Republic of Rwanda
Ministry of Education

RTB | RWANDA TVET BOARD

CURRICULUM STRUCTURE

RQF LEVEL

4

TVET CERTIFICATE IV
in
RENEWABLE ENERGY

ENGREN4001

Kigali, August 2023

ENGREN4001-TVET CERTIFICATE IV IN RENEWABLE ENERGY

RQF Level 4 CURRICULUM

1200

Funded by:

TVET Quality Management Project

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List of Abbreviations

ICT	Information and Communication Technology
IT	Information Technology
NISR	National Institute of Statistics of Rwanda
NST1	National Strategic Transformation 1
RQF	Rwanda Qualification Framework
RTB	Rwanda TVET Board
SDG	Sustainable Development Goals
TQUM	TVET Quality Management
TVET	Technical Education and Vocational Training
PV	Photovoltaic

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30	TWIZEYIMANA Fidele	TVET Trainer	NYANZA TSS
31	TWIZEYIMANA Pacifique	TVET Trainer	Kayenzi TSS
32	UWIMANA Eugene	TVET Trainer	NYAMATA TSS

2. General modules

No	Names	Organization	Position
1	UWITONZE Nestor	UR/CST	Lecture in Chemistry
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3	MUNEZERO Wivine	IPRC NGOMA	Teacher of Chemistry
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5	NINKABANDI Theogene	Nyanza TSS	Teacher of Physics

3. Complementally modules

#	Names	Institution	Position
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14	HAKUNDWUMUKIZA Henry	Lycee de Ruhango IKIREZI	Teacher of communication skills
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16	HAKIZIMANA Joseph	ST Dominique Mazzarello TSS	Teacher of Kiswahili

Sponsor:

TVET Quality Management (TQUM) Project

FOREWORD

The global rapid changes in the labour market tends to call for appropriate training and skills development through outcome-based training approaches. Skills development and employment promotion are central to Rwanda's transformative Vision 2050, aiming to secure high standards of living for all Rwandans. In a bid to transform Rwanda into a knowledge based economy, the National Strategic Transformation 1 (NST1) calls socio-economic transformation through TVET skills development. The Rwanda TVET Board (RTB) was established to promote quality education in technical and vocational education and training from level one (1) to five (5) aimed at fast tracking socio-economic development of the country. Designing and distributing curricula, teaching materials, trainer's guides, methodologies and establish training methods for technical and vocational education and training from level one (1) to five (5); is among other RTB's responsibilities.

The existing curricula were limited and narrowed in terms of acquired skills and knowledge and were not meeting the requirements of the current labour market at both national and regional level. In addition, there were. Barriers in vertical mobility and pathways in TVET which resulted in negative TVET perception. Furthermore, there were barriers to admission of TVET graduates of certain programs into higher learning institutions.

The TVET modernization process has begun with a clear picture of the programs focusing on sectors with the high employment potential like Renewable energy among others. In this respect, Rwanda TVET Board, is honoured to avail the curriculum of Renewable energy which serves as the official document and respond to the above-mentioned concerns.

With the help of the training providers, trainers, parents whose role is central to the success of this curriculum, the trainees will gain appropriate hand on skills which will make a difference not only to their own lives but also to the success of Rwanda's economy.

I wish to sincerely extend my appreciation to the people who contributed towards the development of this document.

Dipl.-Ing. Paul UMUKUNZI

Director General/ RTB

1. GENERAL INTRODUCTION

The curriculum presents a coherent and significant set of competencies to acquire to perform the occupation of a solar and biomass energy technician. It is designed with an approach that takes into account the training needs, the work situation, as well as the goals and the means to implement training.

The modules of the curriculum include a description of the expected results at the end of training. They have a direct influence on the choice of theoretical and practical learning activities. The competencies are the targets of training: the acquisition of each is required for certification.

The curriculum is the reference to carry out the assessment of learning. Assessment tools of learning are developed on the basis of this document.

