Republic of Rwanda
Ministry of Education

RTB | RWANDA TVET BOARD

CURRICULUM STRUCTURE



RQF LEVEL 3

TVET CERTIFICATE III
in
Water and Irrigation

AFPWIR3001

Kigali, May 2022

1200

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P.O. Box: 4940 Kigali, Rwanda

List of Abbreviations

CV	Curriculum Vitae
DACUM	Developing a Curriculum
EDPRS	Economic Development and Poverty Reduction Strategy
IAP	Industrial Attachment Program
IPRC	Integrated Polytechnics Regional College
MINEDUC	Ministry of Education
OHS	Occupational Health and Safety
PPE	Personal Protective Equipment
RQF	Rwandan Education Qualification Framework
RP	Rwanda polytechnic
TVET	Technical and Vocational Education and Training
UR/CST	University of Rwanda/ College of Science and Technology
RSB	Rwanda Standard Board
STECOMA	Syndicat des Travailleurs des Entreprises de Construction, Menuserie et Artisanat
GDP	Gross Domestic Product
BRC	British retail consortium
EAV	Ecole agri- Vétérnnaire
GAP	Good agricultural practices
GPS	Global positioning system
IFS	International food standard
ILO	International labour organization
ISAE	Higher institute of agriculture and animal husbandly
ISCO	International standard classification of occupations
NTQF	National TVET qualification framework
RDB	Rwanda development board
UR	Univesity of Rwanda
RRWA	Rwanda rainwater harvesting association
RTB	RwandaTechnical Vocational Education and Training Board
NST1	National Strategic Transformation 1
SSIT	Small scale irrigation technology

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Production team

Coordination

RWAMASIRABO Aimable,Head of Curriculum and Instructional Materials Development Department, RTB

Facilitation

1. CYIZA Vedaste, Water and Irrigation Trades Specialist, RTB
2. NTAHONTUYE Felix, Agriculture and Food Processing Trades Specialist,RTB
3 MUKARUKAKA Placidie,Trainer,Kabutare TVET School

Editing

1.UWINEZA Patrick, Curriculum Editor, ADECOR Rwanda
2.SHEMA Bertin, Curriculum Editor, Ishema Business Company

Curriculum Development Team

Specific modules

No	Names	Organization	Position
1	HABIMANA Aloys	UR-CAVM	Assistant lecturer
2	BYAGATONDA Walter	ARBA Ltd	Irrigation Eng
3	SAFARI Jean Claude	UR-CST	Tutorial Assistant
4	UWIHIRWE Judith	UR-CAVM	Assistant lecturer
5	MAJORO Felicien	UR-CST	Lecturer
6	NIYONSABA P. Celestin	RAB	Irrigation Engineer
7	ICYIMANIZANYE Valentine	PRIDEC Ltd	Site Engineer

8	MUNYAMBONERA Divin	M.A.M.U Ltd	Irrigation consultant
9	MUKARUKAKA Placidie	EAV Kabutare	Trainer
10	BIGIRIMANA Aimable	ENF Berisons Ltd.	Irrigation Engineer
11	NIYIGABA Jean Baptiste	IPRC Huye	Instructor
12	NGIRIRABANGA Pascal	IPRC Huye	Instructor

2. General modules

#	**Names**	**Organization**	**Position**
1	Dr. UWIMBABAZI RUGANZU Leon Fidele	UR/CST	Lecturer
2	MUNYANEZA Alphonse	CFJ BENEBIKIRA Ngarama TVET school	Trainer
3	NGEZAHAYO Emmanuel	Rusumo High School	Trainer
4	UFITINEMA Bonaventure	GSNDP Cyanika	Trainer
6	HARELIMANA Wilson	Nyanza TVET School	Trainer
7	SINABAJIJE Alphonse	Nyamasheke District	DDE
8	UWITIJE Pierre Damien	UR/CST	Lecturer
9	UWAYEZU Jean Claude	IPRC GISHARI	Assistant Lecturer
10	NIYODUSENGA Patrick	ESN Nyanza	Trainer
11	NTABWOBA Felix	Ecole Technic Saint Kizito	Trainer
12	KARUHANGA Benon	New Life Christian Academy-Kayonza	Trainer

