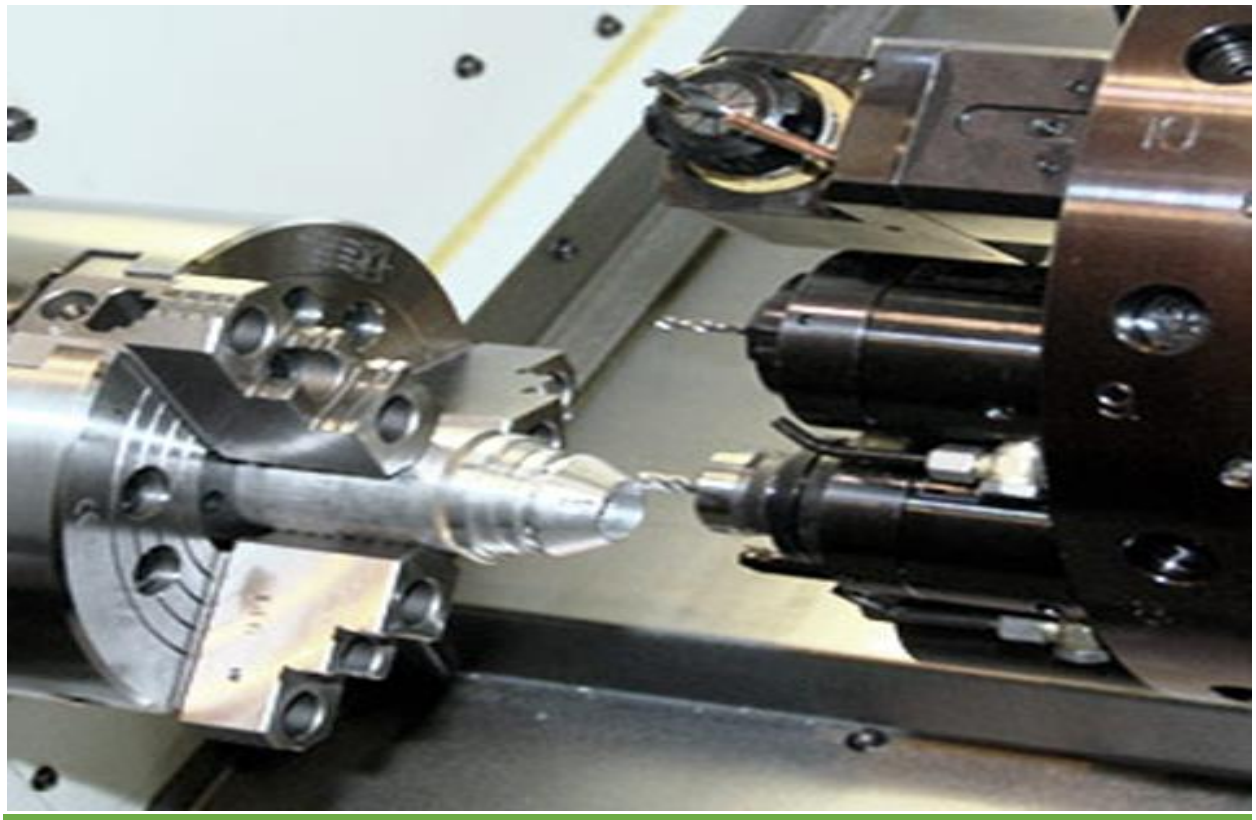

Model Curriculum

QP Name: Machine Operator – CNC Lathe

QP Code: CPC /Q 0702

QP Version: 2.0

NSQF Level: 3.5

Model Curriculum Version: 1.0

Sector: Chemicals & Petrochemicals

Central Institute of Petrochemicals Engineering & Technology (CIPET)
Department of Chemicals & Petrochemicals, Ministry of Chemicals & Fertilizers, Govt. of India
CIPET Head office, T.V.K Industrial Estate, Guindy, Chennai – 600 032.

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Training Parameters

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<tr><td>Minimum Duration of the Course</td><td>480 Hrs.</td></tr>
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</table>

Program Overview

This section summarizes the end objectives of the program along with its duration.

