QUALIFICATION FILE – Micro-Credentials

Additive Manufacturing (3D Printing)

☒Public ☐ Private

☒Upskilling ☐ Dual/Flexi Qualification ☐For ToT ☐For ToA

☒General ☐Multi-skill (MS) ☐ Cross Sectoral (CS) ☒Future Skills ☐OEM

NCrF/NSQF Level: 4

Submitted By:

IASC SECTOR SKILL COUNCIL

324, US Complex, New Delhi- 110076

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Section 1: Basic Details

<table>
<tr><td>1.</td><td>Micro Credential-Qualification Name</td><td colspan="2">Additive Manufacturing (3D Printing)</td></tr>
<tr><td>2.</td><td>Sector/s</td><td colspan="2">IASC Sector Skill Council</td></tr>
<tr><td>3.</td><td>National Qualification Register (NQR) Code & Version (Will be issued after NSQC approval.)</td><td>2022/EHW/IASC/06504</td><td>4. NCrF/NSQF Level: 4</td></tr>
<tr><td>5.</td><td>Brief Description of the Micro-Credential</td><td colspan="2">The technician is responsible for installing a 3D Printer, configuring the hardware and software, calibrating it and successfully demonstrating its operation to the customer.</td></tr>
<tr><td>6.</td><td>Eligibility Criteria for Entry for Students/Trainee/Learner/Employee</td><td colspan="2">a. Entry Qualification & Relevant Experience
b. Age 18+

<table>
<tr><th>S. No.</th><th>Academic/Skill Qualification (with specialization- if applicable)</th><th>Relevant Experience (with specialization- if applicable)</th></tr>
<tr><td></td><td>10th +
OR
10th +
OR
Completed 1st year or pursuing 2nd year of 3 years Engineering Diploma (after 10th) in relevant field
OR
Previous relevant Qualification of NSQF Level 3 +</td><td>1 year NTC or 1 year NAC in relevant field
2 year experience in relevant field

1 year experience in relevant field</td></tr>
<tr><td></td><td>*Instrumentation/EEE/ECE/Mechanical/Electrical/Mechatronics</td><td></td></tr>
</table></td></tr>
<tr><td>7.</td><td>Credits Assigned to this Qualification, Subject to Assessment (as per National Credit Framework (NCrF))</td><td>13</td><td>8. Common Cost Norm Category (I/II/III) (wherever applicable): I</td></tr>
<tr><td>9.</td><td>Any Licensing Requirements/ Pre-requisites for Undertaking Training (wherever applicable)</td><td colspan="2">NAs</td></tr>
</table>

10.	**Expected Outcomes of the Micro-Credential**	**Terminal learning outcomes are:** • Install a 3D printer • Perform maintenance support and provide technical support for 3D printer • Plan and optimize the operations of 3D printer • Work effectively at the workplace • Apply health and safety practices at the workplace

11.	**Training Duration by Modes of Training Delivery** *(Specify **Total Duration** as per selected training delivery modes and as per requirement of the qualification)*	**☒Offline Only ☐ Online Only ☐Blended** *(Refer Blended Learning Annexure for Details)*
12.	**Assessment Criteria**	**Training Delivery Mode** / **Theory (Hours)** / **Practical (Hours)** / **Total (Hours)** **Classroom (offline)** / 102 / 180 / 390 **Online** / / /
13.	**Is the Qualification Amenable to Persons with Disability**	**☐ Yes ☒No If *"Yes", specify the applicable type of Disability:***
14.	**How participation of women will be encouraged?**	
15.	**Other Indian Languages in which the Micro Credential will be implemented.**	**Theory (Marks)** / **Practical (Marks)** / **Project (Marks)** / **Viva (Marks)** / **Total (Marks)** / **Passing %** 220 / 280 / 0 / 0 / 550 / 100
16.	**Is similar Micro Credential Qualification(s) available on NQR-if yes, justification for this qualification**	**☐ Yes ☒No URLs of similar Qualifications:**

