



## Course Outcomes

Academic Year – 2023-2024

Semester: IV

Student will be able to

CO. No.	Description
<b>Course Outcomes: C221- Strength of Material II (U21CE401)</b>	
C221.1	Solve the deflection of beams subjected to various loads using different methods.
C221.2	Sketch the shear force and bending moment diagrams for fixed and continuous beams subjected to various loads.
C221.3	Solve the columns and struts using various methods.
C221.4	Solve the beams, frames and trusses by using energy methods.
C221.5	Solve the various sections for shear center subjected to unsymmetrical bending.
CO. No.	Description
<b>Course Outcomes: C222--Hydraulic and Hydraulic Machinery(U21CE402)</b>	
C222.1	Illustrate the flow through pipes and losses in pipe flow.
C222.2	Solve various engineering problems in open channels
C222.3	Describe the hydraulic jumps and its uses
C222.4	Discuss the dimensional Analysis.
C222.5	Apply their knowledge of fluid mechanics in addressing problems in hydraulic machinery
CO. No.	Description
<b>Course Outcomes: C223 – Building Materials and Construction Practices (U21CE403)</b>	
C223.1	Acquire knowledge upon properties of basic materials used in construction industry
C223.2	Gain Knowledge of good constituent's concrete required for maintaining quality standards
C223.3	Understand different types of mortars, manufacturing process of concrete and steel
C223.4	Gain knowledge on use of Timber, Paints, Varnish and Distemper and Emerging Building Materials
C223.5	Understand form work and scaffolding and miscellaneous building material
CO. No.	Description
<b>Course Outcomes: C224 – Transportation Engineering (U21CE404)</b>	
C224.1	To understand the importance of transportation and characteristics of road transport.

C224.2	To know about the history of highway development, surveys and classification of roads
C224.3	To study about the geometric design of highways.
C224.4	To study about traffic characteristics and design of intersections
C224.5	To know about the pavement materials and design.
CO. No.	Description
<b>Course Outcomes: C225 –English for Technical Communicatio(U21EN401)</b>	
C225.1	Apply technical communication skills effectively
C225.2	Adapt different types of official correspondence.
C225.3	Construct report writing using various techniques
C225.4	Develop adequate skills of manual writing
C225.5	Interpret the information transfer from verbal to non-verbal data and vice-versa
CO. No.	Description
<b>Course Outcomes: C226-Advance Communication Skills Lab (U21EN4L1)</b>	
C226.1	Organize ideas relevantly and coherently in their communication.
C226.2	Analyze and comprehend the text inferentially.
C226.3	Write Resume/CV and Cover letter effectively.
C226.4	Practice oral presentations confidently.
C226.5	Participate in group discussion dynamically and face interviews optimistically.
CO. No.	Description
<b>Course Outcomes: Hydraulics and Hydraulic Machinery Lab C227- (U21CE4L1)</b>	
C227.1	Competence in understanding flow phenomenon in open channels.
C227.2	Ability to analyze the force acting due to jets concept and its application in hydraulic machines.
C227.3	Competence in working principles of hydraulic pumps and turbines.
C227.4	To interpret the results obtained in the laboratory for various experiments.
C227.5	Get the knowledge on different hydraulic machinery and write a technical laboratory report.
CO. No.	Description
<b>Course Outcomes: Transportation Engineering LabC228 – (U21CE4L2)</b>	
C228.1	Understand the characteristics of Bitumen by performing basic tests
C228.2	Understand the characteristics of Coarse Aggregate used in pavements by performing basic tests.
C228.3	Collect traffic data by conducting traffic volume studies at intersections and sections of roads.
C228.4	Analyze traffic flow characteristics from the collected traffic data.
C228.5	Select suitable software to analyze the level of service and delays for peak hour.
CO. No.	Description

**Course Outcomes: C229 – Programming Language II  
Lab(U21CS4L3)**

C229.1	Develop python programs using library modules.
C229.2	Able to implement python programs using pandas.
C229.3	Develop python programs using Mat plot lib Module.
C229.4	Write, Test, Debug python library modules.
C229.5	Debug python image programs using various modules.



## Course Outcomes

Academic Year – 2022-2023

Semester: VII

Student will be able to

CO. No.	Description
<b>Course Outcomes:C321 – Geotechnical Engineering (U21CE601)</b>	
C321.1	Identify and classify the soil and their index properties.
C321.2	Calculate the capillarity and permeability parameters of soils
C321.3	Describe the mechanisms of the process of compaction and consolidation of soils,
C321.4	Evaluate the characteristics of compaction and consolidation of soils
C321.5	Analyze the soils for their shear strength and predict the stability of slopes
C321.6	Evaluation of maximum dry density at optimum moisture content
CO. No.	Description
<b>Course Outcomes:C322 – Design of reinforced concrete structures (U21CE602)</b>	
C322.1	Analyze and design a single reinforced section by applying the design philosophy of working and Limit state method of Design
C322.2	Analyse and design a doubly reinforced section, Tee section and apply check for deflection
C322.3	Analyse and design a section subjected to shear and Torsion, and apply check for development length
C322.4	Analyse and Design one way and two-way slabs
C322.5	Analyse and design of columns and Footings
CO. No.	Description
<b>Course Outcomes: C323 – Structural Analysis-II (U21CE603)</b>	
C323.1	Use various classical methods for analysis of indeterminate structures
C323.2	Analyse the structure using flexibility matrix method to calculate the Redundant forces and sketch the BMD and SFD
C323.3	Analyse the structure using Stiffness matrix method to calculate the Redundant forces and sketch the BMD and SFD
C323.4	Analysis of Building frames subjected to Lateral loads,
C323.5	Develop Stiffness matrix using Direct Element method for indeterminate structures
CO. No.	Description
<b>Course Outcomes: C324 – Construction Project and Planning (U21CE604)</b>	
C324.1	Apply construction practices and management systems to construction projects
C324.2	Apply various resource management techniques in construction projects
C324.3	Apply project management software for resource optimization in construction projects

