

|| Jai Sri Gurudev||  
**Sri Adichunchanagiri Shikshana Trust (R)**  
**ADICHUNCHANAGIRI UNIVERSITY**  
**BGS Institute of Technology**

**B. E. CIVIL ENGINEERING**  
**Choice Based Credit System (CBCS) and Outcome Based Education (OBE)**

18CVL58	Course Code	CONSTRUCTION PRACTICE LAB	Course Title	V	Semester
2	Credits	1 – 0 – 2 – 3	L – T – P-TL*	42 Hours	Teaching Period
100 Marks	Total	60 Marks	SEE*	40 Marks	CIE*
*NOTE: L – Lecture; T – Tutorial; P – Practical; TL – Total; CIE – Continuous Internal Evaluation; SEE – Semester End Examination					

<p><b>Course Learning Objectives:</b>  This course will enable students to;</p> <ol style="list-style-type: none"> <li>To give idea of basic setting out operations and construction of masonry units.</li> <li>To estimate the quantity of steel reinforcement required for different elements of work</li> <li>To realize the importance of form work, scaffolding and shuttering</li> <li>To give basic idea of measurement of painting and plastering.</li> </ol>	<p><b>Number of Lecture Hours/Week</b></p>
<p><b>Experiments:</b></p> <ol style="list-style-type: none"> <li>Study of construction tools used in construction.</li> <li>Demonstration of safety kits and accessories used at construction site.</li> <li>Setting out centre line for a small building, and estimate the quantity of earth Work.</li> <li>Construct One brick thick wall in English bond to a height of one meter in Cement mortar.</li> <li>Construct one and half thick brick wall in English bond to a height of one Meter in cement mortar.</li> <li>Construct One and half thick brick wall in Flemish bond to a height of one Meter in cement mortar.</li> <li>Construct One and half thick brick wall in Flemish bond to a height of one meter in cement mortar.</li> <li>Plastering for a new masonry wall surface (1 square meter area) with CM (1:6)</li> <li>Laying of interlocks for one square meter area using CM(1:6)</li> <li>Measurement of plastering work for the given existing building.</li> <li>Measurement of painting work for the given existing building.</li> <li>Prepare Bar bending schedule &amp; Fabrication of reinforcements for a Singly and Doubly Reinforced beam.</li> <li>Prepare Bar bending schedule &amp; Fabrication of reinforcements for a One way and Two way slab.</li> <li>Prepare Bar bending schedule &amp; Fabrication of reinforcements for a lintel with chejja.</li> <li>Prepare Bar bending schedule &amp; Fabrication of reinforcements for a column with footing.</li> </ol>	<p><b>03 = (1 Hour Instruction + 2 Hours Laboratory)</b></p>

**Course outcomes:**

After a successful completion of the course, the student will be able to:

1. Plan setting out operations effectively, estimate the amount of earth work and use various tools and safety equipments.
2. Construct basic types of brick masonry arrangements and calculate the quantity of materials.
3. Prepare bar bending schedules and estimate the quantity of steel required for various elements.
4. Perform plastering, laying of interlocks works carried out at site.
5. Measure painting and plastering works for the existing building.

**Question paper pattern:**

- Group experiments –Experiment numbers 3,4,5,6,7,8 and 9
- Two questions are to be set - One from group experiments and the other as individual experiment.
- Instructions as printed on the cover page of answer script for split up of marks to be strictly followed.
- All exercises are to be included for practical examination.

**Reference Books:**

1. A textbook of Building construction - Bindra & Arora (Dhanpat Rai & Sons Delhi - 6)
2. A text book of Building construction - Sushil Kumar (Standard publishers)
3. S.P.34 BIS Publication
4. A text book of Structural Design & Drawing - Singh (India publishing house)
5. A text book of Practical Building construction - Mantri (Mantri publications)
6. Plumbing by A. Johnson
7. Plumbing instruction and design by L.V. Ripka
8. Plumbing by Harald E Babit
9. Plumbing by John H Inns