

APPRENTICESHIP CURRICULUM (OPTIONAL TRADE)

Furniture and Fittings

Multipurpose Assistant- Furniture Production and Installation:

Machine Shop

Course Code: CO032400012

NAPS Non-NAPS

NSQF Level: 3



Table of Contents

Course Details	3
Module Details	7
Glossary	26
Acronyms	27
Annexure 1: Tools and Equipment	28
List of Tools and Equipment.....	28
Classroom Aids	30
Annexure 2: Assessment Strategy.....	31

Course Details

1.	Course Name	Multipurpose Assistant- Furniture Production and Installation: Machine Shop										
2.	Course Code	CO032400012										
3.	Apprenticeship Training Duration: <i>(2 to 4 weeks of BT is embedded in this duration as per the requirement of the establishment)</i>	Months: 6 Months										
	Remarks											
4.	Credit	20										
5.	NSQF Level <i>(Mandatory for NAPS)</i>	3	NSQC Approval Date: 31 st August 2023									
6.	Related NSQF aligned qualification details	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">S. No.</th> <th style="text-align: center;">QP/ Qualification/ NOS Name (As applicable)</th> <th style="text-align: center;">QP/ NOS Code & Version</th> <th style="text-align: center;">NQR Code</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td>Multipurpose Assistant- Furniture Production and Installation: Machine Shop</td> <td style="text-align: center;">FFS/Q0901- SI002 Version: 1.0</td> <td style="text-align: center;">QG-03-WC-00819-2023-V1-FFSC</td> </tr> </tbody> </table>			S. No.	QP/ Qualification/ NOS Name (As applicable)	QP/ NOS Code & Version	NQR Code	1	Multipurpose Assistant- Furniture Production and Installation: Machine Shop	FFS/Q0901- SI002 Version: 1.0	QG-03-WC-00819-2023-V1-FFSC
		S. No.	QP/ Qualification/ NOS Name (As applicable)	QP/ NOS Code & Version	NQR Code							
1	Multipurpose Assistant- Furniture Production and Installation: Machine Shop	FFS/Q0901- SI002 Version: 1.0	QG-03-WC-00819-2023-V1-FFSC									
7.	Brief Job Role Description	<p>Multipurpose Assistant in Furniture Production and Installation is a beginner who assists in interpreting work dockets, conducting work site recce, compiling lists of required materials, tools, and equipment, and setting up the work area as per operational needs. This individual may choose a specialization from a range of options, such as store/warehouse operations, woodworking, machine shop operations, furniture finishing, upholstery, furniture packaging, or furniture installation operations. The role involves supporting the smooth execution of tasks and maintaining an organized work environment.</p>										
8.	NCO-2015 Code & Occupation <i>(Access the NCO 2015 volumes from: https://labour.gov.in/organizationsofmole/directorate-general-employment-training-dget)</i>	NCO-2015/7115.9900										

<p>9.</p>	<p>Minimum Eligibility Criteria <i>(Educational and/ or Technical Qualification)</i></p>	<p>10th Class with NA of experience OR 8th grade pass with 1 year of (NTC/ NAC) after 8th with NA of experience OR 8th grade pass and pursuing continuous schooling with NA of experience OR 9th grade pass (Pursuing continuous schooling in regular school) with NA of experience OR 9th grade pass with 1 Year of experience Relevant Experience OR 8th grade pass with 2 Years of experience Relevant Experience OR 5th grade pass with 5 Years of experience Relevant Experience OR Previous relevant Qualification of NSQF Level (Foundation course on Design-Build-Install at Level-2) with 3 Years of experience Relevant Experience\</p>
<p>10.</p>	<p>Entry Age for Apprenticeship</p>	<p><i>14 years</i></p>
<p>11.</p>	<p>Any Licensing Requirements <i>(wherever applicable)</i></p>	<p>N.A.</p>