13	NTASHAMAJE Aimable	St Kizito Save TVET School	Trainer
14	MWANANGU Theophile	Kirehe District	District Director of Education
15	MUNEZERO Wivine	EFA Nyagahanga	Trainer
16	NSANZIMANA Jean Baptiste	Kayenzi TVET School	Trainer
17	NDIKUMANA Dieudonee	GSNDP Cyanika	Trainer
18	UWITONZE Nestor	UR Chemistry Trainer	Lecturer
19	NYIRIMANZI Philemon	Kabutare TVET School	Trainer
20	UWAMAHORO Angelique	Kabutare TVET School	Trainer
21	NIRAGIRE Robert	DDE Karongi	Lecturer
22	UFITINEMA J. Chrisotome	UR	Lecturer
23	SHYAKA Geofrey	IPRC HUYE	Assistant Lecturer
24	NDAGIJIMANA Siganda Joseph	Nyabikenke TVET	Trainer
25	HARINDINTWARI Canisus	EAV Ntendezi TVET	Trainer
26	MUSABYEMARIYA Marie Jeanne	GSND Cyanika	Director of Studies
27	MUHIRE Protegene	Huye	District Director of Education
28	NSABIMANA Rene David	Nyabikenke TVET	Director of Studies

3. Complentary modules

#	Names	Institution	Position
1	MURWANASHYAKA Abel	GSNDP CYANIKA	Trainer
2	NKESHA Gatambiye	APARPE TVET SCHOOL	Trainer
3	HABAGUSENGA Louis	IPRC Kigali	Assistsnt Lecturer
4	UWIRAGIYE Antoinette	MPANDA TVET	Trainer
5	DUSABEMARIYA Francine	IPRC Kigali	Assistsnt Lecturer
6	NGABONZIZA Francois Xavier	Lycee Catholique St Alain Mataba	Trainer
7	NDAHAYO Jacques	Nyanza TVET School	Trainer
8	MUSHIMIYIMANA Chantal	SJIP NYAMIRAMBO	Trainer
9	AKINGENEYE Angelique	ACEJ KARAMA	Trainer
10	TUYISHIME Henry	MUSHA ADVENTIST TECHNICAL COLLEGE	Trainer
11	MUHAYIMANA Theoneste	KAYENZI TVET SCHOOL	Trainer
12	KANZAYIRE Collette	RWABUYE TVET	Trainer
13	INGABIRE Francoise	Nyanza –Busasamana TVET	Trainer
14	JAMBO Jean d'Amour	TSS/IPRC Kigali	Trainer
15	MUTUMYINKA Josephine	GSNDP Cyanika	Trainer
16	HARERIMANA Charles	COLLEGE LA LUMIERE DE GASHONGA TVET SCHOOL	Trainer
17	KWIZERA INGABIRE Diane	GSNDP Cyanika	Trainer
18	NTIVUGURUZWA J. Berchmas	GIKONKO TVET SCHOOL	Trainer

19	MUTAGANZWA Gilbert	ES RUKARA	Trainer
20	MATATA Jean Bosco	GS ADEBE	Trainer
21	MUKAMULIGO Candide	St Joseph Primary School	Trainer
22	MBUGUJE Bienvenu	IPRC Ngoma	Trainer
23	TINDO Francois Xavier	Collegio Santo Antonio Zaccaria	Trainer
24	ZIRIMWABAGABO Jean Pierre	Lycee Catholique St Alain Mataba	Trainer
25	KAREKEZI Dieudone	IPRC Musanze	Trainer
26	HAKIZIMANA Joseph	Marie Dominic Mazzarello	Trainer
27	NDIKUBWIMANA Faustin	IPRC Kigali/Tss	Trainer

FOREWORD

The global rapid changes in the labour market tends do 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 vocation 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 vocation education and training from level one (1) to five (5); is among other RTB's responsabilities

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, the 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 agriculture sector with the high employment potential like water and irrigation among others. In this respect, Rwanda TVET Board, is honoured to avail the revised curriculum of water and irrigation 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. -Eng. Paul UMUKUNZI

Director General/ RTB

1. GENERAL INTRODUCTION

The curriculum presents a coherent and significant set of competencies to perform the occupations of a surface irrigation maintenance operator, a sprinkler irrigation system operator**,** a drip irrigation system operator and irrigation water pump operator. 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 the training.

