

GOVERNMENT POLYTECHNIC JAIPUR

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DEPARTMENT OF MECHANICAL ENGINEERING

LESSON PLAN (2022-23)

Discipline: Mechanical	Semester: 5th	Name of the Teaching faculty: Manas Kumar Mishra
Subject: SCA	No of Days/Week class allotted: 1	Semester from Date: 15/09/22 To Date: 22/12/22 No of weeks: 16
Week	Class Day	Topics
1st	1st (3p) Gr1+Gr2	Overview of SS
		i) Definition
		ii) Importance and criticality
		LCC, corrosion impact, difference with steel, per capita consumption, growth rates of SS vs other metals, World vs India
		iii) Various grades of SS and their nomenclature
		iv) Effect of alloying elements
		v) Unique characteristics of various grades of SS
2nd	1st (3p) Gr1+Gr2	vi) Quiz Test (Technical)
		Manufacturing of SS
		i) process flow
		ii) raw materials for SS manufacturing
		iii) functions of each processing unit
		iv) Downstream facilities
		v) Various finishes of SS
vi) Debate on environmental issues (topic: Sustainability)		
3rd	1st (3p) Gr1+Gr2	Physical Metallurgy of SS
		i) various phases in SS
		ii) Chromium-Nickel phase diagram
4th	1st (3p) Gr1+Gr2	iii) Library Studies
		Fabrication and testing of SS
		I) Various welding methods of SS
		II) Various cutting techniques of SS
5th	1st (3p) Gr1+Gr2	iii) Buffing, Bending, Roll forming, Embossing, Polishing
		iv) Quiz (General Awareness)
		Applications of SS
		i) Demand of SS in various segments
		ii) overview of SS in ART segment
		iii) overview of SS in ABC application
		iv) overview of SS in process industries
		v) TEST

6th	1st (3p) Gr1+Gr2	Personality Development
		i) How to face an interview
		ii) Interview related questions
7th	1st (3p) Gr1+Gr2	iii) one to one interview
		i) MOOCS/SWAYAM/NPTEL classes
8th	1st (3p) Gr1+Gr2	ii) Extension lectures if any
		Cultural activities
		i) Essay writing
		ii) song
9th	1st (3p) Gr1+Gr2	iii) A cricket match
		i) Seminar presentation (Technical)
		ii) Report submission
10th	1st (3p) Gr1+Gr2	i) Seminar presentation (Technical)
		ii) Report submission
11th	1st (3p) Gr1+Gr2	i) Seminar presentation (Technical)
		ii) Report submission
12th	1st (3p) Gr1+Gr2	i) Seminar presentation (Technical)
		ii) Report submission
13th	1st (3p) Gr1+Gr2	i) Extension lectures if any
		ii) Poster Presentation
14th	1st (3p) Gr1+Gr2	Team work (Field activity)
15th	1st (3p) Gr1+Gr2	i) MOOCS/SWAYAM/NPTEL classes
		ii) Extension lectures if any


 signature of faculty
 Manoj Kumar Mishra
 Lecturer - Mechanical