Shri Vile Parle Kelavani Mandal's
Institute of Technology, Dhule
Department of Civil Engineering

Course Outcome Statements for Academic Year 2023-24

SEM	Subject Code	Subject Name	CO Number	Course outcome Statement
SEM-1	BTBS101	Engineering Mathematics – I	CO101.1	Apply the matrix technique (Linear algebra) to find solutions of system of linear equations arising in many engineering problem
			CO101.2	Demonstrate the concept partial derivatives and their applications to Maxima/ Minima , series expansion of multi valued functions
			CO101.3	Compute Jacobian of functions of several variables and their applications to engineering problems
			CO101.4	Identify and sketch of curves in various coordinate system
			CO101.5	Evaluate multiple integrals and their applications to area and volume
	BTBS102	Engineering Physics	CO102.1	Apply the concept of types of oscillations in engineering.
			CO102.2	Apply the fundamentals of interference, polarization in LASER and optical fiber in engineering.
			CO102.3	Determine the application of trajectory of charge particle in electromagnetic field, with basic principles of quantum physics
			CO102.4	Determine the different types of crystal structures using X-ray diffraction technique, with study of Maxwell's equations
			CO102.5	Summarize the fundamentals of Magnetism, Superconductor, Semiconductor materials and its applications in engineering.
	BTES103	Engineering Graphics	CO103.1	Use of drawing instruments effectively for drawing and dimensioning
			CO103.2	Explain conventions and methods of engineering drawing
			CO103.3	Apply concepts of projections of points, lines, planes, solids and section of solids
			CO103.4	Construct isometric and orthographic views of given objects
	BTHM104	Communication Skills	CO104.1	Apply Speaking and Writing skills in professional as well as social situations.
			CO104.2	Overcome Mother Tongue Influence and demonstrate neutral accent while exercising English.
			CO104.3	Apply communication skills for Presentations, Group Discussion and interpersonal interactions.
			CO104.4	Apply grammar correctly during Speaking and Writing situations especially in context with Presentations, Public Speaking, Report writing and Business Correspondence.
	BTES105	Energy and Environment Engineering	CO105.1	Identify conventional, non-conventional energy sources.
			CO105.2	Know and discuss power consuming and power developing devices for effective utilization and power consumption
			CO105.3	Identify various sources of air, water pollution and its effects.
			CO105.4	Know and discuss noise, soil, thermal pollution and Identify solid, biomedical and hazardous waste.
	BTES106	Basic Civil and Mechanical Engineering	CO106.1	Identify various Civil Engineering materials and choose suitable material among various options
			CO106.2	Apply principles of surveying to solve engineering problem
			CO106.3	Identify various Civil Engineering structural components and select appropriate structural system among various options
			CO106.4	Explain and define various properties of basic thermodynamics, materials and manufacturing processes.

			CO106.5	Know and discuss the working principle of various power consuming and power developing devices.
	BTBS107L	Engineering Physics Lab	CO107L.1	Describe the ultrasonic interferometer's working and estimate the velocity of ultrasonic wave in various liquid media.
			CO107L.2	Determine the wavelength of He-Ne Laser and numerical aperture of optical fibre.
			CO107L.3	Determine the operating voltage of GM Tube and charge to mass ratio of electron by applying the concept of trajectory of charge particle in electric and magnetic field.
			CO107L.4	Understand & apply the characteristics of materials for semiconductor engineering.
			CO107L.5	Identify and draw the given crystal plane using the concept of miller indices.
	BTES108L	Engineering Graphics Lab	CO108.1	Use of drawing instruments effectively for drawing and dimensioning
			CO108.2	Implement various fundamental geometrical constructions
			CO108.3	Apply concepts of projections of points, lines, planes, solids and section of solids
			CO108.4	Construct isometric and orthographic views of given objects
	BTHM109L	Communication Skills Lab.	CO109L.1	To illustrate the process of Introduction.
			CO109L.2	To use articulation of Phonemic sounds exercising Transcription, Stress and Intonations.
			CO109L.3	To apply Verbal and Non-verbal communication through Extempore, GD, Debate, Presentation and Interviews.
	BTBS201	Engineering Mathematics-II	CO201.1	Discuss the need and use of complex variables to find roots, to separate complex quantities and to establish relation between circular and hyperbolic functions
			CO201.2	Solve first and higher order differential equations and apply them as a mathematical modeling in electric and mechanical systems
			CO201.3	Find Fourier series representation of periodic functions over different intervals.
			CO201.4	Demonstrate the concept of vector differentiation and interpret the physical and geometrical meaning of gradient, divergence &curl in various engineering streams
			CO201.5	Apply the principles of vector integration to transform line integral to surface integral, surface to volume integral &vice versa using Green's , stokes and Gauss divergence theorems
	BTBS202	Engineering Chemistry	CO202.1	Develop the importance of water in industrial and domestic usage.
			CO202.2	Study the knowledge of phases, components, degree of freedom and apply it in various phase diagrams.
			CO202.3	Apply the knowledge of corrosion to prevent corrosion of metallic and non-metallic surfaces.
			CO202.4	Examine a fuel and suggest alternative fuels.
			CO202.5	Study the basic concept of electrochemistry and use their applications in the industry.
	BTES203	Engineering Mechanics	CO203.1	Know and apply fundamental Laws of Engineering Mechanics
			CO203.2	Know and apply conditions of static equilibrium to analyze given force system
			CO203.3	Compute Centre of gravity and Moment of Inertia of plane surfaces
			CO203.4	Compute the motion characteristics of a body /particle for a Rectilinear and Curvilinear motion.
			CO203.5	Know and discuss relation between force and motion characteristics
			CO204.1	To illustrates the use of editors, translation, flowchart and Algorithm in C language
			CO204.2	To recognize various operators and implement program in C using operators