17.	**Name and Contact Details Submitting/Awarding Body SPOC**	**Name: Mayank Bansal** **Email: sqa**@iascsectorskillcouncil.in **Contact No.: 7599140834** **Website: https://iascsectorskillcouncil.in**	
18.	**NSQC Approval Date:** 26/05/2022	**19. Validity Duration:**	**20. Next Review Date:** 26/05/2025

Section 2: Training Related

1.	**Trainer's Qualification and experience in relevant sector (in years)** *(as per requirement and NCVET guidelines)*	**Post-Graduation with relevant Field** (Instrumentation/EEE/ECE/Mechanical/Electrical/Mechatronics)
2.	**Master Trainer's Qualification and experience in relevant sector (in years)** *(as per requirement and NCVET guidelines)*	**Post-Graduation with one Year Industry related Experience** (Instrumentation/EEE/ECE/Mechanical/Electrical/Mechatronics)
3.	**Tools and Equipment Required for Training**	☐ **Yes** ☐ **No** (*If "Yes", details to be provided in Annexure)*

Section 3: Assessment Related

1.	**Assessor's Qualification and experience in relevant sector (in years)** *(as per requirement and NCVET guidelines)*	**Post-Graduation with one Year Industry related Experience** (Instrumentation/EEE/ECE/Mechanical/Electrical/Mechatronics)
2.	**Proctor's Qualification and experience in relevant sector (in years)** *(as per requirement and NCVET guidelines)*	**Post-Graduation with Two Year Industry related Experience** (Instrumentation/EEE/ECE/Mechanical/Electrical/Mechatronics)
3.	**Lead Assessor's/Proctor's Qualification and experience in relevant sector (in years)** *(as per requirement and NCVET guidelines)*	**Post-Graduation with Three Year Industry related Experience** (Instrumentation/EEE/ECE/Mechanical/Electrical/Mechatronics)

4.	**Assessment Mode** *(Specify the assessment mode)*	**Mode: ☐Online Only ☐ Offline Only ☒Blended**
5.	**Tools and Equipment Required for Assessment**	**☒Same as for training ☐ Yes ☒No** *(details to be provided in Annexure-if it is different for Assessment)*

Section 4: Evidence of Need of the Micro Credential

As per the NCVET Guidelines for evidence of need, provide the required Annexure/Supporting documents.

1.	Government /Industry initiatives/ requirement (Yes/No): YES
2.	Number of Industry validation provided: 5
3.	Estimated number of people to be trained:

Section 5: Annexure Check List

Specify Annexure Number and Name.

1.	**Annexure:** NCrF/NSQF level justification based on NCrF Level/NSQF descriptors *(Mandatory)*	Filled
2.	**Annexure:** Learning Outcomes and Assessment Criteria *(Mandatory)*	Filled
3.	**Annexure:** Assessment Strategy *(Mandatory)*	*Filled*
4.	**Annexure:** List of tools and equipment relevant for qualification *(Mandatory – Except in case of online course)*	*Filled*

5.	**Annexure:** Blended Learning *(Mandatory in case selected mode of delivery is "Blended Learning")*	*Filled*
6.	**Annexure:** Acronym and Glossary *(Optional)*	*Filled*

Annexure: Evidence of Level

NCrF/NSQF Level Descriptors	Key requirements of the job role/outcome of the qualification	How the job role/ outcomes relate to the NCrF/NSQF level descriptor	NCrF/NSQF Level
Professional Theoretical Knowledge/Process			
Professional and Technical Skills/ Expertise/ Professional Knowledge			
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill			
Broad Learning Outcomes/Core Skill			
Responsibility			

Annexure: Learning Outcomes and Assessment Criteria

Detailed learning outcomes and assessment criteria for the qualification are as follows:

S. No.	Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
	Perform preventive maintenance of 3D printer	**16**	**17**	**-**	**5**
1.	perform periodic maintenance as recommended by the manufacturer	3	3	-	1
2.	clean the build plate (hot bed/printing platform) for any residue causing uneven surface	2	2	-	1
3.	remove filament (material) from the machine using the method as specified in the instruction manual	3	3	-	1
4.	clean the filament feeder using the method as specified	2	2	-	**1**
5.	lubricate the axis mechanisms periodically without over lubricating and using recommended oil or grease	3	3	-	**1**
	follow the precautions necessary for maintenance of printer	**3**	**4**	-	-
6.	*Provide post installation technical support*	24	33	**-**	**5**
7.	verify that all details of the printer settings, print jobs performed and filament material used are as per standards and record any deviations	3	4	-	-
8.	identify actual and potential causes by analysing the issue as well as the related systems, referring to the troubleshooting guide provided by the manufacturer under categories such as material and feed related, print-head related, quality of print related, software related, etc.	3	3	-	**1**
9.	implement the suggested solution or contact the technical support team of the manufacturer to resolve the issue	3	4	-	-
10.	order material and parts to ensure their replenishment according to plan	3	3	-	**1**
11	keep the customer informed of actions and expected time frame for finding a solution	**3**	**5**	-	-
12.	resolve the matter as per customer satisfaction and complete closure process or escalate the matter as per the defined process if no resolution is found	3	5	-	1
13.	perform hardware and software upgrades, customisations etc. as per company policies and notifications	3	5	-	1
14.	perform periodic configurations and calibration	3	4	-	1
15.	*Prepare for installation*	**12**	**12**	-	**3**
16.	verify the shipping details, along with the printer model, BOQ, etc. against the order. In case of damage or deficiency, record and communicate the same to the customer or manufacturer/supplier/ service centre as per recommended procedure	4	**4**	-	1

	identify the printer manual and software to be installed	4	4	-	1
	ensure availability of printing raw material, tools, accessories and consumables in the acceptable forms, for e.g., filament and powder	4	4		1
	Install and configure the 3D printer	12	13		3
	PC4. verify if the expected power-on routing is followed. Expected routing: such as internal selftests, appropriate display messages, X, Y, Z axes mechanisms and the printer head moving to their initial positions, etc.	4	4		1
	PC5. install and set all the parameters required for configuration	4	4		1
	PC6. execute corrective action for any errors reported during installation/configuration based on the installation manual	4	4		1
	Calibrate and run test prints	16	25		4
	PC7. observe the test print result carefully to make note of deficiency, if any	4	4		1
	PC8. verify that the printer prints the specified material(s) in the format as per acceptable standards including resolution, and there are no discontinuities, jagged edges or undesirable marks or protrusions on the surface	4	4		1
	PC9. make necessary adjustments to address print quality issues, repeat the test print and verify quality again	4	4		1
	ensure that the printing speed is within the specified limits	2	7		
	prepare installation report and get it signed by the customer	2	6		1
	NOS Total	40	50		10
	Optimise CAD model and drawing file for 3D printing	15	22		3
	verify the material, design for the part to be printed and part resolution so that these are compatible with the printer	3	5		
	check the 3D model created by the user in CAD software	3	5		
	implement 3D printing simulation, if available, and make changes if needed	3	5		
	connect the 3D printer to the CAD design software through LAN or other supported interface	3	4		1
	import file for 3D printing in a format compatible with the printer e.g. STL or OBJ	3	4		1
	Perform 3D printing and post- processing	25	28		7
	confirm that the printer is powered from UPS and operating environment conditions are met	3	3		1
	import the model design through available interfaces in the correct format on the machine	3	4		1
	load the required input material i.e., resin, plastic or metal	3	4		1
	unload the printed model using recommended tool (e.g., spatula) after checking that the system is adequately cooled	3	4		1
	perform any post printing operation required, i.e., removing supports, polishing, painting, etc.	4	5		1
	provide suggestions to optimise the printer parameters to the model designer for optimization of model	3	2		
	clean the build tray/platform as recommended	3	3		1

