



Model Curriculum

Qualification Name: Electrical Safety Supervisor

Qualification Code: SSD/Q1301

Qualification Version: 1.0

NSQF Level: 5

Model Curriculum Version: 1.0

Safety Skill Development Foundation

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Training Parameters

Sectors	Hydrocarbon, Iron & steel, Mining, Power, Automotive, Construction, Chemical & Petrochemical, and others.
Sub-Sector	-
Occupation	Electrical Safety Management
Country	India
NSQF Level	5
Aligned to NCO/ISCO/ISIC Code	NCO-2015/2141.2600 Occupational Health and Safety Specialist.
Minimum Educational Qualification and Experience	Completed 4-year UG with science with 1 year of relevant experience or Completed 3-year UG with science with 2 year of relevant experience or Completed 3-year diploma after 10th with 3 year of relevant experience or Completed 2-year NTC after 10th with 4 year of relevant experience or Previous qualification of NSQF level 4.5 with 1.5 years of relevant experience or Previous qualification of NSQF level 4 with 3 years of relevant experience
Pre-Requisite License or Training	Nil
Minimum Job Entry Age	18 years
Last Reviewed On	27-08-2024
Next Review Date	27-08-2027
Version	1.0
NSQC Approval Date	27-08-2024
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Model Curriculum Valid Up to Date	27-08-2027



Model Curriculum Version	1.0
Minimum Duration of the Course	600 Hours
Maximum Duration of the Course	600 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: -

- Understand health & safety requirements
- Prepare Safety Policy, onboard and manage contractors to comply with statutory requirements in occupational H&S.
- Understand & conduct training.
- Identify hazards & categories of electrical hazards.
- Implement “Hierarchy of control” in improvement of industry adopted electrical safety methodologies.
- Understand hidden risk in energized machines and power lines.
- Identify the underlying electrical hazard in electrical machinery.
- Protect the workforce from accidents.
- Learn best practices in electrical safety.
- Identify the underlying electrical hazard in the electrical power system.
- Identify electrical switchgears, fuses, circuit breakers and protective devices for protection.
- Learn protective devices to protect the workforce from accidents.
- Learn best practices in electrical safety, switch gears for human life protection
- Meet regulatory requirements in Health & Safety as per Electricity Act 2003, OSH Code 2020, BOCW Act 1996 & Factories Act 1948.
- Plan, organize and implement safety at the workplace.
- Advise management on new technological advancement in health & Safety.



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
SSD/N1301 v 1.0 : Introduction to Occupational Safety, Health, and Environment (OSHE)	60:00 Hours	40:00 Hours	20:00 Hours	00:00 Hours	120:00 Hours
Module 1: Introduction to Training Program, Overview, assessments, role of Electrical Safety Supervisor, employment opportunities in Industries.	04:00 Hours	00:00 Hours	00:00 Hours	00:00 Hours	04:00 Hours
Module 2: Understand, plan, develop, implement, and monitor health and safety practices at the workplace. The NOS will help in identifying the loopholes and gaps in the system and rectify them without directly affecting the core business of an organization.	56:00 Hours	40:00 Hours	20:00 Hours	00:00 Hours	116:00 Hours
SSD/N1302 v 1.0 : Electrical Hazard Identification, Risk Assessment, and Hazard Control	45:00 Hours	25:00 Hours	20:00 Hours	00:00 Hours	90:00 Hours
Module 3: Knowledge & skills to identify electrical hazards in industries, analyze the severity of hazards. Suggest suitable control in mitigating the electrical hazards. The Nos will also give insights on residual electrical hazards in 2 activities.	45:00 Hours	25:00 Hours	20:00 Hours	00:00 Hours	90:00 Hours
SSD/N1303 v 1.0: Electrical Machines & Power Systems	45:00 Hours	25:00 Hours	20:00 Hours	00:00 Hours	90:00 Hours
Module 4: Knowledge & skills to identify the electrical hazards in industries. The NOS gives an insight on electrical power	45:00 Hours	25:00 Hours	20:00 Hours	00:00 Hours	90:00 Hours



