

## STUDENT'S FEEDBACK FORM

(To be used by Institutions)

Academic Year: <u>2024-2025</u>	Name of the Faculty: <u>Alpana Ojha</u>
Course: <u>MD4EC</u>	Semester: <u>5<sup>th</sup></u>
	Date of the feedback:

For getting filled in  
through student

S. No.	Description	Very Poor	Poor	Good	Very Good	Excellent
		(1)	(2)	(3)	(4)	(5)
1	Has the Teacher covered entire Syllabus as prescribed by University/ College/ Board?				✓	
2	Has the Teacher covered relevant topics beyond syllabus					✓
3	Effectiveness of Teacher in terms of ;					
	(a) Technical content/course content					
	(b) Communication skills			✓		
	(c) Use of teaching aids					
4	Pace on which contents were covered			✓		
5	Motivation and inspiration for students to learn					✓
6	Support for the development of Students' skill				✓	
	(i) Practical demonstration				✓	
	(ii) Hands on training			✓		
7	Clarity of expectations of students					✓
8	Feedback provided on Students' progress				✓	
9	Willingness to offer help and advice to students			✓		
	Total			12	16	15

NAME :

Ayush Singh Shandilya

ROLL NO.

204503722021

# GOVT.CO-ED POLYTECHNIC RAIPUR

Course File/Teacher's Diary  
(Theory)

Subject: MACHINE DESIGN & ESTIMATION

COSTING

Semester-5<sup>th</sup>

Session:- 2024-25(I)

Faculty- Mrs. Alpana Oberoi /Mr.Sanjeev Shriwas



Directorate of Technical Education, Indrawati Bhawan,

Nawa Raipur, Atal Nager

Website-[egdtce.raipur.cgstate.gov.in](http://egdtce.raipur.cgstate.gov.in)

E-Mail-[egdtceacademics@gmail.com](mailto:egdtceacademics@gmail.com), Phone No.-0770-2221376

## DETAILED TEACHING PLAN

Unit No	Topic to be covered	Planned Date	Execution Date	Remarks
Unit 1.0 Fundamentals of Machine Components Design	1.1 Basic concepts of design in general.	28-8-24	28-8-24	
	1.2 Factors to be considered in design of machine components	28-8-24	29-8-24	
	a. Selection of Mechanism b. Material c. Loading and Forces on the elements d. Size, shape and space requirements e. Manufacturing f. Operating requirement g. Reliability and safety aspects h. Inspectability i. Maintenance, cost and aesthetics of the designed product j. Failure criterion	30-8-24	30-8-24	
	1.3 Codes and Standards in Machine Design	31-8-24	31-9-24	
	1.4 Engineering Materials a. Properties and applications of common engineering materials. b. Important mechanical properties of materials: Elasticity, Plasticity, Hardness, Ductility, Malleability, Brittleness, Resilience	3-9-24	3-9-24	
Unit 2.0 Design for Static Loading	2.1 Types of loads, Types of stresses, strains and strengths.	4-9-24	4-9-24	
	2.2 Factor of safety and stress concentration factor.	9-9-24	9-9-24	
	2.3 Design under static single axial loading conditions.	10-9-24	10-9-24	
	i) numerical -knuckle joint	11-9-24	11-9-24	
	ii) numerical -cotter joint	23-9-24	23-9-24	
	2.4 Theories of failure.	24-9-24	24-9-24	
2.5 Design under static Multi-axial loading conditions.	25-9-24	25-9-24		
Unit 3.0 Design of Shaft, Axle, Keys and Couplings	3.1 Types of shafts, Shaft materials, Standard sizes.	26-9-24	26-9-24	
	3.2 Design of solid and hollow Shaft and Axles under twisting moment (TM), Bending Moment (BM).	27-9-24	27-9-24	
	a. Geometric Layout	27-9-24	27-9-24	
	b. Deflection and Rigidity	27-9-24	27-9-24	
	c. Design procedure of solid and hollow shaft based on strength	30-9-24	30-9-24	
	d. Design procedure of solid and hollow shaft based on stiffness.	30-9-24	30-9-24	
	3.3 Types of keys, effect of keyway on the strength of shaft, design of rectangular and square sunk key.	1-10-24	1-10-24	
	i) numerical	4-10-24	4-10-24	
	ii) numerical	7-10-24	7-10-24	
	3.4 Design of Couplings (Muff coupling and Rigid Protected Flange coupling)	7-10-24	7-10-24	