The curriculum consists of three parts. The first part is of general interest and shows the nature and goals of a program and the key concepts and definitions used in the document. The second part presents the qualification, its level in the qualification framework, its purpose, its rationale and the list of modules it comprises. The third part deals with the training package. It includes the competencies chart, the sequencing of module learning, the description of each module and the course structure.

The pages describing the modules are the heart of a curriculum. They present the title of the module, the length of training, the amount of credits, the context in which the competency is performed, the prerequisite competencies, the learning outcomes and the performance criteria.

In each module, a course structure is provided. The course structure describes the learning outcomes (knowledge, skills and attitude) and the learning contents related to each learning outcome. Also, the learning activities and resources for learning are suggested.

Finally, the assessment specifications and guidelines are included in each module.

2. QUALIFICATION DETAILS

2.1. Description

Title:	**TVET Certificate IV in Renewable Energy**
Level:	**RQF Level 4**
Credits:	120
Sector:	**Energy**
Trade:	**Renewable Energy**
Issue date:	**August, 2023**

2.2 Graduate Profile

This qualification provides the skills, knowledge and attitudes for a learner to be competent in tasks and activities that require the application of practical skills in a defined context. Work would be undertaken in various Renewable energy source production as a solar and biomass energy technician. He /she qualified as solar and biomass energy technician will be able to work as solar PV power plant constructor, biogas constructor, solar dryer fabricator, solar water heater fabricator, solar water pumping system installer and briquette and pellet plant installer. The individuals with this qualification can enter the TVET Certificate V in order to be equipped with the necessary competences to function as Hydro power plant operator, as well as electrical machine winder. Learners may work with some autonomy or in a team but usually under close supervision

At the end of this qualification, qualified learners will be able to:

1. Develop Business Plan
2. Apply Computer Skills
3. Apply Citizenship
4. Use intermediate English at the work place
5. Gukoresha Ikinyarwanda kiboneye
6. Exprimer des opinions en français élémentaire
7. Apply basic mathematical analysis
8. Apply basic physics
9. Fabricate Solar Water Heater System
10. Fabricate Solar Dryer System
11. Install Briquette and Pellet Plant
12. Construct Biogas Plant
13. Construct Solar PV Power Plant
14. Install Solar Water Pumping System
15. Apply Basics of Welding
16. Apply Computer Aided Design
17. Apply Measurement and Instrumentation in Renewable Energy
18. Install Electrical Rotating Machines
19. Perform Basics of Networking
20. Integrate the workplace

2.3 Minimum entry requirements

The minimum entry requirement to this qualification is TVET Certificate III in Renewable Energy background.to be fit with broad knowledge, skills and attitude of energy background.

2.4 Information about pathways

Pathways into the qualification

Pathways from the qualification

Preferred pathways for candidates entering this qualification include:

- Candidates enter this qualification after Achieving TVET Certificate III in Renewable Energy.

Progression route of candidates achieving this qualification include:

- Candidates existing this qualification are able to enter TVET Certificate V in Renewable Energy or a range of other related TVET Certificate V qualifications.

2.5 Rationale of the Qualification

A solar and biomass energy technician contributes to Rwanda's digital transformation based services as stated in Energy Sector Strategic Plan (2018-2024), several achievements have been registered by the sector in areas related to energy infrastructure, renewable energy, business and investments, system administration, global partnerships, among others.

Over the last decade and half, the Gross Domestic Product of the Energy sector in Rwanda has been growing at a median rate of 15.3% (NISR,2016). Renewable energy Penetration in Rwanda is increasing steadily. For instance, internet penetration increased from 7% in 2011 to 39.76% mid 2017. While mobile increased from 639,673 to 9.7 million over the period 2010 -2017.

