Birla Institute of Technology & Science, Pilani
Hyderabad Campus

Second Semester 2023-24

Course Handout (Part II)

Date: 09/01/2024

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

Course No	**:**	**BITS F110**
Course Title	**:**	ENGINEERING GRAPHICS
Instructor-in-charge	**:**	**AnasuaGuhaRay**
Team of Instructors	**:**	Vasan A., Abhishek Sarkar,K. Rajitha, ChanduParimi, Navaneetha A., Ambili P., Arnab Guha, Arshad Javed, M. Abhinav, VemuSahiti, K.S. Deepak, MdIkramullah Khan, Ishant Sharma, Radha, Kiranmaye B., Raghuram A., Arnab Guha, Ashish Saurabh, FizaZahoor Malik, Raghu Piska, MdZabiulla, Dilwaiz Ali, GowllaJyothsna, J. LeelaKishan, P RamyaPriya, Sk Abdul Kaium, Anuradha Tiwari, BalijaUpendra, Chirdeep NR, Dole Mahesh, Kushagra Pandey, MrinmoySaha, Vijay Krupaker M., Akashjyoti Barman, Maryada Sinha, MuddasaniRajkumar, Deepjyoti Deb, Himanshu Shukla, Renuka P. Rekhade

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 that 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	Introduction to EG	Basic concepts and Handout discussions	-	1
2-3	Introduction to AutoCAD	Basic commands	3	1 & 2
4-5	Orthographic projections	Theory, techniques, first and third angle projections, Multi view drawing from pictorial views.	2	3 & 5
6-7	Projections of Points and Lines	Positions, notation system, and projections procedure, Positions, terms used, different cases, traces of a line and projections procedure	2	9
8	Projections of Lines	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	Development of surfaces	Radial line, parallel line; anti-development	1	14
12-13	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)	60 min	20	16/03 - 9.30 - 11.00AM	Closed Book
2	Comprehensive Test (CBT)	90 min	30	20/05 FN	Closed Book
3	Practical (CAD Software)	-	30	Once a week	Open Book
4	Tutorial	-	20	Once a week	Open Book

CBT – Computer Based Test

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

8. Notices: Concerned notices will be displayed on CMS

9. Make–up policy:

Make-up for tutorial and practical class will be granted only on genuine reasons (medical cases who are admitted in the hospital, intercollegiate activities permitted by SWD and important family function of direct blood relations). Request for evaluation of makeup should be made to the concerned practical and tutorial section in-charges on the proforma in 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.

Prof. **AnasuaGuhaRay**
INSTRUCTOR-IN-CHARGE
BITS F110