



# Model Curriculum

**QP Name: Solar PV Module Manufacturing Technician**

**QP Code: SGJ/Q0119**

**QP Version: 3.0**

**NSQF Level: 4**

**Model Curriculum Version: 3.0**

Skill Council for Green Jobs (SCGJ)  
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## Training Parameters

<b>Sector</b>	Green Jobs
<b>Sub-Sector</b>	Renewable Energy
<b>Occupation</b>	Technician
<b>Country</b>	India
<b>NSQF Level</b>	4
<b>Aligned to NCO/ISCO/ISIC Code</b>	NCO-2015/7422.1901
<b>Minimum Educational Qualification and Experience</b>	<ul style="list-style-type: none"> <li>• 12<sup>th</sup> Grade Pass without experience</li> <li>• 10<sup>th</sup> Grade Pass plus 2 year NTC/ 10<sup>th</sup> Grade Pass plus 1 year NTC plus 1 year NAC/ 10<sup>th</sup> Grade Pass and pursuing continuous schooling without experience</li> <li>• 10<sup>th</sup> Grade Pass with 2 years of relevant experience</li> <li>• 8<sup>th</sup> Pass plus 2 year NTC plus 1 year NAC plus CITS</li> <li>• Completed 2<sup>nd</sup> year of 3 year diploma (after 10<sup>th</sup>) and pursuing regular diploma</li> <li>• Previous relevant qualification of NSQF Level 3.0 with minimum education as 8<sup>th</sup> grade pass with 3 years of experience</li> </ul>
<b>Pre-Requisite License or Training</b>	NA
<b>Minimum Job Entry Age</b>	18 years
<b>Last Reviewed On</b>	27.05.2021
<b>Next Review Date</b>	26th May 2024
<b>NSQC Approval Date</b>	27.05.2021
<b>QP Version</b>	3.0
<b>Model Curriculum Creation Date</b>	27.05.2021
<b>Model Curriculum Valid Up to Date</b>	26th May 2024
<b>Model Curriculum Version</b>	3.0
<b>Minimum Duration of the Course</b>	420 hours (120 hours Theory + 120 hours Practical + 120 hours OJT + 60 hours employability skills)
<b>Maximum Duration of the Course</b>	420 hours (120 hours Theory + 120 hours Practical + 120 hours OJT + 60 hours employability skills)



## Program Overview

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

### Training Outcomes

At the end of the program, the learner will be able to:

- Carry out the manufacturing of Solar PV Modules
- Maintain personal health & safety at project site
- Employable at workplace

### Compulsory Modules

The table lists the modules, their duration and mode of delivery.

NOS and Module Details	Theory Duration	Practical Duration	Total Duration
<b>SGJ/N0145: Carry out manufacturing of Solar PV Modules</b> <b>NOS Version No.3</b> <b>NSQF Level 4</b>	<b>105:00</b>	<b>105:00</b>	<b>210:00</b>
Module 1: Introduction to Solar PV Technology	20:00	10:00	
Module 2: Prepare and identify the BOM and its Specification for Solar Module	10: 00	20 :00	
Module 3: Use of Soldering technology In Module Manufacturing, Test	15: 00	15 :00	
Module 4: Solar Module Manufacturing process (Solar Cell Tabbing/Ribbon cutting)	30: 00	30 :00	
Module 5: Visual inspection and Electroluminescence (EL) Test	15: 00	15 :00	
Module 6: Packing of Solar PV Modules	15: 00	15 :00	
<b>SGJ/N0147: Maintain personal health &amp; safety in a manufacturing facility</b> <b>NOS Version No. 3</b> <b>NSQF Level 4</b>	<b>15: 00</b>	<b>15 :00</b>	<b>30:00</b>
Module 7: Maintain Personal Health & Safety in manufacturing facility	<b>15: 00</b>	<b>15 :00</b>	
<b>DGT/VSQ/N0102: Employability Skills (60 Hours)</b> <b>NOS Version No. 1.0</b> <b>NSQF Level 4</b>			<b>60:00</b>
Module 8: Employability Skills			
<b>On the Job Training</b>			<b>120:00</b>
<b>Total Duration (hours)</b>			<b>420</b>



