Coarse Code	STRENGTH OF MATERIALS – BCV301
CO1	Evaluate the simple stresses, strains and compound stresses
CO2	Calculate the Bending moments, shear force and draw BMD, SFD for various types of beams and loadings
CO3	Calculate the Bending moments, shear force and draw BMD, SFD for various types of beams and loadings
CO4	Calculate the Bending moments, shear force and draw BMD, SFD for various types of beams and loadings
CO5	Evaluate the behaviour and strength of structural elements under the action of compound stresses and stresses in thin and thick cylinders.
Coarse Code	**ENGINEERING SURVEY- BCV302**
CO1	Summarize various types of surveying and carry out distance measurement using various equipment's
CO2	Illustrate the use and applications of levelling and theodolite
CO3	Plot contours, longitudinal and cross sections for construction projects.
CO4	Set curves for construction works and carry out estimation of areas and volumes.
CO5	Demonstrate the necessary skills to carry out GPS and DRONE Surveying
Coarse Code	**ENGINEERING GEOLOGY– BCV303**
CO1	Apply geological knowledge in different civil engineering practice.
CO2	Acquire knowledge on durability and competence of foundation rocks, and will be able to use the best building materials.
CO3	Students will become competent enough for the safety, stability, economy and life of the structures that they construct
CO4	Able to solve various issues related to ground water exploration, build up dams, bridges, tunnels which are often confronted with ground water problems
CO5	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.
Coarse Code	**WATER SUPPLY AND WASTEWATER ENGINEERING– BCV304**
CO1	Estimate the average and peak water demand for a community
CO2	Evaluate water quality and environmental significance of various parameters and plan suitable treatment system.
CO3	Design the different units of water treatment plant
CO4	Design the various units of wastewater treatment plant.
CO5	Design of various AOPs and low cost treatment units.
Coarse Code	**COMPUTER-AIDED BUILDING PLANNING AND DRAWING – BCV305**
CO1	Prepare, read and interpret the drawings in a professional set up.
CO2	Know the procedures of submission of drawings and Develop working and submission drawings for building.
CO3	Plan and design of residential or public building as per the given requirements.
Coarse Code	**SOCIAL CONNECT AND RESPONSIBILITY– BCV307**
CO1	The course will introduce social context and various players in the social space, and present approaches to discovering and understanding social needs. Social immersion and inspiring conversional will culminate in developing an actual, idea for problem-based intervention, based

	on an in-depth understanding of a key social problem.
Coarse Code	**FIRE SAFETY IN BUILDINGS – BCV306D**
CO1	Understand types of fire, combustion process and fire resistance
CO2	Plan for fire safety and design of lifts
CO3	Design flow network in buildings
CO4	Design of electrical systems and maintenance
CO5	Perform health evaluation of buildings and suggest remedies
Coarse Code	**PERSONALITY DEVELOPMENT FOR CIVIL ENGINEERS – BCV358D**
CO1	Use English as a medium of communication in interviews and in any professional working environment proficiently
CO2	Develop necessary skills to Answer common interview questions, express confidence in body language and present with clarity
Coarse Code	**ANALYSIS OF STRUCTURES- BCV401**
CO1	identify the different forms of structural systems and analyse the trusses
CO2	Evaluate the slope and deflections in beams, frames and trusses by using moment area method and energy principle
CO3	Analyse and determine the stress resultants inarches and cables
CO3	Analyse the indeterminate structures and construct BMD AND SFD using slope deflection methods.
CO3	Analyse the indeterminate structures and construct BMD AND SFD using Moment Distribution Method.
Coarse Code	**FLUID MECHANICS AND HYDRAULICS – BCV402**
CO1	Explain the fundamental properties of fluids and solve problems on fluid pressure and hydrostatics.
CO2	Apply the principles of kinematics and dynamics of fluid flow to solve problems on velocity and pressure.
CO3	Compute the discharge through pipes, notches and weirs.
CO4	Design the turbines and open channels of different sections and to estimate the energy loss in hydraulic jump.
CO5	Able to interpret the experimental results of discharge, efficiency based on the test conducted in the laboratory.
Coarse Code	**TRANSPORTATION ENGINEERING– BCV403**
CO1	Explain the basic principles of geometric design in the context of transportation engineering and planning
CO2	Select the appropriate pavement materials for construction and design the pavement as per standard practices.
CO3	Conduct traffic studies and analyse traffic data for practical applications.

CO4	. Identify the Components parts of Railway Track and design the suitable runway for an Airport
CO5	Able to interpret the experimental results of highway materials based on laboratory tests and design the pavement as per IRC guidelines.
Coarse Code	**EARTH RESOURCES AND ENGINEERING LABORATORY – 21BE45**
CO1	Elucidate the basic biological concepts via relevant industrial applications and case studies
CO2	Evaluate the principles of design and development, for exploring novel bioengineering projects.
CO3	Corroborate the concepts of biomimetics for specific requirements.
CO4	Think critically towards exploring innovative biobased solutions for socially relevant problems
Coarse Code	**BUILDING MATERIALS LABORATORY- BCV404**
CO1	Analyze the physical characteristics, and behavior of common building materials.
CO2	Reproduce the basic knowledge of mathematics and engineering in finding the strength in tension, compression, shear and torsion for steel
CO3	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.
CO4	Recognize the importance of ethical conduct, integrity, and accuracy in materials testing and reporting..
Coarse Code	**BUILDING INFORMATION MODELLING IN CIVIL ENGINEERING – CV405A**
CO1	Interpret the basic principles of BIM evolution and concept of BIM in lifecycle of project
CO2	Understand the workflows of Design authoring followed in industry during creation of 3D model
CO3	Analyze the engineering analysis and the process followed in industry to check and resolve clashes
CO4	Evaluate the integration of schedule and cost in 3D model using 4D and 5D BIM
CO5	Illustrate the various emerging trends of BIM & concept of digital twin
Coarse Code	**FINANCE FOR PROFESSIONALS- BCV456A**
CO1	Understand how their work and effort contribute to organizational financial performance
CO2	Comprehend financial acumen and tools to optimize outcomes