



National Skills Qualifications Framework

NSQF

**Course Accreditation Documents (CAD)
for
National Skills Certificate in
Refrigeration and Air Conditioning
(Light Engineering Sector)
NSQF Level - 4
June - 2021**

National Skills Development Authority
Prime Minister's Office, Bangladesh

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Course Accreditation Document (CAD):

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

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 Skills Certificate in Refrigeration and Air Conditioning, NSQF, Level – 4

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 (STP)

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 4: Training Standards

4.1 Training Delivery modes

4.2 Trainee's entry requirements

4.3 Required training supplies, materials, tools and equipment

4.4 Training Facilities

4.5 Trainer's Qualification

Section 5: Assessment and Certification Standards

5.1 Assessor's Qualification

5.2 Assessment and Certification Arrangements

Section 1: Qualification Title

**National Skills Certificate in Refrigeration and Air Conditioning, NSQF
Level – 4**

Section 2: Course Structure

The Course Structure is a prescribe set of units of competency needed to attain a National Skills Certificate in **Refrigeration and Air Conditioning, NSQF, Level – 4;**

Course Structure:

SL No.	Unit Code and Title		UoC Level	Nominal Hours
Generic Competencies				
Sector Specific Competencies				
Occupation Specific Competencies				
1	OURAC001L4V1	Apply Quality Systems and Procedures	4	20
2	OURAC002L4V1	Service & Maintain Precision Air-Conditioning Unit	4	60
3	OURAC003L4V1	Troubleshoot Precision Air-Conditioning Unit	4	40
4	OURAC004L4V1	Repair & Install Prefabricated Cold Rooms/Freezer Rooms	4	60
5	OURAC005L4V1	Check & Inspect Variable Refrigerant Flow (VRF)/Variable Refrigerant Volume (VRV) System	4	20
6	OURAC006L4V1	Prepare estimation for Repair, installations and maintenance of RAC Systems	4	20
7	OURAC007L4V1	Troubleshoot Transport Air-Conditioning System	4	40
Total Nominal Learning Hours				260

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 Skills Certificate in **Refrigeration and Air Conditioning**, NSQF Level – 4;
- b. Working and experienced individuals who want to be certified with National Skills Certificate in **Refrigeration and Air Conditioning**, NSQF Level – 4;

Candidates who will meet the requirements of this qualification may be employed as **Highly Skilled RAC Technician**;

Section 4: Training standards

4.1 Training Delivery modes

The competency-based Skills 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 Skills Certificate in **Refrigeration and Air Conditioning, NSQF Level – 4**. 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. **Refrigeration and Air Conditioning, NSQF Level – 4** has a **total of 260 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 Skills Certificate in **Refrigeration and Air Conditioning, NSQF Level – 4** are:

- Must be a holder of NSC in **Refrigeration and Air Conditioning, NSQF Level – 3**;

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 **Refrigeration and Air Conditioning, NSQF Level – 4**;

4.3.1 List of Machinery / Equipment and Spares:

SL No.	Name of Machinery / Equipment and Spares	Specification (For guidance only, some may vary depending on the workshop layout)	Unit	Quantity
1.	Computers (latest configuration)		Nos.	02
2.	Color Printer A3		Nos.	01
3.	Laptops		Nos.	01
4.	Multimedia projector screen		Nos.	01
5.	Digital video camera		Nos.	01
6.	Scanner		Nos.	01
7.	Printer		Nos.	01
8.	Two stage Vacuum pump	8L/s	Nos.	5
9.	Air compressor		Nos.	2
10.	Seal type rotary compressor	1/5 HP	Nos.	5
11.	Seal type reciprocating compressor	1/5 HP	Nos.	5
12.	Screw type rotary compressor	1/5 HP	Nos.	5
13.	Electronic Leak detector		Nos.	2
14.	Window type air conditioner	1.5 Ton	Nos.	3
15.	Split type air conditioner	2 Ton	Nos.	3
16.	Display freezer	200Liter	Nos.	3
17.	Humidifier and De-humidifier		Nos.	3
18.	Dispensing unit		Nos.	2
19.	Bottle coolers		Nos.	2
20.	Oxy-Acetylene gas welding set		Nos.	3
21.	Blow / Blue Lamp		Nos.	5
22.	Soldering Iron		Nos.	5
23.	Gas saver unit		Nos.	3

24.	Hand grinding machine	4" to 4.5"	Nos.	3
25.	Hand drill machine	25mm	Nos.	3
26.	Pedestal drill machine	40mm	Nos.	1
27.	Non return valve	¼	Nos.	20

