



Vidya Vikas Education Trust's
Universal College of Engineering, Kaman Road, Vasai-401212

DEPARTMENT OF CIVIL ENGINEERING

COURSE OUTCOMES

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

Subject Code	Subject Name	CO's
CE-C401	Applied Mathematics IV	At the end of the course student will be able to: CO1- Use matrix algebra with its specific rules to solve the system of linear equations. CO2- Understand and apply the concept of probability distribution and sampling theory to engineering problems. CO3- Apply principles of vector differential and integral calculus to the analysis of engineering problems. CO4- Identify, formulate and solve engineering problems
CE-C402	Surveying II	At the end of the course student will be able to: CO1- Understand the principle, uses and importance of tacheometry. CO2- Learn and analysis various methods tacheometry and their application in practical work. CO3- Understand the various types of curves and able to analysis setting out of horizontal curve. CO4- Analysis of setting out of vertical curves & works with suitable methods. CO5- Understand the modern surveying instrument and modern surveying method used now days in engineering work. CO6- Plot contour maps and road section by field measurement.
CE-C403	Structural Analysis – I	At the end of the course student will be able to: CO1- Draw SFD, AFD and BMD of determinate frame with internal hinge. CO2- Find the slope and deflection of beams using these methods CO3- Find the deflection and slope in portal frames using Energy methods. CO4- Get the concept of influence line diagram and can draw influence line for determinate structures. CO5- Analyze the arches, suspension bridges and three hinged stiffness girder CO6- Find the stresses in struts, unsymmetrical section and can find shear centre for various sections.
CE-C404	Building Design And Drawing- I	At the end of the course student will be able to: CO1- Get an idea of load bearing, framed and Composite structure. CO2- Understand the concept of footing, types of footing ,Doors, windows and stair-case



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		<p>CO3- Plan the building as per the bye laws and sun path diagram and able to execute the plan onto the field.</p> <p>CO4- Understand various terminologies of building drawing and local district rules and can draw the plan, elevation, section of the building.</p> <p>CO5- Plan the bungalow as per the bye laws and principal of planning.</p> <p>CO6- Draw the line diagram of water supply, sanitary and electrical layouts.</p>
CE-C405	Concrete Technology	<p>At the end of the course student will be able to:</p> <p>CO1- Study the ingredients of the concrete & Properties of cement & aggregate.</p> <p>CO2- Study the details of concrete & concreting techniques and to differentiate between properties of fresh and hardened concrete.</p> <p>CO3- Design concrete mix by I.S. method.</p> <p>CO4- Study about the HPC, admixtures and their application.</p> <p>CO5- Study various types of special concrete, its use and application.</p> <p>CO6- Perform various NDT on concrete structures and to study crack repair and rehabilitation of concrete structures.</p>
CE-C406	Fluid Mechanics - II	<p>At the end of the course student will be able to:</p> <p>CO1- Familiar with concepts of major and minor losses due to various pipe fittings.</p> <p>CO2- Solve pipe network problems by hardy cross method.</p> <p>CO3- Evaluate pressure drop in pipe flow using hagen-poiseuille's equation for laminar flow in a pipe.</p> <p>CO4- Understand the concept of Prandtl's mixing theory and solve turbulent flow problems.</p> <p>CO5- Distinguish the types of compressible flow based on mach number.</p> <p>CO6- Analyze and solve problems on stagnation properties.</p>