

Third **Semester**

BTCE307A Survey Lab

CO1 Prepare the survey sheet according to the method used.

CO2 Application of theoretical considerations in field and other engineering projects.

CO3 Survey the area using different methods of plane tabling and compass survey and to adjust the compass traverse graphically.

CO4 Record the reduced levels using various methods of levelling and measurement of horizontal & vertical angles by Theodolite.

CO5 Determine the location of any point horizontally and vertically using Tachometry.

Chapter \ CO	1	2	3	4	5	6	7
CO 1		M					M
CO 2	M	M					
CO 3		M				M	
CO 4			M	M			
CO 5					M	M	

BTCE308A Workshop Training

- CO1** Useful during the field working in the industry & Civil Engineering works.
- CO2** Understand modern manufacturing operations, including their capabilities, limitations and how to design economically.
- CO3** Gain insight into how designers influence manufacturing schedule and cost, and cost of different components.
- CO4** Learn how to analyze products and be able to improve their manufacturability and make the cost effectively.
- CO5** Able to acquire skills in basic engineering practice and identify the hand tools and instruments.

BTCE311A Rock Mechanics & Engineering Geology

CO1 Appreciate importance of seismic activity considerations in a terrain.

CO2 Learn geology and its types, various structural features like folds, faults, joints, weathering etc., minerals, rocks, and rock formations in relation to civil engineering projects.

CO3 Understand various techniques to determine engineering properties of rocks etc. and distinguish the different types of rocks and minerals.

CO4 Understand various techniques to analyze and to make possible solutions for various Geological Engineering problems.

Chapter CO	1	2	3	4	5	6	7
CO 1	M						
CO 2		M	M				
CO 3				M	M		
CO 4				M		M	M

BTCE312A Principles and Economics of Management

CO1 To impart knowledge, with respect to concepts, principles and practical applications of Economics, which govern the functioning of a firm/organization under different market conditions.

CO2 To help the students to understand the fundamental concepts and principles of management; the basic roles, skills, functions of management, various organizational structures and basic knowledge of marketing.

Chapter CO	1	2	3	4	5	6	7
CO 1	M	M	M	M	M		
CO 2						M	M

BTHU-301A
(PROFESSIONAL SKILLS)

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Personality Development: General overview of Personality. Understanding Self Concept and Self esteem, Building Self Esteem, Self Confidence, Assertiveness (activity Based training) Understanding assessment of Personality.

Mental Abilities: Understanding Intelligence, emotional intelligence, successful intelligence, development of emotional intelligence.

Social Etiquettes and Personal Grooming: Importance of social image, Do's and Dont's in dressing up, Developing an Understanding of Social Etiquettes.

Communication Skills: Features of an effective Communication. Verbal and Non- verbal Communication, Understanding role of body language in effective communication.

Recommended Books:

1. Personality Development by Harold Wallace and L. Ann Masters, Cengage Learning.
2. Psychology by Baron, Prentice Hall India.
3. Educational Psychology by Anita Woolfolk, Pearson
4. Organisational behaviour by Stephen Robbins, Pearson Education.
5. Communication in organisations by Dalmer Fisher, Jaico Publishing House, New Delhi.

Fourth **Semester**

BTCE401A STRUCTURAL ANALYSIS- I

CO1 To interpret the various methods of structural displacements.

CO2 To analyse the determinate structure and its reaction diagram.

CO3 Draw the influence line diagram for rolling loads.

CO4 To compute the pressure on supporting tower, suspension bridge etc.

CO5 Calculation of loads for no tension criteria on domes chimneys and retaining walls.

Chapter CO	1	2	3	4	5
CO 1	M	M			
CO 2		M			
CO 3			M		
CO 4				M	
CO 5					M

BTCE402A CONSTRUCTION MACHINERY & WORKS MANAGEMENT

CO1 To describe the requirement of planning and management.

CO2 To recognize the critical path and pert suitability for research projects.

CO3 To determine projects schedule and estimate the activity time of CPM.

CO4 To discuss resource scheduling and planning of civil engineering Projects.