SEM-2	BTES204	Computer Programming in C	CO204.3	To illustrate the use of control statement and Implement C program using control statement
			CO204.4	To describe the concept of Array in C language and implement the C program using one and multidimensional Array
			CO204.5	To describe the control of Structures and Pointer and implement structure and pointer concept in C Language
	BTES206L	Workshop Practices	COBTES206L.1	Perform carpentry operations like planning, cutting, fitting of joints using hand and power tools
			COBTES206L.2	Perform fitting operations such as marking, cutting, filling, drilling and tapping using hand and power tools and also basic plumbing Operations.
			COBTES206L.3	Perform sheet metal operations such as marking, shearing, bending, punching, and soldering using hand and power tools and Welding operations like joint preparations, electrode selections.
			COBTES206L.4	Understand the simple machining skills on lathe machine operations and its use during their project work
	BTES206	Basic Electrical and Electronics Engineering	CO206.1	Apply basic ideas and principles of electrical engineering
			CO206.2	Identify protection equipment and energy storage devices.
			CO206.3	Differentiate electrical and electronics domains and explain the operation of diodes and transistors.
			CO206.4	Acquire knowledge of digital electronics.
			CO206.5	Design simple combinational and sequential logic circuits.
	BTBS207L	Engineering Chemistry Lab	CO207L.1	Test the quality of water sample by determination of hardness, acidity, alkalinity and dissolve oxygen present in it.
			CO207L.2	Examine the chemical property of an oil and quality of bleaching powder.
			CO207L.3	Determine the concentration of specific ions present in the solution using titration methods.
			CO207L.4	Examine the physical properties of liquid sample.
	BTES208L	Engineering Mechanics Lab	CO208L.1	Calculate beam reaction by Parallel Force apparatus and graphics static method and forces in truss.
			CO208L.2	Evaluate co-efficient of friction and centroid of irregular shaped bodies.
			CO208L.3	Evaluate mechanical advantage, Velocity ratio, efficiency and mass moment of inertia.
	BTES210S	Seminar	CO210S.1	Learn to differentiate information from data to present it in meaning full way
			CO210S.2	Learn to use and cite resources
			CO210S.3	Develop the ability of critical thinking
	BTES211P	Field Training / Internship/Industrial Training	CO211P.1	To identify the challenges and future potential in internship problem and solve the problem during the internship period.
			CO211P.2	To test the theoretical learning and research-based knowledge in practical situations by completing assigned tasks during the internship period.
			CO211P.3	To apply various soft skills such as time management, positive attitude and communication skills during presentation in the internship program.
	BTBS301	Mathematics – III	CO301.1	Find Laplace transform of functions using various formulas and properties. Evaluate particular types of integration.
			CO301.2	Find Inverse Laplace transform of functions using various formulas and properties.Solve linear differential/simultaneous linear differential equation using Laplace and inverse Laplace transform.
			CO301.3	Find Fourier and inverse Fourier transform, Fourier sine and inverse Fourier sine transform. Cosine transform and inverse Fourier cosine Transform of functions.
			CO301.4	Form PDE by eliminating arbitrary constant, solve PDE and use PDE to solve one and two dimensional heat flow equation.