The modules of the curriculum include a description of the expected results of the training. They have a direct influence on the choice of the theoretical and practical learning activities. The competencies are the targets of the training and 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 based on this document.

The curriculum consists of three parts. The first part is of general interest and shows the nature and goals of the 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 units and the performance criteria.

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

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

1.1 . Rationale of the qualification

In line with Government's target, the developed irrigated area should reach ~100,000 ha by the end of 2024. The investment plan covers the period 2020 to 2050 (30 years) with the objective of achieving 220,000 ha under irrigation by 2050. Irrigation requires specific training in water control, scheduling, improved application techniques, and maintenance**.**

The Government of Rwanda consider agriculture as major engine of growth for its economy. Unfortunately, variability of climate has a major impact on agriculture development. NST-1 and PSTA 4 recognize the need of increasing climate resilience and vulnerability management to avoid losses from weather or climate risks and huge dependence on rain fed agriculture. Rwanda's Strategic Plan for Agriculture Transformation (PSTA 4) sets out ambitious targets to turn around the agriculture sector and transform it into a knowledge-based, value-creating sector that continues to contributes to the national economy and ensures food and nutrition security by 2024. Irrigation Master Plan identifies 589,711ha potential irrigation areas in Rwanda (MINAGRI IMP, 2010). The GoR initiated irrigation development projects of marshlands, hillside and small-scale irrigation to increase land under irrigation. Currently, The total land under irrigation is estimated to 66,840.5 ha composed of 37,273 ha of marshlands, 8,780 ha of hillside and 20,787.5 ha of SSIT developed, which is about 65% of the total target of PSTA-4 (2023/24). The target is set at 102,284 ha by 2024 as planned in NST1. The government's annual target for land under small scale irrigation (SSI) is 2,000 hectares. The irrigation in Rwanda is very expensive in investment due to some irrigation experts and some tools, equipment and materials for the sector that are imported from foreigner countries; in addition, operation and maintenance performance of irrigation schemes are inefficient compared to the modern irrigation system standards due to lack of skills and knowledge in irrigation. Therefore the skills constraint can be fixed out by setting clear target in skills of irrigation by providing an appropriate trainings.

The strategic priorities identified in the "Education Sector Strategic Plan" (ESSP), relates to an improvement of the Technical and Vocational Education Training (TVET) system to satisfy the market demand of qualified workers. TVET in Rwanda has the aim to create competent, motivated, adaptable, innovative, and self-reliant workforce to contribute to the economic and social development of the country, thus improving the livelihoods of all Rwandans and reducing poverty sustainably. It also seeks to strengthen the culture of self-employment and supporting job creation in the economy. Curricula help to facilitate the learning process in a way, that learners acquire the set of occupational competences (skills, knowledge and attitude) required at the working place and defined in the occupational standards (OS).

This qualification prepares individuals to integrate the irrigation sub-sector and operate as Surface irrigation maintenance system Operator, Drip Irrigation System Operator, Sprinkler Irrigation System Operator, Irrigation water pump operator qualified worker.The individuals with this qualification can move to other levels as per RQF requirements.

