



S.D.M Jainmatt Trust[®]

A.G.M RURAL COLLEGE OF ENGINEERING AND TECHNOLOGY, VARUR

Navagrah Teerth, NH-4 P. B. Road Opp, VRI Head Office, VARUR-581207, Hubballi, Dist. Dharwad, Karnataka
(APPROVED BY AICTE NEW DELHI, AFFILIATED TO VTU BELAGAU M AND RECOGNIZED BY STATE GOVT.)
Phone: 0836-2312071, Fax: 0836-2312061, E-mail: principal@agmrcet.com, Web: www.agmrcet.ac.in



DEPARTMENT OF CIVIL ENGINEERING
CO STATEMENT FOR THE SCHEME 2022 (BATCH 2022-2025)

SL.NO	SUB NAME	COs	CO Statement
III SEM			
1	STRENGTH OF MATERIALS	BCV301.1	Evaluate the simple stresses, strains and compound stresses
		BCV301.2	Calculate the Bending moments, shear force and draw BMD, SFD for various types of beams and loadings
		BCV301.3	Analyse the bending stress, shear stress and torsional stress in beams and shafts with different cross sections
		BCV301.4	Evaluate the deflection in beams and determine the stability of the columns.
		BCV301.5	Evaluate the behavior and strength of structural elements under
2	ENGINEERING SURVEY	BCV302.1	Summarize various types of surveying and carry out distance measurement using various equipment's
		BCV302.2	Illustrate the use and applications of levelling and theodolite
		BCV302.3	Plot contours, longitudinal and cross sections for construction projects.
		BCV302.4	Set curves for construction works and carry out estimation of areas and volumes.
		BCV302.5	Demonstrate the necessary skills to carry out GPS and DRONE Surveying
3	ENGINEERING GEOLOGY	BCV303.1	Apply geological knowledge in different civil engineering practice.
		BCV303.2	Acquire knowledge on durability and competence of foundation rocks and will be able to use the best building materials.
		BCV303.3	Students will become competent enough for the safety, stability, economy, and life of the structures that they construct
		BCV303.4	Able to solve various issues related to ground water exploration, build up dams, bridges, tunnels which are often confronted with ground water problems
		BCV303.5	Students will become Intelligent enough to apply GIS, GPS and remote sensing as a latest tool in different civil engineering for safe and solid construction.
4	WATER SUPPLY AND WASTEWATER ENGINEERING	BCV304.1	Estimate the average and peak water demand for a community.
		BCV304.2	Evaluate water quality and environmental significance of various parameters and plan suitable treatment system.
		BCV304.3	Design the different units of water treatment plant.
		BCV304.4	Design the various units of wastewater treatment plant.
		BCV304.5	Design of various AOPs and low-cost treatment units





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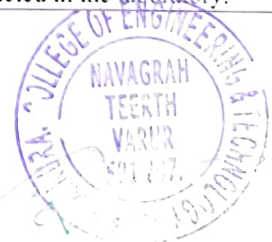
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5	COMPUTER AIDED BUILDING PLANNING AND DRAWING	BCV305.1	Prepare, read and interpret the drawings in a professional set up.
		BCV305.2	Know the procedures of submission of drawings and Develop working and submission drawings for building.
		BCV305.3	Plan of residential or public building as per the given requirements..
6	FIRE SAFETY IN BUILDINGS	BCV306D.1	Understand types of fire, combustion process and fire resistance
		BCV306D.2	Plan for fire safety and design of lifts
		BCV306D.3	Design flow network in buildings
		BCV306D.4	Design of electrical systems and maintenance
		BCV306D.5	Perform health evaluation of buildings and suggest remedies
7	PERSONALITY DEVELOPMENT FOR CIVIL ENGINEERS	BCV358D.1	Use English as a medium of communication in interviews and in any professional working environment proficiently
		BCV358D.2	Develop necessary skills to Answer common interview questions, express confidence in body language and present with clarity
IV SEM			
8	ANALYSIS OF STRUCTURES	BCV401.1	Identify the different forms of structural systems and analyse the trusses
		BCV401.2	Evaluate the slope and deflections in beams, frames and trusses by using moment area method and energy principle.
		BCV401.3	Analyse and determine the stress resultants in arches and cables.
		BCV401.4	Analyse the indeterminate structures and construct BMD AND SFD using slope deflection methods.
		BCV401.5	Analyse the indeterminate structures and construct BMD AND SFD using Moment Distribution Method.
9	FLUID MECHANICS & HYDRAULICS	BCV402.1	Explain the fundamental properties of fluids and solve problems on fluid pressure and hydrostatics.
		BCV402.2	Apply the principles of kinematics and dynamics of fluid flow to solve problems on velocity and pressure
		BCV402.3	Compute the discharge through pipes, notches and weirs.
		BCV402.4	Design the turbines and open channels of different sections and to estimate the energy loss in hydraulic jump.
		BCV402.5	Able to interpret the experimental results of discharge, efficiency based on the test conducted in the laboratory.