			CO301.5	Determine Analytic functions//Bilinear transformation/ apply Cauchy's theorem/Cauchy's integral formula and Residue theorem to solve contour integration.
	BTCVES302	Mechanics of Solids	C302.1	Perform the stress-strain analysis
			C302.2	Draw the force distribution diagram for members and determinant beams
			C302.3	Analyze axially and eccentrically loaded columns and struts
			C302.4	Visualize force deformation behavior of bodied
	BTCVC303	Building Construction & Drawing	CO303.1	Understand types of masonry structures.
			CO303.2	Comprehend the components of building and there purposes , composition of concrete along with effect of various parameters affecting strength
			CO303.3	Draw plan, elevation and section of various structure
			CO303.4	Apply the principles of planning and by laws used for building planning
			CO303.5	Prepare detailed working drawing for doors and windows.
	BTCVC304	Hydraulics -I	CO304.1	Determine the properties of fluid and pressure and their measurement
			CO304.2	Interpret the types of forces acting on fluid at rest and in moving condition.
			CO304.3	Differentiate between laminar and turbulent flow condition.
			CO304.4	Analyze the laws of similarity for fluid model studies.
			CO304.5	Understand fundamentals of pipe flow, losses in pipe flow.
SEM-3	BTCVC305	Surveying	CVC305.1	Understand the basic principles of surveying, including measurement techniques, equipments and error analysis.
			CVC305.2	Analyze linear measurements based on site conditions in order to generate the topographical maps.
			CVC305.3	Exhibit surveying techniques applicable to all engineering surveys, such as tachometry and levelling.
	BTHM306	Soft Skill Development	CO306.1	Acquire interpersonal communication skills.
			CO306.2	Develop the ability to work independently.
			CO306.3	Develop the qualities like self-discipline, self-criticism and self-management.
			CO306.4	Have the qualities of time management and discipline.
			CO306.5	Present themselves as inspiration for others.
	BTCVL 307	Solid Mechanics Laboratory	CO307.1	Evaluate Young Modulus, torsional strength, hardness and tensile strength of given specimens.
			CO307.2	Evaluate compressive characteristics or column action of structural members.
			CO307.3	Analyze bending action of structural members under transverse loads.
	BTCVL 308	Hydraulics-I Laboratory	CO308.1	Calculate the viscosity of fluid and metacentric height of ship model
			CO308.2	Examine the application of Bernoulli's theorem for pipe flow
			CO308.3	Demonstrate the calibration of flow measurement devices in pipe flow.
	BTCVL 309	Surveying Laboratory	CO309.1	Apply the Surveying principles for proficiency in using instruments, their setting and accurate measurements.
			CO309.2	Execute various precise types of surveying techniques for surveying and levelling operations.
			CO309.3	Interpretation of the topographic conditions to prepare the plans while working effectively in team for execution of projects.
	BTES210P	Internship –I Evaluation (From Sem II)	CO210P.1	To identify the challenges and future potential in internship problem and solve the problem during the internship period.
			CO210P.2	To test the theoretical learning and research-based knowledge in practical situations by completing assigned tasks during the internship period.
			CO210P.3	To apply various soft skills such as time management, positive attitude and communication skills during presentation in the internship program.