In order to attain long term developmental goals of Rwanda and Africa, such as the Sustainable Development Goals (SDG), Rwanda's Vision 2050 and African Union's common goals under the Agenda 2063, it is essential to maximize the power of Energy as a true enabler of socio-economic development. The Energy sector remains one of the primary targets to boost country's economy, which will be achieved through:

- Positioning Rwanda as a world class
- Job creation that reduces the poverty
- Contribution to GDP growth
- Facilitation of cost-effective public and private services

2.6 Job related information

This qualification prepares individuals to integrate the Energy sector with the professionalization of renewable Energy workers; this qualification again offers the opportunity to execute the works as Briquette and pellet plant installer, solar water heater fabricator, solar water pumping installer, solar dryer fabricator as well as biogas plant constructor, and ensure that safety and security regulations are respected

Possible jobs related to this qualification

- Solar dryer fabricator
- Solar water heater fabricator
- Solar pumping system installer
- Biogas plant constructor
- Briquette and Pallet plant installer
- Solar water pumping installer
- Solar power plant constructor

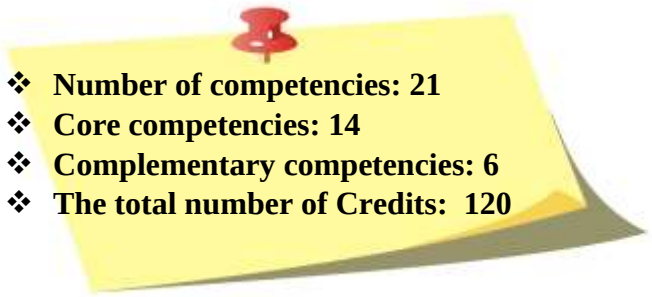
2.6 Information about competences

No	Code	Complementary competences	Credit
1.	**CCMBC402**	Develop a business plan	3
2.	**CCMCL402**	Apply computer skills	3
3.	**CCMEN402**	Use intermediate English at workplace	3
4.	**CCMKN402**	Gukoresha Ikinyarwanda kiboneye	3
5.	**CCMFT402**	Exprimer des opinions en français élémentaire	3
6.	**CCMCT401**	Citizenship	3
	Total		18

No	Co-Curricular activities	Credit

1.	Sports/clubs	1
2.	Self-study/ library research	1
Total		**2**

	No	Code	Core competencies	Credit
GENERAL	**1.**	**GENMP402**	Apply Mechanics and properties of matter	4
	2.	**GENFA402**	Apply Fundamental Mathematical Analysis	6
	3.	**GENMI 401**	Apply measurement and instrumentation in renewable energy	4
	4.	**GENBN401**	Perform Basics of Networking	4
	5.	**GENCD401**	Apply Computer Aided Design	6
	6.	**GENRM401**	Install Electrical Rotating Machines	9
	7.	**GENBW401**	Apply basics of welding	4
SPECIFIC	**8.**	**RENWH401**	Fabricate Solar Water Heater System	7
	9.	**RENCS401**	Construct solar PV power plant	7
	10.	**RENBG401**	Construct Biogas Plant	9
	11.	**RENBP401**	Install Briquette and Pellet plant	7
	12.	**RENSD401**	Fabricate Solar Dryer System	7
	13.	**RENSP401**	Install Solar Water Pumping System	6
	14.	**RENIA401**	Integrate the workplace	**20**
	Total			**120**



- **Number of competencies: 21**
- **Core competencies: 14**
- **Complementary competencies: 6**
- **The total number of Credits: 120**

1.7. Allocation of Learning Hour

NO	Module name	Learning outcome	Theoretical hours	Practical hours	Total hours
1	**Entrepreneurship**	LO1. Identify elements of business plan	3	7	10
		LO2. Write a business plan	3	7	10
		LO3. Establish business contingency plan	2	5	7
		LO4. Present a business plan	1	2	3
Total hours module 1			9	21	30
2	**ICT**	LO1. Describe the operating system	5	10	15
		LO2. Customize the computer features	3	7	10
		LO3. Protect computer system	2	3	5
Total hours module 2			10	20	30
3	**Citizenship**	LO1. Make a Comparative	3	7	10

		study of Genocides.			
		LO2. Protect human rights	3	7	10
		L.O3. Promote social cohesion	3	7	10
Total hours module 3			9	21	30
4	**English**	L.O1. Write factual, descriptive, and explanatory correspondence text.	3	6	9
		L.O2. Apply a range of listening strategies and activities to understand predictable messages	2	5	7
		L.O3. Discussion, supporting or refute ideas on general and trade-related topics	2	5	7
		L.O4. Read medium texts on general and trade-related topics	2	5	7
Total hours module 4			9	21	30
5	**Ikinyarwanda**	L.O1. Gukoresha ubuvanganzo gakondo bufatiye ku mwuga ashyikirana n'abandi , gutandukanya ubwoko bw'inshinga no gukoresha ikomorazina n'ikomoranshinga .	3	7	10

