

BHUBANANANDA ODISHA SCHOOL OF ENGINEERING, CUTTACK
DEPARTMENT OF MECHANICAL ENGINEERING



LESSON PLAN

SUBJECT: ENGINEERING MATERIAL (TH 3)

FACULTY: Mr. S.P.B.B BHATTA

ACCADEMIC SESSION: 2022-23

SEMESTER: 3RD

SEC: A

Sd/-
H O D (Mechanical Engg.)

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Discipline: MECHANICAL Engineering	Semester: 3 rd A		Name of the teaching faculty: Mr .S.P.B.B BHATTA
Subject: ENGINEERING MATERIAL	No. of Days/ per week class allotted: 04 periods per week Tuc-1 period, Thu-1 period, Fri-1 period, Sat -1 period		Semester From Date: 01-08-2023 To Date: 30-11-2023 No. of weeks: 20 weeks
Week	Class Day	No of period available	Theory Topics
1ST	01/08/2023	1	1.1 Introduction & Classification of Engg. Material
	03/08/2023	1	1.2 Properties of Materials
	04/08/2023	1	1.3 Performance Requirements
	05/08/2023	1	1.4 Material Reliability & Safety
2ND	08/08/2023	1	2.1 Characteristics & application of ferrous materials
	10/08/2023	1	2.2 Classification, Composition & application of different steel
	11/08/2023	1	2.3 Description of Alloy Steel
	12/08/2023	1	2.4 Effect of Various alloying elements
3RD	17/08/2023	1	3.1 Concept of phase diagram
	18/08/2023	1	3.1 Description of phase diagram
	19/08/2023	1	3.1 Concept of cooling curves

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4TH	22/08/2023	1	3.2 Description of Iron-Carbon Diagram
	24/08/2023	1	3.2 Description of Iron-Carbon Diagram
	25/08/2023	1	3.2 Description of micro-constituents of iron & steel
	26/08/2023	1	4.1 Classification of Crystals & Crystal Imperfections
5TH	29/08/2023	1	4.2 Description of crystals imperfections
	31/08/2023	1	4.3 Types & causes of point defects
6TH	01/09/2023	1	4.4 Types & causes of line defects
	02/09/2023	1	FIRST CLASS TEST
7TH	05/09/2023	1	4.5 Effect of imperfection on material properties
	07/09/2023	1	4.6 Deformation by slip & twinning
	08/09/2023	1	4.7 Effect of deformation on material properties
	09/09/2023	1	5.1 Purpose of Heat Treatment
8TH	12/09/2023	1	5.2 Different Process of Heat Treatment
	14/09/2023	1	5.3 Description of surface hardening
	15/09/2023	1	5.4 Effect of heat treatment on properties of steel

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9TH	21/09/2023	1	5.5 Hardenability of steel
	22/09/2023	1	6.1 Composition, property & usage of Al-alloys
	23/09/2023	1	6.2 Composition, property & usage of Cu-alloys
10TH	26/09/2023	1	INTERNAL ASSESSMENT
	29/09/2023	1	INTERNAL ASSESSMENT
	30/09/2023	1	6.3 Predominating elements of lead alloys, Zinc alloys & Nickel alloys
11TH	03/10/2023	1	6.4 Description of Low alloy Materials
	05/10/2023	1	7.1 Classification, properties & uses of cu base & Tin base bearing materials
	06/10/2023	1	7.1 Classification, properties & uses of lead base & cadmium bearing materials
	07/10/2023	1	8.1 Classification, properties & uses of Iron base spring material
12TH	10/10/2023	1	8.1 Classification, properties & uses of Copper base spring material
	12/10/2023	1	9.1 properties & application of thermosetting & thermoplastic polymers

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	13/10/2023	1	9.2 properties of elastomers
13TH	17/10/2023	1	10.1 Classification, properties & uses particulate based composites
	19/10/2023	1	10.1 Classification, properties & uses fiber reinforced composites
14TH	26/10/2023	1	10.2 Classification & uses of Ceramics
	27/10/2023	1	REVISION
15TH	31/10/2023	1	SECOND CLASS TEST
16TH	02/11/2023	1	REVISION
	03/11/2023	1	REVISION
	04/11/2023	1	REVISION
17TH	07/11/2023	1	REVISION
	08/11/2023	1	REVISION
	09/11/2023	1	REVISION

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17TH	10/11/2023	1	REVISION
	11/11/2023	1	REVISION
18TH	16/11/2023	1	PREVIOUS YEAR QUESTIONS DISCUSSION
	17/11/2023	1	PREVIOUS YEAR QUESTIONS DISCUSSION
	18/11/2023	1	PREVIOUS YEAR QUESTIONS DISCUSSION
19TH	23/11/2023	1	PREVIOUS YEAR QUESTIONS DISCUSSION
	24/11/2023	1	PREVIOUS YEAR QUESTIONS DISCUSSION
20TH	28/11/2023	1	PREVIOUS YEAR QUESTIONS DISCUSSION
	30/11/2023	1	PREVIOUS YEAR QUESTIONS DISCUSSION
	01/12/2023	1	Revision
	02/12/2023	1	Revision
21ST	05/12/2023	1	Revision
	07/12/2023	1	Revision
	08/12/2023	1	Revision
	09/12/2023	1	Revision