National Technical and Vocational Qualifications Framework

NTVQF

Course Accreditation Documents
for
National Skill Certificate in
Computer Aided Design (CAD) for Garments
(RMG and Textile Sector), NTVQF Level - IV
January 2020

National Skills Development Authority
Prime Minister's Office, Bangladesh

Contents

Course Accreditation Document

This Course Accreditation Document is prepared to standardize the format for the accreditation / re-accreditation of courses under the National Quality Assurance System (NQAS) and for the registration of the accredited / re-accredited qualifications under the National Technical and Vocational Qualifications Framework (NTVQF).

The two parts of this document as follows:

- Part A provides information on the Qualification Standards.
- Part B includes details of the pro-forma / templates for accreditation / re-accreditation. It guides the Skills Training Provider (STP) to accomplish the required documents for registration of the qualification.

Part A.

Qualification Standards: National Skill Certificate in Computer Aided Design (CAD) for Garments, NTVQF Level - IV.

I. Introduction

The Qualification Standards (QS) is a nationally-recognised specification to achieve a qualification. It details the level of training, experience and practice required to achieve the standard of competency. It provides the basis for the development of strategies for competency based training and assessment by a Skills Training Provider.

The Qualification Standards aims to:

a. Provide guidelines to National Skills Development Authority (NSDA) to accredited Skills Training Provider (STP).
b. Serve as standard for the training providers to delivery competency based training.
c. Arrange basis of assessment and certification for skilled workers.

II. Contents of the Standard

Section 1: Qualification Title

Section 2: Course Structure

Section 3: Purpose of the Qualification

Section 1: Qualification Title

National Skill Certificate in
Computer Aided Design (CAD) for Garments, NTVQF Level - IV.

Section 2: Course Structure

The Course Structure is a prescribe set of units of competency needed to attain a National Skill Certificate in

Computer Aided Design (CAD) for Garments, NTVQF Level - IV.

SL	Unit Code and Title		UoC Level	Nominal Duration (Hours)
The Generic Competencies (04 UoCs required)				**85**
1.	GCU02L1V1	Apply Occupational Health and Safety (OSH) Practices at Workplace	1	30
2.	GCU15L1V1	Perform Basic IT Skills	1	20
3.	GCU14L2V1	Carryout Workplace Interaction	2	15
4.	GCU10L2V1	Lead Small Team	3	20
The Sector Specific Competencies (02 UoCs required)				**45**
1.	SSU01I09L2V1	Recognize the RMG Business Scenario	2	30
2.	SSU08I09L2V1	Interpret Drawing and Specifications in Manuals for the RMG Industries	2	15

The Occupation Specific Competencies (06 UoCs Required)				230
1.	OSU01I09L4V1	Interpret Fundamentals of CAD Operations	4	25
2.	OSU02I09L4V1	Perform CAD Installation and Operation	4	20
3.	OSU03I09L4V1	Operate System of Pattern Making	4	80
4.	OSU04I09L4V1	Perform Digitizing Patterns	4	25
5.	OSU05I09L4V1	Perform Pattern Grading	4	30
6.	OSU06I09L4V1	Create Marker and Print	4	50
Total Nominal Learning Hours				360

Section 3: Purpose of the Qualification

The qualification is established upon industry requirements. It is designed for:

a. Individuals who want to be trained in National Skill Certificate in **Computer Aided Design (CAD) for Garments,** NTVQF Level - IV.

b. Working and experienced individuals who want to be certified with National Skill Certificate in **Computer Aided Design (CAD) for Garments,** NTVQF Level - IV.

Candidates who will meet the requirements of this qualification may be employed as **CAD Operator**.

Section 4: Training standards

4.1 Training Delivery modes

The competency-based TVET system recognizes various types of delivery modes both on and off-the-job as the learning is driven by the competency standards specified by the industry. Training modalities may be adopted depending on the needs of the qualification National Skill Certificate in **Computer Aided Design (CAD) for Garments, NTVQF Level - IV**. Some suggested modalities may include but not limited to the following:

4.1.1 *Standard training delivery*.

This would comprise both, on and off-the-job components. **Computer Aided Design (CAD) for Garments, NTVQF Level - IV**. has a total of 360 minimum hours for the off-the-job and on-the-job component of the delivery. The nominal hour is a suggested duration to deliver the training.