CO5 To illustrate various construction equipments and machinery, their utility.

Chapter CO	1	2	3	4	5	6	7
CO 1	M						
CO 2		M	M				
CO 3			M				
CO 4				M			
CO 5					M	M	M

BTCE403A IRRIGATION ENGINEERING

CO1 To understand various techniques and parameters of irrigation.

CO2 To analyse the design of lined canal and its problems.

CO3 Able to calculate losses in canals ,water logging Seepage force and uplift pressure using different theories of seepage.

CO4 To analyse the design and classification of river training works according to ISI recommendations.

CO5 Learn about the weirs and energy dissipating devices, Design Different cross drainage works at canals, location and necessity of canal falls.

Chapter CO	1	2	3	4	5	6	7
CO 1	M	M					
CO 2			M				
CO 3			M				
CO 4				M			
CO 5					M	M	M

BTCE404A Building Construction

CO1 Able to learn about different types of masonry bonds used in construction techniques.

CO2 To know about ill effect of dampness in construction and its remedial measures.

CO3 Able to learn about arches, lintels, roof trusses and roof covering.

CO4 To know about the various door and windows fitting techniques.

CO5 To learn about different types of flooring ,Plastering, Pointing and Painting.

Chapter CO	1	2	3	4	5	6	7	8
CO 1	M	M						
CO 2		M						
CO 3			M	M				
CO 4					M			M
CO 5						M	M	

BTCE405A Structural Analysis Lab

CO1 Knowledge of the experimental study in structural analysis helps to check the stability of various structures in the field.

CO2 Able to design and conduct experiments, as well as being able to analyze and interpret data.

CO3 Able to design a system, component, or process to meet desired needs.

CO4 Able to function in multi-disciplinary teams.

CO5 Able to identify, formulate, and solve engineering problems.

Chapter	1	2	3	4	5	6	7	8	9	10	11	12
CO 1	M	M	M									
CO 2			M	M	M							
CO 3							M	M	M			
CO 4						M						M
CO 5	M									M	M	M

BTCE 411A Geomatics Engineering

CO1 To understand the basic principles of aerial photogrammetry and its instrumental knowledge.

CO2 Illustration of different types of satellites and their characteristics.

CO3 To analysis the data based on GIS Systems and GIS errors.

CO4 Classification of Coordinate SYSTEM BASED ON GPS and its applications.

Chapter CO	1	2	3	4	5
CO 1	M				
CO 2		M			
CO 3			M		
CO 4				M	
CO 5					M

BTCE412A DISASTER MANAGEMENT

CO1 To be familiar with disasters, their types, causes disaster management.

CO2 To learn the importance of capacity building, vulnerability, Risk mapping, stages in disaster recovery and associated problems.

CO3 To gain knowledge about Emergency medical and essential public health services, response and recovery operations, reconstruction and rehabilitation, role of different agencies during disasters.

CO4 To learn the use of modern techniques like Remote Sensing Systems (RSS) and GIS in disaster Management, role of knowledge based expert systems in hazard scenario, using risks-time charts to plan for the future, early warning systems.

CO5 To learn about Planning and design of infrastructure for disaster management, Community based approach in disaster management, Lessons and experiences from various important disasters. Civil Engineering.

Chapter CO	1	2	3	4	5	6	7	8
CO 1	M	M						
CO 2			M		M			
CO 3				M				
CO 4						M		
CO 5							M	M

BTCE413A Building Maintenance

CO1 Able to explain the meaning of terms commonly used in the building maintenance.

CO2 Able to explain design and economic consideration in maintenance .

CO3 Able to make decisions about the management and maintenance of building systems.

CO4 Able to use material commonly used in the building maintenance.

CO5 To learn various tests and design considerations regarding diagnosis and repair of structure.

CO6 Able to learn various defects in buildings and their remedial measures.

Chapter CO	1	2	3	4	5	6
CO 1	M					
CO 2		M				
CO 3			M			
CO 4				M		
CO 5					M	
CO 6						M