	perform the recommended shut down procedure at the end of the batch/day's operation	3	3		1
	NOS Total	40	50		10
	Work as per the organisational team environment	15	8		5
	PC1. identify team objectives and goals, team members by name, their role and responsibilities, greet them appropriately and respond to their greetings	4	4		
	PC2. comply with organisation's policies and procedures for working with team members within and outside the organisation—especially related to privacy, confidentiality and security	4			2
	PC3. work as per the environment to build trust and mutual respect	2			1
	PC4. participate in decision making by providing facts and figures, give / accept constructive suggestions, take initiatives to help team members arrive at workable decisions and meet the goals	4	4		1
	PC5. accept decisions professionally and support even if they do not match suggestions and personal views	1			1
	Communicate effectively	6	10		1
	PC6. communicate professionally as per organisation's protocols, using appropriate mode of communication—verbal, written, mail, phone or text—and clearly articulate the message to ensure that the receiver understands the message	2	6		1
	PC7. listen to team members attentively, respond promptly, seek / provide clarifications if required	2			
	PC8. share important information with the team timely and refrain from overloading them with unnecessary and unsolicited information	2	4		
	Co-operate with team members and superiors	8	18		1
	PC9. perform own role, receive inputs from others and make adjustments within permissible rules as per requirement, to produce output in time for other team members to follow	2	6		
	PC10. help team members to perform their role effectively and provide any clarifications/support they need, including tools /equipment / common resources as well as resolve any contentious issues amicably, involving the team lead or the supervisor if needed		6		1
	PC11. let team members know in good time if commitments cannot be carried out, explaining the reasons, and provide alternate solutions, if any; let the team lead know about this	2			
	PC12. act in the interest of the team and the organisation, take initiative to correct the wrong, seek help or escalate if needed to ensure that things do not 'fall through the gap' and team goals are achieved	4	6		
	Respect customs / preferences and gender / ability differences	11	14		3
	PC13. follow organisation's policies and statutory guidelines w.r.t seeking information about others' customs / preferences, making references or comments on social customs / preferences, and refrain from hurting sentiments	2	4		
	PC14. accommodate team members' preferences to the extent feasible, and in case they come in the way of fulfilling team goals, discuss with the supervisor/ team leader	2			1

	PC15. ensure personal behaviour, conduct and communication styles, taking gender and disability of the person into consideration	2	6	-	1
	PC16. list the different types of disabilities with their respective issues and ways to help them overcome challenges	1		-	1
	PC17. use inclusive language, verbal as well as nonverbal, irrespective of the disability and the gender of the person	2	4	-	-
	PC18. ensure equal treatment for all clients, colleagues and co-workers while respecting their personal space	2		-	
	NOS Total	40	50		10
	Adhere to standard safety procedures of the company	13	**12**	-	5
	PC1. comply with general safety procedures and those for handling an equipment, hazardous material or tool, followed in the company	**2**	2	-	1
	PC2. remove finger rings or any other metal objects likely to interfere with the work before working on the unit	**2**	**4**	-	-
	PC3. use of safety materials such as goggles, gloves, ear plugs, caps, ESD pins, covers, shoes, etc.	4	2	-	1
	PC4. escalate the issue about hazardous materials or things found in the premises or any breach of safety procedure in the company	1	1	-	-
	PC5. ensure zero accidents at work	1	**1**	-	1
	PC6. avoid damage of components due to negligence in ESD procedures or any other loss due to safety negligence	1	1	-	1
	PC7. participate regularly in fire drills or other safety related workshops organised by the company	2	1	-	1
	Maintain good health and posture	6	8	-	1
	PC8. maintain appropriate posture, especially in long hours of sitting or standing position and in handling heavy materials	2	3		1
	PC9. participate in company organised health sessions such as yoga, physiotherapy or games	2	1		
	PC10. handle heavy and hazardous materials with care, while maintaining appropriate posture, using suitable tools and handling equipment such as trolleys, jacks and ladders	2	4		
	Effective waste management/recycling practices	4	5		1
	PC11. identify recyclable and non-recyclable, and hazardous waste generated to be segregated accordingly	2	1		1
	PC12. dispose non-recyclable waste and hazardous waste as per recommended processes	1	3		
	PC13. deposit recyclable and reusable material at identified location	1	1		
	Adopt learning and self-direction	4	5		1
	PC14. understand importance of skill advancement and develop mastery	1	1		1