		L.O2. Gukoresha Ikinyarwanda uwiga agaragaza ibyiza by'ikoranabuhanga mu iterambere ry'umwuga no gusesengura ibinyazina binyuranye.	2	3	5
		L.O3. Gukoresha Ikinyarwanda uwiga agaragaza ububi bw'ibiyobyabwenge mu rubyiruko, kugaragaza amategeko y'igenamajwi yerekeye n'ingombajwi muizina mbonera no kunoza imyandikire y'inyuguti nkuru mu nteruro.	**2**	3	5
		L.O4. Gukoresha Ikinyarwanda uwiga agaragaza uburyo bunyuranye bwo gufata neza ibidukikije no gukoresha indangahantu n'ibyungo.	2	3	5
		L.O5. Gukoresha Ikinyarwanda uwiga agaragaza akamaro k'ubutabazi bw'ibanze no gukoresha impakanyi n'indango z'inshinga.	2	3	5
Total hours module 5			**11**	**19**	**30**

6	**Français**	L.O1. Préciser des informations,	3	8	11
		L.O2. Décrire des personnes et des lieux et exprimer ses goûts	2	6	8
		L.O3. Indiquer l'itinéraire.	3	8	11
Total hours module 6			8	22	**30**
7	**Co-Curricular activities**	LO1. Sports/clubs	3	7	10
		LO1. Self-study/ library research	3	7	10
Total hours module 7			6	14	20
8	**Applied Mathematics**	LO1: Analyse algebraic functions	5	10	15
		LO2: Apply fundamentals of differentiation	6	14	20
		LO3: Apply exponential functions	5	10	15
		LO4: Apply logarithmic functions	3	7	10
Total hours module 8			19	41	60
9	**Applied Physics**	LO1: Describe laws of motion and their applications	2	2	4
		LO2: Apply static equilibrium and elasticity	2	6	8

		LO3: Analyse fluid mechanics	2	4	6
		LO4: Apply thermodynamics	**3**	6	9
		LO5: Examine effects of electric current flow in DC electric circuit	2	5	7
		LO6: Apply geometric instruments	2	4	6
Total hours module 9			13	27	40
10	**Basics Of Welding**	LO1: Prepare Preliminary activities for welding operations	3	4	7
		LO2: Perform basics of welding	9	20	29
		LO3: Perform post-operation activities	2	2	4
Total hours module 10			9 hours	31 hours	40 hours
11	**Electrical Rotating Machine Installation**	LO1: Perform preliminary activities	**6**	**14**	**20**
		LO2: Assemble electrical Rotating machine Components	**8**	**17**	**25**
		LO3: Operate electrical Rotating machines	**10**	**25**	**35**

		LO4: Maintain electrical Rotating machines.	**3**	**7**	**10**
Total hours module 11			**27 hours**	**63 hours**	**90 hours**
12	**Computer Aided Design**	LO1: Use AutoCAD Software	**7**	**18**	**25**
		LO2: Use Solid Works Software	**7**	**18**	**25**
		LO3: Use MULTISIM Software	**3**	**7**	**10**
Total hours module 12			**17 hours**	**43 hours**	**60 hours**
13	**Measurement And Instrumentation Application**	LO1: Conduct preliminary activities	**3**	**7**	**10**
		LO2: Perform measurement and instrumentation in renewable energy	**6**	**14**	**20**
		LO3: Conduct post measuring activities	**3**	**7**	**10**
Total hours module 13			**12 hours**	**28 hours**	**40 hours**
14	**Solar water heater system**	LO1: Conduct preliminary activities	**5**	**10**	**15**
		LO2: Design a solar water heater system	**8**	**17**	**25**
		LO3: Assemble a solar water heater system's components	**9**	**21**	**30**