systems and various concepts involved generation, transmission, distribution and utilization of electrical energy.					
SSD/N1304 v 1.0: Electrical Switchgear and Protective Devices	45:00 Hours	25:00 Hours	20:00 Hours	00:00 Hours	90:00 Hours
Module 5: Knowledge & skills to the electrical switchgear, used for protection against electrical and human induced failure. The Nos also describes the protective electrical switch gears that ensures human life protection.	45:00 Hours	25:00 Hours	20:00 Hours	00:00 Hours	90:00 Hours
SSD/N1305 v 1.0: Statutes & Legislative : Safety, Health & Electricity	45:00 Hours	45:00 Hours	00:00 Hours	00:00 Hours	90:00 Hours
Module 6: Learn regulations & regulatory compliance requirements as per the laws governed by the Government of India. Identify the shortcomings as per the recommendation of the regulatory body for a particular task or activity.	45:00 Hours	45:00 Hours	00:00 Hours	00:00 Hours	90:00 Hours
SSD/N1306 v 1.0: Plan & Organize Electrical Emergency protocols	30:00 Hours	20:00 Hours	10:00 Hours	00:00 Hours	60:00 Hours
Module 7: Planning and organizing to provide a safe working environment for workers and set emergency protocols and measure in case of any unforeseen and incidents or accidents to minimize the damages & losses.	30:00 Hours	20:00 Hours	10:00 Hours	00:00 Hours	60:00 Hours
DGT/VSQ/N0102: Employability Skills	30:00 Hours	30:00 Hours	00:00 Hours	00:00 Hours	60:00 Hours
Module 8: Understand scope in employment, financial dealing,	30:00 Hours	30:00 Hours	00:00 Hours	00:00 Hours	60:00 Hours



digital literacy and communication with employer or customer.					
Total Duration	300:00 Hours	210:00 Hours	90:00 Hours	00:00 Hours	600:00 Hours

Module Details

Module 1: Introduction to Training Program, Overview, assessments, role of Electrical Safety Supervisor, employment opportunities in Industries.

Mapped to SSD/N1301, v1.0

Terminal Outcomes:

- Discuss the role of the Electrical Safety Supervisor role, sectors & industries.
- Employment opportunities, career development & International opportunities.
- Course approach, duration, training & assessment processes.

Duration: 04:00	Duration: 00:00
Theory–Key Learning Outcomes	Practical–Key Learning Outcomes
<ul style="list-style-type: none"> ● Role & responsibilities of Electrical Safety Supervisor. ● Iceberg theory of safety ● Career progression in the occupation. ● Industries for Employment & international opportunities for employment. ● Training approach & methodology. ● Assessment process & Certification. ● The assistance provided by AB/TP/LMIS in employment. 	
Classroom Aids:	
Black/White Board, Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator’s Guide, Participant’s Handbook.	
Tools, Equipment and Other Requirements	
Nil	



Module 2: Understand, plan, develop, implement, and monitor health and safety practices at the workplace. The NOS will help in identifying the loopholes and gaps in the system and rectify them without directly affecting the core business of an organization.

Mapped to SSD/N1301, v1.0

Terminal Outcomes:

- Understanding health & safety requirements & safety audit.
- Understanding the direct & indirect financial losses of an organization because of an accident.
- Safety Policy preparation.
- Understating organizational Health & Safety goals and objectives.
- Managing risk by developing a positive safety culture.
- Understanding mode of accident and incident reporting.
- Onboarding and managing contractors to comply with statutory requirements in occupational H&S.
- Conducting training.

Duration: 56 Hours	Duration: 40 Hours
Theory–Key Learning Outcomes	Practical–Key Learning Outcomes
<ul style="list-style-type: none"> ● Overview of Health, Safety and Environment management at workplace, its importance and the moral, financial and legal reason for health and safety at workplace. Understanding the moral duty of care. Statutory duties of enforcement agencies. ● “Accident Cost- Iceberg” theory of direct and indirect cost incurred from an incident. ● The employer responsibilities in providing safe working conditions and the employee rights & responsibilities at a workplace, safety culture & its indicators and role of International Labour Organisation in health & safety. ● Introduction to Safety Policy, understanding the underlying general statement of intent in a safety policy, its aim, objects and the “SMART” concept of goal setting. ● Introduction to safety audit, audit objective, types of audits in H&S management system. Requirement of safety audit at workplace, task audit, program, activity and project & machinery. Learning the scope of internal and external audit, reasons & advantages of such audits, key responsibility of an auditor. 	<ul style="list-style-type: none"> ● Bring out Health, Safety and Environment management at workplace & statutory duties of enforcement agencies. ● Carry out “Accident Cost- Iceberg” theory of direct and indirect cost incurred from an incident. ● Bring out the employee rights & responsibilities at a workplace. ● Carry out a presentation on the role of the International Labour Organisation in health & safety. ● Bring out the importance of safety audit, audit objectives. ● Carry out presentations on cases and bring out types & requirements of audits in H&S management system & responsibilities of auditor. ● Discuss about key responsibilities of safety supervisor, safety officer, safety engineer and safety manager. ● Present the requirement of Plan-Do-Check-Act (PDCA) Cycle in safety management system. ● Prepare Safety goals and objectives.

