

APPRENTICESHIP CURRICULUM (OPTIONAL TRADE)

Hydrocarbon Sector Skill Council

Scaffolder - Oil & Gas (Construction services)

Course Code: C0022400028

NAPS Non-NAPS

NSQF Level: 3.5



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Course Details

1.	Course Name	Scaffolder - Oil & Gas (Construction services)										
2.	Course Code	CO022400028										
3.	Apprenticeship Training Duration: (2 to 4 weeks of BT is embedded in this duration as per the requirement of the establishment)	Months: 12 months										
	Remarks											
4.	Credit	40										
5.	NSQF Level (Mandatory for NAPS)	3.5	NSQC Approval Date: 01-11-2023									
6.	Related NSQF aligned qualification details	<table border="1"> <thead> <tr> <th>S. No.</th> <th>QP/ Qualification/ NOS Name (As applicable)</th> <th>QP/ NOS Code & Version</th> <th>NQR Code</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Scaffolder - Oil & Gas (Construction services)</td> <td>HYC/Q 9201 & Version 1.0</td> <td>QG-3.5-CO-01266-2023-V1-HSSCI</td> </tr> </tbody> </table>	S. No.	QP/ Qualification/ NOS Name (As applicable)	QP/ NOS Code & Version	NQR Code	1	Scaffolder - Oil & Gas (Construction services)	HYC/Q 9201 & Version 1.0	QG-3.5-CO-01266-2023-V1-HSSCI		
S. No.	QP/ Qualification/ NOS Name (As applicable)	QP/ NOS Code & Version	NQR Code									
1	Scaffolder - Oil & Gas (Construction services)	HYC/Q 9201 & Version 1.0	QG-3.5-CO-01266-2023-V1-HSSCI									
7.	Brief Job Role Description	<p>A Scaffolder - Oil & Gas (Construction Services) is responsible for constructing and dismantling scaffolding structures in the oil and gas industry. The person at this job does planning/ configuring scaffolding, erection of scaffolding of various types, establishing platforms and safety measures and dismantling and removing on completion of job at the onshore and offshore sites. The person will carry out work safely with a focus on energy conservation, system efficiencies and operational optimization. The Scaffolder is safety-conscious and detail-oriented individual who can contribute to a safe and efficient work environment in the Oil & Gas industry.</p>										
8.	NCO-2015 Code & Occupation (Access the NCO 2015 volumes from:	NCO 2015/7119.0301										
9.	Minimum Eligibility Criteria (Educational and/ or Technical Qualification)	<p>8th Grade pass with 2-year of NTC and 1-year of NAC OR 11th Grade Pass OR 10th Grade pass with 1-year of relevant experience Or 8th Grade pass with 3-year of relevant experience Or</p>										

		Previous relevant qualification of NSQF level 3 with 1.5 year of relevant experience Or Previous relevant qualification of NSQF level 2.5 with 3 years of relevant experience
10.	Entry Age for Apprenticeship	18 Years
11.	Any Licensing Requirements (wherever applicable)	NA
12.	Is the Job Role amenable to Persons with Disability	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, check the applicable type of Disability <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 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	Name: Hydrocarbon Sector Skill Council E-mail ID: ceo@hsscindia.in Contact Number: 9872176558
14.	Certifying Body	Hydrocarbon Sector Skills Council
15.	Employment Avenues/Opportunities	Oil & Gas sector

16.	Career Progression	Technician - Civil & Building
17.	Trainer's Qualification & Experience:	3-year diploma after 10th with 2 years of relevant experience and 1 year of training experience in relevant field. Or ITI pass (Two year after class X) with 3 years of relevant experience and 1 year of training experience in relevant field. Or CITS Certified Trainers for relevant CITS course
18.	Curriculum Creation Date	21/02/2024
19.	Curriculum Valid up to Date	20/02/2027

Module Details

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
1.	<p>NOS Name –Identification of Scaffolding Equipment and Work</p> <p>NOS Code - HYC/N9202</p> <p>Version – 1.0</p>	<p>Bridge Module -</p> <p>Introduction to the Hydrocarbon Sector</p> <ul style="list-style-type: none"> Describe the oil and natural gas sector and its subsectors. Explain the importance of a Scaffolder in oil & gas industry. Explain the roles and responsibilities of a Scaffolder Explain general discipline in the classroom (Do's & Don'ts) <p>Identification of Scaffolding Equipment and Work</p> <ul style="list-style-type: none"> Explain the identify different types of scaffolding equipment and their use in construction projects. Explain the identify the purpose and specific applications of each type of scaffolding equipment. perform to utilize the components and materials that make up scaffolding structures. Describe the interpret the plans, drawings, and specifications related to scaffolding equipment Describe the check the correct size, type, and quantity of materials/components needed for scaffolding work. Explain the conduct the initial inspection of scaffolding equipment for safety, functionality, and compliance with job requirements before use Describe the utilize proper techniques for assembling and dismantling scaffolding structures. 	20	30	50	50

