

## Trades Details Summary

Trade Name	Description	Duration (Days)
<b>Fitters</b>	<b>Theory and practical session to give technical training in Fitter trade.</b>	<b>18</b>

### Theory (Fitters)

Topic	Keylearning Outcomes	Equipment Required	Duration
Fitter Marking and Marking Tools	<ul style="list-style-type: none"> <li>• Describe various types of marking methods</li> <li>• Marking media, types and uses</li> <li>• Punch, types and uses</li> <li>• Scriber, types and uses</li> <li>• Divider and its uses</li> <li>• Marking of table and its uses</li> </ul>	Presentations, Trainer Guide, personal protective equipment (PPE).	2:0
Drilling, Tapping, and Reaming	<ul style="list-style-type: none"> <li>• Drill, and its types</li> <li>• Drill machines and their types</li> <li>• Methods of Drilling Operation</li> <li>• Reamer, and its types</li> <li>• Methods of Reaming</li> <li>• Tap, and its types</li> <li>• Methods of Tapping</li> <li>• Precautions</li> </ul>	Presentations, Trainer Guide, personal protective equipment (PPE).	2:0
Method of Threading with Dieing and Scraping	<ul style="list-style-type: none"> <li>• Die, and its types</li> <li>• Die Stock and its types</li> <li>• Methods of Threading</li> <li>• Scraper, and its types</li> <li>• Methods of Scraping on flat surface</li> <li>• Precautions</li> </ul>	Training Kit (Presentations, Trainer Guide), personal protective equipment (PPE).	2:0
Material Handling	<ul style="list-style-type: none"> <li>• Movement of Raw Material</li> <li>• Movement of Finished Material</li> <li>• Waste Segregation</li> <li>• Cleanliness</li> <li>• Stacking</li> </ul>	Audio-Video	3:0
Fitting safety & Knowledge about PPEs	<ul style="list-style-type: none"> <li>• What is Safety</li> <li>• Awareness about General Safety</li> <li>• Fitting Safety</li> <li>• Use of PPEs: Hand Gloves, Safety Goggles, Apron, Earplugs</li> <li>• Advantages of Safety</li> <li>• Do's &amp; Don'ts</li> </ul>	Presentations, Trainer Guide, personal protective equipment (PPE).	2:0
Precision Measuring Instruments	<ul style="list-style-type: none"> <li>• Micrometer (a) Parts and purpose (b) Least Count (c) How to read and take measurement (d) Importance of accuracy and precision</li> <li>• Vernier Calipers (a) Parts and purpose (b) Least Count (c) How to read and take measurement (d) Importance of accuracy and precision</li> <li>• Precautions</li> </ul>	Presentations, Trainer Guide	2:0
Fitter Hand Tools	<ul style="list-style-type: none"> <li>• Describe various types of hand tools</li> <li>• Hammers, its types and uses</li> <li>• Vises, its types and uses</li> <li>• Clamps, their types and uses</li> <li>• Screw Drivers, its types and uses</li> <li>• Wrenches and Spanners, their types and uses</li> <li>• Pliers, its types and uses</li> </ul>	Presentations, Trainer Guide, personal protective equipment (PPE).	3:0
Doubt Clearing	<ul style="list-style-type: none"> <li>• Feed Back</li> <li>• Group discussion</li> </ul>	Presentations, White Board	7:0
First Aid	<ul style="list-style-type: none"> <li>• Electrocutation</li> <li>• Cut</li> <li>• Bleeding</li> <li>• Faint</li> <li>• Bandage</li> <li>• Resuscitation</li> <li>• Ambulance</li> </ul>	Audio-Video	2:0
Effective Communication	<ul style="list-style-type: none"> <li>• Subordinates</li> <li>• Peers</li> <li>• Superiors</li> <li>• Customers</li> </ul>	Audio-Video	8:0
Limits, Fits and Tolerance	<ul style="list-style-type: none"> <li>• Limit, Types of Limit and its uses</li> <li>• Fits, Types of Fits and its uses</li> <li>• Tolerance, Types of Tolerance and its uses</li> <li>• Allowance, Types of Allowance and its uses</li> <li>• Precautions</li> </ul>	Presentations, Trainer Guide	2:0
Valedictory	<ul style="list-style-type: none"> <li>• Work Ethics</li> <li>• Personal Financial Planning</li> <li>• Health</li> </ul>	Presentations, White Board	3:0
Introduction to Fitter Trade	<ul style="list-style-type: none"> <li>• Definition of Fitter</li> <li>• Explain different types of fitting processes: Surface Smoothness, Squaring, Male-Female Fitting, Drilling, etc. and associated equipments.</li> <li>• Importance of Fitter</li> <li>• Uses of Fittings</li> </ul>	Presentations, Trainer Guide	2:0
Fitting Measuring Tools and Units	<ul style="list-style-type: none"> <li>• Knowledge of Measuring tools and units</li> <li>• Measurement and different types of measuring tools</li> <li>• Steel Rule, types and its uses</li> <li>• Try square, types and its uses</li> <li>• Calipers, types and its uses</li> <li>• Measuring units: M.K.S., C.G.S. and F.P.S.</li> <li>• Precautions</li> </ul>	Presentations, Trainer Guide	2:0
Financial Management	<ul style="list-style-type: none"> <li>• Financial Management</li> <li>• Resources / Fund availability by Bank</li> <li>• Loan Scheme like Mudra Loan</li> </ul>	Presentations, White Board	2:0
Fitter Cutting Tools	<ul style="list-style-type: none"> <li>• Describe various types of cutting tools</li> <li>• Chisels, its types and uses</li> <li>• Chipping operation and methods</li> <li>• Files, its types and uses</li> <li>• Filing operation and methods</li> <li>• Hacksaw Frame and its types</li> <li>• Hacksaw Blade and its types</li> <li>• Hacksawing operation, methods and precautions</li> <li>• Chipping operations as per drawing</li> </ul>	Presentations, Trainer Guide, personal protective equipment (PPE).	8:0

