	3CE04	Building Construction & Materials	CO4	Know about various types of special construction methods.
1911	Civil Engineering	7CE05	Elective - Advanced Concrete Technology	CO3	Identify the Deformation in concrete.
1911	Civil Engineering	3CE04	Building Construction & Materials	CO5	Get knowledge about various floors types.
1911	Civil Engineering	7CE05	Elective - Advanced Concrete Technology	CO4	Special concrete and concreting techniques.
1911	Civil Engineering	7CE05	Elective - Advanced Concrete Technology	CO5	Repairs and rehabilitations.
1911	Civil Engineering	7CE05	Elective - Advanced Concrete Technology	CO6	Non-destructive testing of concrete.
1911	Civil Engineering	4CE02	Fluid Mechanics-I	CO4	An ability to apply principles of dimensional analysis to design experiments
1911	Civil Engineering	8CEO1	Water Resources Engineering-II	CO1	An ability to plan an irrigation system.
1911	Civil Engineering	6CE06	Estimating & Costing	CO1	Prepare quantity estimates for buildings, roads, rails and canal works
1911	Civil Engineering	8CEO1	Water Resources Engineering-II	CO2	To understand design irrigation canals and canal network.
1911	Civil Engineering	6CE06	Estimating & Costing	CO2	Calculate the quantity of materials required for civil engineering works as per specifications
1911	Civil Engineering	4CE03	Theory Of Structure-I	CO1	Analyze the different types of fixed, continuous beams, overhand beams, two hinged and three hinged arches.
1911	Civil Engineering	8CEO1	Water Resources Engineering-II	CO3	An ability to plan and design diversion head works.
1911	Civil Engineering	6CE06	Estimating & Costing	CO3	Evaluate contracts and tenders in construction practices
1911	Civil Engineering	4CE03	Theory Of Structure-I	CO2	Apply the basic table and equations in analyzing the beams and portal frames by using slope deflection and moment distribution method.
1911	Civil Engineering	8CEO1	Water Resources Engineering-II	CO4	An ability to design irrigation canal structures.
1911	Civil Engineering	6CE06	Estimating & Costing	CO4	Prepare cost estimates

1911	Civil Engineering	4CE03	Theory Of Structure-I	CO3	Various methods of analysis of beams and portal frames,such as flexibility and stiffness coefficient method.
1911	Civil Engineering	8CEO1	Water Resources Engineering-II	CO5	To understand analyze gravity and earth dams.
1911	Civil Engineering	8CEO1	Water Resources Engineering-II	CO6	An ability to Design spillways and energy dissipations works
1911	Civil Engineering	4CE03	Theory Of Structure-I	CO4	Use of castiglious theorem for analyzing beams and portals,popularly called as unit load method..
1911	Civil Engineering	8CEO3	Project Planning & Management	CO1	Understand the roles and responsibilities of a project manager
1911	Civil Engineering	5CE03	Building Planning & CAD	CO1	Draw the plan, section and elevation of a building
1911	Civil Engineering	8CEO3	Project Planning & Management	CO2	Prepare schedule of activities in a construction project
1911	Civil Engineering	5CE03	Building Planning & CAD	CO2	Create, analyze and produce 2D drawings of buildings in AUTO CAD environment
1911	Civil Engineering	8CEO3	Project Planning & Management	CO3	Prepare tender and contract document for a construction project
1911	Civil Engineering	8CEO3	Project Planning & Management	CO4	Understand safety practices in construction industry
1911	Civil Engineering	8CEO3	Project Planning & Management	CO5	Identify the equipment used in construction
1911	Civil Engineering	5CE03	Building Planning & CAD	CO3	Detailing building plans in CAD environment
1911	Civil Engineering	5CE03	Building Planning & CAD	CO4	o understand Building rules and by laws, Preparing line plans of Public Building And Residential Building.
1911	Civil Engineering	5CE02	Fluid Mechanics-II	CO3	An Ability to Design Channels.
1911	Civil Engineering	5CE02	Fluid Mechanics-II	CO4	An Ability compute flow frofile in channel transitions and analyze hydraulic trancients.
1911	Civil Engineering	8CE04	Elective -Advanced Design Of Reinforced Cement Cocrete Structures	CO1	Design of Portal frame, Design of circular slab.
1911	Civil Engineering	5CE02	Fluid Mechanics-II	CO5	To understand analyze compressible flows of liquid and gases.
1911	Civil Engineering	8CE04	Elective -Advanced Design Of Reinforced Cement Cocrete Structures	CO2	Design of a footbridge, Design of RCC girder.
1911	Civil Engineering	3CE05	Engineering Geology	CO1	Understand structural features of rock.
1911	Civil Engineering	3CE05	Engineering Geology	CO2	To know types of minerals rocks ,their properties and formation
1911	Civil Engineering	3CE05	Engineering Geology	CO3	Understand failures and faults in rocks also about site selection for particular project
1911	Civil Engineering	3CE05	Engineering Geology	CO4	Understand about effect and occurrence of earthquake.
1911	Civil Engineering	6CE01	Numerical Method and Computer Programming	CO1	Knowledge of developing algorithms and finding solutions for linear simultaneous equations using various numerical methods

1911	Civil Engineering	6CE01	Numerical Method and Computer Programming	CO2	Knowledge and methods to formulate nonlinear algebraic equations.
1911	Civil Engineering	6CE01	Numerical Method and Computer Programming	CO3	Exposure to solutions of civil engineering problems using numerical integration methods.
1911	Civil Engineering	6CE01	Numerical Method and Computer Programming	CO4	Knowledge of use of numerical methods for finding solution to statically determinate and indeterminate beams.
1911	Civil Engineering	6CE01	Numerical Method and Computer Programming	CO5	Knowledge of developing algorithm and finding solution for ordinary differential equations.
1911	Civil Engineering	3CE01	Mathematics-III	understand the basic of mthmatic	understand the basic of mthmatic
1911	Civil Engineering	5CE02	Fluid Mechanics-II	CO1	An ability design the working proportions of hydraulic machines.
1911	Civil Engineering	5CE02	Fluid Mechanics-II	CO2	An ability to compute drag and lift coefficients.