BHUBANANANDA ODISHA SCHOOL OF ENGINEERING, CUTTACK
DEPARTMENT OF MECHANICAL ENGINEERING

LESSON PLAN

SUBJECT: ENGINEERING MATERIAL (TH 3)

FACULTY: Mr. B. Pradhan

ACCADEMIC SESSION: 2022-23

SEMESTER: 3RD

SEC: B

Sd/-

H O D (Mechanical Engg.)

BHUBANANANDA ODISHA SCHOOL OF ENGINEERING, CUTTACK
DEPARTMENT OF MECHANICAL ENGINEERING
LESSON PLAN

Discipline: MECHANICAL Engineering	Semester: 3rd B		Name of the teaching faculty: Mr .B. Pradhan
Subject: ENGINEERING MATERIAL	No. of Days/ per week class allotted: 04 periods per week Tue-1 period, Wed-1 period,Thu-1 period, Fri -1 period		Semester From Date: 01-08-2023 To Date: 30-11-2023 No. of weeks: 17 weeks
Week	Class Day	No of period available	Theory Topics
1ST	01/08/2023	1	1.Engineering materials and their properties 1.1 Material classification into ferrous and non-ferrous category and alloys
	02/08/2023	1	1.2 Properties of material: Chemical and Mechanical
	03/08/2023	1	1.2 Properties of Materials: Physical Materials
	04/08/2023	1	11.3 Performance Requirements
2ND	07/08/2023	1	1.4 Material Reliability & Safety
	09/08/2023	1	2.0 Ferrous Materials and alloys 2.1 Characteristics and application of ferrous materials
	10/08/2023	1	2.2 Classification, composition and application of low carbon steel, medium carbon steel and High carbon steel
	11/08/2023	1	2.2 Classification, composition and application of low carbon steel, medium carbon steel and High carbon steel
3RD	14/08/2023	1	2.3 Alloy steel: Low alloy steel, high alloy steel, tool steel and stainless steel
	16/08/2023	1	2.4 Tool steel: Effect of various alloying elements such as

11TH	09/10/2023	1	5.5 Hardenability of steel
	11/10/2023	1	5.5 Hardenability of steel
	12/10/2023	1	INTERNAL ASSESSMENT
	13/10/2023	1	INTERNAL ASSESSMENT
12TH	16/10/2023	1	**6.0 Non-ferrous alloys** 6.1 Aluminum alloys: Composition, property and usage of Duralumin, y- alloy
	18/10/2023	1	6.1 Aluminum alloys: Composition, property and usage of Duralumin, y- alloy
	19/10/2023	1	6.2 Copper alloys: Composition, property and usage of Copper-Aluminum, Copper-Tin, Babbitt , Prosperous bronze, brass, Copper- Nickel
	20/10/2023	1	6.2 Copper alloys: Composition, property and usage of Copper-Aluminum, Copper-Tin, Babbitt , Prosperous bronze, brass, Copper- Nickel
13TH	30/10/2023	1	6.3 Predominating elements of lead alloys, Zinc alloys and Nickel alloys
	01/11/2023	1	6.4 Low alloy materials like P-91, P-22 for power plants and other high temperature services. High alloy materials like stainless

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			steel grades of duplex, super duplex materials etc.
	02/11/2023	1	6.4 Low alloy materials like P-91, P-22 for power plants and other high temperature services. High alloy materials like stainless steel grades of duplex, super duplex materials etc.
	03/11/2023	1	CLASS TEST
14TH	06/11/2023	1	**7.0 Bearing Material** 7.1 Classification, composition, properties and uses of Copper base, Tin Base, Lead base, Cadmium base bearing materials
	08/11/2023	1	**7.0 Bearing Material** 7.1 Classification, composition, properties and uses of Copper base, Tin Base, Lead base, Cadmium base bearing materials
	09/11/2023	1	**8.0 Spring materials** 8.1 Classification, composition, properties and uses of Iron-base and Copper base spring material
14TH	10/11/2023	1	**8.0 Spring materials** 8.1 Classification, composition, properties and uses of Iron-base and Copper base spring material
15TH	13/11/2023	1	**9.0 Polymers** 9.1 Properties and application of thermosetting and thermoplastic polymers
	15/11/2023	1	9.2 Properties of elastomers
	16/11/2023	1	**10.0 Composites and Ceramics** 10.1 Classification, composition, properties and uses of

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			particulate based and fiber reinforced composites
	17/11/2023	1	**10.0 Composites and Ceramics** 10.1 Classification, composition, properties and uses of particulate based and fiber reinforced composites
16TH	20/11/2023	1	PREVIOUS YEAR QUESTIONS DISCUSSION
	22/11/2023	1	PREVIOUS YEAR QUESTIONS DISCUSSION
	23/11/2023	1	PREVIOUS YEAR QUESTIONS DISCUSSION
	24/11/2023	1	PREVIOUS YEAR QUESTIONS DISCUSSION
17TH	29/11/2023	1	PREVIOUS YEAR QUESTIONS DISCUSSION
	30/11/2023	1	PREVIOUS YEAR QUESTIONS DISCUSSION
	01/12/2023	1	PREVIOUS YEAR QUESTION
	04/12/2023	1	PREVIOUS YEAR QUESTION
	06/12/2023	1	PREVIOUS YEAR QUESTION
	07/12/2023	1	PREVIOUS YEAR QUESTION
	08/12/2023	1	PREVIOUS YEAR QUESTION

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