Registration of participants	<ul style="list-style-type: none"> <li>• Covid Declaration</li> <li>• Participants Profile</li> <li>• Describe the role of a fitting technician</li> </ul>	White Board	2:0
Orientation Programme & Introduction about Entrepreneurship	<ul style="list-style-type: none"> <li>• Entrepreneur, Entrepreneurship and Enterprise</li> <li>• Scheme &amp; Types of Entrepreneurship</li> <li>• Importance of Entrepreneurship</li> <li>• Entrepreneurship Opportunities &amp; Challenges</li> <li>• Startup Business</li> <li>• Cash Flow</li> <li>• Incubation Centre like DIC &amp; IIT (BHU)</li> </ul>	Presentations, Trainer Guide.	2:0

### Practical (Fitters)

Topic	Keylearning Outcomes	Equipment Required	Duration
Fitter Practical	<ul style="list-style-type: none"> <li>• Hacksawing and Stepping of Job as per drawing</li> </ul>	MS Plate, Hacksaw frame with blade, flat files, caliper, steel rule and try square	5:0
Fitter Practical	<ul style="list-style-type: none"> <li>• Types of cutting (triangular, square and rectangular) and filing as per drawing</li> </ul>	MS Plate, Hacksaw frame with blade, flat, square and triangular files, Vernier caliper, micrometer, steel rule and try square	6:0
Fitter Practical	<ul style="list-style-type: none"> <li>• Male-Female Fitting (Round Fitting) of job as per drawing</li> </ul>	MS Plate, hacksaw frame with blade, flat file, round, half-round file, steel rules, Punch, Scriber, Divider, try square and calipers	8:0
Fitter Practical	<ul style="list-style-type: none"> <li>• Male-Female Fitting (T-Fitting) of job as per drawing</li> </ul>	MS Plate, Hacksaw frame with blade, flat, square and triangular files, Vernier caliper, micrometer, steel rule and try square	8:0
Fitter Practical	<ul style="list-style-type: none"> <li>• Filing and Squaring of Job as per drawing</li> </ul>	MS plate, flat files, calipers, steel rule and try square	5:0
Fitter Practical	<ul style="list-style-type: none"> <li>• Male-Female Fitting (V-Fitting) of job as per drawing</li> </ul>	MS Plate, Hacksaw frame with blade, bench vise, clamps, , hammer, flat and triangular files, steel rule and try square	2:0
Fitter Practical	<ul style="list-style-type: none"> <li>• Threading on Pipe as per drawing</li> <li>• Scraping of Job as per drawing</li> </ul>	MS Plate, caliper, flat files, Die, Die Stock, Scraper, Vernier Calipers, Micrometer, and try square	2:0
Practical	<ul style="list-style-type: none"> <li>• Chipping operations as per drawing</li> </ul>	MS Plate, chisel, flat files, hammer, hacksaw frame and blade, steel rule, bench vise, clamps	6:0
Fitter Practical	<ul style="list-style-type: none"> <li>• Filing, Drilling, Reaming and Tapping of Job as per drawing</li> </ul>	MS Plate, caliper, flat files, Drill and Drill Machine, Reamer, Tap, Vernier Calipers, Micrometer, and try square	2:0