Training Outcomes

When considering training outcomes for a machine operator in a tool room, it's essential to cover both practical skills and theoretical knowledge. At the end of the program, the learner should have acquired the listed knowledge and skills.

Core Skill Outcomes:

Machine Operation Proficiency:

- Ability to safely and efficiently operate various tool room machinery, including:
  - Lathes (conventional and CNC)
  - Milling machines (conventional)
  - Grinding machines (surface, cylindrical, etc.)
  - Drilling machines
- Skill in setting up machines, selecting appropriate tools, and adjusting machine parameters (speeds, feeds, depth of cut).

Measurement and Inspection:

- Proficient use of precision measuring instruments:
  - Calipers, micrometers, gauges, etc.
  - Profile projector, Height master,
  - Coordinate Measuring Machines (CMMs) (if applicable).
- Ability to interpret technical drawings and specifications.
- Skill in inspecting finished parts for dimensional accuracy and surface finish.

Tooling and Material Knowledge:

- Understanding of different cutting tools, their applications, and maintenance.
- Knowledge of various materials used in tool making and their properties.
- Ability to select the appropriate tools and materials for specific tasks.

Safety Practices:

- Strict adherence to safety protocols and procedures.
- Proper use of personal protective equipment (PPE).
- Knowledge of emergency procedures.

Maintenance:

- Basic machine maintenance, including lubrication, cleaning, and minor repairs.

Knowledge Outcomes:

Technical Drawings and Specifications:

- Ability to read and interpret complex engineering drawings.

- Understanding of tolerances, fits, and surface finish requirements.

Machining Principles:

- Knowledge of cutting speeds, feeds, and depth of cut calculations.
- Understanding of the principles of different machining processes.

Material Science:

- Knowledge of the properties of metals and other materials used in tool making.

Quality Control:

- Understanding of quality control principles and procedures.

General Outcomes:

Problem-Solving:

- Ability to identify and resolve machining problems.

Teamwork and Communication:

- Ability to work effectively in a team environment.
- Clear and concise communication skills.

Continuous Improvement:

- Willingness to learn new skills and adapt to new technologies.

Compulsory Modules

The table lists the modules and their duration corresponding to the Compulsory NOS of the QP.

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
Module 1: CPC/N7011 - Perform lathe operations on metal or plastic material using Conventional Centre lathe machine	40:00	110:00	00:00	00:00	**150:00**
Module 2: CPC/N7012 - Perform turning and other lathe operations on metal or plastic workpieces using Computer Numerically Controlled Lathe machines	40:00	110:00	00:00	00:00	**150:00**
Module 3: CPC/N0411 - Maintain basic health and safety practices at the workplace, 5S.	10:00	20:00	00:00	00:00	**30:00**
Module 4: CPC/N7014 - Effective working with others	10:00	20:00	00:00	00:00	**30:00**
Module 5: CPC/N0219 - Basics of MS Office / Open Source office suite software	10:00	20:00	00:00	00:00	**30:00**
Module 6: CPC/ N0418 - Basic knowledge of communication/ Soft Skills	10:00	20:00	00:00	00:00	**30:00**
Module 7: DGT/VSQ/N0101 - Employability Skills	30:00	00:00	00:00	00:00	**30:00**
Module 8: On the Job Training (OJT)	00:00	00:00	30:00	00:00	**30:00**
Total Duration	**150:00**	**300:00**	**30:00**	**00:00**	**480:00**

Module Details

Module 1: Perform lathe operations on metal or plastic material using Conventional Centre lathe machine

Mapped to : CPC/N 7011 & V2.0

Terminal Out comes:

- Skill in setting up machines, selecting appropriate tools, and adjusting machine parameters (speeds, feeds, depth of cut).

Duration: *40 hours*	**Duration:** *110 hours*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Understand and comply with safety, environmental & other relevant regulations and guidelines. • Wear personal protective equipment (PPE) like safety glasses, apron, no loose cloths/ hair, safety shoes while performing lathe operations regulationswhileperformingCNC turningoperations. • Ensureworkareaisclean andsafe • Ensurethatmachine safety guards are in place and are in correctly working condition. • Ensurethat all tools, equipment are in safe and usable conditions. • Ensure availability of job specification i.e. approved drawings, sketches, instructions from the supervisor, job instruction sheet/ job card. • Read and understand the Job requirements from the job specifications and attention shall be given to the geometric tolerances. • Check the work piece material for the dimensions and ensure that it is free from foreign objects, dirt or other contamination and is within the required size. • Plan to perform the turning or other lathe operations and the sequence of operations as per required job specifications. • Obtain all the appropriate tools and measuring instruments/ gauges required for the job. • Check the lathe machine for its functioning and ensure that it is ready for operation. • Prepare the lathe machine for the operations by mounting and setting the required work holding devices and cutting tools. • Clarify any doubt, if any and see necessary instruction /training on the operation of the machine whenever required. • Hold the work piece securely and correctly, without distortion. • Adjust the machine settings as per job requirement to maintain desired accuracy. • Adjust and set the speed and feed of the lathe machine to achieve the job specifications. • Operate the machine tool controls safely and correctly, in line with operational procedures both in manual and power modes. • Stop the lathe machine, both in normal and emergency situations correctly by following the right procedure and should be able to restart the machine after and emergency • Should be able to use the lathe machine accessories and attachments such as steady and follower rests, tail stock, taper turning attachments, profile attachments etc. • Perform various lathe operations using different tools to produce	• Operation of Lathe machine. • Various tools selection. • Measuring instruments operation. • Shop floor maintenance. • Pre-machining of work piece. • Finishing operations. • Cleaning of the work area & machine. • Preventive Maintenance of lathe machine.

components with various features. • Produce components as per required quality standards and free from burrs & sharp edges • Shall achieve given production targets. • Shall be able to apply roughing and finishing cuts, considering the effect on tool life, surface finish and dimensional accuracy. • Shall be able to use coolants/ cutting fluids for different combinations of work piece and tool as per different locations. • Shall be able to observe and report any difficulties/ discrepancies that may arise during the machine operation and carry out the corrective actions as per instructions. • Correctly shutting down the machine on completion of the machining operations, removing and disposing of the chips/ waste and critical parameters different locations. • Use of measuring instruments/ gauges to check the critical parameters. • Shall be able to carry out the corrective action, in the case of deviation from the required specifications. • Report the problem to the supervisor, if it cannot be resolved. • Seek guidance from the supervisor/ specialist of the problem is outside his/her area of competence.	
Class room Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster.	
Tools, Equipment and Other Requirements	
Measuring instruments like Vernier caliper, Micrometer, steel rulers, Sample job materials, Lathe machine, oil, cutting fluids, Tools, Lights	

Module 2: Perform turning and other lathe operations on metal or plastic workpieces using Computer Numerically Controlled Lathe machines
Mapped to : CPC/N 7012 & V2.0

Terminal Outcomes:

1. To equip students with the skills to program, set up, and operate CNC turning centers, enabling them to manufacture parts with precision and efficiency.

Duration: *40 hours*	**Duration: *110 hours***
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Understand and comply with safety, environmental & other relevant regulations and guidelines. • Wear personal protective equipment (PPE) like safety glasses, apron, no loose cloths/ hair, safety shoes while performing lathe operations whileperforming CNC turning operations. • Ensureworkareaisclean andsafe. • Ensurethatmachine safety guards are in place and are in correctly working condition. • Ensurethat all tools, equipment are in safe and usable conditions. • 6. Ensure availability of job specification i.e. approved drawings, sketches, instructions from the supervisor, job instruction sheet/ job card. • Read and understand the Job requirements from the job specifications and attention shall be given to the geometric tolerances. • Check the work piece material for the dimensions and ensure that it is free from foreign objects, dirt or other contamination and is within the required size. • Plan to perform the turning or other lathe operations and the sequence of operations as per required job specifications on CNC lathe machine. • Obtain all the appropriate tools and measuring instruments/ gauges required for the job. • Check the CNC lathe machine for its functioning and ensure that it is ready for operation • Prepare the CNC lathe machine for the operations by mounting and setting the required work holding devices and cutting tools • Clarify any doubt, if any and see necessary instruction /training on the operation of the CNC Lathe machine whenever required • Hold the work piece securely and correctly, without distortion • Adjust the CNC Lathe machine settings as per job requirement to maintain desired accuracy • Performdaily maintenanceofmachineaccordingtodefined checklist,atthebeginningof day's shifts. • Useandextractinformationfrom engineeringdrawings,dimensioningand tolerances • Useandextractinformationfromreferencecharts, tables, graphs and Engineering standards • Loadandunloadcomponent(s)usingpre-determined fixturesorworkholding devices asperworkinstructions • Make basic program and checkcorrectnessof program throughdryrun and single blockcheck • Adjust and set the speed and feed of the CNC lathe machine to achieve the job specifications	• Operation of CNC Lathe machine. • Program loading. • Program editing. • Fixtures selection. • Various tools selection. • Measuring instruments operation. • Shop floor maintenance. • Pre-machining of work piece. • Finishing operations. • Cleaning of the work area & machine. • Preventive Maintenance of lathe machine.