12.	Is the Job Role amenable to Persons with Disability	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If yes, check the applicable type of Disability</p> <table border="0"> <tr> <td><input type="checkbox"/> Locomotor Disability</td> <td><input type="checkbox"/> Leprosy Cured Person</td> <td><input type="checkbox"/> Cerebral Palsy</td> <td><input type="checkbox"/> Dwarfism</td> <td><input type="checkbox"/> Muscular Dystrophy</td> </tr> <tr> <td><input checked="" type="checkbox"/> Acid Attack Victims</td> <td><input type="checkbox"/> Blindness</td> <td><input type="checkbox"/> Low Vision</td> <td><input type="checkbox"/> Deaf</td> <td><input type="checkbox"/> Hard of Hearing</td> </tr> <tr> <td><input type="checkbox"/> Speech and Language Disability</td> <td><input type="checkbox"/> Intellectual Disability</td> <td><input type="checkbox"/> Specific Learning Disabilities</td> <td><input type="checkbox"/> Autism Spectrum Disorder</td> <td><input type="checkbox"/> Mental Illness</td> </tr> <tr> <td><input type="checkbox"/> Multiple Sclerosis</td> <td><input type="checkbox"/> Parkinson's Disease</td> <td><input type="checkbox"/> Haemophilia</td> <td><input type="checkbox"/> Thalassemia</td> <td><input type="checkbox"/> Sickle Cell Disease</td> </tr> <tr> <td><input type="checkbox"/> Multiple Disabilities</td> <td colspan="4"></td> </tr> </table> <p>Remarks:</p>	<input type="checkbox"/> Locomotor Disability	<input type="checkbox"/> Leprosy Cured Person	<input type="checkbox"/> Cerebral Palsy	<input type="checkbox"/> Dwarfism	<input type="checkbox"/> Muscular Dystrophy	<input checked="" type="checkbox"/> Acid Attack Victims	<input type="checkbox"/> Blindness	<input type="checkbox"/> Low Vision	<input type="checkbox"/> Deaf	<input type="checkbox"/> Hard of Hearing	<input type="checkbox"/> Speech and Language Disability	<input type="checkbox"/> Intellectual Disability	<input type="checkbox"/> Specific Learning Disabilities	<input type="checkbox"/> Autism Spectrum Disorder	<input type="checkbox"/> Mental Illness	<input type="checkbox"/> Multiple Sclerosis	<input type="checkbox"/> Parkinson's Disease	<input type="checkbox"/> Haemophilia	<input type="checkbox"/> Thalassemia	<input type="checkbox"/> Sickle Cell Disease	<input type="checkbox"/> Multiple Disabilities				
<input type="checkbox"/> Locomotor Disability	<input type="checkbox"/> Leprosy Cured Person	<input type="checkbox"/> Cerebral Palsy	<input type="checkbox"/> Dwarfism	<input type="checkbox"/> Muscular Dystrophy																							
<input checked="" type="checkbox"/> Acid Attack Victims	<input type="checkbox"/> Blindness	<input type="checkbox"/> Low Vision	<input type="checkbox"/> Deaf	<input type="checkbox"/> Hard of Hearing																							
<input type="checkbox"/> Speech and Language Disability	<input type="checkbox"/> Intellectual Disability	<input type="checkbox"/> Specific Learning Disabilities	<input type="checkbox"/> Autism Spectrum Disorder	<input type="checkbox"/> Mental Illness																							
<input type="checkbox"/> Multiple Sclerosis	<input type="checkbox"/> Parkinson's Disease	<input type="checkbox"/> Haemophilia	<input type="checkbox"/> Thalassemia	<input type="checkbox"/> Sickle Cell Disease																							
<input type="checkbox"/> Multiple Disabilities																											
13.	Submitting Body Details	<p>Name: Furniture and Fittings Skill Council E-mail ID: info@ffsc.in Contact Number: +91 124 4513900</p>																									
14.	Certifying Body	Furniture and Fittings Skill Council																									
15.	Employment Avenues/Opportunities	<p>After completing this program, participants may have any of the following opportunities:</p> <ul style="list-style-type: none"> • Employed as a Multipurpose Assistant- Machine Operator in a Factory/ Workshop • Employed as a Multipurpose Assistant- Machine Operator in a Worksite/ On-site 																									

16.	Career Progression	Vertical Progression Assistant Panelworks Machine Operator (Level-4) Or Assistant Woodworking Machine Operator (Level-4)
17.	Trainer's Qualification & Experience	Graduate (Engineering, Architecture, Interior Design, Furniture Manufacturing, Wood Work, Product Design or Any other Discipline) with 2 years' experience (Industry), 1 year experience (Teaching) OR I.T.I (Carpentry, Furniture Manufacturing) with 3 years' experience (Industry), 1 year experience (Teaching) OR Diploma (Carpentry, Furniture Manufacturing) with 3 years' experience (Industry), 1 year experience (Teaching) OR Certificate-NSQF (NSQF Level 3 Multipurpose Assistant (FFS/Q0901)) with 4 years' experience (Industry), 1 year experience (Teaching) OR Certificate (NSQF Level 4 (Based on elective opted) Or above) with 3 years' experience (Industry), 1 year experience (Teaching) OR 8th Class (Grade 8 Pass) with 3 years' experience (Industry), 1 year experience (Teaching) OR CITS (Relevant CITS Course) with 3 years' experience (Industry), 1 year experience (Teaching)
18.	Curriculum Creation Date	07-03-2024
19.	Curriculum Valid up to Date	31-08-2026