Total hours module14			**22 hours**	**48 hours**	**70 hours**
15	**Solar Dryer System fabrication**	LO1: Design Dryer System	**10**	**25**	**35**
		LO2: Assemble solar dryer components	**8**	**17**	**25**
		LO3: Perform post activities of solar dryer system	**3**	**7**	**10**
Total hours module 15			**21 hours**	**49 hours**	**70 hours**
16	**Basic Networking**	LO1: Establish network media connectivity	**3**	**7**	**10**
		LO2: Perform Basic Network Configuration	**6**	**14**	**20**
		LO3: Maintain Network system	**3**	**7**	**10**
Total hours module 16			**12 hours**	**28 hours**	**40 Hours**
17	**Briquette and Pellet Plant Installation**	LO1: Conduct preliminary activities	**6**	**16**	**22**
		LO2: Assemble briquette and pellet plant	**10**	**22**	**32**
		LO3: Perform Functionality test of briquette and pellet plant	**5**	**11**	**16**
Total hours module 17			**21 hours**	**49 hours**	**70 hours**
18	**Biogas Plant construction**	LO1: Design biogas plant	**6**	**14**	**20**
		LO2: Construct biogas plant	**12**	**28**	**40**

		LO3: Perform post installation activities	**5**	**10**	**15**
		LO4: Maintain biogas plant	**5**	**10**	**15**
Total hours module 18			**28 hours**	**62 hours**	**90 hours**
19	**Solar PV Power Plant Construction**	LO1: Perform preliminary activities	**3**	**7**	**10**
		LO2: Construct solar PV power plant	**9**	**21**	**30**
		LO3: Perform functionality test of solar PV power plant	**5**	**10**	**15**
		LO4: Maintain solar PV power plant	**5**	**10**	**15**
Total hours module 19			**22 hours**	**48 hours**	**70 hours**
20	**Solar Water Pumping System Installation**	LO1: Size a solar water pumping system	**6**	**14**	**20**
		LO2: Assemble solar water pumping system	**6**	**14**	**20**
		LO3: Perform post installation activities	**6**	**14**	**20**
Total hours module 20			**18 hours**	**42 hours**	**60 hours**
21	**Integrate the Workplace**	LO1: Investigate and secure industrial attachment place.	**3**	**7**	**10**
		LO2: Deal with workplace	**3**	**7**	**10**

		challenges.			
		LO3: Get briefed on industrial attachment program.	**3**	**7**	**10**
		LO4: Develop one's competencies on the workplace.	**50**	**120**	**170**
Total hours module 21			**59**	**141**	**200 Hours**
Total hours for all modules			362 hours	838 hours	1200 Hours

2. TRAINING PACKAGE

The training package includes the competencies chart, the flowchart, the modules, the course structure, and the assessment guidelines.

2.1 Course structure

The course structure describes the learning outcomes for each learning unit. These learning outcomes are the essential skills and knowledge to be acquired. The contents to be covered for each learning outcome are prescriptive. The Learning Activities contain a series of suggestions, usually with several options, that will guide the learner and the trainer.