SEM-4	BTCVC401	Building Planning and Drawing	CO401.1	To plan buildings considering various principles of planning and bye laws of governing body.
			CO401.2	Comprehend various utility requirements in buildings
			CO401.3	Understand various techniques for good acoustics
	BTCVC402	Environmental Engineering	CO402.1	Apply the water treatment concept and methods in design of Water Supply Scheme
			CO402.2	Prepare basic process designs of water and wastewater treatment plants
			CO402.3	Apply the wastewater treatment concept and methods in design of sewage management system
			CO402.4	Illustrate the solid waste management and air pollution concepts
	BTCVC403	Structural Mechanics - I	CO403.1	Describe the concept of structural analysis, degree of indeterminacy
			CO403.2	Calculate slopes and deflection at various locations for different types of beams
			CO403.3	Identify determinate and indeterminate trusses and calculate forces in the members of trusses, Perform the distribution of the moments the in continuous beam and frame
	BTCVC404	Water Resources Engineering	CO404.1	Examine the water requirement, preventive and curative measures for water conservation as per need of irrigation practices in India.
			CO404.2	Distinguish the planning, designing and requirement of various irrigation structures, schemes like reservoirs, dams, hydraulic structure & well irrigation, etc.
			CO404.3	Estimate values required to plot unit hydrograph, flood hydrograph, S-curve hydrograph.
	BTCVC405	Hydraulics - II	CO405.1	To design open channel sections in a most economical way.
			CO405.2	To know about the non-uniform flows in open channel and the characteristics of hydraulic jump.
			CO405.3	To apply application of momentum principle of impact of jets on plane.
	BTCVC406	Engineering Geology	CO406.1	CO1: Recognize the different land forms which are formed by various geological agents.
			CO406.2	CO2: Identify the origin, texture and structure of various rocks and physical properties of mineral.
			CO406.3	CO3: Emphasize distinct geological structures which have influence on the civil engineering structure
			CO406.4	CO4: Understand how the various geological conditions affect the design parameters of structures.
	BTCVL407	Building Planning and CAD Lab.	CO407.1	Draw plan, elevation and section of load bearing and framed structures.
			CO407.2	Draw plan, elevation and section of public structures.
			CO407.3	Apply principles of Building planning and Building bylaws for generation of drawing
	BTCVL408	Environmental Engg. Lab	CO408.1	Quantify the pollutant concentration in water, wastewater and ambient air
			CO408.2	Recommend the degree of treatment required for the water and wastewater.
			CO408.3	Analyze the survival conditions for the microorganism and its growth rate.
	BTCVL409	HE-II Lab.	CO409.1	Understand various properties of fluids and measurement techniques.
			CO409.2	Carry out calibrations of various flow measuring devices.
			CO409.3	Understand mechanism of hydraulic jump, various jets and pumps.
	BTCVP410	Field Training / Internship/Industrial Training (minimum of 4 weeks training in Summer Vacation after Semester IV and appear at	CO410.1	To identify the challenges and future potential in internship problem and solve the problem during the internship period.
			CO410.2	To test the theoretical learning and research-based knowledge in practical situations by completing assigned tasks during the internship period.

		and appear at examination in Semester V)	CO410.3	To apply various soft skills such as time management, positive attitude and communication skills during presentation in the internship program.
SEM-5	BTCVC501	Design of Steel Structures	CO 501.1	Identify and compute the design loads and the stresses developed in the steel member
			CO 501.2	Analyze and design the various connections and identify the potential failure modes
			CO 501.3	Analyze and design various tension, compression and flexural members
			CO 501.4	Understand provisions in relevant BIS Codes
	BTCVC502	Geotechnical Engineering	CO502.1	Understand different soil properties and behavior
			CO502.2	Understand stresses in soil and permeability and seepage aspects.
			CO502.3	Develop ability to take up soil design of various foundations
	BTCVC503	Structural Mechanics –II	CO503.1	Have a basic understanding of matrix method of analysis and will be able to analyze the determinate and indeterminate structures
			CO503.2	Have a basic understanding of the principles and concepts related to finite difference and finite element method.
			CO503.3	Have a basic understanding of concept of influence line.
	BTCVC504	Concrete Technology	CO504.1	Understand the various types and properties of ingredients of concrete.
			CO504.2	Understand effect of admixtures on the behavior of the fresh and hardened concrete along with the effects of creep and shrinkage of concrete
			CO504.3	Formulate concrete design mix for various grades of concrete and understanding the nondestructive testing of concrete.
	BTHM505	Project Management	CO505.1	Understand various steps in project Management, different types of charts.
			CO505.2	Construct network by using CPM and PERT method.
			CO505.3	Determine the optimum duration of project with the help of various time estimates.
			CO505.4	Know the concept of engineering economics, economic comparisons, and linear break even analysis problems.
			CO505.5	Understand the concept of total quality Management including Juran and Deming's philosophy.
	BTCVPE506	Material, Testing and Evaluation	CO506G.1	To provide an overview to the students about various types of civil engineering materials used in constructions along with their properties.
			CO506G.2	To enable students to know details of various tests to be performed on civil engineering materials to evaluate their quality to know their suitability for use in construction.
			CO506G.3	To test the materials under the sustainability conditions of an environment as per the site suitability.
	BTCVES507	Software applications in Civil Engineering	CVES507.1	Understand & Analyze civil engineering software(s).
			CVES507.2	Use applications of various software(s) in specialized works of civil engineering.
			CVES507.3	Evaluate the effectiveness and efficiency of integrating different civil engineering software applications in addressing complex engineering challenges.
	BTCVL508	SDD of Steel Structures Lab	CO508.1	Design and drawing of Steel Industrial Shed Structure using IS 800:1984 or 2007
			CO508.2	Design and drawing of Plate Girder structures as per IS 800:1984 or 2007
	BTCVL509	Geotechnical Engineering Lab.	CO509.1	Determine different engineering properties of soil.
			CO509.2	Identify and classify soils based on standard geotechnical engineering practices.
			CO509.3	Perform Laboratory compaction and Shear strength of soil
	BTCVL510	Concrete	CO510.1	Demonstration with performance of testing of cement and aggregates
			CO510.2	Demonstration with performance of fresh concrete test and hardened concrete test