2. QUALIFICATION DETAILS

2.1. Description

Title:	TVET Certificate 3 in Water and Irrigation
Level:	RQF Level 3
Credits:	1200
Sector:	Agriculture and Food Processing
Trade:	Water and Irrigation
Issue date:	May,2022

2.2 Graduate profile

This qualification provides the skills, knowledge, and attitude for a learner to be competent in a range of routine tasks and activities that require the application of practical skills in a defined context. Work would be undertaken in various Agriculture farm entreprises where different irrigation systems are carried out. 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. Describe the occupation and learning process
2. Maintain SHE at workplace
3. Create a Business
4. Communicate effectively at workplace
5. Communicate simply using English in familiar situations
6. Apply computer literacy
7. Gukoresha ikinyarwanda kiboneye
8. Pratiquer l'activité de communication en français dans le métier
9. Citizenship
10. Apply Algebra and Trigonometry
11. Demonstrate Basics of Chemistry
12. Apply general physics
13. Applied biology
14. Collect topographical data
15. Apply Basic drawing principles
16. Apply Preliminary pumping activities
17. Apply Preliminary pressurized irrigation system
18. Maintain drip irrigation infrastructure

19. Maintain pumping system
20. Maintain Pressurized irrigation system
21. Operate pump
22. Operate surface irrigation system
23. Maintain surface irrigation
24. Integrate the workplace
25. Operate surface drainage
26. Join pipes

2.4 Minimum entry requirements and pathways

The minimum entry requirement to this course is to be mentally fit with an interest in water and irrigation and related areas.



Pathways into the qualification

Pathways from the qualification



Preferred pathways for candidates entering this qualification include:
To have completed 9 Years Basic Education with Outstanding performance in National examination of Ordinary Level in the following subjects: Biology and Chemistry which are considered as key prerequisites.
A range of other related qualifications equivalent to 9 Years Basic Education with Outstanding performance in the following subjects: Biology and Chemistry which are considered as key prerequisites.

Progression route of candidates achieving this qualification include:

- TVET Certificate IV in water and irrigation
- A range of other related TVET Certificate IV qualifications.

2.5 Job related information

This qualification prepares individuals to integrate the agriculture and Food processing industry with the professionalization of water and irrigation . This qualification again offers the opportunity to execute the works as Irrigation pump operator,Pressurized irrigation maintenance technician,Irrigation field work Foreman while ensuring that safety, security and environmental regulations are respected.

Possible jobs related to this qualification

1.A surface irrigation maintenance operator;
2.A sprinkler irrigation system operator;
3.A drip irrigation system operator and
4.Irrigation water pump operator

2.6 Information about competencies

No	Code	Complementary competencies	Credit
1	CCMOL302	Describe the occupation and learning process	3
2	CCMHE302	Maintain SHE at workplace	3
3	CCMBC302	Create a Business	3
4	CCMEN302	Apply proficient Technical English	3
5	CCMCL302	Apply computer literacy	3
6	CCMKN302	Gukoresha ikinyarwanda kiboneye	3
7	CCMCZ301	Comply with Citizenship values	3
8	CCMFT302	Pratiquer l'activité de communication en français dans le métier	3
9	CCMKKK302	Kiswahili Watsani	3
Total			**27**

	No	Code	Core competencies	Credit
GENERAL	1.	**GENAM301**	Apply Algebra and Trigonometry	**6**
	2.	**GENBC301**	Demonstrate Basics of Chemistry	**3**
	3.	**GENAB302**	Demonstrate Basic knowledge of General Biology	**3**
	4.	**GENPY301**	Apply general physics	**4**
	5.	**GENTD301**	Collect topographical data	**5**
	6.	**GENDP301**	Apply Basic drawing principles	**6**
	7.	**WIRPJ301**	Join pipe	5

	8.	**WIRPP301**	Apply Preliminary pumping activities	4
SPECIFIC	9.	**WIRPR301**	Apply Preliminary pressurized irrigation system	8
	10.	**WIRMD301**	Maintain drip irrigation infrastructures	3
	11.	**WIRMP301**	Maintain pumping system	4
	12.	**WIRPS301**	Maintain pressurized irrigation system	4
	13.	**WIROP301**	Operate pump	**5**
	14.	**WIRSI301**	Operate surface irrigation system	**6**
	15.	**WIRSM301**	Maintain surface irrigation	**4**
	16.	**WIRSD301**	Operate surface drainage	**4**
	17.	**WIRIA302**	Integrate the workplace	**20**
Total				**94**