# Module Details

## Module 1: Introduction to Solar PV Technology

### Mapped to SGJ/N0145

#### Terminal Outcomes:

- Discuss the role and responsibilities of a Manufacturing Technician along with the importance of doing this course
- Provide broader overview of the Solar PV Technology

<b>Duration: 20:00</b>	<b>Duration: 10:00</b>
<p><b>Theory – Key Learning Outcomes</b></p> <ul style="list-style-type: none"> <li>• Explain the role of Solar Photovoltaic (PV) Manufacturing technician, its importance in the sector and the advantages of doing the course.</li> <li>• Discuss the basic aspects of solar energy and power generation.</li> <li>• Definition of Properties of light, Global horizontal Irradiation (GHI) and Direct Normal irradiance</li> <li>• Discuss the Property of Semiconductor material and P-N Junction.</li> <li>• Concept of Solar energy, Working of solar cell, Electrical Properties of Solar Cell, Solar PV Applications</li> <li>• Discuss mono and Poly crystalline Silicon Solar cell technology and recent trends.</li> <li>• Discuss the various configurations of Solar PV Power plants. (Grid connected, Off grid etc)</li> </ul>	<p><b>Practical – Key Learning Outcomes</b></p> <ul style="list-style-type: none"> <li>• Demonstrate how irradiation influence performance of solar module</li> <li>• Demonstrate the use of Hand-held irradiation meter.</li> <li>• Demonstrate how to interpret signs, notices and/or cautions at project site.</li> <li>• Show Solar Module Construction &amp; Manufacturing Process flow Chart</li> </ul>
<b>Classroom Aids</b>	
Laptop, white board, marker, projector, charts	
<b>Tools, Equipment and Other Requirements</b>	
Solar Module manufacturing flow chart, Solar Module, Hand held solar irradiation meter, Clamp meter and Multi meter, Sample signs, notice, cautions used at plant.	



## Module 2: Prepare and identify the BOM and its Specification for Solar Module

### Mapped to SGJ/N0145

#### Terminal Outcomes:

- Discuss the Bill of Material of solar panel
- Discuss specification of material listed in BOM

<b>Duration:</b> 10:00	<b>Duration:</b> 20:00
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>• Discuss various Materials used in solar module manufacturing as Solar Glass, Cell, EVA Back sheet, Aluminium Frame, Junction Box, Interconnect Ribbon, Silicon Sealant.</li> <li>• Technical Specifications and their role /importance in module performance &amp; reliability.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate and show each component and explain their application in Solar module</li> <li>• Prepare the BOM of Solar Module</li> </ul>
<b>Classroom Aids</b>	
Laptop, white board, marker, projector, charts	
<b>Tools, Equipment and Other Requirements</b>	
Solar module, junction Box, Back Sheet and EVA, wafers, cells, glass, etc	



## Module 3: Use of Soldering technology In Module Manufacturing

### Mapped to SGJ/N0145

#### Terminal Outcomes:

- Discuss the soldering principal
- Discuss various types of soldering used into the solar module manufacturing
- Discuss Soldering of Solar Cell (String by String)