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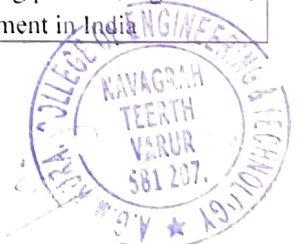
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10	TRANSPORTATION ENGINEERING	BCV403.1	Explain the basic principles of geometric design in the context of transportation engineering and planning.
		BCV403.2	Select the appropriate pavement materials for construction and design the pavement as per standard practices.
		BCV403.3	Conduct traffic studies and analyse traffic data for practical applications.
		BCV403.4	Identify the Components parts of Railway Track and design the suitable runway for an Airport.
		BCV403.5	Able to interpret the experimental results of highway materials based on laboratory tests and design the pavement
11	BUILDING MATERIALS TESTING LAB	BCV404.1	Analyze the physical characteristics, and behavior of common building materials.
		BCV404.2	Reproduce the basic knowledge of mathematics and engineering in finding the strength in tension, compression, shear and torsion for steel
		BCV404.3	Evaluate the impact of engineering solutions on the society and also will be aware of contemporary issues regarding failure of structures due to unsuitable materials.
		BCV404.4	Recognize the importance of ethical conduct, integrity, and accuracy in materials testing and reporting.
12	WATERSHED MANAGEMENT	BCV405D.1	Discuss surface and ground water resources system and, human influences
		BCV405D.2	Integrate water resources system in arid and semi-arid regions and explain watershed aquifer for management
		BCV405D.3	Analyse water resources related issues for conservation and synthesize augmentation of water resources.
		BCV405D.4	Design integrated watershed management system.
		BCV405D.5	Apply modern tools in watershed management.
13	ELECTRONIC WASTE MANAGEMENT – ISSUES AND CHALLENGES	BCV456C.1	Explain the concept of e-waste and its significance in the context of environmental sustainability.
		BCV456C.2	Identify and classify different types of e-waste and describe their components.
		BCV456C.3	Recognize the potential health and environmental hazards associated with improper e-waste management.
		BCV456C.4	Evaluate and apply appropriate methods for the collection, recycling, and disposal of e-waste
		BCV456C.5	Demonstrate knowledge of the existing policies, regulations, and frameworks for e-waste management in India





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14	UNIVERSAL HUMAN VALUES-II: UNDERSTANDING HARMONY and ETHICAL HUMAN CONDUCT	BUHK408.1	Holistic vision of life
		BUHK408.2	Socially responsible behavior
		BUHK408.3	Environmentally responsible work
		BUHK408.4	Ethical human conduct
		BUHK408.5	Having Competence and Capabilities for Maintaining Health and Hygiene
		BUHK408.6	Appreciation and aspiration for excellence (merit) and gratitude for all