Module Details

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
1	Introduction to the role of a Multipurpose Assistant- Furniture Production and Installation Bridge Module	<ul style="list-style-type: none"> • Describe the Furniture production trade and its scope in the Interiors, furniture, and fittings sector. • Describe the roles and responsibilities of Multipurpose Assistant and the reporting levels. • Explain the transition to Level-4 based on specialization selected with an overview of the apprenticeship program. • Describe the mechanics of job card scheduling. • Follow all the organizational policies and schedules applicable to the Multipurpose Assistant job role while working. • Practice job card management in every assigned task for effective work monitoring. • Demonstrate the elements of the code of conduct with the employer while working. 	0	0	0	0
2	Introduction to types of materials, tools and equipment, machines Bridge Module	<ul style="list-style-type: none"> • Describe common types and characteristics of solid wood. • Identify and describe the application of engineered wood products. • Describe how lumber is milled, seasoned, stored, and ordered. • Explain the safe usage of different hand and power tools. • Describe the fasteners and adhesives used for wood and wood derivative materials. • Describe the types and uses of sanding abrasives. • Describe the routine maintenance process for using different hand, power, and machine tools. 	0	0	0	0

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
		<ul style="list-style-type: none"> • Differentiate between different types of wood species and wood derivative materials. • Differentiate between the thickness and size of different engineered wood derivate materials. • Identify various types of architectural hardware and their technical specifications. • Practice the installation of a range of hardware and accessories. • Inspect the safe working of tools and equipment before usage. • Perform the calibration of required tools and equipment before usage. • Practice the usage of various hand tools in the woodworking process. • Practice the usage of various portable power tools in the woodworking process. • Practice the usage of various stationary power tools in the woodworking process. • Practice the usage of a portable sander for finishing processes. • Demonstrate the safe operation and regular maintenance of portable planning and shaping equipment. • Demonstrate the steps involved in using a miter saw and circular saw. • Practice the usage of different marking tools for the fabrication of components. • Demonstrate the steps involved in the sharpening of hand tools and machine blades. • Perform the fabrication of assigned projects using appropriate fasteners, adhesives, hand, and power tools. 				

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
3	Work docket interpretation Mapped to FFS/N0901, v1.0	<ul style="list-style-type: none"> Define the job card's purpose, scope of work, objectives, resource requirements, and interpret the card to identify specific tasks and deliverables. List the components of work dockets, with a focus on timely job cards submission. Describe the interpretation of technical drawings, emphasizing precision through symbol differentiation. Explain the importance of part list, cutting list, material list, and equipment list, highlighting the significance of each component. Apply critical thinking skills to assess job card information, ensuring all details align with project requirements before execution. Demonstrate effective communication skills in discussing and clarifying job card details with supervisor, promoting a collaborative work environment. Demonstrate precise completion of job cards, ensuring accurate recording of relevant details and timely fulfillment. Implement time-management strategies to complete job cards accurately and promptly, adhering to project timelines and deadlines. Organize work dockets proficiently, integrating all essential information. Utilize problem-solving techniques to address anomalies or missing elements within work dockets, fostering a proactive approach to job preparation. Identify and interpret crucial components in technical drawings, including plans, elevations, and exploded views, showcasing practical proficiency. 	8	40	70%	70%

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
		<ul style="list-style-type: none"> • Display the ability to translate and visualize 2D representations from technical drawings into a comprehensive understanding of designs, ensuring practical application. • Apply proficiency in reading and comprehending part lists, cutting lists, material lists, and tools and equipment lists. • Conduct practical exercises in reading and interpreting diverse lists associated with woodworking projects, reinforcing organizational skills in a workshop setting. 				
4	Recce of the worksite Mapped to FFS/N0901, v1.0	<ul style="list-style-type: none"> • Discuss the steps involved in preparing a comprehensive recce list for effective reconnaissance. • Explain the significance of maintaining a clean work area and its impact on precise marking and measurement activities. • Describe the role of a physical site survey in the broader context of furniture design and manufacturing processes. • Illustrate accurate marking techniques in accordance with layout and plan specifications. • Discuss the significance of timely compilation and accurate documentation of measurements for effective communication and record-keeping. • Identify and gather essential materials, tools, or equipment for recce, demonstrating an understanding of basic project requirements. • Plan and prepare materials and tools systematically, adhering to guidelines for efficient recce activities. • Use basic tools to clean and organize the work area, removing debris for a clutter-free space conducive to marking and measurement tasks. 	10	42	70%	70%

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
		<ul style="list-style-type: none"> • Inspect the worksite for basic safety hazards during site survey activities. • Prepare a basic checklist specific to project requirements, ensuring a structured approach to basic site survey tasks. • Execute a basic physical site survey, following a predefined checklist and collecting fundamental data, measurements, and relevant information. • Demonstrate basic proficiency in using appropriate tools and techniques for recce data collection. • Employ effective digital data collection methods, like mobile applications, for basic recording of measurements and observations. • Demonstrate basic proficiency in translating straightforward design plans into on-site markings with accuracy. • Perform basic marking at the worksite based on provided layout and plan, using simple tools and techniques. • Follow basic quality control measures during the marking process, ensuring markings align with basic project specifications. • Compile basic measurements systematically in the measurement sheet, ensuring basic clarity and precision. • Utilize digital tools or software for measurement and site data compilation, promoting efficiency and reducing the likelihood of basic errors in data entry. • Carry out timely handover of the basic measurement sheet to the supervisor, demonstrating effective communication. 				