<b>Duration: 15:00</b>	<b>Duration: 15:00</b>
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>• Explain Soldering process general requirement</li> <li>• Discuss tools used for Soldering process</li> <li>• Explain Soldering Tests &amp; Defect Identification</li> <li>• Explain Identification of Defects (Dry soldering, Poor Soldering) &amp; their criticality in PV module Reliability.</li> <li>• Discuss how to Avoid wrong practices during Soldering Process</li> <li>• Discuss soldering process of Solar Cell String Bussing – interconnect Copper Ribbon</li> <li>• Discuss the Junction Box Soldering techniques &amp; Desoldering Process,</li> <li>• Discuss how to perform cell soldering and soldering of cell strings by string.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate how to perform soldering</li> <li>• Demonstrate the Junction box soldering techniques with hands on experience</li> <li>• Demonstrate use of Soldering tools during soldering of solar cell</li> <li>• To do plain soldering, soldering in junction boxes, soldering on cells to achieve interconnection.</li> </ul>
<b>Classroom Aids</b>	
Laptop, white board, marker, projector, charts	
<b>Tools, Equipment and Other Requirements</b>	
Soldering Iron. Soldering Wick, Magnifying Glass, Wire Cutters. Other required soldering material.	



## Module 4: Solar Module Manufacturing process (Solar Cell Tabbing/Ribbon cutting)

Mapped to SGJ/N0145

### Terminal Outcomes:

1. Discuss the function various machine used for of cell sorting, trimming, ribbon cutting and cell interconnection, automatic soldering of interconnection of copper ribbon etc.
2. Understand the process of tabbing, layup of EVA and back sheet, process of lamination etc.

Duration: 30:00	Duration: 30:00
<p><b>Theory – Key Learning Outcomes</b></p> <ul style="list-style-type: none"> <li>• Discuss the flow chart of Solar module manufacturing processes.</li> <li>• Explain use of laser cutting machine, for cells cutting</li> <li>• Discuss the functioning of Solar cell Tabber Stringer machine for tabbing and interconnection of solar cell in to string by soldering them together.</li> <li>• Explain tabbing of cells interconnect ribbon on solar cells.</li> <li>• Explain removal of defective broken cells from string.</li> <li>• Solar cells string bussing interconnect of copper ribbon</li> <li>• Explain the process of Bussing and Bus Bar welding</li> <li>• Explain how to Monitor the assembly and interconnection of cells with metal ribbons to make a module.</li> <li>• Discuss the process of EVA and back sheet layup.</li> <li>• Discuss the Process of Lamination and its importance Solar module performance</li> <li>• Insure there should not be voids, bubbles, back sheet wrinkles, and other defects during the visual inspections after the lamination process.</li> <li>• Discuss the process of aluminium gluing /manipulating and framing process</li> </ul>	<p><b>Practical – Key Learning Outcomes</b></p> <ul style="list-style-type: none"> <li>• Demonstrate solar cell tabbing technique</li> <li>• Demonstrate functioning of Solar cell Tabber Stringer machine for tabbing and interconnection of solar cell in to string</li> <li>• Demonstrate how to perform Sorting of the solar cells using a cell sorter and put use the cells with same specifications for making a cell string.</li> <li>• Demonstrate to Cut EVA using a cutter and place it on the glass substrate.</li> <li>• Demonstrate to perform monitoring the process of aligning and placing cell strings on EVA sheet at assembler module layup station.</li> <li>• Show how to monitor the process of completing the module laminate circuit at the bussing station and provide output leads.</li> <li>• Demonstrate how to Monitor the process to laminate the assembly and cure the EVA with the laminator.</li> <li>• Demonstrate how to Trim the edges of the laminated module penal using cutter.</li> </ul>
<p><b>Classroom Aids</b></p> <p>Laptop, white board, marker, projector, charts</p>	
<p><b>Tools, Equipment and Other Requirements</b></p> <p>Flow chart of Solar module manufacturing processes, Solar cell Tabber Stringer machine, cell sorter. Layup bench, Rework bench, Bussing Bench, wire cutter, Plier, crimping Tools (MC4 Crimper)</p>	





## Module 5: Visual inspection and Electroluminescence (EL) Test

### Mapped to SGJ/N0145

#### Terminal Outcomes:

- Discuss the Visual Inspection
- Discuss the use of Sun Simulator and Perform the EL test
- Generating Flash Test Report