2.3. Flowchart

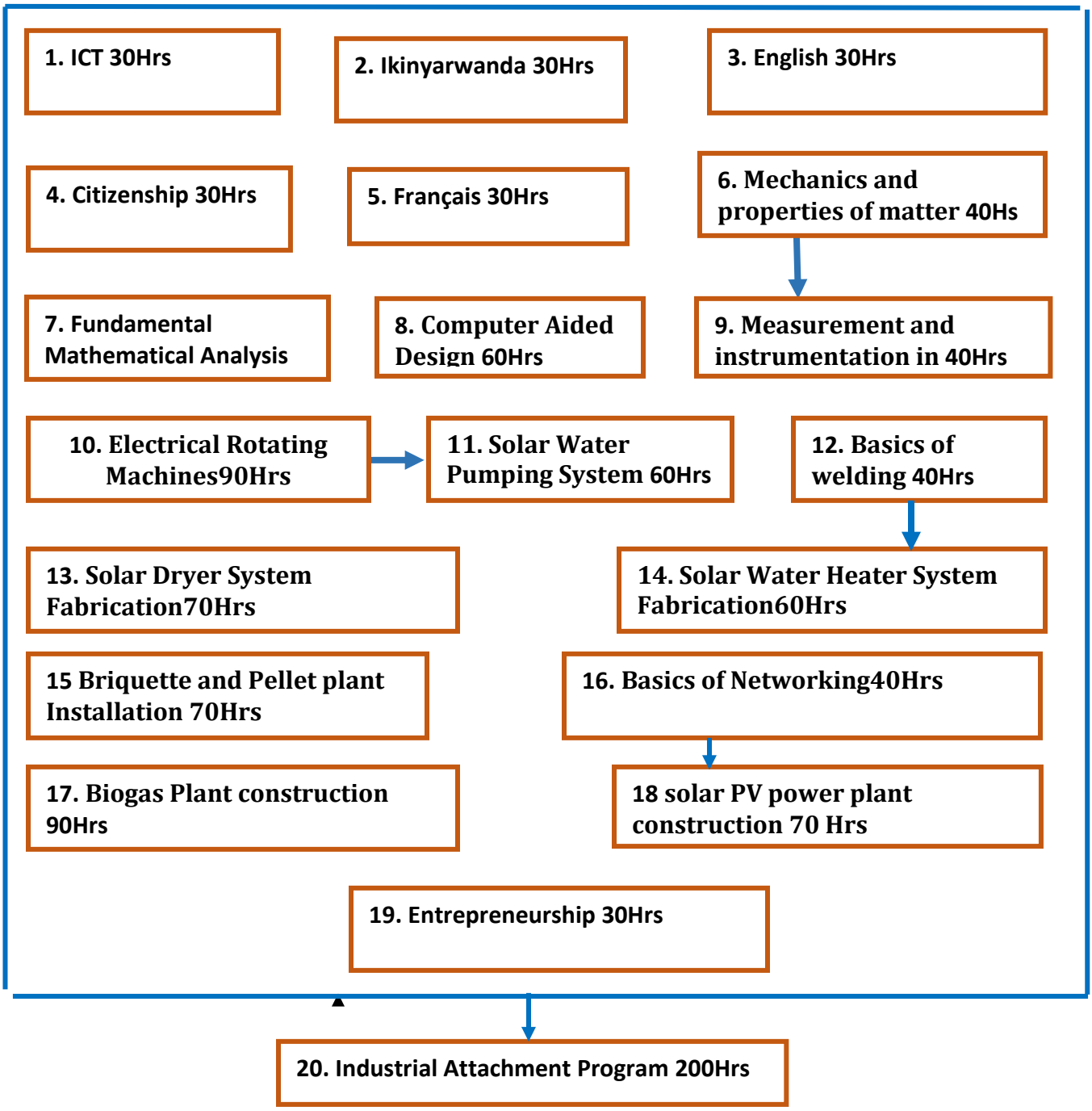


Figure 1: Flowchart

ASSESSMENT GUIDELINES

3.1 Assessment Methodology

To assess knowledge, practical, and application skills through a jury system of continuous evaluation that encourages learners to display understanding of the principles in application to set practical tasks and their attendant theory to assess self-learning.

3.2 Portfolio

A portfolio is a collection of learner work representing learner performance. It is a folder (or binder or even a digital collection) containing the learner's work as well as the learner's evaluation of the strengths and weaknesses of the work. Portfolios reflect not only work produced (such as papers and assignments, direct demonstration, indirect demonstration, products, documents), but also it is a record of the activities undertaken over time as part of learner learning. The portfolio is meant to show learner growth, development, and achievements in the education system. It also shows that you have met specific learning goals and requirements. A portfolio is not a project; it is an ongoing process for the formative assessment. The portfolio output (formative assessment) will be considered only as enough for complementary and general modules. Besides, it will serve as a verification tool for each candidate that he/she attended the whole training before he/she undergoes the summative assessment for specific modules

There are two types of assessment (Formative Assessment and Summative/Integrated Assessment). Each assessment has its own rule for passing to be declared competent.