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
5	<p>Interpret and organize process pre-requisites</p> <p>Mapped to FFS/N0902, v1.0</p>	<ul style="list-style-type: none"> • Discuss the various operations and departmental roles essential in the production process. • List and describe different types of raw materials, tools, and equipment, emphasizing their significance in production. • Explain the importance of a material movement plan in optimizing workflow and coordinating across departments. • Describe the roles and responsibilities of different departments involved in the efficient movement of materials. • Highlight the key potential challenges and considerations related to material selection and movement in the production process. • Perform the task of identifying and listing the number of operations and departments involved in a given production process, showcasing foundational knowledge. • Demonstrate adeptness in compiling and organizing lists of materials, tools, and equipment with precision and efficiency for streamlined accessibility. • Exhibit proficiency in executing tasks related to organization of essential raw materials, tools, and equipment from various departments. • Utilize suitable techniques for material selection, considering factors such as specifications, compatibility, and availability within the woodworking environment. • Showcase the capability to create a material movement plan, delineating sequences and departmental involvement in the production process. 	5	29	70%	70%

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
		<ul style="list-style-type: none"> • Illustrate proper techniques for the handling, storage, and transportation of materials in a woodworking environment, emphasizing safety and efficiency. • Employ acquired knowledge of material list content and material movement plans in the safe and efficient execution of the handover process to the relevant department. • Implement effective strategies and techniques to ensure strict adherence to defined timelines, incorporating sound time management, prioritization, and coordination practices to achieve project goals. • Display fundamental skills in time management and coordination to efficiently meet project deadlines. 				
6	Material inspection and selection Mapped to FFS/N0902, v1.0	<ul style="list-style-type: none"> • Describe the importance of precise measurement techniques and tools. • Discuss the significance of proper marking methods for material identification. • Explain the importance of architectural hardware and fittings in furniture projects. • Explain the usage of different materials for finishing in furniture projects. • Explain the usage of different materials for upholstery in furniture or interior design projects. • List common quality defects in materials and associated mitigation procedures. 	6	41	70%	70%

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
		<ul style="list-style-type: none"> • Implement effective measurement techniques for precision in material assessment. • Measure materials using suitable techniques, tools, and units of measurement for furniture fabrication processes. • Utilize appropriate marking methods and techniques to facilitate effective communication and easy identification during fabrication activities. • Identify and inspect architectural hardware and fittings, ensuring compatibility with specific requirements. • Evaluate different materials for finishing requirements, based on their unique types, characteristics, and suitability in furniture production. • Assess various materials for upholstery requirements, considering their types, characteristics, and appropriateness for the furniture fabrication process. • Verify tools, equipment, and spares, ensuring their compatibility and adherence to specific requirements in the furniture production environment. • Inspect and validate semi-finished and finished goods, considering their types, quality, and specifications. • Perform thorough quality checks on materials through inspection, testing, and evaluation against established standards. • Recognize and promptly report any quality defects or anomalies in woodworking materials or relevant industries. 				

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
7	<p>Material loading, unloading, and movement</p> <p>Mapped to FFS/N0902, v1.0</p>	<ul style="list-style-type: none"> Describe the role of instruction sheets in ensuring safe and efficient material operations. Explain the factors involved in selecting appropriate handling equipment for specific material requirements. List and describe proper operation and control techniques when using handling equipment for material shifting. Discuss safety precautions and procedures for operating handling equipment during material handling activities. Demonstrate the steps involved in accurate interpretation of material loading and unloading sheets. Optimize resource allocation for efficient material handling operations. Display proficiency in selecting handling equipment tailored to material characteristics. Perform the operation of handling equipment for secure material shifting, adhering to safety protocols. Identify and address discrepancies or issues in real-time material handling scenarios. Adhere rigorously to safety protocols during handling equipment operation. Execute accurate and timely record-keeping for efficient material tracking and management. Collaborate effectively with team members for a cooperative and coordinated workflow. 	2	17	70%	70%