<b>Duration:</b> 15:00	<b>Duration:</b> 15:00
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>• Explain how to perform EL test of solar module and identify any dead and low power cells, short circuit cells, cracks, etc. If any such error is spotted, the module is sent back for fixing the error.</li> <li>• Explain Visual inspection to identify defects, Consequences of Soldering Process &amp; It's Severity</li> <li>• Explain Important checkpoints of String &amp; Laminate</li> <li>• Discuss how to check its output current, voltage and power of solar module.</li> <li>• Explain use of sun simulator for performing IV test characteristics of solar module</li> <li>• Discuss the flash test and measures the open-circuit voltage (VOC), voltage at maximum power point (VMP), short-circuit current (ISC), current at maximum power point (Imp), maximum power (Pm (W)) and the fill factor (FF). The parameters of the modules are measured at standard test conditions (STC).</li> <li>• Discuss how to generate a Flash test report (FTR) for each module's output data.</li> <li>• The module is connected to check its output current, voltage, power, etc</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate solar cell tabbing technique</li> <li>• Demonstrate how to operate sun simulator and perform the various test.</li> <li>• Demonstrate how to perform IV/ EL/Insulation test</li> <li>• Demonstrate how to perform the visual Inspection</li> <li>• Demonstrate how to generate flash test report.</li> </ul>
<b>Classroom Aids</b>	
Laptop, white board, marker, projector, charts	
<b>Tools, Equipment and Other Requirements</b>	
Sun simulator, EL tester, multi meter ,clamp meter.	



## Module 6: Packing of Solar PV Modules

### Mapped to SGJ/N0145

#### Terminal Outcomes:

- Explain the Solar module packing process
- Perform monitoring of the assembly

<b>Duration:</b> 15:00	<b>Duration:</b> 15:00
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>• Discuss how to visually inspect the completed module for quality of materials and workmanship.</li> <li>• Explain how to check proper packaging material for module.</li> <li>• Discuss how to pack modules in properly designed cartons for transportation.</li> <li>• Discuss how to keep module in to stacked in a box.</li> <li>• Discuss the use of carton separators and also many available plastic separators</li> <li>• Identify processes where material and resources utilization can be optimized</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate the Automatic Packing process and handling of Solar Module</li> <li>• Demonstrate use of Fork lift machine for moving of solar module pallet from one place to other.</li> </ul>
<b>Classroom Aids</b>	
Laptop, white board, marker, projector, charts	
<b>Tools, Equipment and Other Requirements</b>	
Site Visit for Practical Learning.	



## Module 7: Maintain Personal Health & Safety in manufacturing facility

### Mapped to SGJ/N0147

#### Terminal Outcomes:

- Explain how to follow established safe work procedure
- Explain to use and maintain personal protective equipment
- Discuss to identify and mitigate safety hazards
- Demonstrate safe and proper use of required tools and equipment

<b>Duration: 15:00</b>	<b>Duration: 15:00</b>
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>• Identify the requirements for safe work area.</li> <li>• Explain how to Administer first aid.</li> <li>• Identify the personal protective equipment used for the specific purpose.</li> <li>• Identify the electrical and chemical hazards associated with photovoltaic installations.</li> <li>• Identify work safety procedures and instructions to Handle Sharp and heavy component in a solar PV manufacturing</li> <li>• Explain occupational health &amp; safety standards and regulations for installation of Solar PV system.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate how to Administer first aid.</li> <li>• Show how to Identify the electrical and chemical hazards associated with photovoltaic installations.</li> <li>• Demonstrate how to Identify and perform work safety procedures and instructions to handle sharp and heavy component in a solar PV Manufacturing</li> <li>• Demonstrate good housekeeping practices and infection control guidelines</li> <li>• Demonstrate how to Dispose- off any waste materials in accordance with safe working practices and procedures</li> </ul>
<b>Classroom Aids</b>	
Laptop, white board, marker, projector, charts	
<b>Tools, Equipment and Other Requirements</b>	
Site Visit for Practical Learning	



