







APPRENTICESHIP CURRICULUM (OPTIONAL TRADE)

Rubber

Assistant Operator - Printing and Packaging V1

Course Code: C0072200023

⊠NAPS □Non-NAPS

NSQF Level: 3



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Course Details

1.	Course Name	Assist	ant Operator – Printing and Pack	kaging V1		
2.	Course Code	CO072200023				
3.	Apprenticeship Training Duration: (2 to 4 weeks of BT is embedded in this duration as per the requirement of the establishment)	Mont	hs: 12 months			
	Remarks					
4.	Credit	TBD				
5.	NSQF Level (Mandatory for NAPS)	3	NSQ	Approval Date: 3	0/12/2021	
6.	Related NSQF aligned qualification details	S. No.	QP/ Qualification/ NOS Name (As applicable)	QP/ NOS Code & Version	NQR Code	
		1	Assistant Operator – Printing and Packaging	RSC/Q8101_V1	2021/RUB/RSDC/04890	
7.	Brief Job Role Description	and of and of response	ndividual at work is responsible operating printing press equipm ensuring material flow for final possible helping the operator with sof items using a range of plasticards.	ent, carrying out the orduction. The incomplete incomplete incomplete incomplete incomplete.	he printing process cumbent is also tions of the different	
8.	NCO-2015 Code & Occupation (Access the NCO 2015 volumes from: https://labour.gov.in/organizationsofmole/directorate-general-employment-training-dget)	NCO	-2015/NIL			

		Printing and F	Packaging			
9.	Minimum Eligibility Criteria	8th Class with	n 1 Year of experier	nce relevant		
	(Educational and/ or Technical Qualification)					
10.	Entry Age for Apprenticeship	18 years				
11.	Any Licensing Requirements (wherever applicable)	NA				
12.	Is the Job Role amenable to Persons with Disability	☐ Yes 🗵	No No			
		If yes, check t	the applicable type	e of Disability		
		☐ Locomotor Disability	☐ Leprosy Cured Person	☐ Cerebral Palsy	☐ Dwarfism	□ Muscular Dystrophy
		☐ Acid Attack Victims	☐ Blindness	☐ Low Vision	□ Deaf	☐ Hard of Hearing
		☐ Speech and Language Disability	☐ Intellectual Disability	☐ Specific Learning Disabilities	☐ Autism Spectrum Disorder	☐ Mental Illness
		☐ Multiple Sclerosis	□ Parkinson's Disease	□ Haemophilia	☐ Thalassemia	☐ Sickle Cell Disease
		☐ Multiple Disabilities				
		Remarks:				
13.	Submitting Body Details	Name: Rubbe	er, Chemical & Petr o@rcpsdc.in	ochemical Skill Do	evelopment Cour	icil

		Contact Number: 011-41009347-48
14.	Certifying Body	Rubber, Chemical & Petrochemical Skill Development Council
15.	Employment Avenues/Opportunities	Self-Employment:
		Trainees can also start their own business and also provide jobs to otherpeople.
		Washing of the vehicles
		Jobs Opportunities in private companies:
		The trainees can get a job in a corporate as Automotive Washer.
16.	Career Progression	Assistant Operator - Printing and Packaging
		Operator - Printing and Packaging
		Supervisor - Printing and Packaging
		Manager - Printing and Packaging
17.	Trainer's Qualification & Experience:	Diploma (Engineering in Science Stream) with 5 years of industry experience
18.	Curriculum Creation Date	07/07/2022
19.	Curriculum Valid up to Date	30/12/2024

Module Details

S.no	Module/NOS Name, Code, Version	Outcomes	Assess			sing entage
	code, version		Th.	Pr.	Th.	Pr.
1	Introduction to Plastic Industry and Role of Assistant Operator - Printing and Packaging Bridge Module	 Discuss the objectives and benefits of the Skill India Mission Describe the scope of the Plastic Industry and its sub-sectors Discuss job role and opportunities for Assistant Operator - Printing and Packaging in Plastic Manufacturing sector Elaborate the basic terminology used in Plastic Manufacturing sector 	0	0	0	0
S. No	Module/NOS Name, Code, Version	Outcomes	Assess Marks		Passi Perce	ng entage Pr.