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
8	<p>Worksite preparation for required operation</p> <p>Mapped to FFS/N0903, v1.0</p>	<ul style="list-style-type: none"> • Explain the importance of work area preparation for operational efficiency and safety. • Explain the purpose and significance of inspecting incoming goods as per specifications. • Highlight the importance of proper unpacking and arrangement for efficient workflow. • Highlight different methods for handling and transporting materials, tools, and equipment. • Describe the importance of segregating and storing materials efficiently. • Demonstrate precise work area preparation, including tool, equipment, and material setup, following supervisor's instructions. • Perform a thorough inspection of goods upon receipt, adhering to predefined quality and quantity specifications. • Execute systematic unpacking of materials, arranging furniture parts, and organizing tools and equipment as per provided instructions. • Select suitable containers based on item type and size, ensuring secure storage and facilitating easy accessibility. • Demonstrate effective and safe usage of material handling equipment for efficient material handling and storage. • Execute secure handling methods for goods during storage, preventing damage or deterioration. • Apply safety protocols consistently throughout material handling and storage activities, ensuring a secure work environment. • Showcase proficiency in applying various stacking techniques to optimize material storage efficiency. • Apply benchmarking techniques to ensure systematic and accessible material storage according to industry standards. • Use labeling and tracking systems to accurately identify and locate stored items for streamlined retrieval. 	6	30	70%	70%

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
9	Maintenance of the work area Mapped to FFS/N0903, v1.0	<ul style="list-style-type: none"> • Explain effective management of materials, tools, equipment, and products in woodworking. • Discuss the usage of measuring instruments for assessing dimensions of products. • Explain the importance of maintaining a clean work area for safety and productivity. • Describe appropriate cleaning methods for various surfaces and materials. • Demonstrate the skills to organize storage and retrieval of materials, tools & equipment in woodworking. • Use designated bays for efficient storage and retrieval of materials, tools, and finished products. • Apply effective techniques to achieve desired outcomes. • Rigorously apply safety protocols during task execution, minimizing the risk of accidents or injuries. • Apply accurate measurement techniques for assessing dimensions of semi-finished parts and finished goods in woodworking. • Perform routine maintenance tasks to ensure optimal condition and longevity of semi-finished parts and finished goods. • Demonstrate efficient worksite cleaning using suitable materials and tools, maintaining a tidy woodworking environment. • Analyze worksite for safety hazards related to cleanliness, taking proactive measures to mitigate potential risks. • Effectively communicate safety concerns related to cleanliness and organization for continuous improvement. 	8	56	70%	70%

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
		<ul style="list-style-type: none"> Perform duties in the safe disposal of combustible waste products, strictly following guidelines for environmental compliance. Demonstrate accurate job work documentation at the end of each shift, ensuring thorough record-keeping. 				
10	Health and safety practices at the worksite Mapped to NOS/N8201, v3.0	<ul style="list-style-type: none"> Describe the accident reporting requirements and first aid responses to common injuries. Describe the requirements for the usage of personal protective equipment. Describe the safe work practices used in a workshop and on-site. Describe potential health hazards related to on-site work. Explain the organizational practices associated with the health and hygiene practices at the workplace. Apply the standard work practices used in a workshop and on-site. Select and use appropriate personal protective equipment. Apply the concepts of personal safety awareness and practices while working at the worksite. Carry out routine cleaning of workplace, tools, and equipment. Perform the inspection of the work area for health and safety breaches. Practice the usage of emergency equipment like Fire extinguishers in emergencies and accidents. Practice the first aid responses using a first aid kit. Perform mock drills at regular intervals for health and safety purposes. Follow the company’s emergency procedures promptly, calmly, and efficiently. 	24	50	70%	70%

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
		<ul style="list-style-type: none"> Deal with hazards, as per the procedure, safely, competently, and within the limits of authority. Record all the health and safety records legibly and accurately. Report safety and security breaches or any hazards to the company's designated person. Demonstrate effective application of 5S principles at the workplace. 				
11	Greening practices at the worksite Mapped to NOS/N8201, v3.0	<ul style="list-style-type: none"> Explain the importance of efficient utilization and conservation of material. State the difference between renewable and non-renewable sources of energy. Differentiate between recyclable and non-recyclable waste. Explain the importance of performing greening practices at the worksite. Explain various types of waste generated at the worksite and their safe disposal processes. Follow the organizational standards and policies for safe waste disposal at the worksite. Practice the efficient disposal of various types of waste. Select appropriate waste disposal methods based on worksite requirements Practice energy conservation practices while working at the worksite. Check the tools and equipment for proper functioning. Report the faults and maintenance lapses in the tools and equipment to the concerned personnel effectively, if required. 	11	15	70%	70%

