VidyaVikasEducationTrust's
Universal College of Engineering, Kaman Road, Vasai-401208
Accredited B+ Grade by NAAC

DEPARTMENT OF CIVIL ENGINEERING

Year/Class/Semester:B.E./CIVIL/VIII

Course Code	CourseName	COs
CEC701	**Design and Drawing of Reinforced Concrete Structures**	Student will be ableto **CO1.**Design G+3 RCC framed building using IS code recommendations. **CO2.**Design different types of retaining walls with detailing of reinforcement **CO3.**Design different types of water tanks with detailing of reinforcement. **CO4.**Apply the basic concepts of structural dynamics **CO5.**Evaluate the response of structure during an earthquake and calculate design forces. **CO6.**Explain principles of Pre-stressed Concrete and its losses.
CEC702	**Quantity Survey estimation and Valuation**	Student will be able to **CO1.**Apply the measurement systems to various civil engineering items of work **CO2.** Draft the specifications for various items of work & determine unit rates of items of works. **CO3.** Estimate approximate cost of the structures by using various methods &prepare detailed estimates of various civil engineering structures by referring drawings **CO4.**Assessthe quantities of earthwork &construct mass haul diagrams **CO5.**Draft tender notice & demonstrate the significance of the tender as well as contract process. **CO6.**Determine the present fair value of any constructed building at stated time
CEDLO 70123	**Applied Hydrology and Flood Control**	*Student will be able to* **CO1.** Explain hydrologic cycle and various methods of Measurement of rainfall. **CO 2.** Calculate optimum number of rain gauge stations for average rainfall and missing rainfall over catchment **CO 3.** Describe various methods of measurement of stream flow and to calculate abstraction losses over the catchment **CO 4.** Develop rainfall runoff relationship and calculating runoff over catchment **CO 5.** Perform hydrologic and hydraulic routing

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		CO6. Calculate the discharge of well for confined and unconfined aquifer
CEDLO 7022	**Solid and Hazardous Waste Management**	*Student will be able to* **CO1.** Acquire the knowledge of functional elements of solid waste management. **CO 2.** Illustrate solid waste collection system, route optimization techniques, transfer station and processing of solid waste. **CO 3.** Develop the ability to plan waste minimization and processing of solid waste. **CO 4.** Explain approaches to treat the solid waste in the most effective manner for sustainable development. **CO 5.** Discuss safe methods of handling, management and disposal of hazardous waste. **CO 6.** Summarize waste management techniques used for assorted solid waste
CEDLO7013	**Appraisal & Implementation of Infrastructure Projects**	*Student will be able to* **CO1.** Classify the projects and describe the phases involved in project formulation. **CO 2.** Prepare a detailed project report on the basis of various feasibility studies and SWOT analysis. **CO 3.** Devise a project's development cycle and get acquainted with the different appraisals in the process of deciding the worthiness of a project. **CO 4.** Exhibit and apply the managerial skills and knowledge of financial aspects required during the implementation of projects. **CO 5.** Identify various sources for project finance. **CO 6.** Know the various agencies involved in project implementation as well as select the method of project implementation which is best suited for a particular project.

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CEDLO7021	**Foundation Analysis and Design**	*Student will be able to* **CO1.** Analyze vertical stress condition in soils. **CO 2.** Design a suitable foundation system. **CO 3.** Evaluate the safe allowable bearing capacity of shallow foundation and load carrying capacity of pile foundation under different soil conditions. **CO 4.** Explain concept of floating foundation. **CO 5.** Design different types of sheet piles. **CO 6.** Explain basic principles of machines foundation.
CECIL OC7017	**Disaster Management and Mitigation Measures**	*Student will be able to* **CO1.**Get to know natural as well as manmade disaster and their extent and possible effects on the economy. **CO 2.** Plan of national importance structures based upon the previous history **CO 3.** Get acquainted with government policies, acts and various organizational structure associated with an emergency. **CO 4.**Get to know the simple do's and don'ts in such extreme events and act accordingly. **CO5.**Understand application of GIS in the field of disaster management. **CO6.**Understand the emergency government response structures before, during and after disaster.