

## CIVIL ENGINEERING DRAWING LABORATORY

<b>III Semester: CE</b>								
Course Code	Category	Hours / Week			Credits	Maximum Marks		
ACEB04	Core	L	T	P	C	CIA	SEE	Total
		3	-	-	3	30	70	100
<b>Contact Classes: Nil</b>		<b>Tutorial Classes: Nil</b>		<b>Practical Classes: 36</b>			<b>Total Classes: 36</b>	
<p><b>COURSE OBJECTIVES:</b></p> <p><b>The course should enable the students to:</b></p> <p>I. Develop Parametric design and the conventions of formal engineering drawing</p> <p>II. Produce and interpret 2D &amp; 3D drawings</p> <p>III. Communicate a design idea/concept graphically/ visually</p> <p><b>COURSE LEARNING OUTCOMES (CLOs):</b></p> <ol style="list-style-type: none"> <li>1. Draw the load bearing walls including details of the doors and windows.</li> <li>2. Draw the two storied building including all MEP, Joinery and rebar details.</li> <li>3. Draw the detailed floor plans and elevations.</li> <li>4. Understand the sectional views of a building for RCC framed buildings.</li> <li>5. Draw the reinforcement details of typical Beams.</li> <li>6. Draw the reinforcement details of typical Columns.</li> <li>7. Draw the reinforcement details of typical slabs.</li> <li>8. Draw the typical reinforcement details of typical Spread footings.</li> <li>9. Draw the detailing of north light roof structures.</li> <li>10. Draw the detailing of Trusses.</li> <li>11. Draw the perspective view of one storey building..</li> <li>12. Draw the perspective view of two storey building.</li> </ol>								
<b>Week-1</b>	<b>BUILDINGS</b>							
<p>Batch-I: Load bearing walls including details of doors and windows.</p> <p>Batch-II: Load bearing walls including details of doors and windows.</p>								
<b>Week-2</b>	<b>STAND DRAWING</b>							
<p>Batch-I: Typical two storied building including all MEP, joinery, rebars, finishing and other details.</p> <p>Batch-II: Typical two storied building including all MEP, joinery, rebars, finishing and other details.</p>								
<b>Week-3</b>	<b>RCC FRAMED STRUCTURES-1</b>							
<p>Batch-I: Floor plans, Elevations.</p> <p>Batch-II: Floor plans, Elevations.</p>								
<b>Week-4</b>	<b>RCC FRAMED STRUCTURES-2</b>							
<p>Batch-I: Sectional views.</p> <p>Batch-II: Sectional views.</p>								

<b>Week-5</b>	<b>REINFORCEMENT DRAWING-1</b>
Batch-I: Typical beams. Batch-II: Typical beams.	
<b>Week-6</b>	<b>REINFORCEMENT DRAWING-2</b>
Batch-I: Typical Columns. Batch-II: Typical Columns	
<b>Week-7</b>	<b>REINFORCEMENT DRAWING-3</b>
Batch-I: Typical Slabs. Batch-II: Typical Slabs.	
<b>Week-8</b>	<b>REINFORCEMENT DRAWING-4</b>
Batch-I: Typical Spread footings. Batch-II: Typical Spread footings.	
<b>Week-9</b>	<b>INDUSTRIAL BUILDINGS-1</b>
Batch-I: North light roof structures. Batch-II: North light roof structures.	
<b>Week-10</b>	<b>INDUSTRIAL BUILDINGS-2</b>
Batch-I: Trusses. Batch-II: Trusses.	
<b>Week-11</b>	<b>PERSPECTIVE VIEW-1</b>
Batch-I: One storey buildings. Batch-II: One storey buildings.	
<b>Week-12</b>	<b>PERSPECTIVE VIEW-2</b>
Batch-I: Two storey buildings Batch-II: Two storey buildings	

**Manuals:**

1. Bhash C Sharma & Gurucharan Singh, "Civil Engineering Drawing", Standard Publishers, 2005.
2. Ajeet Singh, "Working with AUTOCAD 2000 with updates on AUTOCAD 2001", Tata- Mc Graw-Hill Company Limited, New Delhi, 2002.
3. Sham Tickoo Swapna D, "AUTOCAD for Engineers and Designers", Pearson Education, 2009.
4. Venugopal, "Engineering Drawing and Graphics + AUTOCAD", New Age International Pvt. Ltd., 2007.
5. Balagopal and Prabhu, "Building Drawing and Detailing", Spades publishing KDR building, Calicut, 1987.
6. Malik R.S., Meo, G.S., "Civil Engineering Drawing", Computech Publication Ltd New Asian, 2009.
7. . Sikka, V.B., "A Course in Civil Engineering Drawing", S. K. Kataria & Sons, 2013.

**Web References:**

1. [http://www.aust.edu/civil/lab\\_manual/ce\\_100.pdf](http://www.aust.edu/civil/lab_manual/ce_100.pdf).
2. <https://www.wiziq.com/tutorials/civil-engineering-drawing>.
3. <http://civilengineering-notes.weebly.com/building-drawing.html>.

**E-Text Books:**

1. <https://www.wiziq.com/tutorials/civil-engineering-drawing>.
2. <http://civilengineering-notes.weebly.com/building-drawing.html>.
3. <https://www.pdfdrive.com/civil-engineering-drawing-books.html>.