4.3.2 List of Measuring Instruments

SL No.	Name	Specification (For guidance only, some may vary depending on the workshop layout)	Unit	Quantity
1.	Measuring tape	3mtr, 5mtr	Nos	10
2.	Calculator		Nos	5
3.	Tri square	12 Inches	Nos	10
4.	Steel rule	12 & 36 Inches	Nos	5
5.	Ammeter (AC/DC)		Nos	5
6.	Voltmeter (AC/DC)		Nos	5
7.	Multimeter		Nos	5
8.	Megger		Nos	5
9.	Wattmeter		Nos	5
10.	AVO meter		Nos	5
11.	Oscilloscope		Nos	2
12.	Noise Level Meter		Nos	3
13.	Anemometer		Nos	2
14.	Laser Distance Measuring Device		Nos	3
15.	Weighing scale high precision		Nos	2
16.	Micron gauge		Nos	5
17.	Double gauge manifold		Nos	5
18.	Tachometer		Nos	2

19.	Hygrometer		Nos	2
20.	Vacuum gauge manifold	(0- 30) inch of Hg	Nos	5
21.	Electronic leak detector		Nos	2
22.	Vernier caliper	10 & 12 Inches	Nos	5
23.	Digital Vernier caliper	8 & 12 Inches	Nos	5
24.	Digital temperature sensors		Nos	10
25.	Thermometer		Nos	5
26.	Variac		Nos	2
27.	Micro meter	(0- 25) & (25-50) mm	Nos	5

4.3.3 List of Tools

SL No.	Name of the Tools	Specification (For guidance only, some may vary depending on the workstation layout)	Unit	Quantity
1.	Ball pin hammer	1, 2,4,5 pound	Nos	20
2.	Cross pin hammer	2,4 pounds	Nos	20
3.	Straight pin hammer	2,4 pounds	Nos	20
4.	Mallet/soft hammer		Nos	20
5.	Plastic hammer		Nos	20
6.	Bench vise	8,10& 12 Inches	Nos	20
7.	Vice grip	8,10& 12 Inches	Nos	02
8.	C-clamp	8 & 10 Inches	Nos	02
9.	Soft jaw		Nos	02
10.	Flat file (Rough & Finishing)	10 & 12 Inches	Nos	02
11.	Tri-Angular file	10 & 12 Inches	Nos	20
12.	Square file	10 & 12 Inches	Nos	20
13.	Round file	10 & 12 Inches	Nos	20
14.	Half round file	10 & 12 Inches	Nos	20
15.	Center punch	6 Inches	Nos	20
16.	Drift punches	6 ,8 & 10 Inches	Nos	20
17.	Latter punch	A-Z	Nos	20

18.	Number Punch	0 - 9	Nos	03
19.	Cutting pliers	8 & 10 Inches	Nos	20
20.	Nose pliers	8 & 10 Inches	Nos	20
21.	Long nose pliers	8 & 10 Inches	Nos	02
22.	Combination pliers	8 & 10 Inches	Nos	20
23.	Cold/flat chisel	6 & 8 Inches	Nos	50
24.	Scriber		Nos	20
25.	Scraper	6 & 8 Inches	Nos	20
26.	Flat screw driver	8 & 10 Inches	Nos	20
27.	Philips/ star screw driver	8 & 10 Inches	Nos	20
28.	Offset screw driver	8 & 10 Inches	Nos	02
29.	Dividers	6, 8 ,10 & 12 Inches	Nos	15
30.	Tri-square	6,12 & 24 Inches	Nos	20
31.	Trammels		Nos	5
32.	Marking table		Nos	5
33.	Surface plate		Nos	5
34.	Layout tools		Nos	10
35.	Tap set		Nos	5
36.	Die set		Nos	5
37.	Tap handle	8, 10 & 12 Inches	Nos	5
38.	Die handle	8, 10 & 12 Inches	Nos	5
39.	Hacksaw frame		Nos	10
40.	Hacksaw blade	12 Inches	Nos	10
41.	Paint brushes	8 & 10 Inches	Nos	12
42.	Wire brushes	8 & 10 Inches	Nos	12
43.	Rivet gun		Nos	5
44.	Adjustable wrench set	6,8,10,12 & 18 Inches	Nos	15
45.	Pipe wrench	10,12 & 18 Inches	Nos	10
46.	Ring wrench	10,12 & 18 Inches	Nos	10
47.	Pipe clamp	¼,1/2,3/4,1 & 1,1/2 Inches	Nos	12
48.	Allen key set	1.5mm-25mm & ¼ - 1Inches	Set	5