2	Assist in printing of the packaging material RSC/N8102 Version: 1.0	 Describe the methods of obtaining blueprints, work orders or other instructions Discuss principles of image production, typesetting, image combing, etc. and fundamentals of printing process List various tools and equipment used to produce prints Role play on how to assist the Operator in adjusting the printing matter on a control panel or computer monitor using software like Adobe creative suites, CorelDraw etc. Show how to set up the printing plates/cylinders/nylon plates with image carrier, ready for mounting on a printing press Employ proper techniques to check image size and resolution, matter, layout dimensions, cut mark, and color accuracy Apply appropriate practices to arrange the equipment to perform production tasks according to manufacturer specifications and work health and safety (WHS) requirements Describe the functions and principles of operation of printing equipment, machine components, guides and ancillary equipment for printing operations Describe physical and chemical properties and capabilities of materials used to produce prints along with substrates range used for printing Discuss basic characteristics of converting and finishing processes of printing Discuss basic characteristics of converting and finishing processes of printing Outline the importance of making adjustments as per Operator's instructions and required quality standards State the importance of cleaning the printing blanket/cylinder and maintaining the supply of materials to support operation of printing equipment Explain the procedures for working safely and sustainably with materials, tools and equipment for producing print works Show how to set-up the print/image carriers like plates/cylinders/nylon plates and substrate/matter feeders and adjust feed and tension controls Demonstrate how to fill the ink in the right duc	40	60	50%	50%
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- Show how to perform the colour registration process
- Role play on how to report issues of the printing machines to the designated person
- Apply proper practices to label and store unused ink and coating, as per standard procedure
- Employ appropriate methods to remove solid and liquid waste from operating area and recycle and dispose them according to the regulatory requirements and standard procedures
- Apply proper process to assist the Operator in shutting down the work area
- Prepare blueprints, work orders etc
- Make image production, typesetting, image combing, for the printing process.
- Prepare tools and equipment used to produce prints
- Use software to assist the operator in adjusting the printing matter on the control penal or monitor.
- Print plates/cylinders/nylon plates with image carrier.
- Make sure that the image size, layout dimension, cut mark, color accuracy, and resolution are accurate.
- Configure the equipment to perform production tasks according to manufacturer specifications.
- Follow the regulations related to work health and safety (WHS).
- Operate printing equipment, machine components, guides and ancillary equipment for printing.
- Use materials to produce prints along with substrates range used for printing.
- Converting and finishing processes of printing.
- Adjust as directed by the operator and according to the quality standard.
- Clean the printing blanket/cylinder.
- Maintain the supply of materials to support the operation of printing equipment.
- Work safely and sustainably with materials, tools and equipment for producing print works
- Create and set up carriers such as print/image, plates/cylinders/nylon plates, etc
- Fill the ink in the right ducts.
- Adjust the flow of ink in the inking rollers.
- Assist the operator in operating the equipment and keep the substrate/matter feeders well stocked.
- Perform colour registration process.
- Report issues of the printing machines to the designated person.
- Use standard practices for labeling and storing unused inks and procedures
- Remove solid and liquid waste from the operating area.
- Recycle and dispose of the waste as per the regulatory requirements and standard procedures.
- Provide assistance to the operator in shutting down the work area.

S. No	Module/NOS Name, Code, Version	Outcomes	Assess		Passii Perce	ng ntage
	Code, version		Th.	Pr.	Th.	Pr.
3	Assist in performing packaging operations for different types of items RSC/N8101 Version: 1.0	 Discuss the purpose and basic principles of the packaging process, different types of packaging design and the particular considerations that apply Elaborate on the characteristics required of packaging materials used in packaging process Explain the methods of obtaining and clarifying the work instructions received from Operator Describe the methods of cleaning the workplace as per standard work procedure Apply proper methods to procure the packaging components and consumables, materials and items to be packaged as per operating requirements Show how to fit and adjust packaging machine components and related attachments and load or position materials, product and packaging components, and consumables as per standard procedure Employ appropriate techniques to enter processing/operating parameters and select and adjust machine settings according to standard procedures Outline the product and packaging coding requirements and related legal requirements Discuss basic operating principles of packaging equipment Explain the flow of processes supplying the packaging process, effect of outputs on downstream processes, quality characteristics required of the packaging process and typical packaging related problems Describe the methods of starting, operating and monitoring the packaging process to confirm with the specifications Explain the standard procedure of shutting down the packaging operations safely 	40	60	50%	50%

