GOVERNMENT POLYTECHNIC, PURI
LESSON PLAN OF 2nd SEMESTER (2021-22) CIVIL ENGINEERING

Discipline: **CIVIL ENGG.**	Semester: 2nd	Name of the Teaching Faculty: **Mr. TAPAN KUMAR MOHAPATRA**
Subject: **ENGINEERING DRAWING (PR-3A)**	No. of days/per week class allotted: 06	Semester From date: 14.03.2022 To Date: 18.06.2022 No. of Weeks:14
PRE-REQUISITE	Basic knowledge about Engg. Drawings,AutoCAD	
COURSE OUTCOMES	After completion of the study of Engg. Drawing the student should be able to 1. Understand the importance of Engineering Drawing. 2. Demonstrate the use of different drawing instrument. 3. Make free hand lettering and numbering. 4. Practice of dimensioning of drawing. 5. Undertake different geometric constructions, projections of straight line, planes and solids. 6. Take up different orthographic projections. 7. Draw sectional views, development of surface of different solids. 8. Develop the concept of building drawing. 9. Prepare 2D engineering drawing using Auto CAD software.	

Week	Class day	Practical Topics	Delivery Method
1ST	1ST	**1. INTRODUCTION & DEMONSTRATION** 1.1 Identify various sizes of drawing boards, drawing sheets as pr BIS.	Whiteboard
	2ND	1.2 List the types of pencils, instruments, and scales (RF).	Demonstration
	3RD	1.3 Demonstrate lying of drawing sheet, margin, standard layout and title block as per BIS, folding principle of drawings (blue prints, print outs etc).	Whiteboard
	4TH	**2. TYPES OF LINES, LETTERING & DIMENSIONING** 2.1 Demonstrate and explain the use of various types of lines.	Whiteboard
	5TH	2.2 Demonstrate the principle of single stroke,gothic lettering & numerals as per BIS.	Demonstration
	6TH	**Drawing Practice**	
2ND	1ST	**3. SCALES** 3.1 Significance of scales in drawing; different scales.	Demonstration
	2ND	3.2 Define and draw plain scale and diagonal sale	Whiteboard
	3RD	**Drawing Practice & ED Sheet Submission**	
	4TH	**4. CURVES** 4.1 Explain Conic sections with illustration, Explain terms like focus, vertex, directrix and eccentricity.	Demonstration
	5TH	4.2 Draw conics sections by eccentricity method – Ellipse, Parabola and Hyperbola.	Whiteboard
	6TH	4.3 Draw Ellipse by concentric circle method sand arc of cicle method.	Whiteboard
3RD	1ST	4.4 Draw parabola by Rectangle Method and Tangent Method.	Whiteboard
	2ND	**Drawing Practice**	
	3RD	**ED Sheet Submission & Viva -voce**	
	4TH	**5. OTHOGRAPHIC PROJECTIONS** 5.1 Demonstrate the principles of 1 st angle	Whiteboard
	5TH	And 3 rd angle projections with the help of models and draw symbols.	Whiteboard
	6TH	5.2 Draw projection of points.	Whiteboard
4TH	1ST	**Drawing Practice**	
	2ND	5.3 Draw projection of straight line parallel to both planes, parallel to one and perpendicular to other,	Whiteboard
	3RD	**Drawing Practice**	

CO 1. Compute the force, moment & their application through solu...

	1ST	**Drawing Practice**	
	2ND	**Drawing Practice**	
	3RD	**Drawing Practice**	
	4TH	**ED Sheet Submission**	
	5TH	**ED Sheet Submission**	
	6TH	**Viva -voce**	
13TH	1ST	**9. PRACTICES ON AUTO CAD** 9.1 Introduction	Whiteboard
	2ND	Settings	Whiteboard
	3RD	Limits etc	
	4TH	9.2 Auto CAD commands Draw commands (Line, circle, are polygon, ellipse, rectangle)	AutoCAD software
	5TH	Dimension commands	AutoCAD Software
	6TH	And Modify Commands for two dimensional drafting only 9.3 Exercis9.3.1 Orthographic projections of lines e for practice using Auto CAD.	AutoCAD Software
14TH	1ST	planes sand solids as per chapter 5.09.3.2 Isometric projection as per Chapter 7.0.	AutoCAD Software
	2ND	**PRACTICE CLASS**	AutoCAD Software
	3RD	**PRACTICE CLASS**	AutoCAD Software
	4TH	**PRACTICE CLASS**	AutoCAD Software
	5TH	**PRACTICE CLASS**	AutoCAD Software
	6TH	**PRACTICE CLASS**	AutoCAD Software

LEARNING RESOUCES:

01. A Text book of Engineering Drawing by N.D. Bhatt.
02. A Text Book of Engineering Graphics & Auto CAD by K Venugopal.

WEBSITE RESOUCES:

01. https://youtu.be/hNNilk-OKaw

Tapan Kumar Mohapatra
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28/02/2022
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