

## LESSON PLAN

<b>Subject Name-Design of Machine Elements</b>	<b>Branch- Production Engineering</b>
<b>Subject Code- BPE 2501</b>	<b>Semester- 5<sup>th</sup></b>

<b>S/N</b>	<b>Module</b>	<b>Topic(s)</b>	<b>Period/ Hours</b>
1	I	Morphology of design process	1
2	I	Basic requirements for machine elements and machine	2
3	I	Design procedure	3
4	I	Engineering materials: their properties and Manufacturing consideration in design	4-5
5	I	Tutorial	6
6	I	Design of fastening elements: Riveted & welded joint for pressure vessels & structural joints, Design of bolted joints, cotter & knuckle joints	7-11
7	I	Tutorial	12
8	II	Design of shaft, keys & coupling	13-15
9	II	Design of belt & rope drives	16-18
10	II	Design of pulleys	19-20
11	II	Tutorial	21
12	III	Design of spring: closed coil helical springs of circular cross section, Concentric springs, Spiral spring & leaf spring	22-25
13	III	Tutorial	26
14	III	Theory of Failure: Application to practical problems	27-29
15	III	Tutorial	30
16	IV	Design of engine Components, Clutches, Piston & Connecting rod	31-39
17	IV	Tutorial	40