4.1.2 *Modular / Self-paced Learning / Multiple Entry / Multiple Exit*

This is a competency-based training modality where the trainee is allowed to progress at his own pace. The trainee can be certified and exit from the program at any time and re-enter to the qualification once he decided to finish the program.
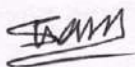
4.2 Trainees entry requirements:

The entry requirements for the National Skill Certificate in **Computer Aided Design (CAD) for Garments, NTVQF Level - IV** are:

- Class VIII Pass or evidence of equivalent achievement **or**
- Pass in a challenge test on language, literacy and numeracy skills considered necessary for successful completion of the qualification (Model challenge test to be developed based on units of competencies to be achieved) **or**
- 2-year trade relevant work experience and pass in a challenge test on vocational skills considered necessary for successful completion of the qualification (Model challenge test to be developed).

4.3 Required training supplies, materials, tools and equipment

Recommended List of tools, equipment and materials for the training of a maximum of 20 trainees for **Computer Aided Design (CAD) for Garments,** NTVQF Level - IV.

List of Machinery / Equipment and Spares

SL	Name	Specification (for guidance only, some may vary depending on the workshop layout)	Unit	Quantity
1.	CAD Software		Unit	11
2.	Desktop Computer		Unit	03
3.	Laptop			12
4.	Scanner		Unit	01
5.	Printer		Unit	01
6.	Multimedia projector with screen		Unit	01
7.	Portable Storage Device		Unit	01
8.	Pointer		Unit	01
9.	Audio sound system		Unit	02
10.	Plotter		Unit	02
11.	Digitizer Board		Unit	20
12.	Uninterruptible Power Supply (UPS)		Unit	20
13.	Measuring tape		Unit	20

List of Measuring Instruments

SL	Name	Specification (for guidance only, some may vary depending on the workshop layout)	Unit	Quantity
1.	Calculator		Unit	20
2.	GSM cutter		Unit	20
3.	GSM scale		Unit	20
4.	Set square		Unit	20

List of Tools

SL	Name	Specification (for guidance only, some may vary depending on the workstation layout)	Unit	Quantity
1.	Scissors		Unit	20
2.	Tracing wheel		Unit	20

List of Materials / Consumables

Materials / Consumables		
SL	Item	QTY
1.	Masking Tape	As required
2.	Scotch Tape	As required
3.	Glue	As required
4.	Pattern Board	As required
5.	Marker Paper	As required
6.	Marker Pen	As required
7.	Pen / Pencil	As required

List of Furniture

SL	Name	Specification (for guidance only, some may vary depending on the workshop layout)	Unit	Quantity
1.	Full Secretariat Table		Nos.	01
2.	Half Secretariat Table		Nos.	05
3.	Arm Cushion Chair	As per requirement	Nos.	06
4.	Armless Chair	As per requirement	Nos.	12
5.	Tabloid Chair	As per requirement	Nos.	20
6.	Bookshelf	As per requirement	Nos.	02
7.	File Cabinet	As per requirement	Nos.	02
8.	Steel Almirah	180 cm x 120 cm	Nos.	02
9.	White Board	240 cm X 120 cm made of particle board with white Formica covered and side covered by aluminum channel	Nos.	02
10.	Lecture Table		Nos.	02

11.	Lecture Desk		Nos.	02
12.	Tools Rack		Nos.	05
13.	Working table		Nos.	05
14.	Shelf		Nos.	03
15.	Display Board	240 cm x 120 cm made of particle wood and fabric cover	Nos.	02

List of Learning Materials

Quantity	Description
	Learning Materials
20	CBLM
01	Session Plan
20	Trainee Record Book
20	Competency Skills Log Book
01	Progress Chart
	REFERENCES
20	Related Books
20	Manuals
20	Charts
20	CD's
20	Pictures
20	Magazines

Other requirements:

1. Internet connectivity
2. Software
3. Continuous power supply source
4. Fire extinguisher
5. Fire Blanket

4.4 Training Facilities (Training facilities for 20 trainees)

For first Occupation 1,200 sft. and for additional Occupation 1,000 sft. (one office room is required for several occupation)

