



*Shri Balasaheb Mane Shikshan Prasarak Mandal's*  
**ASHOKRAO MANE GROUP OF INSTITUTIONS**



**Vathar Tarf Vadgaon | Kolhapur | Maharashtra**

Record No.: **AMGOI/ACAD/34A**

Revision: **00**

Date: **01/07/2024**

**Course Outcomes (Cos)**

**Department:** Civil Engineering

**Academic Year:** 2024 -2025

A.Y/ Class	Semester	Course code	Course Name	Course Outcome No.	Course Outcome
<b>B.Tech 2024-25</b>	<b>VII</b>	<b>BTCVC701</b>	Design of Reinforced & Prestressed Concrete Structures	BTCVC701.1	Able to identify the behavior, analyze and design of the beam sections subjected to torsion.
				BTCVC701.2	Able to analyze and design of axially and eccentrically loaded column and construct the interaction diagram for them.
				BTCVC701.3	Understand various concepts, systems and losses in pre-stressing.
				BTCVC701.4	Able to analyze and design the rectangular and symmetrical I-section pre-stressed beam/girders.
		<b>BTCVC702</b>	Infrastructure Engineering	BTCVC702.1	Know about the basics and design of various components of railway engineering
				BTCVC702.2	Understand the types and functions of tracks, junctions and railway stations.
				BTCVC702.3	Know about the aircraft characteristics, planning and components of airport
				BTCVC702.4	Understand the types and components of docks and harbors.
		<b>BTCVC703</b>	Construction Techniques	BTCVC703.1	Understand the planning of new project with site accessibility and services required.
				BTCVC703.2	Comprehend the various civil construction equipment's.
				BTCVC703.3	Familiar with layout of RMC plant, production, capacity and operation process.
				BTCVC703.4	Recognize various aspect of road construction, construction of diaphragm walls, railway track construction etc.
		<b>BTCVC704</b>	Professional Practices	BTCVC704.1	Understand the importance of preparing the types of estimates under different conditions for various structures.
				BTCVC704.2	Know about the rate analysis and bill preparations and to study about the specification writing.
				BTCVC704.3	Know the various types of contract, accounts in PWD, methods for initiating the works in PWD and tendering.
				BTCVC704.4	Understand the valuation of land and buildings, various methods and factors affecting valuation.



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	BTCVE705I	Bridge Engineering	BTCVE705I.1	Understand components of bridges and its various types.
			BTCVE705I.2	Understand site selection criteria and comprehend various forces acting on bridges.
			BTCVE705I.3	Analyze bridge structures using different analysis techniques.
			BTCVE705I.4	Understand the importance of different types of bridge bearings.
	BTCVOE706B	Air Pollution Control	BTCVOE706B.1	Identify the sources of air pollutants and their effect on human, plants and materials.
			BTCVOE706B.2	Apply knowledge of meteorology for controlling air pollution
			BTCVOE706B.3	Design air pollution controlling equipment.
			BTCVOE706B.4	Apply knowledge of legislation for prevention and control of air pollution.
	BTCVHM707A	A Essence of Indian Traditional Knowledge	BTCVHM707A.1	Demonstrate an understanding of the ancient Indian knowledge system, including education, artistic traditions, linguistic heritage.
			BTCVHM707A.2	Analyze ancient Indian advancements in science, technology, construction materials, and techniques.
			BTCVHM707A.3	Examine historical developments in water management, sanitation, irrigation, agriculture, transportation, and communication.
	BTCVL708	Design and Drawing of Prestressed Concrete Structures Lab	BTCVL708.1	Analyze and calculate prestress losses, stresses, and resistance of prestressed concrete (PSC) members.
			BTCVL708.2	Design, detail, and prepare drawings for prestressed concrete structural elements.
			BTCVL708.3	Demonstrate practical understanding of reinforced and prestressed concrete structures.
	BTCVL709	Professional Practices Lab	BTCVL709.1	Develop detailed estimates and perform rate analysis for various civil engineering structures
BTCVL709.2			Prepare valuation reports and certificates for civil engineering assets such as residential and commercial buildings.	
BTCVL709.3			Draft comprehensive specifications for key civil engineering projects.	