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
12	Employability Skills Mapped to DGT/VSQ/N0101, v1.0	<ul style="list-style-type: none"> • Discuss the practical impact of Employability Skills on meeting job requirements. • Execute basic constitutional values, civic rights, duties, citizenship, and demonstrate responsible citizenship. • Apply 21st-century skills in practical scenarios. • Utilize simple English sentences/phrases effectively while speaking. • Demonstrate practical and respectful interactions with all genders and People with Disabilities (PwD). • Report instances of sexual harassment promptly and practically. • Implement the secure use of financial products and services in practical situations. • Practice practical management of expenses, income, and savings. • Engage with relevant authorities promptly in cases of exploitation, adhering to legal rights. • Demonstrate the safe and practical use of the internet for browsing and social media. • Identify practical business opportunities, sources of funding, and anticipate legal and financial challenges. • Distinguish between different types of customers in practical scenarios. • Meet practical customer needs through understanding and addressing them. • Implement personal hygiene and appropriate dressing practices in practical situations. • Dress neatly and maintain hygiene practically for interviews. • Guide on practically searching and registering for apprenticeship opportunities. • Implement environmentally sustainable practices in practical ways. 	20	30	70%	70%

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
		<ul style="list-style-type: none"> • Display a practical positive attitude, motivation, problem-solving, time management, and a learning mindset. • Communicate politely and practically with others. • Collaborate effectively with others in a team in practical situations. • Operate digital devices and applications securely in practical scenarios. • Develop a practical biodata. • Utilize various practical sources to find and apply for jobs. 				
13	Worksite preparation for Machine Operation Mapped to FFS/N0906, v1.0	<ul style="list-style-type: none"> • Discuss the significance of resource planning for efficient and effective machine operations. • Describe the process of arranging prerequisites for machine operations, including handling panels, edge bands, templates, hardware fittings, PPE, etc. • Explain the procedures for stacking and maintaining templates, panels, off cuts, and other materials during machine operation. • State the importance of offcut management during machine operation. • Demonstrate proficiency in interpreting work dockets/job cards for resource allocation. • Allocate resources effectively for smooth machine operations. • Display effective storage techniques in the furniture machine shop. • Organize templates, panels, off cuts, and miscellaneous materials in the machine workshop. • Demonstrate precise organization skills for materials. • Optimize workspace for various materials in the machine workshop. • Ensure the execution of smooth and safe machine operations. 	4	19	70%	70%

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
14	Machine operation on the product Mapped to FFS/N0906, v1.0	<ul style="list-style-type: none"> List the steps involved in precision machine tool setup, ensuring adherence to safety guidelines in the furniture workshop. Describe the significance of accuracy and safety in the utilization of tools within the furniture machine shop. Explain the essential pre-operative checks to be performed based on instruction manuals in machine operations. List various process associated with different woodworking machines. Describe and apply best practices for material handling during machine operations, emphasizing safety, ergonomics, and efficiency in furniture panel work. Demonstrate proficiency in setting up and maintaining machine tools in furniture machine shops safely. Execute pre-operative checks following instruction manual guidelines, ensuring machine readiness, safety compliance, and optimal performance. Use guidelines for safe and effective pre-operation checks. Select and gather precise product components and tools for specific machine operations. Ensure accuracy and adherence to specifications during the selection process. Apply part identification techniques to match product components for specific machine operations based on drawings, samples, and job requirements. Demonstrate safe material handling techniques during various machine operations. 	14	32	70%	70%

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
		<ul style="list-style-type: none"> • Apply proper lifting, positioning, and securing methods for efficient material movement. • Perform diverse machine operations safely as instructed by the supervisor, including cutting, drilling, pasting, routing, etc. • Demonstrate efficient utilization of tools and equipment for various machine operations. • Apply appropriate tools for specific tasks, ensuring optimal performance. • Demonstrate the ability to assemble furniture using designated architectural hardware and fittings. • Use suitable tools and equipment for efficient furniture assembly. • Perform quality checks on furniture products/parts based on established organization standards. • Identify defects and discrepancies during the quality checking process. • Adhere strictly to safety measures during all machine operations. • Follow established safety protocols and guidelines. 				
15	<p>Clean and maintain the machining shop</p> <p>Mapped to FFS/N0906, v1.0</p>	<ul style="list-style-type: none"> • Describe packaging, storage, and tagging procedures in the furniture machine shop. • Discuss the importance of following workplace procedures for efficient workflow and protecting finished work. • Explain procedures for cleaning the work area and maintaining tools and equipment. • State the significance of safety and organization in the furniture machine shop. 	6	25	70%	70%

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
		<ul style="list-style-type: none"> • Discuss waste disposal guidelines, emphasizing environmental and safety considerations. • Demonstrate adeptness in packaging, storing, tagging, and transferring job work to the next phase. • Follow workplace procedures meticulously for seamless transition in line with established guidelines. • Use suitable tools and equipment proficiently for cleaning and maintaining the furniture machine shop. • Apply workplace procedures diligently for maintaining cleanliness and order in the machine shop. • Display precise techniques for storing hand and/or power tools and equipment. • Adhere rigorously to workplace procedures for organized and accessible tool storage. • Perform disposal of unwanted materials meticulously following waste disposal procedures. • Adhere strictly to guidelines for environmentally responsible disposal practices. • Analyze the operation of furniture machines adeptly to identify basic faults and maintenance requirements. • Apply troubleshooting skills proficiently for effective fault identification in machine operations. • Perform routine checks, minor repairs, and maintenance tasks proficiently contributing to the proper functioning and longevity of equipment. 				