Space Requirement	Size in Sq. Feet.	Quantity
Workshop	600 sft.	01
Classroom	400 sft.	01
Office room	200 sft.	01
Toilet (Male / Female)	--	02

4.5 Trainers Qualification

National Skill Certificate in **Computer Aided Design (CAD) for Garments, NTVQF Level – IV:**

- Must be a holder of NSC in **Computer Aided Design (CAD) for Garments,** NTVQF Level – IV.
- Must be CBT&A Level - IV certified.
- Must be physically and mentally fit.
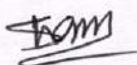
Section 5: Assessment and Certification Standards

5.1 Assessor's Qualification

Certified assessor duly recognized by NSDA shall conduct the National Assessment for this National Skill Certificate in **Computer Aided Design (CAD) for Garments, NTVQF Level - IV**.

5.2 Assessment and Certification Arrangements

a. To attain the Qualification of **National Skill Certificate in Computer Aided Design (CAD) for Garments, NTVQF Level – IV,** the candidate must demonstrate competence in all the units required. Successful candidates shall be awarded a National Skill Certificate issued by NSDA.

b. The qualification of **National Skill Certificate in Computer Aided Design (CAD) for Garments, NTVQF Level – IV,** may be attained through:
   - Accumulation of Statement of Achievement (SOA)
   - Demonstration of Competency through project-type assessment covering all the required units of competency.

c. Assessment will be conducted in a simulated workplace environment or training institute using equipment, machinery and tools as specified in the assessment tools.

d. The qualified Assessor (or Assessor Panel) will be responsible for making the final judgment of Competent or Not Yet Competent.

e. There will be open entry to assessment leading to certification through **Recognition of Prior Learning** (RPL).

Part B.

Part B of the Course Accreditation Document (CAD) is a set of templates designed to assist the Skills Training Provider (STP) in the development of courses under the National Technical and Vocational Qualifications Framework (NTVQF). It is an integral part of the application documents that will be submitted to National Skills Development Authority (NSDA) for accreditation and re-accreditation of programs following National Skills Quality Assurance System (NQAS).

The accreditation document is divided into three sections:

- Part 1 provides information on the Skills Training Provider, Standard Setting Body, the Quality Assurance Body, and course classification and accreditation information.
- Part 2 contains details of rules and requirements under which the course may be structured, delivered and assessed.
- Part 3 includes the units of competency or modules that are contained in the course.

The NSDA approved Competency Standards (CS) and Qualification Standards (QS) will serve as reference to complete the templates.

National Technical and Vocational Qualifications Framework

NTVQF

Course Accreditation Documents
for
National Skill Certificate in
Computer Aided Design (CAD) for Garments
(RMG and Textile Sector), NTVQF Level - IV
January 2020

National Skills Development Authority
Prime Minister's Office, Bangladesh

Application for NTVQF Course / Program Accreditation

Date:

_____

_____

Sir,

The undersigned **(Name of the Head of the Skills Training Provider)**, **(Designation / Position)** of the **(Name of The Skills Training Provider)**, located at **(Address)**, hereby apply for the accreditation of the course / program under the laws of the Government of the People's Republic of Bangladesh.

Course / Program Duration_____ Hours

To support this application, the following duly certified / authenticated documents are submitted:

➢ **Administrative Requirements**

  ○ Fire Safety Inspection Certificate

➢ **Curricular Requirements**

  ○ Competency Standards (CS) (indicating the job titles being addressed and the competencies being developed)
  ○ Course and subject description
  ○ List of supplies, tools and equipment per program
  ○ List of instructional materials (books, videotapes, internet access, and other library references)
  ○ List of official and their qualifications
  ○ List of faculty for the program (WITH CBT&A 4 Certificate and National Skills Certificate)
  ○ List of non-teaching personnel and their qualification

I, **(Name of the Head of the Skills Training Provider)** as **(Position, Designation)**, promise to maintain the standards required for the course / programs and to follow faithfully all laws, rules and regulations, and their requirements governing the operations of the National Skills Development Authority of any plan of action regarding the closure of

phasing out the course / programs or any changes in the prescribed requirements. I acknowledge that the violation of the laws, of the rules and regulations and the requirements of the National Skills Development Authority shall be deemed sufficient cause for the revocation of the certificate of registration.

