

Department of Civil Engineering

B.E. 7th Sem

Course: Structural Analysis-II

Course Code: (7CE01)

At the end of Structural Analysis-II course the student will be able:

- CO 1:** To decide what is required to be analyzed depending upon type of structural element.
- CO 2:** To know about degree of freedom, Condition of equilibrium and determinacy of element.
- CO 3:** To understand reason for failure and permissible limits for safety.
- CO 4:** To apply the knowledge of beam analysis for practical analysis and design purpose.
- CO 5:** To make application of various analysis methods for actual structural member analysis and design.
- CO 6:** To make analysis of portal frames by stiffness method

Course: Geotechnical Engineering –II

Course Code: (7CE02)

At the end of Geotechnical Engineering –II course the student will be able:

- CO 1:** To learn the methods of exploration, objectives and its field application along with data interpretation.
- CO 2:** To understand the bearing capacity of shallow foundation.
- CO 3:** To study the earth pressure on retaining wall.
- CO 4:** To find bearing capacity of well foundation and design of pile foundation.
- CO 5:** To evaluate the settlement of different types of foundation.
- CO 6:** To suggest the suitable method of ground improvement.

Course: Hydraulic Engineering

Course Code: (7CE03)

At the end of Hydraulic Engineering course the student will be able:

- CO 1:** To understand the flow pattern in the open channels.
- CO 2:** To understand the criteria for formation hydraulics jump..
- CO 3:** To identify different types of GVF profiles and methods.
- CO 4:** To design Lattice Girder and Steel Tanks
- CO 5:** To understand and Compute of water hammer pressures in pipe.
- CO 6:** To design penstocks and surge tanks, understand causes of water hammer.

Course: Environmental Engineering – II

Course Code: (7CE04)

At the end of Environment Engineering II course the student will be able:

- CO 1:** To define and explain the significance of terms and parameters frequently used in wastewater Treatment.
- CO 2:** To evaluate the influence of the different parameter in design and treatment of wastewater treatment plant (wastewater characteristics).
- CO 3:** To describe biological treatment: Trickling filters, low rate & high rate tricking filters, construction details, Re-circulation Modification of trickling filters.
- CO 4:** To appreciate the advantages, disadvantages and limitations of the technologies and new developments.
- CO 5:** To identify and interpret the criteria for the classification of a substance as a solid/hazardous wastes.
- CO 6:** To evaluate the engineering solutions for industrial and vehicular air pollution problems.

Course: Water Power Engineering (PE-III)

Course Code: (7CE05)

At the end of Water Power Engineering course the student will be able:

- CO 1:** To describe the various sources of energy systems.
- CO 2:** To classify the different power plants.
- CO 3:** To classify the different power plants.
- CO 4:** To classify the different power plants.
- CO 5:** To identify the problems related to hydraulic pressure.
- CO 6:** To explain the general behavior of PC sections under external load.

B.E. 8th Sem

Course: Construction Project Management

Course Code: (8CE01)

At the end of Construction Project Management course the student will be able:

- CO 1:** To understand meaning of Project and Project Management.
- CO 2:** To understand the phases of Project Life Cycle and process of developing it.
- CO 3:** To use and apply various planning tools like BAR chart, Milestone Chart, Networking Methods like CPM , PERT.
- CO 4:** To compare and control the project at the time of execution.
- CO 5:** To update projects and review the status of work.
- CO 6:** To optimize project using Network crashing method.

Course: Construction Economics & Estimating – Costing

Course Code: (8CE02)

At the end of Construction Economics & Estimating course the student will be able:

- CO 1:** To determine need and basics of Estimation and Construction Economics.
- CO 2:** To carry of estimation by various methods.
- CO 3:** To write and understand specification of materials and items of construction.
- CO 4:** To carry out rate analysis of basic construction material and apply calculation logic for other construction materials.
- CO 5:** To use of CSR for Estimation work and carry out estimation of residential, commercial building, flexible and rigid roads, water tank, septic tank etc.
- CO 6:** To understand need, purpose and process of valuation

Course: Advanced Water Treatment (PE-IV)

Course Code: (8CE03)

At the end of Advanced Water Treatment course the student will be able:

- CO 1:** To adopt In-depth knowledge of physical chemical unit processes for advanced water treatment.
- CO 2:** To consider the application of this in research projects, and to contribute to the development of new theories and methods in the field.
- CO 3:** To select or construct appropriate treatment schemes to remove certain pollutants present in water or waste water.
- CO 4:** To developed conceptual schematics required for the treatment of water.
- CO 5:** To translate pertinent forcing criteria into physical and chemical treatment system.
- CO 6:** To provide recommendations of appropriate treatment processes for upgrading water and treatment efficiency.

Course: Construction Equipment and Machinery (PE-V)

Course Code: (8CE04)

At the end of Construction Equipment and machinery course the student will be able:

- CO 1:** To recognize the various terms related to the tools that are required for any construction work.
- CO 2:** To decide which machine or tool can be implemented as per the project life cycle stage
- CO 3:** To understand the survey process with help of Total station and will be able to analyse the performance of basic minor tools and machinery.
- CO 4:** To understand various equipment's like excavators, shovels, mixers, compactors, crane, hoist, lift etc.
- CO 5:** To understand the Compacting Equipment's, Tools & Machinery.
- CO 6:** To study Material handling Equipment's, Tools & Machinery: