

|| 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)

18CVL46	Course Code	COMPUTER AIDED BUILDING PLANNING & DRAWING II	Course Title	IV	Semester
02	Credits	1 – 0 – 2 – 2	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>Course Learning Objectives: This course will enable students to; Achieve skill sets to prepare computer aided engineering 2D and 3D drawings. Understand the details of construction of different civil structural elements. 3. To understand concept of SFD and BMD.</p>	Number of Lecture Hours/Week
<p>Experiments: Module 1 Following drawings are to be prepared for the data given using AutoCAD</p> <ol style="list-style-type: none"> 1. Submission Drawings for Approval. 2. Preparation of Layout Development Plan. 3. Layouts of Water Treatment Plant, Rainwater Harvesting. <p>Module 2 3D Commands of AutoCAD</p> <ol style="list-style-type: none"> 1. Use 3D commands to generate 3D view from 2D drawing 2. Prepare 3D drawings – 3D Solids – Sphere , box, cylinder, cone, wedge 3. Perform rendering/shading on 3D drawings – Hide, render and shade of 3D drawings <p>Module 3 Use of EXCEL in Civil Engineering Problems Use of spread sheet for the following civil engineering problems</p> <ol style="list-style-type: none"> 1. SFD and BMD for Cantilever and simply supported beam subjected to uniformly distributed and uniformly varying load acting throughout the span 2. Computation of earthwork 3. Design of horizontal curve by offset method 	03 = (1 Hour Instruction + 2 Hours Laboratory)

4. Design of super elevation

Course outcomes:

1. Know the procedures of submission of drawings and Develop working and submission drawings for building.
2. Apply basic CAD command to develop 3D drawings using AutoCAD.
3. Know the basics of Excel to solve Civil Engineering Problems.

Program Objectives

- Engineering knowledge
- Problem analysis
- Interpretation of data

Question paper pattern:

- There will be two full questions from Module 1 with each full question carrying forty marks. Students have to answer any one question.
- There will be two full questions from Module 2 with each full question carrying thirty marks. Students have to answer any one question.
- There will be two full questions from Module 3 with each full question carrying thirty marks. Students have to answer any one question.

Textbooks:

- Computer Aided Design Laborator- Dr M.N.Shesha Prakash, Dr.G.S.Suresh, Lakshmi Publications
2. CAD Laboratory- M.A.Jayaram, D.S.Rajendra Prasad- Sapna Publications
 3. AUTOCAD 2002- Roberts JT, -BPB publications
 4. AUTOCAD 2004- Sham Tickoo, A beginner's Guide, Wiley Dreamtech India Pvt Ltd.,
 5. Learning Excel 2002- Ramesh Bangia, -Khanna Book Publishing Co (P) Ltd.,
 6. Microsoft Excel- Mathieson SA, Starfire publishers.