The institution, which I present, will not conduct classes in the courses / programs applied for the above until unless this application is approved and the National Skills Development Authority has issued the corresponding certificate.

Yours faithfully,

(Name of the Head of the Skills Training Provider)
(Designation / Position)

Part 1: General Information

1. Name and details of the Skills Training Provider

Name of Training Organization:

Status of Institution (e.g., Private, Public, NGOs, Industry led etc.):

Name of Respondent:

Position of Respondent:

Postal Address:

Phone Number:

E-mail Address:

2. Purpose of Submission

Accreditation ☐   Re-accreditation ☐

3. Delivery of the Course

The STP applying for this accreditation shall write the method of delivery of the qualification (On-the-job, off-the-job, Apprenticeship, etc.)
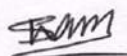
4. Quality Assurance Body

National Skills Development Authority (NSDA),
423-428 Tejgaon Industrial Area, Dhaka-1208
Ph: +880 2 8891091; Fax: +880 2 8891092; Email: ecnsda@nsda.gov.bd

5. Standard Setting Body (ISC)

State the name and address of the standard setting body responsible for the industry sector (Include Street / Postal, Phone and E-mail address).

Part 2: Course Information

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1. Nomenclature

1.1 Name of the Course:

State the name(s) of the course(s) included in this document. The title of the course must accurately reflect the contents and outcomes of the course including the qualification awarded on successful completion of the course. The name of the course should meet the relevant standard for accreditation of courses.

1.2 Nominal Duration of the Course

State the nominal duration of the course in hours. [The nominal duration of the course will indicate the number of hours of Off-the Job training at the STP. In addition to Off-the Job training, the course may contain On-the Job (i.e. workplace based) training. The nominal duration of the course (Off-the Job and On-the Job) should be in accordance with the national guidelines.

- *The length of training required for achieving a given level of the qualification could vary from occupation to occupation. For example, welding competencies may take a longer time to develop than machine operations competencies. The duration proposed for each qualification, though nominal, must be based on a clear and sound logic.*
- *The recommended Off-the job and on-the-job training for the initial level of the course (i.e. NTVQF Level 1) is a minimum of 360 learning hours. A higher level NTVQF course must have at least 270 hours of learning for each higher NTVQF level with prerequisite of previous level of the course. For example, a Level 2 NTVQF course will have (360 + 270 =) 630 hours of learning and a Level 3 NTVQF course will have (360 + 270 + 270 =) 900 learning hours.*
- *The recommended work experience/On-the Job training is a maximum of 20% of course hours for initial level of the course and 25% for each higher NTVQF level course.*
- *If the length of the Off-the Job and/or On-the Job training is more than the recommended minimum, there must be adequate justification. Very strong justification is required if the nominal duration of the course is more than 20% of the recommended minimum. However, the nominal duration of the course should not be more than 25% of the recommended minimum.*

2. Course Outcomes
Refer to the relevant Standard for Accreditation of courses. The course outcomes must reflect the industry/enterprise/ community needs, the level and the nature of the course.

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3. Course Rules and Requirements

Refer to the relevant Standard for Accreditation of courses (CS and QS).

3.1 Course Structure (may adapt the structure presented in the QS)

Course structure may be presented in table format or as a combination of text and table, including guidelines on sequencing (pre-requisite, co-requisites), clustering and nominal hours.

- *Outline the structure of the course and rules for completion. Course structure will reflect the intended skill and knowledge outcomes of the course and may be:*
  - *generic*
  - *industry sector specific*
  - *occupation specific and/or (specialized) job role specific - compulsory*

Course Structure

for

National Skills Certificate in_____

(NTVQF Level _____ **)**

Detailed Information on the UoCs to be successfully completed for the award of this national certificate should be identified.

3.1.1 Requirements for Award of the Qualification

To be eligible for the award, the student should <u>successfully complete the Units of Competency as required in the above table</u> through:

3.1.2 Exit Qualification

Any exit point from the course that provides for vocational or educational outcome should be identified.

3.1.3 Statement of Achievement

Indicate that only a Statement of Achievement will be issued for any unit of competency/module completed if the full qualification is not completed.