## Module 8: Employability Skills (60 hours)

### Mapped to DGT/VSQ/N0102

#### Terminal Outcomes:

- Discuss the key Employability Skills

#### Introduction to Employability Skills

- Discuss the Employability Skills required for jobs in various industries
- List different learning and employability related GOI and private portals and their usage

#### Constitutional values - Citizenship:

- Explain the constitutional values, including civic rights and duties, citizenship, responsibility towards society and personal values and ethics such as honesty, integrity, caring and respecting others that are required to become a responsible citizen
- Show how to practice different environmentally sustainable practices.

#### Becoming a Professional in the 21st Century

- Discuss importance of relevant 21st century skills.
- Exhibit 21st century skills like Self-Awareness, Behavior Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn etc. in personal or professional life.
- Describe the benefits of continuous learning.

#### Basic English Skills Duration:

- Show how to use basic English sentences for everyday conversation in different contexts, in person and over the telephone
- Read and understand text written in basic English
- Write a short note/paragraph / letter/e -mail using correct basic English

#### Career Development & Goal Setting

- Create a career development plan with well-defined short- and long-term goals

#### Communication Skills Duration

- Demonstrate how to communicate effectively using verbal and nonverbal communication etiquette.
- Explain the importance of active listening for effective communication
- Discuss the significance of working collaboratively with others in a team

#### Diversity and Inclusion

- Demonstrate how to behave, communicate, and conduct appropriately with all genders and PwD
- Discuss the significance of escalating sexual harassment issues as per POSH act

#### Financial and Legal Literacy

- Outline the importance of selecting the right financial institution, product, and service



- Demonstrate how to carry out offline and online financial transactions, safely and securely
- List the common components of salary and compute income, expenditure, taxes, investments etc. Discuss the legal rights, laws, and aids

#### Essential Digital Skills Duration:

- Describe the role of digital technology in today's life
- Demonstrate how to operate digital devices and use the associated applications and features, safely and securely
- Discuss the significance of displaying responsible online behavior while browsing, using various social media platforms, e-mails, etc., safely and securely
- Create sample word documents, excel sheets and presentations using basic features
- Utilize virtual collaboration tools to work effectively

#### Entrepreneurship

- Explain the types of entrepreneurship and enterprises
- Discuss how to identify opportunities for potential business, sources of funding and associated financial and legal risks with its mitigation plan
- Describe the 4Ps of Marketing-Product, Price, Place and Promotion and apply them as per requirement
- Create a sample business plan, for the selected business opportunity

#### Customer Service

- Describe the significance of analyzing different types and needs of customers
- Explain the significance of identifying customer needs and responding to them in a professional manner.
- Discuss the significance of maintaining hygiene and dressing appropriately

#### Getting ready for apprenticeship & Jobs Duration:

- Create a professional Curriculum Vitae (CV)
- Use various offline and online job search sources such as employment exchanges, recruitment agencies, and job portals respectively
- Discuss the significance of maintaining hygiene and confidence during an interview
- Perform a mock interview
- List the steps for searching and registering for apprenticeship opportunities



## Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training Experience		Remarks
		Years	Specialization	Years	Specialization	
Intermediate		Two	years of experience in a solar PV module manufacturing plant			Personal Attributes: Aptitude for conducting training, and pre/ post work to ensure competent, employable candidates at the end of the training. Strong communication skills, interpersonal skills, ability to work as part of a team; a passion for quality and for developing others; well-organised and focused, eager to learn and keep oneself updated with the latest in the mentioned field.
As per the Relevant Craft Instructor Training Scheme (CITS)						

