BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE-PILANI
HYDERABAD CAMPUS
ACADEMIC UNDERGRADUATE STUDIES DIVISION
Second Semester 2022-23

Course Handout (Part II)

Date: 16/1/2023

In addition to part I (General Handout for all courses appended to the time table) this portion gives further specific details regarding the courses.

Course No	**:**	**BITS F110**
Course Title	**:**	ENGINEERING GRAPHICS
Instructor-in-charge	**:**	Arkamitra Kar
Team of Instructors	**:**	**Dr. Mohan SC, Dr. Arshad Javed**, K Prudviraj, Sk Abdul Kaium, Vemu Sahithi, Krishnendu S, Vijay Krupaker M, Pichika S V V S Narayana, Naveed Farooz, Dr. Raghu Piska, K Ramesh, Boyina Kalyan, Meenu Krishnan, Renuka P Rekhade, Gowlla Jyothsna, Anna Maria Shajan, Jakkam Leela Krishnan, B Radha Kiranmaye, M Abhinav, Md Zabiullah, Dr. K Rajitha, Ambili P, Navaneetha E, Sk Rahaman, Balija Upendra

1. Course Description

Introduction to AutoCAD commands, simple drawings, orthographic projections, projections of points, lines, planes; auxiliary projections; projections and sections of solids; development of surfaces; isometric projections.

2. Scope and objective of the course:

Engineering Graphics is the primary medium for development and communicating design concepts. Through this course, the students are trained in Engineering Graphics concepts with the use of AutoCAD. The latest ISI code of practice is followed. Computerized drawing is an upcoming technology and provides accurate and easily modifiable graphics entities, easy data storage and retrieval facility and enhances creativity.

3. Text Book:

1. D.M. Kulkarni, A.P. Rastogi, and A.K. Sarkar., *Engineering Graphics with AutoCAD*, PHI Learning Private Limited, New Delhi 2009.

4. Reference Books:

1. Dhananjay A Jolhe, *Engineering Drawing: With an Introduction to AutoCAD*, Tata McGraw Hill, 2008.
2. Warren J. Luzadder & Jon M. Duff, *Fundamentals of Engineering Drawing*, 11th edition, Prentice Hall of India, New Delhi.
3. N.D.Bhatt & V.M.Panchal, Engineering Drawing, Charotar Publishing House, 2006.

5. Course Plan

Lecture No.	Learning Objectives	Topics to be covered	Practical Classes	Chapter in the Text Book
1-2	Introduction to AutoCAD	Basic commands	3	1 & 2
3-4	Orthographic projections	Theory, techniques, first and third angle projections, Multi view drawing from pictorial views.	2	3 & 5
5	Projections of Points and Lines	Positions, notation system, and projections procedure	-	9
6-7	Projections of Lines	Positions, terms used, different cases, traces of a line and projections procedure	2	9
8	Projections of Planes	Positions, terms used, different cases, traces of a line and projections procedure	1	10
9-10	Projections of Solids and Sections of Solids	Construction of right, regular, oblique solids; section planes and sectional view.	2	12 & 13
11-12	Development of surfaces	Radial line, parallel line; anti-development	1	14
13-15	Isometric Projection	Theory of isometric drawing, construction of isometric projection from orthographic.	2	6

6. Evaluation Scheme:

EC No.	Evaluation component	Duration	Weightage (%)	Date, Time	Nature of Component
1	Mid sem test (CBT)	90 min	30	As per Time Table	Closed Book
2	Comprehensive Test (CBT)	120 min	35	As per Time Table	Closed Book
	Assignments	-	20	Once a week	Open Book
2	Tutorials	-	15	Once a week	Open Book

CBT – Computer Based Test

7. Chamber Consultation Hours: Please email the IC/ the tutorial batch in-charge/ practical batch in-charge for fixing any appointment or issues.

8. Notices: Concerned notices will be displayed on Google Classroom and / or CMS

9. Make – up policy:

Make-up for practical classes will be granted only for medical reasons or family emergencies. For medical cases, a certificate from the physician of the Institute Medical Centre must be produced. Request for evaluation of makeup should be made to the practical section in-charge of the immediate subsequent practical class which is attended.

10.Academic Honesty and Integrity Policy: Academic honesty and integrity are to be maintained by all the students throughout the semester and no type of academic dishonesty is acceptable.

INSTRUCTOR-IN-CHARGE (BITS F110)