3.1.4 Reporting, Quality Assurance and Certification

3.2 Entry Requirements and Selection Criteria

Refer to the Qualification Standards

3.2.1 Entry Requirements (Refer to the relevant Qualification Standards)

3.2.2 Selection Criteria (refer to QS)

4. Assessment Rules and Requirements

4.1 Assessment Strategy

4.2 Recognition of Prior Learning (RPL)

5.3 Workplace Assessment

5. Resources Rules and Requirements

(Accomplish the forms provided in the appendices)

Refer to the relevant Qualification Standards for the templates provided to accomplish this information.

5.1 Physical Resources

Provide details of specialized facilities, tools and equipment essential for the delivery of the course.

- List of number of classrooms, laboratories, and workshops required for a class of 30 students.
- List of number of tools and equipment required for each classroom, laboratory, and workshop for a class of 30 students.
- Summary of the consumables and materials required for practice (e.g. Food, Chemical, Computer spares and parts) for a class of 30 students.

5.2 Human Resources

State the minimum recommended qualifications and experience of trainers and support staff. Include training and experience relating to both skills competency / qualifications and competency-based training and assessment competency/qualifications and industry experience. Any recommended requirements must be justifiable and also meet the NSDA standards for Registration of Training establishments (Colleges / Institutes / Training Centers) and accreditation for delivering nationally registered courses.

5.2.1 Industry Experience (Attach relevant portfolio)

Trainers and assessors must have had at least 2 years of relevant industry experience and should keep abreast of the current technology through ongoing exposure to relevant practices in the industry

Trainers and assessors should also have current knowledge and awareness of access and equity issues relevant to students needs arising from a variety of factors including socio-economic status, disability status, ethnic background, race, family differences, sexual preferences and gender specific differences.

5.2.2 Student Trainer Ratio:

> 02 Trainer: 30 trainees

5.2.3 Support Staff:

- Include technical and administrative support staff.

5.3 Learning Resources

Identify a list of teaching and learning resources required for offering the course.

- The list must include the text books, workbooks, in-house resource packs / customized trainee guidebooks, relevant national/industry standards, laws and regulations, manufacturer's instruction manuals, and audio, video and digital media (if any) included which are suitable for the students.
- In addition, additional reference books, audio, video and digital media and URLs of relevant websites, which could be used by teachers and gifted students must be included.
- The list must cover each Module / Unit of Competency (Subject) included in the course and emphasis the practical components of the training.

6. Ongoing Monitoring, Evaluation and Review

Refer to the relevant Qualification Standard for accreditation of courses

1. Describe the monitoring and evaluation processes, which will be undertaken by the Skills Training Providers (College / Institute / Training Centre) offering the course and the Quality Assurance Body:

   - the relevance and current nature of the course (e.g. The mechanism for ensuring relevance and current nature of the course could include an active industry advisory committee and other ongoing networking and engagement with industry through work placement, industry visits, guest lectures, information on national skills shortage, international skills demand, global trends, current technology)

- the quality of delivery of the course (e.g. students' feedback, staff feedback)
- the quality of assessments leading to the award of the qualification (e.g. internal and/or external validation of assessment before and after assessment)
- the quality of graduates (e.g. employment rate, employer satisfaction level)

Part 3: Details of the Course

CURRICULUM DESIGN

Course Title:	
NTVQF Level:	
Nominal Duration:	_____ Hours
Course Description:	This course is designed to enhance the knowledge, skills, positive attitude and work values of the learner in accordance with the prevailing standards in National Skills Development Authority. This encompasses competencies required of a (Occupation / Qualification) to perform the tasks in the areas of (Describe the duties of the occupation / qualification). To obtain this, all units prescribed for this qualification must be achieved:

GENERIC COMPETENCY (_____ HOURS)

Unit of Competency	Learning Outcomes	Methodology	Assessment Approach
1.	1.1	•	•
2.	2.1	•	•

SECTOR SPECIFIC COMPETENCY (_____ HOURS)

Unit of Competency	Learning Outcomes	Methodology	Assessment Approach
1.	1.1	•	•
2.	2.1	•	•

OCCUPATION SPECIFIC COMPETENCY (_____ HOURS)

Unit of Competency	Learning Outcomes	Methodology	Assessment Approach
1.	1.1	•	•
2.	2.1	•	•

Appendices

(Appendix 1-9)