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| <ul style="list-style-type: none">• Introduction to parties in an audit: - First-party, second-party and third-party audits, finding the scope of such audits. Deep dive into the compliance audit, program audit & management system audit in health and safety management system.• Defining the role of management in an organization, key factors that influence development of a positive culture in an organization. Key responsibilities of safety supervisor, safety officer, safety engineer, and safety manager.• Defining role of occupier, controller of premise, role & need of contractors in the organization as per ILO.• Understanding the requirement of work permit to contractors and the role of the safety committee in ensuring control over contractors.• Deep dive into the selection prerequisites of a contractor, management of contractors, review meetings, safety committee meetings, method statements, accident reporting, training programs, statutory inspections, permit to work; to ensure safe systems of work.• Overview of the requirement of Plan-Do-Check-Act (PDCA) Cycle in safety management system; Implementation of PDCA cycle in H&S management system and know how it plays an important key element in continuous improvement in safety culture.• Introduction to training and its types; the need of training, knowing the contents of induction training. Selection of a competent person at workplace.• Understand the role of management in an organization, role of safety supervisor, safety executive, safety officer, safety engineer, and safety manager.• Understand fundamentals of process safety, OSHA standards. QRA, LOPA, SIL, FERA, EERA.• Understand the role of occupier, controller of premise, role & need of contractors in the organization & work permit to contractors, role of safety committee.• Understand the selection prerequisites of a contractor, management of contractors, review | <ul style="list-style-type: none">• Develop a positive safety culture for risk management.• Understand the role of management in an organization, role of safety supervisor, safety executive, safety officer, safety engineer, and safety manager.• Understand fundamentals of process safety, OSHA standards. QRA, LOPA, SIL, FERA, EERA.• Understand the role of occupier, controller of premise, role & need of contractors in the organization & work permit to contractors, role of safety committee.• Understand the selection prerequisites of a contractor, management of contractors, review meetings, safety committee meetings, method statements, accident reporting, training programs, statutory inspections, permit to work, gaps in contractor safety implementation of contractor safety. |
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meetings, safety committee meetings, method statements, accident reporting, training programs, statutory inspections, permit to work, gaps in contractor safety implementation of contractor safety.	
Classroom Aids:	
Black/White Board, Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator’s Guide, Participant’s Handbook.	
Tools, Equipment and Other Requirements	
Personal Protective Equipment (PPE), Multimeters, Clamp Meters, Voltage Testers:, Phase Sequence Indicators, Non-contact voltage testers, Megohmmeters, Insulation Resistance Testers, Ground Resistance Testers, Circuit Breaker Test Sets, Emergency Showers and Eyewash Stations, Fire Extinguishers, First Aid Kits, Emergency Response Kits, Lockout/Tagout (LOTO) Kits:, Circuit Tracers and Analysers, Insulated Hand Tools:, ortable Generators and Backup Power Supplies, Grounding and Bonding Equipment, Cable Pullers and Fish Tapes, Voltage and Current Calibrators	

Module 3: Knowledge & skills to identify electrical hazards in industries, analyze the severity of hazards. Suggest suitable control in mitigating the electrical hazards. The Nos will also give insights on residual electrical hazards in 2 activities.

Mapped to SSD/N1302, v1.0

Terminal Outcomes:

- Identify hazards & categories of electrical hazards.
- Implement “Hierarchy of control” in improvement of industry adopted electrical safety methodologies.
- Understand hidden risk in energized machines and power lines.