	 Describe the methods of storing packaged items in a safe, orderly, and retrievable manner and recording the location in the warehouse/store Role play on how to assist the Operator in identifying and rectifying out-of- specification equipment and product or process outcomes according to the workplace requirements and maintaining workplace records according to procedures
	Show how to place or attach the identification labels, tags and stickers in an appropriate manner
	ON THE JOB TRAINING
	Pack different types of design and apply the particular considerations.
	Pack materials used in packaging process.
	Obtain and clarifying the work instructions received from operator.
	Clean the workplace as per standard work procedure.
	Apply proper methods to procure the
	packaging components.
	Pack consumables, materials and items as per operating requirements.
	Fit and adjust packaging machine components and related attachments.
	Load materials, product and packaging components as per standard procedure.
	Use appropriate techniques to enter processing/operating parameters.
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		 Adjust and set the machine settings according to standard procedures. Indicate the product coding requirements and legal requirements associated with them. Pack the given equipment. Supply the packaging process. Supply quality characteristics required of the packaging process and typical packaging related problems. Operate and monitor the packaging process to confirm the specifications. Putting an end to packaging operations safely. Store the items in a safe, orderly, and retrievable manner. Record the location in the warehouse/store. Identifying and rectifying the specification of equipment and product. Process the outcomes according to the workplace requirements. Maintain the workplace records according to procedures. Check the identification labels, tags, and stickers as they are attaching and place in an appropriate manner. 				
4	Coordinate and communicate effectively at the workplace RSC/N5610 Version: 1.0	 Explain the standard policies on behavioural etiquette, professionalism and gender sensitive service practices at workplace and standard hierarchy and reporting structure Discuss effective ways of team coordination List the key helpline numbers State the significance of listening, responding, trusting, supporting and respecting all colleagues and seniors Outline the importance of maintaining clarity, honesty and transparency while communicating with the seniors and colleagues as well as seeking clarification on the information provided by seniors Discuss the importance of complying with standard policies and procedures for team work and respecting the personal and professional space of colleagues and superiors 	40	60	50%	50%

Role play on how interact with colleagues and seniors in a polite and professional manner, listen
actively to the issues or requirements of colleagues and respond timely and appropriately
Dramatize how to pass on essential information to the colleagues timely and coordinate with seniors on work-related and behavioral feedback
Role play on how to report the status of work in the desired format as per the schedule to seniors and inform about any deviations or anomalies
Dramatize on how to coordinate and support maintenance/engineering team and environmental
health and safety (EHS) team and other department for smooth work process
Role play on how to provide inputs to the
concerned stakeholders for reviewing and detect non-compliance
Perform behavioral etiquette, professionalism and gender sensitive service.
Coordinate in an effective way with team.
Manage key helpline numbers.
Listen, respond, trust, support and respect all colleagues and seniors.
Maintain clarity, honesty and transparency
while communicating with the seniors.
Seeking clarification on the information provided by seniors.
Comply with standard policies and procedures for team work.
Respect the personal and professional space
of colleagues and superiors.
Interact with colleagues and seniors in a polite and professional manner.
Listen to the issues or requirements of colleagues.
Respond timely and appropriately.
Coordinate with seniors on work-related and behavioral feedback.
Report the status of work in the desired format as per the schedule to seniors.
Inform about any deviations or anomalies.
Coordinate and support maintenance/engineering team.