Appendix 1 - Training Design

QUALIFICATION:_____

Nominal Duration: _____ **hours**

Name of Institution: _____

Competencies	Duration of Training																			
	Month 1				Month 2				Month 3				Month 4				Month 5			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Generic Competencies (_____ Hours)																				
Sector Specific Competencies (_____ hours)																				
Occupation Specific Competencies (_____ hours)																				

(Sample legend only, may change depending on the STP)

██ 4 hours each for 2 days   ██ Whole day   ██ Half-day

Submitted by: _____   Attested by: _____   Inspected by:_____
(Head of the Department)   (Head of the Institution)   QA / Expert NSDA
Date: Date: Date:

Appendix 2 - List of Equipment

Program: _____

Name of Institution:_____

Name of Equipment (1)	Specification (2)	Acquisition Year (3)	Quantity on Site (4)	Quantity Required (5)	Difference (6)	Percent Compliance (7)	Inspectors Remarks (indicate standard ratios) (8)

Submitted by: _____   Attested by: _____   Inspected by: _____

(Head of the Department)   (Head of the Institution)   QA / Expert NSDA

Date: Date: Date:

Note: Columns 1-4 to be filled out by Institution; Columns 5-8 to be filled out by QA / Expert NSDA.

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Appendix 3 - List of Tools

Program: _____

Name of Institution: _____

Name of Tools (1)	Specification (2)	Acquisition Year (3)	Quantity on Site (4)	Quantity Required (5)	Difference (6)	Percent Compliance (7)	Inspectors Remarks (indicate standard ratios) (8)

Submitted by: _____   Attested by: _____   Inspected by: _____

(Head of the Department)   (Head of the Institution)   QA/ Expert NSDA

Date: Date: Date:

Note: Columns 1-4 to be filled out by Institution; Columns 5-8 to be filled out by QA / Expert NSDA.

Appendix 4 - List of Consumables

Course: _____

Name of Institution: _____

Name of Tools (1)	Specification (2)	Acquisition Year (3)	Quantity on Site (4)	Quantity Required (5)	Difference (6)	Percent Compliance (7)	Inspectors Remarks (indicate standard ratios) (8)

Submitted by: _____ Attested by: _____ Inspected by: _____

(Head of the Department) (Head of the Institution) QA/ Expert NSDA

Date: Date: Date:

Note: Columns 1-4 to be filled out by Institution; Columns 5-8 to be filled out by QA / Expert NSDA.

Appendix 5 - List of Instructional Materials

Program: _____

Name of Institution: _____

Title	Classification	Date of Publication	No. of Copies	Inspector's Remarks

Submitted by: _____ Attested by: _____ Inspected by: _____

(Head of the Department) (Head of the Institution) QA / Expert NSDA

Date: Date: Date:

- *Classify whether journal, book, magazine, etc.*

Appendix 6 - List of Instruction's Physical Facilities

Program: _____

Name of Institution: _____

Name	Description	Quantity	Inspector's Remarks

Submitted by: _____   Attested by: _____   Inspected by: _____

(Head of the Department)   (Head of the Institution)   QA / Expert NSDA

Date: Date: Date:

Appendix 7 - List of Off-Campus Physical Facilities

Program: _____

Name of Institution: _____

Name	Description	Quantity	Inspector's Remarks

Submitted by: _____   Attested by: _____   Inspected by: _____

(Head of the Department)   (Head of the Institution)   QA / Expert NSDA

Date: Date: Date:

Appendix 8 - List of Officials

Program: _____

Name of Institution: _____

Name	Position	Nature of Appointment	Educational Attainment	Experience Related to Position	Industry Experience	Competency Certificates	Remarks

Submitted by: _____   Attested by: _____   Inspected by: _____
(Head of the Department)   (Head of the Institution)   QA / Expert NSDA
Date: Date: Date:

Appendix 9 - Trainers

Program: _____

Name of Institution: _____

Name	Position	Nature of Appointments	Educational Attainment	Experiences Related to Position	Industry Experience	Competency Certificates			Rem arks
						NSC	TQ	AQ	

Submitted by: _____   Attested by: _____   Inspected by: _____
(Head of the Department)   (Head of the Institution)   QA / Expert NSDA
Date: Date: Date:

- NSC - National Skills Certificate
- TQ - Trainer Qualification
- AQ - Assessor Qualification

- - -