Duration: 45 Hours	Duration: 25 Hours
Theory–Key Learning Outcomes	Practical–Key Learning Outcomes
<ul style="list-style-type: none"> ● Terminology of electrical safety. ● Electrical hazards categories and risks. ● Hierarchy of control in electrical safety. ● How to do electrical maintenance safely. ● Electrical fires and control. ● Hazard categories with respect to electrical tools, equipment and machinery. ● Correlation of electrical hazards with other hazards such as: Work at height, confined space, 	<ul style="list-style-type: none"> ● Identify the electrical hazards & categorize. ● Carry out presentation on electrical maintenance safety & measures to improve ● Carry out presentation hidden risk in energized machines and power lines. ● Prepare “Hierarchy of control” for improvement. ● Carry out & practice various electrical maintenance tasks.



<p>working in an excavation, lone working and slips & trips.</p> <ul style="list-style-type: none"> • Causes and reasons leading to electrical hazards. • Circumstances & causes hazards leading to accidents. • Understand tools & equipment handling in electrical. • Musculoskeletal disorders (MSDs), understand manual handling in an electrical setting environment. • Load handling equipment, noise vibration, radiation, mental ill- health, violence at work, substance abuse at workplace hazards in electrical setup. 	<ul style="list-style-type: none"> • Practice & present tools & equipment handling in electrical
<p>Classroom Aids:</p>	
<p>Black/White Board, Computer, Projection Equipment, MS office & Design & drafting software, Facilitator’s Guide, Participant’s Handbook.</p>	
<p>Tools, Equipment and Other Requirements</p>	
<p>Personal Protective Equipment (PPE), Multimeters, Clamp Meters, Voltage Testers:, Phase Sequence Indicators, Non-contact voltage testers, Megohmmeters, Insulation Resistance Testers, Ground Resistance Testers, Circuit Breaker Test Sets, Emergency Showers and Eyewash Stations, Fire Extinguishers, First Aid Kits, Emergency Response Kits, Lockout/Tagout (LOTO) Kits:, Circuit Tracers and Analysers, Insulated Hand Tools:, ortable Generators and Backup Power Supplies, Grounding and Bonding Equipment, Cable Pullers and Fish Tapes, Voltage and Current Calibrators.</p>	

Module 4: Knowledge & skills to identify the electrical hazards in industries. The NOS gives an insight on electrical power systems and various concepts involved generation, transmission, distribution and utilization of electrical energy.

Mapped to SSD/N1303, v1.0

Terminal Outcomes:

- Identify the underlying electrical hazard in electrical machinery.
- Protect the workforce from accidents.
- Learn best practices in electrical safety.
- Identify the underlying electrical hazard in electrical power system.

<p>Duration: 45 Hours</p>	<p>Duration: 25 Hours</p>
<p>Theory–Key Learning Outcomes</p>	<p>Practical–Key Learning Outcomes</p>



- Basics terminologies in electrical engineering & electrical safety.
- Difference between Alternating Current and Direct Current.
- Effects of electricity in the human body.
- Role of electric conductors and insulators.
- Electric wiring requirements in industries.
- Electrical induction and the concept of safety clearance.
- Understanding double insulation.
- Electrical overload and short circuit in power lines.
- Electrical overload and short circuit protection in power lines.
- Operation of electrical machinery like single phase induction motor, three phase induction motor.
- DC motor, DC generator, AC generators, synchronous motor, servo motor.
- Transformer, step down transformer, instrument transformers etc.
- Setting up Transformers.
- Transmissional losses in AC & DC power lines.

- Identify the electrical hazards in electrical machinery.
- Prepare a plan to protect the workforce from accidents.
- Identify the electrical hazard in the electrical power system.
- Present plan to protect workforce and minimize loss.
- Case study on incidents due to electrical overload and short circuit protection in power lines.
- Carry out inspection process of DC motor, DC generator, AC generators, synchronous motor, servo motor, step down transformer, instrument transformers etc.

Classroom Aids:

Black/White Board, Computer, Projection Equipment, MS office & Design & drafting software, Facilitator's Guide, Participant's Handbook.

Tools, Equipment and Other Requirements

Personal Protective Equipment (PPE), Multimeters, Clamp Meters, Voltage Testers:, Phase Sequence Indicators, Non-contact voltage testers, Megohmmeters, Insulation Resistance Testers, Ground Resistance Testers, Circuit Breaker Test Sets, Emergency Showers and Eyewash Stations, Fire Extinguishers, First Aid Kits, Emergency Response Kits, Lockout/Tagout (LOTO) Kits:, Circuit Tracers and Analysers, Insulated Hand Tools:, ortable Generators and Backup Power Supplies, Grounding and Bonding Equipment, Cable Pullers and Fish Tapes, Voltage and Current Calibrators.