	BTCVL510	Technology Lab.	CO510.3	Understand the effect of admixtures and non-destructing testing of concrete.
			CO510.4	Design and validate the concrete mix with help of different concrete mix design methods.
	BTCVP410	Internship – 2 Evaluation	CO410.1	To identify the challenges and future potential in internship problem and solve the problem during the internship period.
			CO410.2	To test the theoretical learning and research-based knowledge in practical situations by completing assigned tasks during the internship period.
			CO410.3	To apply various soft skills such as time management, positive attitude and communication skills during presentation in the internship program.
SEM-6	BTCVC601	Design of RC Structures	CO601.1	Comprehend the various design philosophies used in design of reinforced concrete
			CO601.2	Analyze and design the reinforced concrete sections using working stress method
			CO601.3	Analyze and design the reinforced concrete sections using limit state method
	BTCVC602	Foundation Engineering	CO602.1	To predict soil behavior under the application of loads and come up with appropriate solutions to foundation design queries.
			CO602.2	Analyze the stability of slope by theoretical and graphical methods.
			CO602.3	Analyze the results of in-situ tests and transform measurements and associated uncertainties into relevant design parameters.
			CO602.4	Synthesize the concepts of allowable stress design, appropriate factors of safety, margin of safety, and reliability.
	BTCVC603	Transportation Engineering	C603.1	Comprehend various types of transportation systems and their history of the development.
			C603.2	Comprehend to various types of pavements.
			C603.3	Analyze the pavements by considering various aspects associated with traffic safety measures.
	BTCVPE604	Open Channel Flow	C604C.1	Analyse various parameters associated with hydraulic jump.
			C604C.2	Compute discharge through various open channel sections.
			C604C.3	Demonstrate applications of gradually varied flow profiles.
	BTCVOE605	Business Communication and Presentation Skills	CO605.1	Apply basics of business communication skills & relevant tools.
			CO605.2	Interpret business SOPs and essentials of the same.
			CO605.3	Use modern skills regarding communication, presentation & team working
	BTHM606	Indian Constitution	CO606.1	Understanding salient features of the Indian Constitution and its significance
			CO606.2	Comprehend the federal structure of the Indian Constitution and Election Commission of India
			CO606.3	Interpretation of fundamental principles, concepts and provisions of local administration
	BTCVL607	SDD of RC Structures Lab.	CO607.1	Basic understanding of various IS codes used in RC structure design
			CO607.2	Analysis and design of G+2 RC building
			CO607.3	Analysis and design of Retaining wall
	BTCVL608	Transportation Engineering Lab	CVL608.1	Perform tests on various road construction materials.
			CVL608.2	Perform CBR tests on local soils to determine subgrade properties needed for roadways.
			CVL608.3	Identify the types of pavements, based on the physical overview of the site.
		Field Training/ Internship/Industrial Training	CO610.1	To identify the challenges and future potential in internship problem and solve the problem during the internship period.

