

LESSON PLAN.

3RD SEMESTER W.E.F-19/9/2022 Total Period :- 60

SUBJECT-ENGINEERING MATERIAL (Sub code-TH-3) Theory periods: 4 P/WEAKLY

Teacher :- ABHOY MOHANTA (PTGF, MECHANICAL ENGINEERING DEPT.)

SL NO	MONTH	Week	Date	UNIT NO/PERIOD ALLOTTED	Topic to be covered as per Syllabus	Topic actually covered as per Syllabus	Short fall if any/syllabus	remarks	
1	SEPT	4TH	22/9/2022	5	1.1 Material classification into ferrous and non ferrous category and alloys	covered	Nil		
2			23/9/2022		1.1 Material classification into ferrous and non ferrous category and alloys	covered	Nil		
3			23/9/2022		1.2 Properties of Materials: Physical , Chemical and Mechanical	covered	Nil		
4			24/9/2022		1.3 Performance requirements	covered	Nil		
5		5TH	29/9/2022		1.4 Material reliability and safety	covered	Nil		
6			30/9/2022	2.1 Characteristics and application of ferrous materials	covered	Nil			
7	OCT	1ST	1/10/202	5	2.2 Classification, composition and application of low carbon steel, medium carbon steel and High carbon steel	covered	Nil		
8		2ND	13/10/2022		2.3 Alloy steel: Low alloy steel, high alloy steel, tool steel and stainless steel	covered	Nil		
9			14/10/2022		2.4 Tool steel: Effect of various alloying elements such as Cr, Mn, Ni, V, Mo,	covered	Nil		
10			14/10/2022		2.4 Tool steel: Effect of various alloying elements such as Cr, Mn, Ni, V, Mo,	covered	Nil		
11			15/10/2022		3.1 Concept of phase diagram and cooling curves	covered	Nil		
12		3RD	20/10/2022	3.1 Concept of phase diagram and cooling curves	covered	Nil			
13			21/10/2023	3.1 Concept of phase diagram and cooling curves	covered	Nil			
14			21/10/2024	3.1 Concept of phase diagram and cooling curves	covered	Nil			
15			22/10/2025	3.2 Features of Iron-Carbon diagram with salient micro-constituents of Iron and Steel	covered	Nil			
16			4TH	27/10/2022	3.2 Features of Iron-Carbon diagram with salient micro-constituents of Iron and Steel	covered	Nil		
17		28/10/2022		3.2 Features of Iron-Carbon diagram with salient micro-constituents of Iron and Steel	covered	Nil			
18		28/10/2022		3.2 Features of Iron-Carbon diagram with salient micro-constituents of Iron and Steel	covered	Nil			
19		29/10/2022		4.1 Crystal defines, classification of crystals, ideal crystal and crystal imperfections	covered	Nil			
20		NOV	1ST	3/11/2022	10	4.1 Crystal defines, classification of crystals, ideal crystal and crystal imperfections	covered	Nil	
21				4/11/2022		4.2 Classification of imperfection: Point defects, line defects, surface defects and volume defects	covered	Nil	
22	4/11/2022			4.2 Classification of imperfection: Point defects, line defects, surface defects and volume defects		covered	Nil		
23	5/11/2022			4.3 Types and causes of point defects: Vacancies, Interstitials and impurities		covered	Nil		
24	2ND		10/11/2022	4.4 Types and causes of line defects: Edge dislocation and screw dislocation		covered	Nil		
25			11/11/2022	4.5 Effect of imperfection on material properties		covered	Nil		
26			11/11/2022	4.6 Deformation by slip and twinning		covered	Nil		
27			12/11/2022	4.7 Effect of deformation on material properties		covered	Nil		
28			17/11/2022	4.7 Effect of deformation on material properties		covered	Nil		
29			3RD	18/11/2022		5.1 Purpose of Heat treatment	covered	Nil	
30	18/11/2022	5.1 Purpose of Heat treatment		covered	Nil				

31		19/11/2022		5.2 Process of heat treatment: Annealing, normalizing, hardening, tempering, stress relieving measures	covered	Nil		
32	4TH	24/11/2022	10	5.2 Process of heat treatment: Annealing, normalizing, hardening, tempering, stress relieving measures	covered	Nil		
33		25/11/2022		5.3 Surface hardening: Carburizing and Nitriding	covered	Nil		
34		25/11/2022		5.3 Surface hardening: Carburizing and Nitriding	covered	Nil		
35		26/11/2022		5.4 Effect of heat treatment on properties of steel	covered	Nil		
36		1ST		1/12/2022	10	5.4 Effect of heat treatment on properties of steel		
37	2/12/2022		5.5 Hardenability of steel					
38	2/12/2022		5.5 Hardenability of steel					
39	3/12/2022		6.1 Aluminum alloys: Composition, property and usage of Duralmin, y- alloy.					
40	2ND		8/12/2022	6.1 Aluminum alloys: Composition, property and usage of Duralmin, y- alloy.				
41		9/12/2022	6.2 Copper alloys: Composition, property and usage of Copper Aluminum, Copper-Tin, Babbit , Phosperous bronze, brass, Copper- Nickel					
42		9/12/2022	6.2 Copper alloys: Composition, property and usage of Copper Aluminum, Copper-Tin, Babbit , Phosperous bronze, brass, Copper- Nickel					
43		10/12/2022	6.2 Copper alloys: Composition, property and usage of Copper Aluminum, Copper-Tin, Babbit , Phosperous bronze, brass, Copper- Nickel					
44		3RD	15/12/2022	6.2 Copper alloys: Composition, property and usage of Copper Aluminum, Copper-Tin, Babbit , Phosperous bronze, brass, Copper- Nickel				
45	16/12/2022		6.3 Predominating elements of lead alloys, Zinc alloys and Nickel alloys					
46	16/12/2022		6.3 Predominating elements of lead alloys, Zinc alloys and Nickel alloys					
47	17/12/2022		6.4 Low alloy materials like P-91, P-22 for power plants and other					
48	4TH	22/12/2022	3	high temperature services. High alloy materials like stainless steel grades of duplex, super duplex materials etc.				
49		23/12/2022		7.1 Classification, composition, properties and uses of Copper base, Tin Base, Lead base, Cadmium base bearing materials				
50		23/12/2022		7.1 Classification, composition, properties and uses of Copper base, Tin Base, Lead base, Cadmium base bearing materials				
51		24/12/2022		7.1 Classification, composition, properties and uses of Copper base, Tin Base, Lead base, Cadmium base bearing materials				
52	5TH	29/12/2022	3	8.1 Classification, composition, properties and uses of Iron base and Copper base spring material				
53		30/12/2022		8.1 Classification, composition, properties and uses of Iron base and Copper base spring material				
54		30/12/2022		8.1 Classification, composition, properties and uses of Iron base and Copper base spring material				
55		31/12/2022		9.1 Properties and application of thermosetting and thermoplastic polymers				
56	1ST	5/1/2023	3	9.1 Properties and application of thermosetting and thermoplastic polymers				
57		6/1/2023		9.2 Properties of elastomers				
58		6/1/2023		3	10.1 Classification, composition, properties and uses of particulate			
59		7/1/2023			fiber reinforced composites			
60		12/1/2023			fiber reinforced composites			

61	2ND	13/1/2023	3	10.2 Classification and uses of ceramics			
62		13/1/2023		10.2 Classification and uses of ceramics			
63		14/1/2023		10.2 Classification and uses of ceramics			

Abhoy Mohanta