Module 5: Knowledge & skills to the electrical switchgear, used for protection against electrical and human induced failure. The Nos also describes the protective electrical switch gears that ensures human life protection.

Mapped to SSD/N1304, v1.0

Terminal Outcomes:

- Identify electrical switchgears, fuses, circuit breakers and protective devices for protection.
- Protective devices to protect the workforce from accidents.
- Learn best practices in electrical safety, switch gears for human life protection.

Duration: 45 Hours	Duration: 25 Hours
Theory–Key Learning Outcomes	Practical–Key Learning Outcomes
<ul style="list-style-type: none"> ● Electrical power systems. ● Concept of harmonics in power lines. ● “Path of least resistance in electric circuit”. ● Earth pit and construction of earth pit as per IS3043 and static electricity. ● Protective devices: circuit breakers, interrupting devices for preventing damage to circuits, equipment, and personnel by abnormal conditions, such as overcurrent, high or low voltage, and single phasing. ● Lightning arresters, surge protectors, fuses, relays, circuit breakers, reclosers, and other devices and best practices in electrical safety. ● Hazards related to electrical arcing and their boundaries. ● Resistivity test for earth pit placement. ● LOTO on the electrical busbar system. ● Electrical hotspots finding and use of thermography. 	<ul style="list-style-type: none"> ● Identify & numerate protective devices. ● List and find role of interrupting devices for preventing damage to circuits, equipment, and personnel by abnormal conditions. ● Construct earth pit and construction of earth pit as per IS3043 and static electricity. ● Plan action on high or low voltage and single phasing. ● Plan lightning arresters, surge protectors, fuses, relays, circuit breakers, reclosers, and other devices & present. ● Carry out presentation on best practices in electrical safety. ● Perform LOTO on the electrical busbar system. ● Use of thermography & discuss electrical hotspots finding.
Classroom Aids:	
Black/White Board, Computer, Projection Equipment, MS office & Design & drafting software, Facilitator’s Guide, Participant’s Handbook.	
Tools, Equipment and Other Requirements	
Personal Protective Equipment (PPE), Multimeters, Clamp Meters, Voltage Testers:, Phase Sequence Indicators, Non-contact voltage testers, Megohmmeters, Insulation Resistance Testers, Ground Resistance Testers, Circuit Breaker Test Sets, Emergency Showers and Eyewash Stations, Fire Extinguishers, First Aid Kits, Emergency Response Kits, Lockout/Tagout (LOTO) Kits:, Circuit Tracers and Analysers, Insulated Hand	



Tools:, ortable Generators and Backup Power Supplies, Grounding and Bonding Equipment, Cable Pullers and Fish Tapes, Voltage and Current Calibrators.

Module 6: Learn regulations & regulatory compliance requirements as per the laws governed by the Government of India. Identify the shortcomings as per the recommendation of the regulatory body for a particular task or activity.

Mapped to SSD/N1305, v1.0

Terminal Outcomes:

- Understand & comply with BOCW Act 1996.
- Understand & comply with Factories Act, 1948.
- Understand & comply with OSH Code 2020.
- The Electricity Act 2003 - India.

Duration: 45 Hours	Duration: 45 Hours
Theory–Key Learning Outcomes	Practical–Key Learning Outcomes
<ul style="list-style-type: none"> • Regulatory requirements of safety & health as per BoCW Act. • Regulatory requirements of safety & health as per Factories Act. • Regulatory requirements of safety & health as per OSH Code. • Regulatory requirement as per Indian Electricity Act 2003. • Role and responsibilities of safety Committees constitution at workplace. • Role & responsibilities and appointment of Safety officer. • Introduction to statutes, compliances, inspections, reporting process and record maintenance. • Enforcement safety & health requirement as per Electricity Act 2003 as consumer & distributor. 	<ul style="list-style-type: none"> • Carry out presentation on requirement & compliances of BOCW Act 1996. • Carry out presentation on requirement & compliances of Factories Act, 1948. • Carry out presentation on requirement & compliances of OSH Code 2020. • Carry out presentation on requirement & compliances of Electricity Act 2003.
Classroom Aids:	
Black/White Board, Computer, Projection Equipment, MS office & Design & drafting software, Facilitator’s Guide, Participant’s Handbook.	
Tools, Equipment and Other Requirements	
Personal Protective Equipment (PPE), Multimeters, Clamp Meters, Voltage Testers:, Phase Sequence Indicators, Non-contact voltage testers, Megohmmeters, Insulation Resistance Testers, Ground Resistance	