3.3. Formative Assessment

This is applied on all types of modules (e.g. Complementary, General and Specific modules)

A trainee to be competent for a Specific module must have at least 70%.

A trainee to be eligible to undertake integrated assessment of specific modules must have at least 50% as passing line for general and complementary modules.

Each trainee should be competent on all formative assessments to be declared competent on that module

All formative assessment should be declared competent before taking the summative/integrated assessment

3.4. Summative/Integrated Assessment

All Summative/Integrated assessment should match with the content of the module in the curriculum.

Summative/Integrated Assessment is always practical, giving it as a theoretical type of assessment is not acceptable.

The integrated situation provided in the curriculum is a sample of the assessment to be carried out, the Trainer/Teacher has the role of developing another one referring to the task to be carried out in the integrated situation in accordance to the circumstances inside school, but the integrated situation should stick to the components of a task.

During Summative/Integrated assessment, assessor panel members should be three (3).

The trainee can be declared competent based on the assessment criteria and its respective assessment indicators The Passing Line for the modules is:

- 50 % for general and complementary modules
- 70 % for specific modules

<table>
<tr><th colspan="2">Training delivery</th><th>100%</th><th colspan="2">Assessment</th><th>Total 100%</th></tr>
<tr><td colspan="2">Theoretical content</td><td>30%</td><td rowspan="3">Formative assessment</td><td>30%</td><td rowspan="3">50%</td></tr>
<tr><td colspan="2">Practical work:</td><td rowspan="2">70%</td><td rowspan="2">70%</td></tr>
<tr><td>Group project and presentation</td><td>20%</td></tr>
</table>

Individual project /Work	**50%**				
		Summative Assessment			**50%**

1. Summative assessment is always conducted at the completion of module delivery. It should be practical through an integrated situation for specific modules and in any other forms of assessment for complementary and general modules.

2. Learning hours assigned to specific module includes the duration assigned to integrated assessment

4. Glossary

Assessment: A process of gathering and judging evidence in order to decide whether a person has attained a standard of performance.

Assessment criteria: Statements which describe performances and place them in context with sufficient precision to allow valid and reliable assessment.

Best practice: Management practices and work processes that lead to outstanding or top-class performance and provide examples for others.

Competency standard: An industry-determined specification of performance which sets out the skills, knowledge and attitudes required to operate effectively in employment. Competency standards are made up of units of competency, which are themselves made up of elements of competency, together with performance criteria, a range of variables, and an evidence guide.

Competency: means the ability to apply knowledge, skills and personal, social and methodological skills in the workplace or during learning, as well as in personal and professional development. This ability or capacity is acquired through leaning, exposure to the tasks and series of training allowing one to perform specific task autonomously. Reason why in the context of the CBE Framework competencies are described as responsibility and independence.

Competency-based assessment (or CBA): The gathering and judging of evidence in order to decide whether a person has achieved a standard of competency.

Complementary competencies: Set of knowledge, skills and attitudes which are not directly linked to a specific occupation or industry, but which are important for work, education and life in general, such as communication, mathematics, organizational aptitude, and computer literacy, interpersonal and analytical competency.

Core modules: Modules leading to competencies' acquisition that an industry sector has agreed upon as essential for a person to be accepted as competent at a particular level. All modules may be core, but in many cases competency at a level will involve core modules plus optional or

specialization modules. Core competencies are normally those central to work in a particular industry.

Credential: Formal certification issued for successful achievement of a defined set of outcomes, e.g. successful completion of a course in recognition of having achieved particular knowledge, skills or competencies; successful completion of an apprenticeship or traineeship.

Credit: The acknowledgement that a person has satisfied the requirements of a module.