		Coordinate environmental health and safety (EHS) team and other department for smooth work process.				
5	Carry out housekeeping RSC/N5001 Version: 3.0	 Describe what is housekeeping. Explain the importance of housekeeping in storage area. List the cleaning equipment and chemicals used for cleaning process. Identify various safety boards/ signs placed on the shop floor. Discuss the importance of adequate ventilation during cleaning work. Discuss the importance of monitoring and supervising the cleaning activities. Describe what is '5s.' Define each 'S' and its meaning. Discuss the necessary precautions to avoid any hazard and accident during cleaning activities. Discuss the documents and records needed to be maintained and updated related to cleaning activities done. Demonstrate how to inspect the area for cleaning purpose. Apply appropriate ways to check the working condition of cleaning equipment. Demonstrate the cleaning process of creel room area and equipment with the specified cleaning aid and chemicals. Prepare a sample report related to issues occur during cleaning activities and for requirement of any additional cleaning at workarea. Apply appropriate ways to check that workarea is cleaned properly after completion of cleaning activities. Show how to return back the cleaning equipment and material to store after completion of work. Show how to dispose the waste material properly as per the organisation's policies and environmental regulations. Identify the potential risks, damages and major causes of potential injuries such as sharp objects, burns, falls, etc. and report the same to the concerned authorities. Illustrate the relevant standards, procedures and policies related to health, safety and environment followed in the company. Follow the safety procedures (firefighting, first aid) to be followed within the organization. Follow the instructions given on the equipment manual describing the operating process of the equipment. 	40	60	50%	50%

Perform inspection of the working area while taking into account various surfaces.		

that preventive actions can be planned for others. Ensure the work area, tools, equipment and materials are clean. Store cleaning material and equipment in the correct location and in good condition. Ensure cleanliness of self and the workplace without disturbing others. Follow daily cleaning schedules according to organization standards. Use correct cleaning methods for the work area, type of soiling and surface. Sort materials, tools, equipment, spare parts and place them in their designated storage area. Follow proper procedures for marking or repairing. Follow proper storage procedures for spares. Follow the proper procedure for dealing with the accidental damage, if any, caused while carrying out work. List the importance of waste disposal. Carry out segregation of waste into hazardous and non-hazardous waste and dispose the waste as per SOP. Participate in training programs, audit, and other activities of 5s groups. Follow 5S guidelines at workplace. Perform the job within given time as per quality standards/work schedule		
 Develop a plan with the seniors for cleaning the area to avoid re-soiling clean areas and surfaces. List the various types of PPE and their usage. Operate the machine using the recommended Personal Protective Equipment (PPE). Maintain a clean and safe working environment near the workplace and ensure there is no spillage of chemicals, production waste, oil, solvents etc. Ensure that there is adequate ventilation for the work being carried out. Inform the medical officer/ HR using organisational procedures in case of self or an employee's illness of contagious nature so 		

 Prepare a sample report of data/problems/incidents as applicable in a timely manner Perform in accordance with the organisational policies and procedures 		
 Follow the reporting structure laid down by the organisation Manage time effectively at work Apply best practices to keep workplace clean Acquire knowledge and understanding required for planning and organising. Interact and communicate effectively with colleagues including members in the own group as well as other groups Use all forms of verbal and non-verbal methods to communicate clearly and effectively with colleagues, supervisors, customers and other stakeholders List the required documents related to one's role in the organisation Prepare a sample form showing how to fill the details in an appropriate manner Ensure completion of all documentation within stipulated time according to company procedure Ensure that confidentiality of information is maintained at all times Apply the best practices for grooming to look presentable and make good impression on customers Use proper personal etiquettes at workplace Acquire knowledge and understanding required for team working 		
 Resolve inter-personnel conflicts and achieve smooth workflow Assist colleagues in resolving problems Achieve optimal servicing quality and standards with full cooperation of colleagues Define need of Quality Control in Tyre/Rubber products finishing Ensure damage free handling of the equipment List the range of checks to be performed on the final products Use appropriate measuring instruments, equipment, tools, accessories etc, as required Perform diagnoses accurately and within the assigned time Ensure 100% customer satisfaction 		