Testers, Circuit Breaker Test Sets, Emergency Showers and Eyewash Stations, Fire Extinguishers, First Aid Kits, Emergency Response Kits, Lockout/Tagout (LOTO) Kits:, Circuit Tracers and Analysers, Insulated Hand Tools:, ortable Generators and Backup Power Supplies, Grounding and Bonding Equipment, Cable Pullers and Fish Tapes, Voltage and Current Calibrators.

Module 7: Planning and organizing to provide a safe working environment for workers and set emergency protocols and measure in case of any unforeseen and incidents or accidents to minimize the damages & losses

Mapped to SSD/N1306, v1.0

Terminal Outcomes:

- Planning of resources for own work and communication to concerned subordinates, co-workers and superiors.
- Provide necessary support to subordinates, coordinate with co-workers and liaise with superiors and monitor.
- Setting up emergency protocols and implementing them at working places to minimize the loss in case of any incident or accident.

Duration: 30 Hours	Duration: 20 Hours
Theory–Key Learning Outcomes	Practical–Key Learning Outcomes
<ul style="list-style-type: none"> ● Introduction to planning of resources for own work and communication to concerned subordinates, co-workers and superiors. ● Introduction to hierarchy of organization and modes of communication to team members. ● Introduction to identifying the task and distribution among subordinates, supervision and coordination among the team members for readiness in sync with overall task & timelines. ● Introduction to supervision and monitoring of a task to ensure timely completion of such work. ● Setting up emergency protocols and implementing them at working places to minimize the loss in case of any incident or accident. ● Setting up evacuation plans, evacuation drills, assembly area emergency communication & guidance. 	<ul style="list-style-type: none"> ● Make a presentation on planning of resources and communication to concerned subordinates, co-workers and superiors. ● Prepare necessary support to subordinates, coordinate with co-workers and liaison with superiors and monitoring. ● Set up emergency protocols and implement them at working places to minimize loss in case of any incident or accident.
Classroom Aids:	



Black/White Board, Computer, Projection Equipment, MS office & Design & drafting software, Facilitator's Guide, Participant's Handbook.

Tools, Equipment and Other Requirements

Personal Protective Equipment (PPE), Multimeters, Clamp Meters, Voltage Testers:, Phase Sequence Indicators, Non-contact voltage testers, Megohmmeters, Insulation Resistance Testers, Ground Resistance Testers, Circuit Breaker Test Sets, Emergency Showers and Eyewash Stations, Fire Extinguishers, First Aid Kits, Emergency Response Kits, Lockout/Tagout (LOTO) Kits:, Circuit Tracers and Analysers, Insulated Hand Tools:, ortable Generators and Backup Power Supplies, Grounding and Bonding Equipment, Cable Pullers and Fish Tapes, Voltage and Current Calibrators.

Module 8: Understand scope in employment, financial dealing, digital literacy and communication with employer or customer.

Mapped to DGT/VSQ/N0102

Terminal Outcomes:

- Describe the traits of individual at workplace.
- Demonstrate apply employability and entrepreneurship skills at workplace.

Duration: 30:00	Duration: 30:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss the importance of Employability Skills in meeting the job requirements. • Explain constitutional values, civic rights, duties, citizenship, responsibility towards society etc. that are required to be followed to become a responsible citizen. • Discuss 21st century skills. • Display positive attitude, self -motivation, problem solving, time management skills and continuous learning mindset in different situations. • Discuss the significance of reporting sexual harassment issues in time. • Discuss the significance of using financial products and services safely and securely. • Explain the significance of approaching the concerned authorities in time for any exploitation as per legal rights and laws. 	<ul style="list-style-type: none"> • Show how to practice different environmentally sustainable practices • Use appropriate basic English sentences/phrases while speaking • Demonstrate how to communicate in a well -mannered way with others • Demonstrate working with others in a team • Show how to conduct oneself appropriately with all genders and PwD • Show how to operate digital devices and use the associated applications and features, safely and securely • Create a biodata • Use various sources to search and apply for jobs



- Explain the importance of managing expenses, income, and savings.
- Discuss the significance of using internet for browsing, accessing social media platforms, safely and securely.
- Discuss the need for identifying opportunities for potential business, sources for arranging money and potential legal and financial challenges.
- Differentiate between types of customers.
- Explain the significance of identifying customer needs and addressing them.
- Discuss the significance of maintaining hygiene and dressing appropriately.
- Discuss the significance of dressing up neatly and maintaining hygiene for an interview.
- Discuss how to search and register for apprenticeship opportunities.

