Item No. - 4.40 AC - 26/07/2019

Course Code	Course Name	Teaching Scheme (Contact Hours)				Credits Assigned				
		Theory	y Pra	act.	Tut.	Theory	Tut.	Pract.	Total	
FEL206	Basic Workshop Practice-II		2					1	1	
Course Code	Course Name	Examination Scheme								
		Theory								
		Internal Assessment End			End	Exam.	Term	Pract.	Total	
		Test1	Test 2	Avg.	Sem. Exam.	Duration (in Hrs)	Work	/oral	I Utal	
FEL206	Basic Workshop Practice-II						50		50	

## Objectives

- 1. To impart training to help the students develop engineering skill sets.
- 2. To inculcate respect for physical work and hard labor.
- 3. To get exposure to interdisciplinary engineering domain.

Outcomes: Learner will be able to...

- 1. Develop the necessary skill required to handle/use different carpentry tools.
- 2. Identify and understand the safe practices to adopt in electrical environment.
- 3. Demonstrate the wiring practices for the connection of simple electrical load/ equipment.
- 4. Design, fabricate and assemble pcb.
- 5. Develop the necessary skill required to handle/use different masons tools.
- 6. Develop the necessary skill required to use different sheet metal and brazing tools.
- 7. Able to demonstrate the operation, forging with the help of a simple job.

	Detailed Content	Hrs.					
<b>Note:</b> Trade 1 and 2 are compulsory. Select any ONE trade topics out of the topic trade 3 to 5.							
Demonstrations and hands on experience to be provided during the periods allotted for the same. Report on the demonstration including suitable sketches is also to be included in the term work							
CO-1 is related to Trade-1							
CO-2 to CO-4 is related to Trade-2							
CO-5 is related to Trade-3							
CO-6 is related to Trade-4							
CO-7 is related to Trade-5							
CO evaluation is to be done according to the opted Trades in addition to Compulsory Trades.							
Trade-1	Carpentry(Compulsory)						
	6. Use and setting of hand tools like hacksaws, jack planes, chisels and gauges for construction of various joints, wood tuning and modern wood turning methods.						
	<b>7.</b> Term work to include one carpentry job involving a joint and report on demonstration of a job involving wood turning						

Trade-2	<ul> <li>Basic Electrical work shop:(Compulsory):</li> <li>8. Single phase and three phase wiring. Familiarization. of protection switchgears and their ratings (fuse, MCB, ELCB). Wiring standards, Electrical safety in the work place safe work practices. Protective equipment, measures and tools.</li> </ul>			
	<ul><li>9. Layout drawing, layout transfer to PCB, etching and drilling and soldering technique</li></ul>			
Trade-3	<ul> <li>Masonry:</li> <li>10. Use of masons tools like trowels, hammer, spirit level, square, plumb line and pins etc. demonstration of mortar making, single and one and half brick masonry, English and Flemish bonds, block masonry, pointing and plastering.</li> </ul>	06		
Trade 4	<ul><li>Sheet metal working and Brazing:</li><li>11. Use of sheet metal, working hand tools, cutting , bending , spot welding</li></ul>	06		
Trade-5	<ul><li>Forging (Smithy):</li><li>12. At least one forging job to be demonstrated and a simple job to be made for Term Work in a group of 4 students.</li></ul>	06		