		Perform steps for establishing the suspected reasons for the non- conformance				
		Follow the catalogues to match the products				
		Communicate problem/remedial action to appropriate parties				
		Take corrective action for problems identified according to the company procedures within the				
		stipulated time				
		Closely monitor the corrective action				
		Evaluate implementation of corrective action taken to determine if the problem has been resolved				
		Discuss with the seniors whether the corrective action selected is viable/practical or not				
		Describe need for escalation				
		Discuss how to escalate the problem laid down by the escalation matrix within the stipulated time				
		Follow the documentation procedure for recording such problems, as per company norms				
		Explain the health and safety requirements in storage facility.				
	Carry out health and	Discuss organisational procedures for health, safety and security and individual role and				
	safety	responsibilities related to the same.				
	RSC/N5007	Describe the ill-effects of improper storage conditions in storage area.				
	Version: 3.0	List the safety arrangement available in storage area.				
		Outline the requirements of Personal Protective Equipment (PPE) during storage operations.				
6		State details of common injuries which can occur while working in a storage area.	30	70	50%	50%
		Recall the constituents of a first aid box used in industry.				
		Demonstrate the use of the given Personal Protective Equipment (PPE).				
		Demonstrate how to handle fire emergencies through a role play.				
		Demonstrate how to use a multi-purpose fire extinguisher on simulated fire.				
		• Select the fire extinguisher from the given fire extinguishers, for the specified fire type and class.				
		Demonstrate first aid procedure for a given injury.				

		 List the health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards Demonstrate how to use a multi-purpose fire extinguisher on simulated fire. Ensure that all activities are carried out in an appropriate manner without risking lives Spread awareness about first aid, evacuation and emergency procedures Follow all safety procedures at all times without neglecting any event Demonstrate how to use safety materials such as protective gear, goggles, caps, shoes, etc. (as applicable with workplace) Demonstrate how to handle heavy and hazardous materials with care and using appropriate tools and handling equipment such as trolleys, ladders Discuss the different methods for minimizing environmental damage during work. 				
		 Use certified/tested tools and machine Adhere to all safety norms (such as wearing protective gloves and shoes) List the health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards Demonstrate how to safely handle the fork type trimming knife List the materials to be avoided on the inspection table/place Ensure that all activities are carried out in an appropriate manner without risking lives Adhere to all safety norms (such as wearing protective gloves, masks and shoes) Monitor closely all procedures and work instructions for controlling risk Report any accidents, incidents or problems without delay to an appropriate person and take immediate necessary action to reduce further danger. 				
7	Follow ethical and sustainable practices at the workplace RSC/N5603	 Discuss organisational policies for usage of alternate energy source, such as solar energy, for the site. Discuss the importance of efficient utilization of fuels, material, water and energy/ electricity. Explain the processes to optimize usage of fuels, material, water and energy/ electricity. Enlist common practices for conserving electricity at workplace. 	40	60	50%	50%

Version: 1.0	 Discuss the significance of greening. Classify different categories of waste for the purpose of segregation. Differentiate between hazardous, recyclable and non-recyclable waste. Discuss various methods of waste collection and disposal. Discuss the importance of completing tasks on time. Discuss the ways to adjust the communication styles to reflect sensitivity towards gender and persons with disability (PwD). Discuss gender-based concepts, issues and legislation as well organization standards, guidelines, rights and duties of PwD. Discuss the importance of PwD and gender sensitization. State the importance of following organizational standards and guidelines related to PwD. Employ practices for efficient utilization of fuels, material, water and energy/ electricity. Apply appropriate ways to prevent soil erosion during plantation and other related activities. Demonstrate proper waste collection and disposal mechanism depending upon types of waste. Apply appropriate ways to organize storage of recyclable and reusable material at identified location. Employ different means and methods of communication depending upon the requirement to interact with the team members. Demonstrate how to communicate with different genders and persons with disability (PwD) in a sensitive manner. Role play a situation on how to offer help to people with disability (PwD) if required at work. 			
Duration (in Hours) / Total Ma	arks/Passing Percentage	230	370	50%
Consolidated Duration (Theory + Practical) in Hours		Values used for calculation: 1 week: 45 hrs.		
Consolidated Duration (Theory + Practical) in Months & Days				reeks