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
		<ul style="list-style-type: none"> • Employ suitable methods proficiently for effectively recording and incorporating inputs and feedback from supervisors. • Maintain accurate and up-to-date documents/notes adeptly as required in a furniture machine shop. 				
Total Marks			124	426	70%	

Glossary

Term	Description
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.
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.
Occupational Standards (OS)	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the Knowledge and Understanding (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
National Occupational Standards (NOS)	NOS are occupational standards which apply uniquely in the Indian context.
Declarative Knowledge	Declarative knowledge refers to facts, concepts, and principles that need to be known and/or understood in order to accomplish a task or to solve a problem.
Key Learning Outcome	Key learning outcome is the statement of what a learner needs to know, understand and be able to do in order to achieve the terminal outcomes. A set of key learning outcomes will make up the training outcomes. Training outcome is specified in terms of knowledge, understanding (theory) and skills (practical application).
OJT (M)	On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on-site
OJT (R)	On-the-job training (Recommended); trainees are recommended the specified hours of training on-site
Procedural Knowledge	Procedural knowledge addresses how to do something or how to perform a task. It is the ability to work or produce a tangible work output by applying cognitive, affective, or psychomotor skills.
Training Outcome	Training outcome is a statement of what a learner will know, understand and be able to do upon the completion of the training.
Terminal Outcome	The terminal outcome is a statement of what a learner will know, understand and be able to do upon the completion of a module. A set of terminal outcomes help to achieve the training outcome.

Acronyms

Acronym	Description
QP	Qualification Pack
NSQF	National Skills Qualification Framework
NSQC	National Skills Qualification Committee
NOS	National Occupational Standards
QC	Quality Checking
PwD	Person with Disability
ToT	Training of Trainers
ToA	Training of Assessors
FFSC	Furniture and Fittings Skill Council
TP	Training Partner
PC	Performance Criteria
NA	Not Applicable
PPE	Personal Protective Equipment

Annexure 1: Tools and Equipment

List of Tools and Equipment

For a Batch size of 20 Candidates

The tools and equipment required are:

S. No.	Tool / Equipment Name	Specification	Quantity for specified Batch size (In Nos)
1	White Board/ Green Board		1
2	Board Marker	2 Different color board markers with respective refill ink containers	2
3	Duster		1
4	Projector/ Smart TV		1
5	Laptop	With proper configuration to run MS Office applications	1
6	Chairs	With foldable study flaps- For theory lectures	20
7	Trainer's Table/ Podium		1
8	Working Bench- Foldable		5
9	Bench Vice		20
10	Ear Plug	Material: Foam/Rubber, Noise Reduction Rating: ANSI certified	20
11	Hand Gloves	Material: Leather/Rubber, Size: Various sizes available	20
12	Nose Mask	Type: N95 Respirator, Fit: Adjustable nose clip	20
13	Safety Shoes	Material: Steel toe, durable, Compliance: Meets safety standards	20
14	Goggles	Type: Safety goggles, Lens: Impact-resistant	20
15	Dustbin	Material: Durable plastic/metal, Capacity: Appropriate for waste generated	5
16	Fire Extinguisher	Type: ABC Dry Chemical, Size: As per safety regulations	1
17	First Aid Kit	Contents: Bandages, antiseptic, etc., Compliance: Meets workplace safety standards	1

18	Carpentry Pencil	Type: Standard carpenter's pencil, Lead: Hard for durability	20
19	Notebook	Size: Standard notebook, Paper: Durable with grid lines	20
20	Measurement Tape	Length: 5 meters, Material: Durable, marked in metric units	20
21	Screw Driver with bit set	Types: Various screwdriver heads, Material: High-quality steel	1
22	Allen Key Set	Sizes: Various sizes, Material: High-quality steel	1
23	Type of Wood- Samples	Examples: Oak, Maple, Pine	2
24	Types of Veneers- Samples	Examples: Walnut veneer, Oak veneer	2
25	Types of Laminates- Samples	Examples: High-pressure laminate, Low-pressure laminate	2
26	Types of Metal- Samples	Examples: Aluminium, Steel	2
27	Types of Ply- Samples	Examples: Marine Plywood, Birch Plywood	2
28	Types of Wood Derivatives- Samples	Examples: MDF (Medium Density Fibreboard), Block boards, Particle boards	2
29	Types of Hinges- Samples	Types include: Butt, Auto Closing Hinge- 0 crank, 9.5 crank, 9.5 crank, 16 crank	2
30	Types of Hardware Channels- Samples	Types include: Quadro, Telescopic	2
31	Types of Lock Sets- Samples	Types include: Mortise, Multipurpose, Cylinder	1
32	Minifix Set	Set includes: Dowel, Nylon insert, Cam Lock, Minifix bolt	10
33	Stationary Machines	Based on TDP- Includes machinery for Cutting, Drilling, Sizing, Edge banding and thickening	1