• Operate the machine tool controls safely and correctly, in line with operational procedures. • Stop the CNC lathe machine, both in normal and emergency situations correctly by following the right procedure and should be able to restart the machine after the emergency. • Do first part cutting trial by setting tool offsets to get oversize part. • Measure the critical parameters of the machined component on the machine (without removing from the machine). • Correct the offsets based on the measurements by accessing program edit facility in order to enter tooling data. • Measure the component after unloading to check for accuracy in the critical parameters as per job specifications. • Produce machined components that combine different turning operations and have a range of features. • Follow the specified machining sequence and procedure as per job specifications. • Interpret in-built machine alarms & respond to same as per operating manual or specified instructions. • Observe for inconsistency in dimensions due to tool wear and correct the offsets accordingly. • Ensure that machine settings are adjusted as and when required, either by self or the setter, to maintain the required accuracy. • Identify when tools need replacement and replace worn tool with new tool. • Produce components as per required standards. • Report problems and seek appropriate assistance in a timely manner • Complete documentation during and post operations as per organizational procedures and applicable quality management system. • Return the machine and all tools and equipment to the correct location on completion of activities. • Leave the work area in a safe and tidy condition on completion of job activities as per 5S practices. • Report the problem to the supervisor, if it cannot be resolved. • Seek guidance from the supervisor/ specialist of the problem is outside his/her area of competence.	
Class room Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster.	
Tools, Equipment and Other Requirements	
Measuring instruments like Vernier caliper, Micrometer, steel rulers, Sample job materials, CNC Lathe machine, oil, cutting fluids, Tools, Lights	

Module 3: Maintain basic health and safety practices at the Workplace, 5S

Mapped to : CPC/N 0411 & V2.0

- Strict adherence to safety protocols and procedures.
- Improved productivity and reduced waste.

Duration:*10 hours*	**Duration:*20 hours***
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Wear protective clothing/equipment for specific tasks and work conditions • Carry out safe working practices while dealing with hazards to ensure the safety of self and others. • Apply good housekeeping practices at all times • Use the various appropriate fire extinguishers on different types of fires correctly • Demonstrate rescue techniques applied during fire hazard, demonstrate good housekeeping in order to prevent fire hazards, demonstrate the correct use of a fire extinguisher. • Identify activities which can cause potential injury through sharp objects, burns, fall, electricity, gas leakages, radiation, poisonous fumes, chemicals, loud noise, and Identify areas in the plant which are potentially hazardous/unhygienic in nature. Conduct regular checks with support of the maintenance team on machine health to identify potential hazards due to wear and tear of machine. • Inform the concerned authorities on the potential risks identified in the processes, workplace area/ layout, materials used etc, Inform the concerned authorities about machine breakdowns, damages which can potentially harm man/ machine during operations. • Create awareness amongst other by sharing information on the identified risks. • Follow the sorting process and check that the tools, fixtures & jigs that are lying on workstations are the ones in use and un-necessary items are not cluttering the workbenches or work surfaces. • Ensure segregation of waste in hazardous/ non Hazardous waste as per the sorting work instructions • Follow the technique of waste disposal and waste storage in the proper bins as per SOP • Segregate the items which are labeled as red tag items for the process area and keep them in the correct places • Sort the tools/ equipment/ fasteners/ spare parts as per specifications/ utility into proper trays, cabinets, lockers as mentioned in the 5S guidelines/ workinstructions • Ensure that areas of material storage areas are not overflowing • Properly stack the various types of boxes and containers as per the size/ utility to avoid any fall of items/ breakage and also enable easy sorting when required • Return the extra material and tools to the designated sections and make sure that no additional material/ tool is lying near the work area • Follow the floor markings/ area markings used for demarcating the various sections in the plant as per the prescribed instructions and standards. • Follow the proper labelling mechanism of instruments/ boxes/	• Identifying and Eliminating Unnecessary Items • Using Red Tags. • Organizing Work Areas. • Cleaning and Maintaining Work Areas. • Inspecting Equipment. • Lubrication and Maintenance. • Developing Standard Operating Procedures (SOPs).

