

## DEPARTMENT OF CIVIL ENGINEERING

### COURSE OUTCOMES SUMMARY SHEET

#### 6<sup>TH</sup> SEM

On successful completion of this course, students should be able to

Course	COURSE OUTCOMES	
C311. Structure Engineering Design -II	C311.1	<b>Differentiate</b> between plastic and elastic analysis. (Level-4 )
	C311.2	<b>Appraise</b> various design philosophies used in structure engineering design. (Level-4 )
	C311.3	<b>Analyze</b> and <b>design</b> simple bolted and welded connections subjected to axial load. (Level-4,5)
	C311.4	<b>Analyze</b> and <b>design</b> axially loaded Tension member and compression member using limit state method. (Level-4,5 )
	C311.5	<b>Analyze</b> and <b>design</b> Laterally Supported and Laterally Unsupported Beams using limit state method. (Level-4,5 )

On successful completion of this course, students should be able to

Course	COURSE OUTCOMES	
C312. Environment Engineering	C312.1	<b>Apply</b> the knowledge to plan, <b>design, construct</b> and <b>monitor</b> a waste water treatment plant.( Level - 3)
	C312.2	<b>Summarize</b> complexities in the characteristics of water/ waste water i.e. available and correct treatment method.( Level -2)
	C312.3	<b>Justify</b> the pattern of water storage and recommend the correct distribution methods suitable for the city.( Level -6 )
	C312.4	<b>Analyze</b> the wastes coming in for treatment and <b>decide</b> upon the techniques of treatment to be given.( Level -4 )
	C312.5	<b>Apply</b> the knowledge reused to <b>develop</b> a positive attitude to earth, Environment and its protection against pollution and adopt safer methods.( Level -3, 5)



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Course	COURSE OUTCOMES	
C313. Engineering Economics Estimation & Costing	C313.1	<b>Explain</b> Estimation including its types, general terms used in construction, purpose and various methods. <b>(Level-2 )</b>
	C313.2	<b>Explore</b> the concepts of detailed estimate of Buildings, scheduled of RCC building components Road Earthwork and Canal. <b>(Level-2 )</b>
	C313.3	<b>Analyse</b> the Rates of different construction works by using thumb rules with current schedule of rates and specify the Acts pertaining to minimum wages. <b>(Level-4 )</b>
	C313.4	<b>Illustrate</b> the contracts, related conditions, termination of contracts, brief idea about tender and it's documents. <b>(Level-5 )</b>
	C313.5	<b>Explain</b> the importance of engineering economics in construction industry, cost control techniques and valuation of properties. <b>(Level-2)</b>

On successful completion of this course, students should be able to

Course	COURSE OUTCOMES	
C314. Concrete Technology	C314.1	<b>Discuss</b> the concrete making materials.(level 2)
	C314.2	<b>Distinguish</b> admixtures and <b>interpret</b> the property of Fresh concrete (level 2,3)
	C314.3	<b>Analyze</b> the hardened concrete and durability. (level 4)
	C314.4	<b>Develop</b> concept of concrete mix design. (level 5)
	C314.5	<b>Show</b> property & need of special concrete & concreting method. (level 3)

On successful completion of this course, students should be able to

Course	COURSE OUTCOMES	
C315 Construction Engineering & Management	C315.1	<b>Understand</b> the fundamentals of construction, including project types, phases, and resource management.(level 2)
	C315.2	<b>Apply</b> project planning techniques to develop construction schedules and plans.(Level 3)
	C315.3	<b>Analyze</b> various construction methods and equipment for effective project execution.(level 4)
	C315.4	<b>Explain</b> project monitoring and control methods to ensure project quality and safety.(level 5)
	C315.5	<b>Describe</b> effective contract management strategies to handle construction project disputes and cost management.(level 1)

On successful completion of this course, students should be able to

Course	COURSE OUTCOMES	
C316. Structural Engg.Lab	C316.1	<b>Analyze</b> and <b>interpret</b> results of design packages. (Level- 3,4)
	C316.2	<b>Design</b> RCC Frames using design package. (Level-5)
	C316.3	<b>Design</b> RCC Column and Isolated Footing using design package. (Level-5)
	C316.4	<b>Design</b> RCC Multistoried structure subjected to various types and combinations of load using design package. (Level-5)
	C316.5	<b>Design</b> Steel frames subjected to various types and combinations of load using design package. (Level-5)



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Course	COURSE OUTCOMES	
C317. Environmental Engg.	C317.1	<b>Determine</b> the pH using pH meter, acidity and alkalinity in a water/ waste water sample.( Level-4 )
	C317.2	<b>Find</b> hardness And turbidity in water/waste water using turbidity meter.( Level -4)
	C317.3	<b>Determine</b> the chloride content in various water/wastewater samples.( Level -4)
	C317.4	<b>Determine</b> the D.O. content in any water/wastewater samples.( Level -4)
	C317.5	<b>Compare</b> the BOD and COD values for a given sewage /industrial waste water sample in BOD incubator.( Level -2)

On successful completion of this course, students should be able to

Course	COURSE OUTCOMES	
C318 . Computer Aided Civil Engg. Drawing lab	C318 .1	<b>Use</b> the AutoCAD Interface & Commands. (Level- 3)
	C318 .2	<b>Sketch</b> Single Line Plan Of Various Structures. (Level- 3)
	C318 .3	<b>Draw</b> the Plan & Cross-Section Of Foundation. (Level- 3)
	C318 .4	<b>Draw</b> Working Drawing of Residential Buildings. (Level- 3)
	C318 .5	<b>Draw</b> The Different Perceptive View In Software. (Level-3 )



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Course	COURSE OUTCOMES	
C319. Concrete Technology Lab	C319.1	<b>Discuss</b> the concrete making materials.(level 2)
	C319.2	<b>Distinguish</b> admixtures and <b>interpret</b> the property of Fresh concrete (level 2,3)
	C319.3	<b>Analyze</b> the hardened concrete and durability. (level 4)
	C319.4	<b>Develop</b> concept of <b>concrete</b> mix design. (level 5)
	C319.5	<b>Show</b> property & need of special concrete & concreting method. (level 3)