	BTCVP610	(minimum of 4 weeks training in Summer Vacation after Semester VI and appear at examination in Semester VII.)	CO610.2	To test the theoretical learning and research-based knowledge in practical situations by completing assigned tasks during the internship period.
			CO610.3	To apply various soft skills such as time management, positive attitude and communication skills during presentation in the internship program.
SEM-7	BTCVC701	Design of Reinforced & Prestressed Concrete Structures	CO701.1	Able to identify the behavior, analyze and design of the beam sections subjected to torsion.
			CO701.2	Able to analyze and design of axially and eccentrically loaded column and construct the interaction diagram for them.
			CO701.3	Understand various concepts, systems and losses in pre-stressing.
			CO701.4	Able to analyze and design the rectangular and symmetrical I-section pre-stressed beam/girders.
	BTCVC702	Infrastructure Engineering	CO702.1	Learn about the fundamentals and design aspects of diverse elements in railway engineering.
			CO702.2	Comprehend the categories and purposes of track geometry, as well as the progressions in the field of Railway Engineering.
			CO702.3	Capable of comprehending Docks, Harbors, and the principles of Marine Engineering.
			CO702.4	Acquire knowledge on Aircraft Engineering, the planning process, and the components of airports.
			CO702.5	To Know the Tunnel Engineering, including its intricacies and recent advancements in the field.
	BTCVC703	Construction Techniques	CO703.1	Understand the planning of new project with site accessibility and services required.
			CO703.2	Comprehend the various civil construction equipment's
			CO703.3	Familiar with layout of RMC plant, production, capacity and operation process
			CO703.4	Recognize various aspect of road construction, construction of diaphragm walls, railway track construction etc.
	BTCVC704	Professional Practices	CO704.1	Understand the importance of preparing the types of estimates under different conditions for various structures
			CO704.2	Evaluate the quantity of materials required and approximate estimates for Civil engineering works as per specifications
			CO704.3	Evaluate and file tenders in construction industry
			CO704.4	Estimate the valuation of land, various structures, existing and proposed buildings using various methods
	BTCVE705I	Bridge Engineering	CO705I.1	Understand components of bridges and its various types.
			CO705I.2	Understand site selection criteria and comprehend various forces acting on bridges.
			CO705I.3	Analyze bridge structures using different analysis techniques.
			CO705I.4	Understand the importance of different types of bridge bearings.
	BTCVOE706B	Air Pollution Control	CVOE706B.1	Identify the sources of air pollutants and their effect on human, plants and materials.
			CVOE706B.2	Apply knowledge of meteorology for controlling air pollution
			CVOE706B.3	Design air pollution controlling equipment.
			CVOE706B.4	Apply knowledge of legislation for prevention and control of air pollution.
	BTHM707A	Essence of Indian Traditional Knowledge	M707.1	Ability to understand, connect up and explain basics of Indian traditional knowledge, modern scientific Perspective
			M707.2	Imparting basic principles of thought process, reasoning and inferencing
			M707.3	Importance of holistic science with rapid techno;ogical advancement and socictal disruptions
			M707.4	Elaborate Development of amenities for society and nature

	BTCVL708	Design & Drawing of Prestressed Concrete Structures	CO708.1	Understand the fundamental concepts of prestressed concrete and its application in structural design.
			CO708.2	Understanding the importance of code requirements in the design of prestressed concrete structures
			CO708.3	Developing proficiency in preparing structural design and drawings for various prestressed concrete component.
	BTCVL709	Professional Practices	CO709.1	Prepare detailed and approximate estimates for two storyed RCC or load bearing wall building
			CO709.2	Present the valuation report including valuation certificate
			CO709.3	Evaluate detailed specification for any civil engineering items
	BTCVP610	Field Training / Internship/Industrial Evaluation	CO610.1	To identify the challenges and future potential in internship problem and solve the problem during the internship period.
			CO610.2	To test the theoretical learning and research-based knowledge in practical situations by completing assigned tasks during the internship period.
			CO610.3	To apply various soft skills such as time management, positive attitude and communication skills during presentation in the internship program.
	BTCVS710	Seminar	CVS710.1	Understand and prepare chronological order of execution of Road Construction works.
			CVS710.2	Interpret the collected data and present it in form of technical information.
			CVS710.3	Prepare technical report based on field data of execution of Road Construction works
	BTCVP711	Project Stage-I**	CO711.1	Recommend gaps in literature survey on particular topic
			CO711.2	Develop methodology for chosen work
			CO711.3	Generate Solutions for Recommended gaps by Applying modern tools and techniques
			CO711.4	Formulate detailed report on selected work
SEM-8	BTCVSS801A	Maintenance and Repair of Concrete Structures	CO801D.1	Identify various deterioration or damage mechanisms in concrete structures.
			CO801D.2	Assess the condition of the structure by using various non-destructive, partially-destructive tools.
			CO801D.3	Select measurable parameters that are useful in deciding the further repair and maintenance practices.
	BTCVSS802B	Environmental Remediation of Contaminated Sites	CVSS802B.1	Understand integrated approaches to remediating contaminated sites
			CVSS802B.2	Screen, choose and design appropriate technologies for remediation.
			CVSS802B.3	Demonstrate Laws/Regulations for remediation of contaminated sites
			CVSS802B.4	Perform risk assessment due to contamination
	BTCVP803	Project Stage II or Internship	CO803.1	Demonstrate sound technical knowledge of their selected work
			CO803.2	Design sustainable solutions for chosen work
			CO803.3	Communicate findings beneficial to community at large in written and oral forms

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