Draft: Model Curriculum

NAME: BASICS OF SAFETY REQUIREMENTS IN WORKING AT HEIGHT

MICROCREDENTIAL CODE: SSD/MCr-0110

MICROCREDENTIAL VERSION: 1.0

NSQF LEVEL:2

MODEL CURRICULUM VERSION-1.0

Safety Skill Development Foundation || Safety Skill Development Foundation D-507Light House, Town Square Sector 82A, Gurugram, Haryana, India - 122004

Table of Contents

Training Parameter

Sector	Construction, Infrastructure, Real estate, Iron & Steel, Mining, Logistics, Hydrocarbon and others
Sub Sector	
Occupation	Construction Engineering & Management
Country	India
NSQF Level	2
Minimum Educational Qualification and Experience	8*th* grade pass
Pre-Requisite License or Training	NA
Minimum Age	18 Years
Last Reviewed On	08-05-2025
Next Review Date	08-05-2028
NSQC Approval Date	08-05-2025
MC Version	1.0
Model Curriculum Creation Date	08-05-2025
Model Curriculum Valid Up to Date	08-05-2028
Model Curriculum Version	1.0

Minimum Duration of the Course	7.5 hours
Maximum Duration of the Course	7.5 hours

Program Overview

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

Training Outcomes

After completing the program, the participant will be able to: -

- Identify and evaluate potential dangers associated with working at elevated heights.
- Adhere to local, regional, and national regulations and standards pertaining to working at elevated heights.
- Conduct regular inspections and upkeep of all equipment utilized for working at elevated heights, such as ladders, scaffolding, and safety harnesses.
- Establish rescue plans and provide necessary equipment to respond to incidents promptly and efficiently.
- Maintain comprehensive records of training, equipment inspections, and risk assessments. Conduct regular reviews and updates of safety policies and procedures.
- Implement physical modifications in the workplace to effectively minimize or eliminate the risk of faulty conditions in electrical power circuits.

Compulsory Modules

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

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
Module 1: Fall Prevention and Equipment Selection	02:00 Hours	02:00 Hours	00:00 Hours	00:00 Hours	04:00 Hours
Module 2: Fall Safety Procedures and Measures	02:00 Hours	1.5:00 Hours	00:00 Hours	00:00 Hours	3.5:00 Hours
Total Duration	04:00 Hours	3.5:00 Hours	00:00 Hours	00:00 Hours	7.5:00 Hours

Module Details

Module 1: Fall Prevention and Equipment Selection

Terminal Outcomes:

- Utilize railings as a means of passive safeguarding when operating at elevated levels.
- Choose and examine the appropriate personal protective equipment (PPE) that is relevant for working at heights.
- Guarantee your comprehension of the distance of potential falls.

Duration: 02:00 Hours	**Duration: 02:00 Hours**
Theory–Key Learning Outcomes	**Practical–Key Learning Outcomes**
• Identify high-risk areas and activities that may lead to falls. • Learn the hierarchy of fall protection: elimination, substitution, engineering controls, administrative controls, and personal protective equipment (PPE). • Understand the types of PPE used in fall prevention, such as harnesses, lanyards, and anchors. • Identify the role of guardrails, toe boards, and other protective measures in scaffold safety. • Recognize the importance of proper positioning, securing, and inspection of ladders. • Recognize the signs of damage or wear in fall protection equipment. • Recognize the role of training and drills in preparing for emergency situations. • Understand the key regulations and standards related to fall prevention and equipment selection. • Describe the importance of permits and licenses required for working at heights, including site-specific and statutory obligations.	• Assess risks associated with different working conditions (e.g., height, unstable surfaces, etc.). • Select appropriate fall prevention equipment based on the task and environment. • Demonstrate the correct use of PPE, including harnesses, lanyards, and lifelines. • Identify and select appropriate anchorage points that meet safety standards. • Apply safe practices while working at heights, such as maintaining three points of contact and avoiding overreach. • Demonstrate procedures for responding to a fall incident, including self-rescue techniques, and calling for assistance. • Develop and implement a site-specific fall prevention plan, considering unique site conditions. • Perform post-worksite safety checks to ensure no hazards remain.

• Explain the need for **vertigo and medical fitness tests** before engaging in work at heights. • Identify common psychological challenges such as **acrophobia (fear of heights)**, stress, and fatigue, and their impact on safety. • Outline procedures for **regular inspection and preventive maintenance** of ladders, harnesses, lifelines, anchor systems, and other work-at-height equipment.	• Identify scenarios where permits are required and demonstrate correct documentation procedures. • Undergo and understand the process of a **vertigo test** and explain how medical clearance is obtained. • Perform a firsthand **inspection of safety harnesses, lanyards, helmets**, and anchorage systems.
Classroom Aids	
Charts, Models, Video presentation, Flip Chart, Whiteboard/Smart Board, Marker, Board eraser	
Tools, Equipment and Other Requirements	
Safety Helmet, Full face shield, Leather gloves, Chemical resistant gloves, Electrically insulated latex gloves, Reflective jackets, Ear muffs, Safety gumboots, Safety shoes, Safety belt, Safety harness, High visibility jackets, Fall arrestor, Fire extinguisher, Measuring Tape, Fire Prevention kit, First Aid box, Safety Cone, Caution Boards, Safety Sign Boards, Caution Tape.	

Module 2: Fall Safety Procedures and Awareness

Terminal Outcomes:

- Opt for a suitable anchor point that meets the necessary criteria.
- Assure the correct utilization of aerial lifts to ensure safety.
- Familiarize yourself with the circumstances that necessitate fall protection, and the specific type required.