Glossary

Term	Description
Sector	Sector is a conglomeration of different business operations
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 similar/ related set of functions in an industry.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organization.
National Occupational	NOS are occupational standards which apply uniquely in the Indian context.
Standards (NOS)	

Acronyms

Acronym	Description
NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training

Annexure 1: Tools and Equipment

List of Tools and Equipment

The tools and equipment required are:

S.no	Tool / Equipmen0t Name	Specification
1	Printing Machine	1
2	Wire cutters	5
3	Packaging Box (Perforated)	10
4	Glue Dispenser	2
5	Sample Labels	10
6	Weighing Balance	1
7	Material Safety Data Sheet	10
8	Sample Packaging Planning Schedule	10
9	Sample Log Books	10
10	Pvc Apron	5
11	Safety Goggles	10
12	Gum Boots	5
13	Gloves	30
14	Face Mask	30
	Material handling equipment like different size tote Pans, flex baskets, strapping tensioners, carton sealers, cello tape, polyester strap, stretch wrapper, weighing scales, pallet rack,	
15	shelves,	1

Classroom Aids

The aids required to conduct sessions in the classroom are:

- 1 Projector
- 2 Computer/laptops
- 3 Internet connectivity

4 Whiteboard

Annexure 2: Assessment Strategy

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

Assessment System Overview:

- Batches assigned to the assessment agencies for conducting the assessment on SDSM/SIP or email
- Assessment agencies send the assessment confirmation to VTP/TC looping SSC
- Assessment agency deploys the ToA certified Assessor for executing the assessment
- SSC monitors the assessment process & records
- If the batch size is more than 30, then there should be 2 Assessors.

Testing Environment: Assessor must:

- Confirm that the centre is available at the same address as mentioned on SDMS or SIP
- Check the duration of the training.
- Check the Assessment Start and End time to be as 10 a.m. and 5 p.m.
- Check that the allotted time to the candidates to complete Theory & Practical Assessment is correct.
- Check the mode of assessment—Online (TAB/Computer) or Offline (OMR/PP).
- Confirm the number of TABs on the ground are correct to execute the Assessment smoothly.
- Check the availability of the Lab Equipment for the particular Job Role.

Assessment Quality Assurance levels / Framework:

- Question papers created by the Subject Matter Experts (SME)
- Question papers created by the SME should be verified by the other subject Matter Experts along with the approval required from SSC

- Questions are mapped with NOS and PC
- Question papers are prepared considering that level 1 to 3 is for the unskilled & semi-skilled individuals, and level 4 and above are for the skilled, supervisor & higher management Apprenticeship Curriculum: NAPS Jr. Machine Operator CNC Milling of Plastic Page 20 of 14
- Assessor must be ToA certified
- Assessment agency must follow the assessment guidelines to conduct the assessment

Types of evidence or evidence-gathering protocol:

- Time-stamped & geotagged reporting of the assessor from assessment location
- Centre photographs with signboards and scheme specific branding
- Biometric or manual attendance sheet (stamped by TP) of the trainees during the training period
- Time-stamped & geotagged assessment (Theory + Viva + Practical) photographs & videos.

Method of verification or validation:

- Surprise visit to the assessment location
- Random audit of the batch
- Random audit of any candidate

Method for assessment documentation, archiving, and access

- Hard copies of the documents are stored
- Soft copies of the documents & photographs of the assessment are uploaded / accessed from Cloud Storage and are stored in the Hard Drive

On the Job:

- 1. Assessment for on the job training to be conducted by the industry partner on the practical competency output defined in the NOS/QP and the assessment criteria.
- 2. The candidate must score 70% in each module to complete the OJT.
- 3. Tools of Assessment that can be used are:
 - a. Videos of Trainees during OJT should be shared by employer to RCPSDC.
- 4. Assessment will ensure that the apprentice will be able to:
 - a. Work effectively and efficiently as per schedules and timelines while complying with the health and hygiene norms.
 - b. Implement safety practices.
 - c. Optimize the use of resources to ensure less wastage and maximum conservation.
 - d. Communicate effectively and develop interpersonal skills.