containers and maintaining reference files/ documents with the codes and the lists • Check that the items in the respective areas have been identified as broken or damaged • Follow the given instructions and check for leveling of fluids, oils, lubricants, solvents, chemicals etc. and proper storage of the same To avoid spillage, leakage, fire etc.	
Class room Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/ Smart Board, Marker, Duster.	
Tools, Equipment and Other Requirements:	
Computer System, Software.	

Module 4: Effective working with others

Mapped to: CPC/N 7014 & V2.0

Terminal Outcomes:

- Improved teamwork, Problem-solving and Project outcomes.

Duration:*10 hours*	**Duration:*20 hours***
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Displayappropriatecommunication etiquettewhileworking. • Displayactivelisteningskills whileinteractingwithothersatwork. • Demonstrateresponsibleanddisciplinedbehaviorsatthe workplace. • Accuratelyreceiveinformationandinstructions fromthesupervisor and fellowworkers,gettingclarificationwhererequired. • Accuratelypassoninformationtoauthorizedpersonswhorequire itand withinagreedtimescale& confirmitsreceipt. • Displayhelpfulbehaviorbyassisting others in performingtasksinapositive manner,whererequired andpossible. • Consultwith & assistothersto maximizeeffectivenessandefficiencyin carryingouttasks. • Escalategrievancesandproblems to appropriate authority as per procedure to resolve them & avoid conflict.	• Accurately receive information and instructions from the supervisor and fellow workers, getting clarification where required. • Consult with & assist others to maximize effectiveness and efficiency in carrying out tasks. • Escalate grievances and problems to appropriate authority as per procedure to resolve them & avoid conflict.
Class room Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster.	
Tools, Equipment and Other Requirements	
-	

Module5: Basics of computer and data entry in MS OFFICE/office open source software

Mapped to : CPC/N 0219 & V2.0

Terminal Outcomes:

- Foundational computer literacy, proficient typing, accuracy in data entry, and an understanding of data management.

Duration:*10 hours*	**Duration:*20 hours***
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Fillandprocessmandatedformsforreceiving,processing,ortracking data, enterdatafromsourcedocumentsintoComputerapplicationhaving MS OFFICE software. • Verify data entered with source documents, checks for compliance and correctsalltypographical errors andmissingor repeated data. • Maintainfilesofsourcedocumentsorotherinformationrelatedtoda ta entered. • Updatedatabaseinformationtoreflect mostcurrent sourceinformation. • Assistinthefilingandstorage ofsecurityandbackupdata files. • Respondtorequestsforinformationandaccessrelevantfiles.	• Create a Database. • Type Documents. • Practice with Software MS Office. • Organize Files.
Class room Aids:	
Charts,Models,Videopresentation,FlipChart,White-Board/SmartBoard,Marker,Duster.	
Tools, Equipment and Other Requirements	
Computer System, Software.	

Module 6: Basic knowledge of communication/ Soft Skills

Mapped to : CPC/N 0418 & V2.0

Terminal Outcomes: Improved communication, teamwork, problem-solving, leadership, and adaptability.