	PC15. adapt product / service to meet success criteria	1	2		
	PC16. understand accountability for timely completion of tasks	1	1		
	PC17. manage to express emotions in appropriate ways at workplace and understand the cause for the emotions	1	1		
	Develop system thinking in problem solving	2	2		1
	PC18. analyse the problem accurately and communicate different possible solutions to the problem	1	1		
	PC19. manage to estimate the cause of the problem and validate	1	1		1
	Material/Resources conservation practices	11	18		1
	PC20. identify ways to optimize usage of material including water and electricity / energy in various tasks/activities/processes	2	2		
	PC21. check for spills/leakages in various tasks/activities/processes and plug them or escalate to appropriate authority	1	2		
	PC22. carry out routine cleaning of tools, machines and equipment	3	6		
	PC23. check if the equipment/machine is functioning normally before commencing work and rectify wherever required and report malfunctioning (fumes/sparks/emission/vibration/noise) or any lapse in maintenance of equipment	3	4		
	ensure electrical equipment and appliances are properly connected and turned off when not in use	2	4		1
	NOS Total	40	50		10
	Introduction to Employability Skills	1	1		
	PC1. identify employability skills required for jobs in various industries				
	PC2. identify and explore learning and employability portals				
	Constitutional values – Citizenship	1	1		
	PC3. recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.				
	PC4. follow environmentally sustainable practices				
	Becoming a Professional in the 21st Century	2	4		
	PC5. recognize the significance of 21st Century Skills for employment				
	PC6. practice the 21st Century Skills such as Self- Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life				
	Basic English Skills	2	3		
	PC7. use basic English for everyday conversation in different contexts, in person and over the telephone				
	PC8. read and understand routine information, notes, instructions, mails, letters etc. written in English				
	PC9. write short messages, notes, letters, e-mails etc. in English				

	Career Development & Goal Setting	1	2		
	PC10. understand the difference between job and career				
	PC11. prepare a career development plan with short- and long-term goals, based on aptitude				
	Communication Skills	2	2		
	PC12. follow verbal and non-verbal communication etiquette and active listening techniques in various settings				
	PC13. work collaboratively with others in a team				
	Diversity & Inclusion	1	2		
	PC14. communicate and behave appropriately with all genders and PwD				
	PC15. escalate any issues related to sexual harassment at workplace according to POSH Act				
	Financial and Legal Literacy	2	3		
	PC16. select financial institutions, products and services as per requirement				
	PC17. carry out offline and online financial transactions, safely and securely				
	PC18. identify common components of salary and compute income, expenses, taxes, investments etc				
	PC19. identify relevant rights and laws and use legal aids to fight against legal exploitation				
	Essential Digital Skills	3	4		
	PC20. operate digital devices and carry out basic internet operations securely and safely				
	PC21. use e- mail and social media platforms and virtual collaboration tools to work effectively				
	PC22. use basic features of word processor, spreadsheets, and presentations				
	Entrepreneurship	2	3		
	PC23. identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research				
	PC24. develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion				
	PC25. identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity				
	Customer Service	1	2		
	PC26. identify different types of customers				
	PC27. identify and respond to customer requests and needs in a professional manner.				
	PC28. follow appropriate hygiene and grooming standards				
	Getting ready for apprenticeship & Jobs	2	3		
	PC29. create a professional Curriculum vitae (Résumé)				
	PC30. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively				
	PC31. apply to identified job openings using offline/online methods as per requirement				
	PC32. answer questions politely, with clarity and confidence, during recruitment and selection				

	PC33. identify apprenticeship opportunities and register for it as per guidelines and requirements				
	NOS Total	20	30		
Total Marks					

Annexure: Assessment Strategy

Assessment Guidelines

1. Criteria for assessment for the Qualification Pack will be created by IASC.

2. Performance Criteria (PC) have been assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.

3. The assessment for the theory part will/may be based on knowledge bank of questions approved IASC.

4. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.

5. Assessment Agencies will create Assessor Guides comprising of Theory and Practical Assessment Set and Guidelines for each examination/training centre (as per assessment criteria below). The same will be approved by IASC for adequacy.

6. To successfully attain Certification on the Qualification Pack, the trainee must score a minimum of 70% in each Core NOS and minimum of 70% in all non-core NOS. In addition, a candidate needs to attain a minimum overall pass percentage of 70% for certification.

7. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

Annexure: Tools and Equipment

List of Tools and Equipment

Batch Size: 30 Candidate

S. No.	Tool / Equipment Name	Specification	Quantity for specified Batch size
1	CAD Software	As per requirement	As per requirement
2	3D scanner, 3D Printers, and their strategy-making software	As per requirement	As per requirement
3	measuring tools	As per requirement	As per requirement
4	sand blasting machine	As per requirement	As per requirement
5	Inert gas muffle furnace	As per requirement	As per requirement
6	Inert gas or nitrogen gas	As per requirement	As per requirement
7	safety equipment & tools	As per requirement	As per requirement
8	Laser Cutting Machine	As per requirement	As per requirement

Classroom Aids:

The aids required to conduct sessions in the classroom are:

1. Whiteboard, marker pen, projector, standard checklists and schedules
2. Computer, Projection Equipment, PowerPoint Presentation and Software, Facilitator's Guide, Participant's Handbook.

Annexure: Industry Validations Summary

S. No	Organization Name	Representative Name	Designation	Contact Address	Contact Phone No	E-mail ID	LinkedIn Profile *(if available)*
1	Servilink	Pratik Patel	Business Development Manager	Servilink Systems Ltd,3rd Floor Concord Building, 201, RC Dutt Rd, opposite Alkapuri Petrol Pump, Aradhana Society, Alkapuri, Vadodara, Gujarat 390007, India	70690 49716	servitech.ssl@servilinksystems.com	

2	TANSAM	Sukhpreet Singh	CEO	Tamil nadu Smart and Advanced Manufacturing Centre, C block, Tidel Park, Taramani, Chennai	9779777057	sukhpreet@tansam.org	
3	TAC Automation	Asif Khan	VP- Sales & Operations	TAC Automation Pvt Ltd- A 20 Phase 2, Noida 201305	8373912163	asif@cloudgem.co.in	
4	IJIRA	Dr. Pradip Chakarvarti	HOD-HRD-IJIRA	17, Taratala Rd, CPT Colony, Taratala, Kolkata, West Bengal 700088	7003997232	pradip@ijira.org.in	
5	AKGEC Skill Foundation	Prof. SOM Ashutosh	GM	27th KM Milestone, Delhi - Meerut Expy, Ghaziabad, Uttar Pradesh 201015	7669094516	ashutoshsom@akgec.ac.in	

Annexure: Training Details

Training Projections:

Year	Estimated Training # of Total Candidates	Estimated training # of Women	Estimated training # of People with Disability
1	500	100	
2	600	150	
3	700	150	

Data to be provided year-wise for next 3 years.

Annexure: Blended Learning

Blended Learning Estimated Ratio & Recommended Tools:

Refer NCVET "Guidelines for Blended Learning for Vocational Education, Training & Skilling" available on:
https://ncvet.gov.in/sites/default/files/Guidelines%20for%20Blended%20Learning%20for%20Vocational%20Education,%20Training%20&%20Skilling.pdf

S. No.	Select the Components of the Qualification	List Recommended Tools – for all Selected Components	Offline: Online Ratio
1	☐ Theory/ Lectures - Imparting theoretical and conceptual knowledge		
2	☐ Imparting Soft Skills, Life Skills and Employability Skills /Mentorship to Learners		
3	☐ Showing Practical Demonstrations to the learners		
4	☐ Imparting Practical Hands-on Skills/ Lab Work/ workshop/ shop floor training		
5	☐ Tutorials/ Assignments/ Drill/ Practice		
6	☐ Proctored Monitoring/ Assessment/ Evaluation/ Examinations		
7	☐ On the Job Training (OJT)/ Project Work Internship		

Annexure: Acronym and Glossary

Acronym

Acronym	Description
AA	Assessment Agency
AB	Awarding Body
ISCO	International Standard Classification of Occupations
NCO	National Classification of Occupations
NCrF	National Credit Framework
NQR	National Qualification Register
NSQF	National Skills Qualifications Framework
OJT	On the Job Training

Glossary

Term	Description
Qualification	A formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards
Qualification File	A Qualification File is a template designed to capture necessary information of a Qualification from the perspective of NSQF compliance. The Qualification File will be normally submitted by the awarding body for the qualification.
Sector	A grouping of professional activities based on their main economic function, product, service or technology.