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
		<ul style="list-style-type: none"> • Explain the apply safe work practices and follow procedures to ensure the stability and integrity of scaffolding. • Explain the identify and address potential hazards associated with scaffolding work. • Explain the coordinate effectively with team members and supervisors regarding scaffolding equipment and work requirements 				
2.	<p>NOS Name- Perform Scaffolding Work Operations</p> <p>NOS Code - HYC/N9201</p> <p>Version - 1.0</p>	<ul style="list-style-type: none"> • Explain the identify work requirements through work orders or as instructed by Supervisor • Explain the identify and apply OISD standards, Occupational Health and Safety standards, Industry's codes of practice and specifications, environmental requirements throughout the work procedure. • Explain the identify, obtain, and inspect resources required to meet the job specifications for compliance. • Describe the select and interpret relevant plans, drawings, and text in accordance with the work plan. • Describe the check the correct size, type, and quantity of materials/components for compliance with the job specifications. • Describe the coordinate for planning of work in detail, including sequencing, prioritizing, and considering plant security and capacity in accordance with site requirements. • Explain the identify potential hazards, select prevention/control measures in accordance with the work plan and site procedures. • Explain the prepare the work area according to work requirements and site procedures. 	25	50		

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
		<ul style="list-style-type: none"> Describe the check the expected loading on the scaffold/equipment and supporting structure by using load tables and calculations in line with the work plan- Identify any limitations. Explain the set up the foundations for the scaffold/equipment in accordance with both OISD standards and the established work plan. Explain the inspect the scaffold/equipment and its components before use for safety and compliance with job and statutory requirements. Describe the erect safety nets and static lines as needed, in accordance with OISD standards. Explain the carry out alterations and repairs to the scaffold/equipment, considering critical safety and structural areas, in accordance with job requirements and scaffolding principles. Explain the check and confirm the stability of the scaffold/equipment through inspections following the work plan. Describe the complete the inspection log as per requirements Describe the conduct the inspection of the scaffolding/equipment for damage, corrosion, or wear before dismantling, following statutory requirements and the work plan. Explain the perform dismantling of the scaffolding/equipment, considering critical structure and safety areas, in accordance with the work plan. Describe the complete the work and notify the appropriate personnel as per site requirements 				

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
		<ul style="list-style-type: none"> Explain the clear the work area of waste, clean it, restore any disturbed areas, and secure it following site procedures. Describe the maintain and store plant, tools, and equipment according to site procedures. Explain the finalize the details of work completion following site procedures and submit to supervisor 				
3.	NOS Name-Working effectively in a team NOS Code - HYC/N9301 Version - 6.0	Effective team work <ul style="list-style-type: none"> Describe methods to communicate clearly with the colleagues, supervisor and reporting authorities Explain how to share information in line with organizational requirements Explain the importance of supporting and respecting colleagues and other members of the organization without any bias based on gender, culture, disability etc. Demonstrate ways to handle interpersonal conflict at the workplace Explain how to inform team members timely, if timelines can't be met Describe ways/methods to resolve interpersonal conflict Explain the importance of gender-neutral behavior while interacting with others 	20	30		
3	NOS Name-Maintain health, safety and security procedures NOS Code - HYC/N9302	Practice health and safety measures <ul style="list-style-type: none"> Explain importance of using PPE like face mask, hand gloves, goggle, protective clothing/equipment, etc. at workplace. Explain how to monitor the health and safety of self and other team members 	24	46		

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
	Version - 5.0	<ul style="list-style-type: none"> • Explain how to identify possible causes of risk or accident in the workplace • Explain the hazard and risk associated with mishandling various tools and equipment. • Show the correct way to lift heavy objects. • Demonstrate how to follow safety signages <p>Follow fire safety procedures</p> <ul style="list-style-type: none"> • Demonstrate how to use fire extinguishers • Demonstrate various rescue techniques • Explain the good housekeeping practices to prevent any hazard • Describe list issues concerning the safety in work place • Explain how to record and report all incidents, damages or injury • Explain how to follow the applicable regulations and codes as per safety standard • Describe how to prepare incident reports. <p>Follow emergencies, rescue and first-aid procedures</p> <ul style="list-style-type: none"> • Explain how to provide appropriate first aid to victims in an emergency situation • Demonstrate basic techniques of bandaging • Demonstrate how to respond promptly and appropriately to an accident • Perform rescue activity during an accident in real or simulated environments 				