Duration:*10 hours*	**Duration:*20 hours***
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Accurately receive information and instructions from the supervisor/operator and fellow workers, getting clarification where required. • Accurately pass on information to authorized persons who require it and within agreed timescale and confirm its receipt. • Display helpful behavior by assisting others in performing tasks in a positive manner, where required and possible. • Basic Knowledge of consult with and assist others to maximize effectiveness and efficiency in carrying out tasks. • Basic Study of Fundamental of Computers. • Components of Computer: Hardware and the software. • Display active listening skills while interacting with others at work. • Use appropriate tone, pitch and language to convey politeness, assertiveness, care and professionalism. • Demonstrate responsible and disciplined behaviors at the workplace. • Escalate grievances and problems to appropriate authority as per procedure to resolve them and avoid conflict.	• Effective communication (including active listening and clear expression). • Teamwork and collaboration. • Problem-solving and critical thinking. • Time management, leadership, adaptability, and emotional intelligence.
Class room Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/ Smart Board, Marker, Duster.	
Tools, Equipment and Other Requirements:	
Computer System, Software.	

Module 7: Employability Skills
Mapped to: DGT/VSQ/N0101 & V1.0

Mandatory Duration: *30:00*			
Location: Training Centre			
S. No.	**Module Name**	**Key Learning Outcomes**	**Duration (hours)**
1.	Introduction to Employability Skills	• Discuss the importance of Employability Skills in meeting the job requirements.	1
2.	Constitutional values - Citizenship	• Explain constitutional values, civic rights, duties, citizenship, responsibility towards society etc. that are required to be followed to become a responsible citizen. • Show how to practice different environmentally sustainable practices.	1
3.	Becoming a Professional in the 21st Century	• Discuss 21st century skills. • Display positive attitude, self -motivation, problem solving, time management skills and continuous learning mindset in different situations.	1
4.	Basic English Skills	• Use appropriate basic English sentences/phrases while speaking.	2
5.	Communication Skills	• Demonstrate how to communicate in a well -mannered way with others. • Demonstrate working with others in a team.	4
6.	Diversity & Inclusion	• Show how to conduct oneself appropriately with all genders and PwD. • Discuss the significance of reporting sexual harassment issues in time.	1
7.	Financial and Legal Literacy	• Discuss the significance of using financial products and services safely and securely. • Explain the importance of managing expenses, income, and savings. • Explain the significance of approaching the concerned authorities in time for any exploitation as per legal rights and laws.	4
8.	Essential Digital Skills	• Show how to operate digital devices and use the associated applications and features, safely and securely. • Discuss the significance of using the internet for browsing, accessing social media platforms, safely and securely.	3
9.	Entrepreneurship	• Discuss the need for identifying opportunities for potential business, sources for arranging money and potential legal and financial challenges.	7
10.	Customer Service	• Differentiate between types of customers. • Explain the significance of identifying customer needs and addressing them. • Discuss the significance of maintaining hygiene and dressing appropriately.	4

11	Getting ready for apprenticeship & Jobs	● Create biodata. ● Use various sources to search and apply for jobs. ● Discuss the significance of dressing up neatly and maintaining hygiene for an interview. ● Discuss how to search and register for apprenticeship opportunities.	2

LIST OF TOOLS & EQUIPMENT FOR EMPLOYABILITY SKILLS		
S.No.	**Name of the Equipment**	**Quantity**
1.	Computer (PC) with latest configurations – and Internet connection with standard operating system and standard word processor and worksheet software (Licensed) (all software should either be latest version or one/two version below)	As required
2.	UPS	As required
3.	Scanner cum Printer	As required
4.	Computer Tables	As required
5.	Computer Chairs	As required
6.	LCD Projector	As required
7.	White Board 1200mm x 900mm	As required
Note: Above Tools & Equipment not required, if Computer LAB is available in the institute.		

Module 8: On-the-Job Training

Mandatory Duration: *30:00*
Module Name: On-the-Job Training
Location: On Site
Terminal Outcomes • On-the-Job Training (OJT) is a hands-on learning method where participants acquire skills and knowledge while performing their job tasks. • Participants learn specific job-related skills that are directly applicable to their roles. • Industrial training often leads to participants becoming more effective and efficient in their learning. • Industrial training experience builds the confidence level of participants. • Training occurs in the actual work environment, reducing the need for induction training programs while joining in industry. • Interaction with industry captains or mentors during training strengthens learning teamwork and workplace relationships. • Trainees become familiar with the industrial tools, systems, and workflows quickly. • Participants encounter and address challenges in industry, developing critical thinking and adaptability.

Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	**Specialization**	**Relevant Industry Experience**		**Training Experience**		**Remarks**
		Years	***Specialization***	***Years***	***Specialization***	
Diploma	Mechanical / Production / Plastics Mould / Tool / Tool & Die / Manufacturing Engineering / Technology	2	Metal Component Manufacturing, Conventional & CNC Machining, Mould, Tool & Die Making	-	-	-
B.E. / B.Tech. / M.Sc.	Mechanical / Production / Plastics Mould / Tool / Tool & Die / Manufacturing Engineering / Technology	-	-	-	-	-

Trainer Certification	
Domain Certification	**Platform Certification**
In addition to the minimum qualification, the trainer must be Certified mapped to the relevant Qualification Pack (CPC/Q0702) or a higher-level qualification, as per the career progression framework defined by CIPET.	Certified as "Trainer", aligned with the relevant Qualification Pack or a higher-level qualification, as determined by CIPET.

Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification	**Specialization**	**Relevant Industry Experience**		**Training/Assessment Experience**		**Remarks**
		Years	***Specialization***	***Years***	***Specialization***	
Diploma	Mechanical / Production / Plastics Mould / Tool / Tool & Die / Manufacturing Engineering / Technology	2	Metal Component Manufacturing, Conventional & CNC Machining, Mould, Tool & Die Making	3	Tool Room, CNC Technologies, Mould / Die Manufacturing	-
B.E. / B.Tech.	Mechanical / Production / Plastics Mould / Tool / Tool & Die / Manufacturing Engineering / Technology	1	Metal Component Manufacturing, Conventional & CNC Machining, Mould, Tool & Die Making	1	Tool Room, CNC Technologies, Mould / Die Manufacturing	-

Assessor Certification	
Domain Certification	**Platform Certification**
In addition to the minimum qualification, the assessor must be certified to the relevant Qualification Pack (CPC/Q0702) or a higher-level qualification, as per the career progression framework defined by CIPET.	Certified as "Assessor", aligned with the relevant Qualification Pack or a higher-level qualification, as determined by CIPET.

Assessment Strategy

This section includes the processes involved in identifying, gathering, and interpreting information to evaluate the Candidate on the required competencies of the program.

Mention the detailed assessment strategy in the provided template.

1. Assessment System Overview:
   - Batches are assigned to Training Assessment Wing (TAW), CIPET HO for planning of assessment
   - Training Centers request TAW for Assessment and Certification of Trainees
   - TAW identifies suitable assessor and nominates the assessor to the respective Training Centre
   - TAW monitors the assessment process
   - Training Centers maintain necessary records

2. Testing Environment:
   - Check the Assessment location, date and time
   - If the batch size is more than 30, then there should be 02 Assessors in a day (or) 01 assessor in 2 days
   - Check that the allotted time to the candidates to complete the Theory & Practical Assessment

3. Assessment Quality Assurance levels/Framework:
   - Question bank / Question Paper is prepared by the Subject Matter Experts (SME) / Assessor
   - Questions are mapped to the specified assessment criteria
   - Certified Assessor & Trainer will be engaged in the process

4. Types of evidence or evidence-gathering protocol:
   - Date / Time recorded for the reporting of the assessor from assessment location
   - Assessment batch - Group Photo of Trainees along with Assessor

5. Method of verification or validation:
   - Surprise visit to the assessment location
   - Virtual meet with the Assessor / Trainees

6. Method for assessment documentation, archiving, and access
   - Hard copies of the documents are stored, soft copies of assessment evidences are stored in Email for future correspondence

References

Glossary

Sector	Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform a similar/ related set of functions in an industry.
National Occupational Standards (NOS)	NOS are occupational standards which apply uniquely in the Indian context.
Qualifications Pack (QP)	QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualification pack code.

Acronyms and Abbreviations

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
NSQC	National Skills Qualifications Committe
PPE	Personal Protective Equipment
SOP	Standard Operating Procedure
CNC	Computer Numerical Control
CPC	Chemicals & Petrochemicals
OJT	On-the-Job Training