3	Unit 4.0 Design of fasteners	4.1 Advantages and disadvantages of riveted joints	14-10-24	14-10-24
1		4.2 Methods of riveting, types of rivet heads, Rivet material and properties, kinds of riveted joints	15-10-24	15-10-24
4.5		4.3 Failure of riveted joints, Design of riveted joints, efficiency of riveted joints (including eccentrically loaded)	21-10-24	21-10-24
3,4		4.4 Boiler joints	22-10-24	22-10-24
1,2 } 1,2 } 4,5		4.5 Types of welded joints, representation of welds	24-10-24	24-10-24
		4.6 Design of welded joints for static loads	24-10-24	24-10-24
		4.7 Strength of welded joints at varying loads	25-10-24	25-10-24
1,2 ←		4.8 Introduction to threaded joints, types of screw fastening, profile of screw threads, materials for fasteners	26-10-24	26-10-24
1,2 ←		4.9 Design of bolted joints in various loading conditions (including eccentrically loaded)	26-10-24	26-10-24
1		Unit 5.0 Antifriction Bearings	5.1 Classification of Bearings – Sliding contact and rolling contact.	6-11-24 8-11-24
1	5.2 Terminology of Ball and Roller bearings – life load relationship, basic static load rating and basic dynamic load rating.		9-11-24 +0	9-11-24
2	i) numerical		11-11-24	11-11-24
3	ii) numerical		14-11-24	14-11-24
3	iii) numerical		16-11-24	16-11-24
4,5	5.3 Selection of ball bearings using manufacturer's catalogue.		18-11-24	18-11-24
1,2			19-11-24	19-11-24
1,2	Unit 6- Fundamentals of Estimating and Costing	6.1 Definition and aims of Estimating, Functions of Estimating and role of Estimating department.	20-11-24	20-11-24
1,2		6.2 Estimating Procedure and constituents of Estimation.	21-11-24	21-11-24
2,3		6.3 Definition and aims of Costing.	22-11-24	22-11-24
2,3 ←		6.4 Difference between Estimating and Costing.	23-11-24	23-11-24
2,3 } 3,4 ← 3,4 ←		6.5 Procedure of Costing, Costing Methods.	23-11-24	23-11-24
		6.6 Advantages of efficient costing	25-11-24	25-11-24
4,5 ←		6.7 Elements of Cost- Material, labour, expenses.	25-11-24	25-11-24
4,5 ←		6.8 Direct and Indirect cost: Factory expenses, administrative expenses, selling expenses and distribution expenses.	27-11-24	27-11-24
4,5		6.9 Components of cost	27-11-24	27-11-24
3,4 ← 3,4 3,4 ←	Unit-7.0 Estimation and Costing Applications	7.1 Terminology used in machine shop like cutting speed, feed and depth of cut	29-11-24	29-11-24
		i) Numerical	2-12-24	2-12-24
		ii) Numerical	2-12-24	2-12-24
		iii) Numerical	2-12-24	2-12-24
3,4		7.2 Lathe Operations- Turning, Facing, Knurling, Drilling, Boring, Reaming, Threading and Tapping	3-12-24	3-12-24

7.3 Estimation of volume and weight of material	4-12-24	4-12-24	
7.4 Use of formula to calculate actual machining time for different machining operations	5-12-24	5-12-24	
7.5 Estimation of time related to Welding shop	6-12-24	6-12-24	
7.6 Estimation of time related to Forging shop	9-12-24	9-12-24	
7.7 Estimation of time related to Pattern making and Foundry shops	10-12-24	10-12-24	

*Handwritten signature*

*Handwritten signature in green ink*

Principal  
 Govt. Co-Ed Polytechnic  
 Raipur (C.G.)











Sl. No.	Name of the Student	Roll No.	Parent's Name	Teacher's Name	Class	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
	Satyendra					P			P																		P	P	P								
	Umesh cbc					P			P																												
	Dushyant					P			P																												
	Mukesh Singh																																				
	Ushaminder					P			P																												
	Dipak Mishra																																				
	Rahul Rai					P			P																												
	Nitesh Baghel																																				
	Roshan kumar					P			P																												
	Dikshu					P			P																												
	Hemant					P			P																												
	Ayush Singh																																				
	Maheshwar					P			P																												
	Anam Jadhav					P			P																												
	P. Abhishek																																				
	Surya					P			P																												
	Kamal Kumar					P			P																												
	Rahul Raj					P			P																												
	Siddhant Jais					P			P																												
	Vishal Singh																																				
	Saksham Baghel					P			P																												
	Tarun Singh					P			P																												
	Kamal Singh					P			P																												
	Mohit Kumar					P			P																												
	Anshu Singh					P			P																												
	Rishi					P			P																												
	Kamal Singh																																				
	Somesh																																				
	Suresh Kumar																																				
	Rishi Singh					P			P																												

1. Students who are not at the beginning .....
2. No. Left .....
4. No. at the end of the month .....
5. No. of School days during the month .....

6. Average attendance .....
7. Total attendance .....
8. Percentage of Attendance .....

Sign. of Class Teacher *[Signature]*  
 Sign. of Principal *[Signature]*







