

SUBJECT TITLE : COMPUTER APPLICATIONS LAB -I
SUBJECT CODE : 403
COURSE CATEGORY : A
PERIODS/WEEK : 3
PERIODS/SEMESTER : 54
CREDITS : 2

TIME SCHEDULE

MODULE	TOPIC	PERIODS
I	Usage of CAD Package	11
II	Structural detailing using CAD	14
III	Usage of 3D modeling packages	13
IV	Usage of electronic spread sheet	16
	TOTAL	54

Rationale

The usage and knowledge of advanced packages in Civil Engineering is an essential for the students in their carrier and profession

OBJECTIVES

I.1 Using CAD Package

- 1.1.1 Revision to Computer Aided Drafting -
Develop advanced 3-D drawings and obtain different views including perspective view.

2.1 Structural detailing using CAD

- 2.1.1 Develop the Drawing depicting the reinforcement details of typical elements beams, slabs, columns and footing – simply supported and continuous beams and slabs.
- 2.1.2 Plot the building drawings suitably brought onto a standard paper size with suitable title block using paper space and model space.

3.1 Using 3D modeling package

- 3.1.1 Rendering of a 3D model

4.1 Using Electronic Spreadsheet

- 4.1.1. Carryout typical problem involving analysis and design problems for subjects like theory of structure, Hydraulics, Design of structures, etc., for obtaining the results for various data.
Prepare detailed data for selected items of building works
- 4.1.2 To tabulate the observations and obtain the relevant calculations and graph if any by using the data from the Civil Engineering laboratories

Note : Use of Free & Open Source Software to be promoted to the maximum extent.

REFERENCES

1. AutoCAD - By Dayanithi, TTTI, Chennai.
2. Computer Application Course material prepared by TTTI, Chennai.
3. Autocad 2006- George Omuru-BPB publications