Course code: Course Title	Course Structure			Pre-Requisite
PE103: Workshop Practice	L	T	P	NIL
	1	0	2	

Course Objective: The objective of the course is to familiarize the students with manufacturing shops like Carpentry, Foundry, Welding, Machining, Fitting and Smithy.

S. No	Course Outcomes (CO)
CO1	Describe the fundamentals of workshop practices.
CO2	Choose appropriate manufacturing processes/tools/techniques for various jobs.
CO3	Practice various tools and machinery to make different jobs in various shops of the workshop.
CO4	Demonstrate various techniques to study about various hazards in workshop and standard safety procedures.
CO5	Eperiment workshop practices in fabrication and integration of various components for research/ project/ professional work.

S. No	Contents
UNIT 1	Carpentry: Study of Different Carpentry Tools and Pattern Making of a given job (pulley/screw jack body).
UNIT 2	Foundry: Study of Different Foundry Tools and Furnaces Making a green sand mould of a given pattern (pulley/screw jack body) and its casting.
UNIT 3	Welding: Arc welding of butt joint, T-joint and lap joint Study of other welding/ joining Techniques.
UNIT 4	Machining: Study of lathe, milling, drilling machine, shaper, planer and grinding machine. Demonstration of a job on lathe.
UNIT 5	Fitting: Study of various fitting hand tools, marking and measuring devices Preparation of a given job (box / funnel).
UNIT 6	Smithy: Study of different forming tools and power press Preparation of a given job (bolt / chisel).

REFERENCES

S.No.	Name of Books/Authors/Publishers	Year of Publication / Reprint
1	Manufacturing Processes for Engineering Materials, 6e; Serope Kalpakjian, Steven R. Schmid, Pearson Education.	2018
2	Basic Mechanical Engineering; P. Kumar, Pearson Education, 1/e.	2018

3	Elements Of Workshop Technology Vol-1; S. K. H. Choudhary, A. K. H. Choudhary, N. Roy, Media Promoters.	2008
4	Workshop Technology; W. Chapman, Routledge.	1972
5	Production Engineering, R. K. Jain, Khanna Publishers.	1976