49.	Spanners set		Set	5
50.	Wire cutters		Nos	5
51.	Wire strippers		Nos	5
52.	Wood planners		Nos	5
53.	Ratchet wrench		Set	5
54.	Hand shear	12 & 18 Inches	Nos	5
55.	Jacks		Nos	5
56.	Whole saw cutter		Nos	3
57.	Locking plier		Nos	5
58.	Scissors	10 & 12 Inches	Nos	5
59.	Spirit level	12 & 18 Inches	Nos	5
60.	Fins straightening		Nos	5
61.	Tube cutter		Nos	5
62.	Tube benders (Spring type and pulley bender type)		Nos	5
63.	Capillary cutter	6 Inches	Nos	5
64.	Capillary tube cleaner			5
65.	Reamer/Deburring tool		Set	5
66.	Flaring and swaging tool kit		Set	5
67.	Pinch of tools	Piler type	Nos	5
68.	Hand grinding machine	4 Inches	Nos	5
69.	Hand drill machine	0 – 25 mm	Nos	2
70.	Drill bit set		Set	10
71.	Lock ring wrench		Nos	5
72.	Block Vice reamer		Nos	5
73.	Plumb bob		Nos	5
74.	Wire gauges		Nos	5
75.	Soldering iron		Nos	5
76.	Crimping tools		Nos	5
77.	Electrician knife	6 & 8 Inches	Nos	5
78.	Tool's box		Nos	5
79.	Torque wrench		Set	5

80.	Thickness gauge	0 – 25mm	Set	5
81.	Pulley puller 3 Jaw	6, 8 & 10 Inches	Nos	5
82.	Oil can		Nos	5
83.	Recovery piercing pliers		Nos	2
84.	Crimper		Nos	2
85.	Radius gauge metric	1 -6 mm	Set	2
86.	Magnifying glass 75mm		Nos	2
87.	Sheet cutter Left, Right & Straight.		Nos.	6
88.	Silicon Gun		Nos.	2

4.3.4 List of Materials / Consumables

Materials / Consumables		
SL No.	Item	QTY
1.	Copper tube	As required
2.	Flare L-bow	As required
3.	Flare T	As required
4.	Flaring nut	As required
5.	Flare union	As required
6.	Hose clamp	As required
7.	Wire brush	As required
8.	Drill bit	As required
9.	Plastic brush	As required
10.	Brazing rod copper	As required
11.	Brush rod	As required
12.	Flux	As required
13.	Spark lighter	As required
14.	Hacksaw blade	As required
15.	Grinding disk	As required
16.	Evaporator	As required
17.	Condenser	As required
18.	Strainer	As required
19.	Holder	As required
20.	Liquid receiver	As required
21.	Terminal base	As required
22.	Hose pipe	As required
23.	Pressure gauge (HP)	As required
24.	Pressure gauge (LP)	As required

25.	Hand glove	As required
26.	N2 gas	
27.	O2 gas	
28.	C2H2 gas	
29.	N2 Key	

4.3.5 List of Personal Protective Equipment (PPE)

Materials / Consumables		
SL No.	Item	QTY
1.	Dust mask	20
2.	Safety glasses/Goggles	20
3.	Gloves	20
4.	Harness	20
5.	Safety belt	20
6.	Ear plug	20
7.	Safety shoes/boots	20
8.	Apron	20
9.	Helmet	20

4.3.6 List of Furniture

SL No.	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.	02
4.	Tabloid Chair	As per requirement	Nos.	20
5.	Bookshelf	As per requirement	Nos.	02
6.	File Cabinet	As per requirement	Nos.	02
7.	Steel Almira	180 cm x 120 cm	Nos.	02
8.	White Board	240 cm X 120 cm made of particle board with white Formica covered and side covered by aluminum channel	Nos.	02
9.	Lecture Desk		Nos.	02
10.	Tools Rack		Nos.	05
11.	Working table		Nos.	05
12.	Shelf		Nos.	03
13.	Display Board	240 cm x 120 cm made of particle wood and fabric cover	Nos.	02

4.3.7 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

4.3.8 Other requirements:

1. Internet connectivity
2. Continuous power supply source
3. Fire extinguisher

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

- Must be at least a holder of NSC in **Refrigeration and Air Conditioning, NSQF Level – 4;**
- Must be **CBT&A Methodology Level – 4 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 Skills Certificate in **Refrigeration and Air Conditioning, NSQF Level – 4**;