Curriculum: The specifications for a course or subject (module) which describe all the learning experiences a learner undergoes, generally including objectives, content, intended learning outcomes, teaching methodology, recommended or prescribed assessment tasks, assessment exemplars, etc.

Evidence guide: The part of a competency standard which provides a guide to the interpretation and assessment of the unit of competency, including the aspects which need to be emphasized in assessment, relationships to other units, and the required evidence of competency.

Flexible delivery: A range of approaches to providing education and training, giving learners greater choice of when, where and how they learn. Flexible delivery may involve distance education, mixed-mode delivery, online education, self-paced learning, self-directed learning, etc.

Formal education: Also formal training education or training provided in educational institutions such as schools, universities, colleges, etc. or off the job in a workplace, usually involving direction from a teacher or instructor.

General competencies: competencies correspond to larger operations that go beyond the tasks, but generally contribute to their implementation. These activities require more fundamental learning and are generally common to several tasks and transferable to many work situations.

Generic modules: Modules leading to the attainment of complementary competencies.

Informal education: The acquisition of knowledge and skills through experience, reading, social contact, etc.

Internship: An opportunity for a learner to integrate career related experience by participating in planned, supervised work.

Key competencies: Any of several generic skills or competencies considered essential for people to participate effectively in the workforce. Key competencies apply to work generally, rather than being specific to work in a particular occupation or industry. The following are key areas of competency which were developed into seven key competencies: collecting, analyzing and organizing information; communicating ideas and information; planning and organizing activities; working with others and in teams; using mathematical ideas and techniques; solving problems; and using technology.

Knowledge: means the result of the adoption of information through the learning process. Knowledge is a set of facts, principles, theories and practices related to area of work or study. In CBE context lifelong learning knowledge is described as theoretical and / or factual.

Learning outcomes: are statements of what learner knows, understands and can perform, based on the completion of the learning process, defined by knowledge, skill and competency.

Learning activities: Suggested activities that can be developed during lesson planning and activity preparation. The choice of learning activities must be tailored according to group size, available material resources and communication tools.

Learning hours: Amount of hours required to acquire the competency, including the time allocated to evaluation, which is estimated between 5 and 10% of the total learning time of the competency.

Learning outcomes: Statements that indicate what learners will know or be able to do as a result of a learning activity. Learning outcomes are usually expressed as knowledge, skills, or attitudes.

Learning unit: Any of the basic building blocks of a module, which describes the key activities or the elements of the work covered by the module

Module: A unit of training which corresponds to one competency and which can be completed on its own or linked to others.

Occupation: The principal business of one's life.

Performance criteria The part of a competency standard specifying the required level of performance in terms of a set of outcomes which need to be achieved in order to be deemed competent. It describes the quality requirements of the result obtained in labor performance.

Qualification: means the formal name for the result of a process of assessment and validation, which is obtained when a competent body determines that an individual has achieved learning outcomes to the standards laid down.

Quality assurance: The systems and procedures designed and implemented by an organization to ensure that its products and services are of a consistent standard and are being continuously improved.

Recognition of prior learning (or RPL): The acknowledgement of a person's skills and knowledge acquired through previous training, work or life experience, which may be used to grant status or credit in a subject or module.

Skills: are the ability to apply knowledge and use the principle of "know how" to perform a specific task and to solve the problem. In the context of the CBE Framework, skills are defined as cognitive (involving the use of logical, intuitive and creative thinking), practical (including physical skill and use of methods, materials, devices and instruments) and social skills (communication and cooperation skills, emotional intelligence and other).

Specific competencies: Competencies that are directly related to the tasks of the occupation in the workplace context. They refer to concrete, practical, and focused aspects

Traineeship: A system of vocational training combining off-the-job training at an approved training provider with on-the-job training and practical work experience. Traineeships generally take one to two years and are now a part of the New Apprenticeships system.

Unit of competency: A component of a competency standard. A unit of competency is a statement of a key function or role in a particular job or occupation. See also element

of competency, performance criteria, range of variables.