Classroom Aids:

Black/White Board, Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator’s Guide, Participant’s Handbook.

Tools, Equipment and Other Requirements

Laptop/computer, internet, mobile

On The Job Training Plan: SSD/Q1301: Electrical Safety Supervisor

Introduction to Occupational Safety, Health, and Environment (OSHE): 20 Hours

Key Learning Outcomes

- Work out safety requirements.
- Prepare Safety Policy.
- Prepare Safety goals and objectives.
- Developing a positive safety culture for risk management.
- Prepare incident reporting.
- Conduct safety training.

Electrical Hazard Identification, Categories and Control : 20 Hours

Key Learning Outcomes

- Identify the existing electrical hazards.
- Present hidden risk in energized machines and power lines.



<ul style="list-style-type: none"> Prepare “Hierarchy of control” for improvement.
Electrical Machines & Power Systems : 20 Hours
Key Learning Outcomes
<ul style="list-style-type: none"> Identify the electrical hazards in electrical machinery. Prepare a plan to protect the workforce from accidents. Identify the electrical hazard in the electrical power system. Present plan to protect the workforce and minimize loss.
Electrical Switchgear and Protective Devices: 20 hours
Key Learning Outcomes
<ul style="list-style-type: none"> Identify & numerate protective devices, interrupting devices for preventing damage to circuits, equipment, and personnel by abnormal conditions, such as overcurrent, high or low voltage, and single phasing. Plan lightning arresters, surge protectors, fuses, relays, circuit breakers, reclosers, and other devices and best practices in electrical safety. Present your plan.
Plan & Organize Electrical Emergency protocols : 10 hours
Key Learning Outcomes
<ul style="list-style-type: none"> Planning of resources and communication to concerned subordinates, co-workers and superiors. Prepare necessary support to subordinates, coordinate with co-workers and liaison with superiors and monitoring. Set up emergency protocols and implement them at working places to minimize loss in case of any incident or accident.
Total Duration of OJT – 90 Hours (2.0 weeks)

Annexure

Trainer Requirements

Trainer Prerequisites							
Minimum Qualification	Educational	Specialization	Relevant Industry Experience		Training Experience		Remarks
			Years	Specialization	Years	Specialization	



ITI/12 th Pass	Science domain	12	Relevant Domain	0	-	
Graduate in any discipline / Diploma in Engineering	Science domain	7	Relevant Domain	0	-	
M. Tech/ B. Tech	Science domain	4	Relevant Domain	0	-	

Trainer Certification	
Domain Certification	Platform Certification
Certified as Trainer for the Job Role: “SSD/Q1301 : Electrical Safety Supervisor” 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 score of 80%.

Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training/Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
ITI/12 th Pass	Science domain	12	Relevant Domain	0	-	
Graduate in any discipline / Diploma in Engineering	Science domain	7	Relevant Domain	0	-	
M. Tech/ B. Tech	Science domain	4	Relevant Domain	0	-	



Assessor Certification	
Domain Certification	Platform Certification
Certified as Assessor for the Job Role: “SSD/Q1301: Electrical Safety Supervisor” 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 the assessor's program.

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

The assessment process will find 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:

- Assessment elements – Competencies based on performance criteria of each NOS.
- Methods of assessment – Written test (online/offline), viva and practical/ field exercises.
- Time of assessment – The assessment will be done both formative and summative (post orientation/training) of candidates.
- Place i.e., context of the assessment - The assessment will be conducted through theory, viva voice and practical/ field exercises, on simulators and will be both online and offline modes.
- The criteria for decision making– It will be based on assessment criteria & guidelines as given the qualification pack.
- Questions – The written questions, viva & practical questions will be set to cover all aspects 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 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	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 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