5.2 Assessment and Certification Arrangements

- a. To attain the Qualification of **National Skills Certificate in Refrigeration and Air Conditioning, NSQF Level – 4**, the candidate must demonstrate competence in all the units required. Successful candidates shall be awarded a National Skills Certificate issued by **NSDA**;
- b. The qualification of **National Skills Certificate in Refrigeration and Air Conditioning, NSQF Level – 4**, 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 Skills Qualifications Framework (NSQF). 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:

- **Section 1:** Provides information on the Skills Training Provider (STP), Standard Setting Body, the Quality Assurance Body, and course classification and accreditation information.
- **Section 2:** Contains details of rules and requirements under which the course may be structured, delivered and assessed.
- **Section 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 Skills Qualifications Framework

NSQF

**Course Accreditation Documents (CAD)
for
National Skills Certificate in
Refrigeration & Air Conditioning
(Light Engineering Sector)
NSQF Level - 4
June 2021**

**National Skills Development Authority
Prime Minister's Office, Bangladesh**

Application for NSQF 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 (STP)**), 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:

I. Administrative Requirements

- o Fire Safety Inspection Certificate

II. Curricular Requirements

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

I, (**Name of the Head of the Skills Training Provider (STP)**) 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 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)

Section 1: General Information

1. Name and details of the Skills Training Provider

Name of Training Organization:

Status of Institution (e.g., Private, Public, NGO, 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-1215

Phone: +880 2 8891091; Fax: +880 2 8891092; E-mail: ecnsda@nsda.gov.bd

Website: www.nsga.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).

Section 2: Course Information

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 training for a National Qualification Framework (NSQF) Level 1 course is a minimum of 360 learning hours. A higher level NSQF course must have at least 270 hours of additional learning for each higher NSQF level. For example, a Level 2 NSQF course will have (360 + 270 =) 630 hours of learning and a Level 3 NSQF course will have (360 + 270 + 270 =) 900 learning hours.*
- The recommended work experience/On-the-Job training is a minimum of 160 hours for a NSQF Level 1 course, and 216 hours for each higher NSQF level course.*
- If the length of the Off Job and/or On 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.

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)

The course structure should ensure that the combination of Units of Competency and/or Modules provide training for the range of job functions and tasks from the competency standards.

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 skills 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 _____
(NSQF 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 successfully complete the Units of Competency as required in the above table 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)

3.3 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 20 students.
- List of number of tools and equipment required for each classroom, laboratory, and workshop for a class of 20 students.
- Summary of the consumables and materials required for practice (e.g. Food, Chemical, Computer spares and parts) for a class of 20 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 NQAF standards for Registration of Training establishments (Institutes / Training Centers) and accreditation for delivering nationally registered courses.

5.2.1 Industry Experience (*Attach relevant portfolio*)

Teachers, trainers and assessors must have had at least 1 or 2 years of relevant industry experience and should keep abreast of the current technology through ongoing exposure to relevant practices in the industry

Teachers, 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:

01 Trainer: 20 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.
- APA (American Psychological Association) style of referencing is recommended for listing teaching and learning resources.

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 Provider (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)

Section 3: Details of the Course

CURRICULUM DESIGN

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

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: _____

(Head of the Department)

Date:

Attested by: _____

(Head of the Institution)

Date:

Inspected by: _____

QA / Expert NSDA

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: _____
(Head of the Department)
Date: _____

Attested by: _____
(Head of the Institution)
Date: _____

Inspected by: _____
QA / Expert NSDA
Date: _____

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

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: _____
(Head of the Department)
Date: _____

Attested by: _____
(Head of the Institution)
Date: _____

Inspected by: _____
QA/ Expert NSDA
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: _____
(Head of the Department)

Attested by: _____
(Head of the Institution)

Inspected by: _____
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 / Library Holdings

Program: _____

Name of Institution: _____

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

Submitted by: _____
(Head of the Department)

Attested by: _____
(Head of the Institution)

Inspected by: _____
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: _____
(Head of the Department)

Attested by: _____
(Head of the Institution)

Inspected by: _____
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: _____
(Head of the Department)

Attested by: _____
(Head of the Institution)

Inspected by: _____
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: _____
(Head of the Department)

Attested by: _____
(Head of the Institution)

Inspected by: _____
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			Remarks
						NSC	TQ	AQ	

Submitted by: _____
(Head of the Department)

Attested by: _____
(Head of the Institution)

Inspected by: _____
QA / Expert NSDA

Date: _____

Date: _____

Date: _____

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