Trainer Certification	
Domain Certification	Platform Certification
Certified for Job Role: "Solar PV Module Manufacturing Technician" mapped to QP: "SGJ/Q0119". Minimum accepted score as per SCGJ is 70%.	Recommended that the Trainer is certified for the JOB ROLE "Trainer (VET and Skills) ", mapped to the qualification Pack : "MEP/2601, V2.0" with minimum score of 80%



## Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training/Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
Intermediate		Three	years of experience in a solar PV module manufacturing plant			Personal Attributes:  Aptitude for conducting assessment. Strong communication skills, interpersonal skills, ability to work as part of a team; a passion for quality and for developing others; well-organised and focused, eager to learn and keep oneself updated with the latest in the mentioned field.
As per the Relevant Craft Instructor Training Scheme (CITS)						

Assessor Certification	
Domain Certification	Platform Certification
Certified for Job Role: “Solar PV Module Manufacturing Technician” mapped to QP: “SGJ/Q0119”. Minimum accepted score as per SCGJ is 70%.	Recommended that the Assessor is certified for the JOB ROLE “Trainer (VET and Skills) “, mapped to the qualification Pack : “MEP/2701, V2.0” with minimum score of 80%



## Assessment Strategy

This section includes the processes involved in identifying, gathering and interpreting information to evaluate the learner on the required competencies of the program. The emphasis is on examination of existing businesses through case study analysis and practical demonstration of skills and knowledge based on the performance criteria. The assessment papers are developed by Subject Matter Experts (SME), available with the Assessment Agency, in collaboration with Skill Council for Green Jobs, as per the performance and assessment criteria mentioned in the Qualification Pack. The assessments papers are also checked for the various outcome-based parameters such as quality, time taken, precision, tools & equipment requirement etc. The assessment sets are then reviewed for consistency. The technical limitations at the training centres are taken care in theory and viva. The assessment agencies are 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 identify assessors as per the Assessment Policy and Guidelines established by Skill Council for Green Jobs relevant for that Qualification.

The assessors selected by Assessment Agencies are scrutinized and made to undergo training and introduction to SCGJ Assessment Framework, competency-based assessments, and assessor's guides. The assessors are provided with assessor's guide developed by the Subject Matter Expert of the assessment agency in collaboration with SCGJ as per the assessment framework. The assessment guides are developed to ensure the maximum possible consistency in the assessment by different assessors and elaborate on the following:

- Qualification Pack Structure
- Guidance for the assessor to conduct theory, practical and viva 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 and mark sheet
- Viva guidance for uniformity and consistency across the batch.

The assessment to be conducted by assessment agency is completely based on the assessment criteria as mentioned in the Qualification Pack. Each NOS in the Qualification Pack (QP) is assigned a relative weightage for assessment based on the criticality of the NOS. Therein each Performance Criteria in the NOS is assigned marks for or practical based on relative importance, criticality of function and training infrastructure.

The following tools are proposed to be used for final assessment:

**Practical Assessment:** This will comprise of a test to evaluate the individual's grasp on domain skills imparted.





**Viva/Structured Interview:** This tool will be used to assess the conceptual understanding and the behavioural aspects as regards the job role and the specific task at hand. It will also include questions to ascertain the soft skills of interacting with the customer or client.

**Written Test:** Under this test few key items which cannot be assessed practically will be assessed. The written assessment will comprise of:

- True / False Statements
- Multiple Choice Questions
- Problem Statements
- Case Study Analysis



## References

## Glossary

Term	Description
<b>Declarative Knowledge</b>	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.
<b>Key Learning Outcome</b>	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).
<b>OJT (M)</b>	On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on site
<b>OJT (R)</b>	On-the-job training (Recommended); trainees are recommended the specified hours of training on site
<b>Procedural Knowledge</b>	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.
<b>Training Outcome</b>	Training outcome is a statement of what a learner will know, understand and be able to do <b>upon the completion of the training</b> .
<b>Terminal Outcome</b>	Terminal outcome is a statement of what a learner will know, understand and be able to do <b>upon the completion of a module</b> . 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 Standards