Classroom Aids

The aids required to conduct sessions in the classroom are:

1. White Board/ Green Board
2. Board Marker
3. Duster
4. Projector/ Smart TV
5. Laptop
6. Chairs (For theory lectures)
7. Trainer's Table/ Podium
8. Storage Cabinet

Annexure 2: Assessment Strategy

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

At FFSC, we believe to gauge the performance of a candidate a holistic approach for assessment is essential. As such we have devised a multi-tier process to keep track of candidate overall progress at various stages. While a few techniques are imbibed as part of the training delivery program, others are explicit ways of testing. These are:

1. Internal (Preferred)
 - a. Trainer Led Assessment
 - b. Master Trainer/ Program Mentor Led Assessment
2. External
 - a. Assessment Partners/ Freelance Assessors (Mandatory)
 - b. Industry (Preferred)

1. Internal (Preferred)

a. Trainer Led Assessment:

As part of the Training Delivery Program, various tests and projects are designed at regular intervals to gauge the progress of the candidate during the training program. These are mix of Theory and practical, individual and group activities.

Trainers will be provided specific training under the ToT programs to conduct these assessments. A report of the same will be submitted to the assigned Master Trainer/ Program Mentor.

b. Master Trainer/ Program Mentor Led Assessment:

Every trainer/ batch should be connected with a Master Trainer/ Program Mentor, who will keep a check on the progress of the batch. Trainer can consult the Master Trainer/ Program Mentor with regards to training delivery or conducting periodic assessments.

Master Trainer/ Program Mentor may conduct their own session to assess the progress of the candidates, using the means as deemed suitable and feasible.

2. External

a. Assessment Partners/ Freelance Assessors:

An external assessment shall mandatorily be conducted by Assessment Partners via ToA certified Assessors or ToA certified Freelance Assessors. There are 3 key stages of any assessment activity – Pre-Assessment, During Assessment and Post Assessment. The defined system for conducting the assessment shall be followed at each stage.

FFSC Training and Assessment Team or any other assigned authority by FFSC, may conduct surprise or planned visits and checks from quality assurance and monitoring perspective.

The requirements and details of each stage are as highlighted below:

1. Pre-Assessment:

- a. Assessment Partner/ Assessor/ Freelance Assessor Validation
- b. Training Centre Check for Assessment Setup/ Infra
- c. Question Papers submission by Assessment Partner/ Freelance Assessor to FFSC
- d. FFSC to validate and approve the Question papers in line with NOS and PC.
- e. FFSC Affiliation and Project Assessment Approval
- f. Centre ready for Assessment intimation by Training Partner or by the assigned Neutral Assessment Centre

2. During assessment (on the Assessment Day):

The assessment can be conducted in offline, online or hybrid format depending on the feasibility and approvals from FFSC. Under either process the below guidelines are important to be compiled:

- a. Check the availability of the Lab Equipment for the particular Job Role as per the mode of conducting assessment.
- b. Candidate Validation: Confirm the Aadhar Card details of candidates
- c. Check the duration of the training
- d. Check the Assessment Start and End time to be as specified in documents
- e. Assessor/ Freelance Assessor must follow the assessment guidelines at all times.
- f. Intimation to FFSC Training and Assessment Monitoring Team for Assessment Quality Assurance checks.
- g. Ensure evidence of conducting assessment is gathered as per FFSC protocol:
 - i. Time-stamped and geo-tagged reporting of the assessor from assessment location
 - ii. Centre photographs with signboards and scheme-specific branding
 - iii. Biometric or manual attendance sheet (stamped by T.P.) of the trainees during the training period

- iv. Time-stamped and geotagged assessment (Theory + Viva + Practical) photographs and videos
- h. Required documentation for submissions to the FFSC

3. Post Assessment:

- a. Timely submission of the assessment documentation and feedback to FFSC
- b. Hard copies of the documents are stored
- c. Soft copies of the documents and photographs of the assessment are uploaded/accessed from Cloud Storage
- d. Soft copies of the documents and photographs of the assessment stored in the Hard Drives
- e. Any other compliance requirement as defined by FFSC

b. Industry Partner:

FFSC may engage the Industry Partners and the Subject Matter Experts to conduct the assessment of the candidates at various stages during the training programs.