C324.4	Apply optimization techniques in monitoring and control of construction projects
C324.5	Apply current construction practices in the management of infrastructure projects
<b>CO. No.</b>	<b>Description</b>
<b>Course Outcomes:C325 Fundamental of Power Electronics (U21EE608)</b>	
C325.1	Understand the characteristics and performance of various power electronic devices.
C325.2	Analyze single phase controlled rectifier circuits.
C325.3	. Understand choppers circuits and AC voltage controllers
C325.4	Understand the performance of chopper circuits.
C325.5	Analyze the VI characteristics of SCR and TRIAC
<b>CO. No.</b>	<b>Description</b>
<b>Course Outcomes:C326 – Computer Aided Civil Engg Drafting Lab (U21CE6L1)</b>	
C326.1	Comprehend the basic principles of building planning and drawings as per codal provisions
C326.2	Apply the tools of AUTOCAD software to prepare structural drawings of various building components
C326.3	Prepare plan, elevation and sectional drawings of residential buildings in AutoCAD software
C326.4	Execute plan, elevation and sectional drawings of hostel, hospital, school buildings in AutoCAD software.
C326.5	Develop any type of building drawing using CADD software
<b>CO. No.</b>	<b>Description</b>
<b>Course Outcomes:C327 – Geotechnical Engineering Lab(U21CE6L2)</b>	
C327.1	Understand the broad principles of Soil Mechanics in Laboratory.
C327.1	Characterize and classify the soils in Laboratory
C327.1	Able to estimate seepage, stresses under various loading conditions and compaction characteristics in Laboratory.
C327.1	Analyse the compressibility of the soils in Laboratory
C327.1	Understand the strength of soils under various drainage conditions in Laboratory
<b>CO. No.</b>	<b>Description</b>
<b>Course Outcomes:C328– Research Writing Lab (U21EN6L1)</b>	
C328.1	. Demonstrate the ethics and nuances of plagiarism

C328.2	Construct the topic of research and formulate hypothesis
C328.3	Analyze the research process elaborately
C328.4	Organize and rephrase the data in a sequential order as per forma
C328.5	Interpret the data by the use of methodology and discussion
<b>CO. No.</b>	<b>Description</b>
<b>Course Outcomes:C329- Seminar (U21CE6L3)</b>	
C329.1	Understand the current needs of the industry.
C329.2	Understand techniques, processes and tools used in the industry
C329.3	Prepare technical report on an industrial project
C329.4	Present the technical experience at an industry or through the mini-project
C329.5	Present the importance of delivering the content

**Course Outcomes****Academic Year – 2023-2024****Semester: VIII (OU)****Student will be able to**

<b>CO. No.</b>	<b>Description</b>
<b>Course Outcomes: C421 – Constitution of India (MC801PO)</b>	
C421.1	Know the background of the present constitution of India.
C421.2	Understand the working of the union, state and local levels.
C421.3	Gain consciousness on the fundamental rights and duties.
C421.4	Able to understand the functioning and distribution of financial resources between the center and states.
C421.5	Exposed to the reality of hierarchical Indian social structure and the ways the grievances of the deprived sections can be addressed to raise human dignity in a democratic way.
<b>CO. No.</b>	<b>Description</b>
<b>Course Outcomes: C422– Principles of Climate Change (PE525CE)</b>	
C422.1	Define the impacts of climate change on natural environment
C422.2	Explain the fundamentals of global water balance.
C422.3	Explain about climate changes and its impact on climate especially hydrology
C422.4	Brief introduction of climate modelling especially using statistical downscaling techniques
C422.5	Bias correction methods in climate science.
<b>CO. No.</b>	<b>Description</b>
<b>Course Outcomes: C423 Smart Building Systems (OE605EE)</b>	
C423.1	Describe the basic blocks and systems for building automation
C423.2	Use different subsystems for building automation and integrate them
C423.3	Understand basic blocks and systems for building automation
C423.4	Design different systems for building automation and integrate those systems
<b>CO. No.</b>	<b>Description</b>
<b>Course Outcomes: C424 – Project Work (PW704CE)</b>	
C424.1	Analyze the specific problem using engineering knowledge to arrive at a solution methodology.
C424.2	Formulate an investigation procedure and analyze, interpret, and synthesize the obtained data using a laboratory procedure and/or modern engineering software and tools.
C424.3	Draw valid conclusions and engineering solutions including design, recommendations, or estimations, keeping in view the safety norms and regulations in codes of practice.
C424.4	Discuss and communicate in oral and written forms, the technical contents of the project, observing professional ethical principles of documentation.
	Demonstrate individual and teamwork skills in carrying out and managing the project work.