Duration: 02:00 Hours	**Duration: 1.5:00 Hours**
Theory–Key Learning Outcomes	**Practical–Key Learning Outcomes**
• Ability to identify and assess fall hazards in various work environments. • Knowledge of effective fall prevention strategies and the proper use of PPE. • Skills in selecting, using, and maintaining appropriate fall protection systems. • Capability to respond effectively to fall incidents, including rescue and first aid. • Understanding of regulatory requirements and ability to ensure compliance	• Conduct a walk-through of a designated area to spot potential fall hazards. • Learn to properly set up and inspect safety nets and covers. • Perform regular inspections of harnesses, lanyards, and other fall protection gear. • Respond to a simulated fall scenario, including rescue and first aid.

with safety standards. • Discuss the impact of **weather conditions** such as high winds, rain, fog, and ice on safe work-at-height practices. • Define and describe key elements of a fall protection plan, including Fall clearance calculation; Anchor point selection; Use of personal fall arrest systems (PFAS); Rescue planning and response strategies. • Describe **communication, coordination, and signalling techniques** used during work at heights. • Discuss the significance of **risk assessments**, **method statements**, and **Job Safety Analysis (JSA)** in planning safe work-at-height activities.	• Develop a fall safety plan that includes hazard identification, prevention measures, and emergency procedures. • Review compliance audit and address any discrepancies. • Monitor and interpret site-specific **weather data** to determine safe working conditions. • Set up and use **PFAS**, including proper fitting of a harness and securing to an approved anchor point. • Use **standard signalling and verbal commands** for coordination during elevated work. • Conduct a simulated **site survey** to identify work-at-height hazards
Classroom Aids	
Charts, Models, Video presentation, Flip Chart, Whiteboard/Smart Board, Marker, Board eraser	
Tools, Equipment and Other Requirements	
Safety Helmet, Full face shield, Leather gloves, Chemical resistant gloves, electrically insulated latex gloves, Reflective jackets, Earmuffs, Safety shoes, Safety shoes, Safety belt, Safety harness, High visibility jackets, fall arrest, Fire extinguisher, Measuring Tape, Fire Prevention kit, First Aid box, Safety Cone, Caution Boards, Safety Sign Boards, Caution Tape.	

Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	**Specialization**	**Relevant Industry Experience**		**Training Experience**		**Remarks**
		Years	**Specialization**	**Years**	**Specialization**	
ITI/12th Pass	Any domain	5	Relevant Domain	0	-	
Graduate in any discipline / Diploma in Engineering	Any domain	3	Relevant Domain	0	-	
M. Tech/ B. Tech	Any domain	1	Relevant Domain	0	-	

Trainer Certification	
Domain Certification	**Platform Certification**
Certified as Trainer for the Job Role: "SSD/M0110 v1.0 : Basics of Safety Requirements in Working at Height" or higher qualification as per career progression by SSDF. The minimum accepted score is 80%.	Recommended that the Trainer is certified for the Job Role: "Trainer (VET and Skills)", mapped to the Qualification Pack: "MEP/Q2601 v2.0". The minimum accepted score is 80%.

Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification	**Specialization**	**Relevant Industry Experience**		**Training/Assessment Experience**		**Remarks**
		Years	***Specialization***	***Years***	***Specialization***	
ITI/12th Pass	Any domain	5	Relevant Domain	0	-	
Graduate in any discipline / Diploma in Engineering	Any domain	3	Relevant Domain	0	-	
M. Tech/ B. Tech	Any domain	1	Relevant Domain	0	-	

Assessor Certification	
Domain Certification	**Platform Certification**
Certified as Assessor for the Job Role: "SSD/M0110 v1.0 :Basics of Safety Requirements in Working at Height" or higher qualification as per career progression by SSDF. The minimum accepted score is 80%.	Recommended that the Assessor is certified for the Job Role: "Assessor (VET and Skills)", mapped to the Qualification Pack: "MEP/Q2701 v2.0". The minimum accepted score is 80%.

Assessment Strategy

The assessment will be based on the concept of third-party assessments through certified assessors with empaneled Assessment Agencies of NCVET. The certification of each assessor will be done by SSDF through a process of selection, training, assessment & certification through training of assessor's program.

The assessments will include both formative & summative. The progressive assessments will be through the trainer during the progress of the training. Summative assessments will be carried out by an assessor through assessment agencies.

The assessment process will determine whether the candidate or professional is competent or not to perform the job as per expected performance criteria. The assessment plan contains the following information:

a) Assessment elements – Competencies based on performance criteria of each NOS.
b) Methods of assessment – Written test (online/offline), viva and practical/ field exercises.
c) Time of assessment – The assessment will be done both formative and summative (post orientation/training) of candidates.
d) Place i.e., context of the assessment - The assessment will be conducted through theory, viva voce and practical/ field exercises, on simulators and will be both online and offline modes.
e) The criteria for decision making– It will be based on assessment criteria & guidelines as given in the qualification pack.
f) Questions – The written questions, viva & practical questions will be set to cover all aspect of performance criteria and would have been validated from experts in the subject matter.

Glossary

Term	Description
Declarative Knowledge	Declarative knowledge refers to facts, concepts and principles that need to Be known and/or understood to accomplish 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 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 psycho motor 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	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 helps to achieve the training outcome.

Acronyms and Abbreviations

Term	Description
QP	Qualification Pack
NSQF	National Skills Qualification Framework
NSQC	National Skills Qualification Committee
NOS	National Occupational Standard
AB	Awarding Body
AA	Assessment Agency
TP	Training Partner