S. No	Module/NOS Name, Code, Version	Outcomes	Assessment Marks		Passing Percentage	
			Th.	Pr.	Th.	Pr.
		<ul style="list-style-type: none"> Demonstrate correct method to rescue injured people and others during an emergency 				
	NOS Name- Employability Skills NOS Code - <i>DGT/VSQ/N0101</i> Version - 1.0	<ul style="list-style-type: none"> Introduction to Employability Skills Constitutional Values – Citizenship Becoming a Professional in the 21st Century Basic English Skills Communication Skills Financial and Legal Literacy Essential Digital Skills Diversity & Inclusion Career Development & Goal Setting Customer Service Getting Ready for Apprenticeship & Jobs 	20	30		
	Total Marks		109	186	50	50

Technical Knowledge	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills/Generic Skills (GS)	Core skills or Generic Skills (GS) are a group of skills that are the key to learning and working in today's world. These skills are typically needed in any work environment in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication-related skills that are applicable to most job roles.
Electives	Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.
Options	Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.

Acronyms

Acronym	Description
NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training
OS	Occupational Standard(s)
QP	Qualifications Pack
KU	Knowledge and understanding
GS	Generic Skills
DMA	Direct Marketing Agent
PNG	Piped Natural Gas
FAQ	Frequently Asked Questions
BP	Business Partner
KYC	Know Your Consumer
FAB	Feature Advantage Benefit

Annexure 1: Tools and Equipment

List of Tools and Equipment

The tools and equipment required are:

S. No.	Tool / Equipment Name	Specification
1	Hand Tools: Wrenches, hammer, measuring tape, utility knife, wire cutters/strippers, levels	NA
2	Scaffolding equipments: Scaffolding Tubes, Couplers, Scaffold Boards, Base Plates, Adjustable Jacks, Standards (Uprights), Ledgers, Transoms, Braces, Guardrails, Toe Boards, Ladders, Hoists, Scaffold Fittings	NA
3	Personal Protective Equipment (PPE): Safety helmet, safety glasses, ear protection, respiratory protection (if required), protective gloves, safety boots.	NA

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 apprentice on the required competencies of the program.

The overall assessment strategy and specific arrangements, which have put in place to ensure that assessment is always valid, reliable and fair and show that these are in line with the requirements of the NSQF.

The assessment of candidates/trainees will be on the basis on assessment outcome/assessment criteria of the Qualification. In the assessment criteria for each NOS marks have been defined for theoretical and practical skills, on which the candidate will be assessed. The emphasis is on 'learning-by-doing' and performance criteria is based on the practical demonstration of skills and knowledge.

Theory/Knowledge test – This section will test the trainee on his/her knowledge on the subject/trade. The test will be carried out online/offline with a set of random Question paper that include multiple choice questions in multilingual, True/False Statement, audio-video question etc. The Question Bank will be developed by Subject Matter Experts (SME) of the hydrocarbon sector and these questions again be vetted by the Industry Experts, each performance criteria have its marks for theory based on the level of question i.e. easy, medium and difficult.

Practical/Demonstration Test – This stage involves the face-to-face interaction between Assessor and each trainee. The practical knowledge will be tested through trade test which demonstrates the skill required for the job, by which assessor would be able to evaluate the trainee for his/her practical knowledge on respective Qualification.

To ensure the maximum possible consistency in the assessment by different assessors at different locations, orientation of the assessors is also required about the stages involved in the assessment and the assessor role in the assessment process. The assessor must have knowledge of the following concepts before assessment:

- Qualification Pack Structure
- Guidance for the assessor to conduct theory and practical assessments
- Guidance for trainees to be given by assessor before the start of the assessments.
- Guidance on assessments process, practical brief with steps of operations practical observation checklist

- Practical/Demonstration Test guidance for uniformity and consistency.
- Guidance on assessment evidence collection (signed attendance copy, verification of the authenticity of the candidate by checking the photo IDcard, Photographs-while assessment undergoing etc.)

The empaneled assessment agencies will be instructed to hire assessors with integrity, reliability and fairness. Each assessor shall sign a document with its assessment agency by which they commit themselves to comply with the rules of confidentiality and conflict of interest, independence from commercial and other interests that would compromise impartiality of the assessments. The assessment agencies are instructed to ideally have assessor with sufficient amount of relevant industry experience related to Qualification. The assessors will also have scrutinized and have to undergo orientation of assessment framework, competency-based assessments etc.

Annexure 3: Mode of Training

The following Modules/NOS may also be delivered online for which the resources are provided in the given table.

S. No.	Module Name/NOS Name (As Per Curriculum)	Name of Mapped Online Component	URL of Mapped Online Component
	NA	NA	NA

Infra requirement:

- NA