- **Number of competencies: 26**
- **Core competencies :17**
- **Co-curricula:2**
- **Complementary competencies: 9**
- **The total number of Credits: 121**

2.8 Allocation of Learning Hours for specific and general modules linked to the occupation.

N0	Module name	Learning Outcome	Theoretical hours	Practical hours	Total hours
1	**Occupation and Learning Process**	LO1: Participate in a team and respect the rules and regulations of training.	3	7	10
		LO 2: Explain the occupation and learning process	1	4	5
		LO3: Respect the facilitation and apply learning methods.	1	4	5

		LO4: Develop personal plans based on self assessment practices	3	7	10
Total hours			**8**	**22**	**30**
2	**Safety, Health and Environment at Workplace**	LO1: Maintain personal hygiene, health and safety	7	8	15
		LO2: Sustain a safe and healthy environment at workplace	3	4	7
		LO3: Ensure environmental sustainability	4	4	8
Total hours			**14**	**16**	**30**
3	**Français**	LO1: Lire un texte lié à son métier	2	6	8
		LO 2:Pratiquer l'expression orale	2	6	8
		LO 3: Accorder les verbes	2	12	14
Total hours			**14**	**16**	**30**
4	**Entrepreneurship**	LO1: Describe basic aspects of Entrepreneurship	5	5	10
		LO2: Assess Business Environment	2	3	5
		LO3: : Generate Business Idea	7	8	15
Total hours			**14**	**16**	**30**
5	**Citizenship**	LO1: Describe Rwanda colonization period	6	2	8
		LO2: : Describe the Independent Rwanda	7	3	10
		LO3: E Patriotism and Heroism in Rwanda	5	1	6
		LO4: Examine leadership and management	5	1	6
Total hours			**23**	**7**	**30**
6	**English**	LO 1: Narrate about familiar events and activities	1	6	7
		LO2: Write short	2	6	8

		compositions on familiar topics			
		LO3: Read and interpreting messages from simple texts and social letter	1	6	7
		LO4: React to common trade-related oral English.	2	6	8
Total hours			**6**	**24**	**30**
7	**Information and Communication Technology**	LO1: Apply computer basics	3	8	10
		LO2: Use a current Word processing package	1	4	5
		LO3: Use current spreadsheet package	1	4	5
		LO4: Use current power point presentations	1	4	5
		LO5: Use Internet/Intranet (outlook)	1	4	5
Total hours			**7**	**23**	**30**
8	**Ikinyarwanda**	LO1: Gukoresha ubuvanganzo gakondo ashyikirana n'abandi	1	5	6
		LO 2: Gukoresha Ikinyarwanda kiboneye agaragaza itandukaniro ry'amazina bwite n'amazina rusange n'imiterere y'isanisha ryo mu bisekuru.	1	5	6
		LO3 :Kugaragaza amategeko y'igenamajwi mu izina mbonera.	1	5	6
		LO 4: Kugaragaza intêgo ya ntera n'amategeko y'igenamajwi.	1	5	6
		LO5: Gukoresha imyandikire ikwiye	1	5	6

		y'Ikinyarwanda.			
Total hours			**5**	**25**	**30**
9	**Kiswahili Wastani**	LO1: Kutumia msamiati wa Kiswahili katika maandishi na mazungumzo kimsingi	2	8	10
		LO2: Kutumia aina za maneno ya lugha ya Kiswahili kimazungumzo na kimaandishi.	2	8	10
		LO3: : Kutumia nyakati za Kiswahili kimaandishi na kimazungumzo.	2	8	10
10	**Applied Biology**	LO1: : Describe cell and tissue structure and function	6	4	10
		LO2: Distinguish the various structural features of animal diversity	6	4	10
		LO3: Differentiate the various structural and functional features of plant diversity	9	1	10
Total hours			**21**	**9**	**30**
11	**Applied Physics**	LO1: : Describe basic measurements in physics	4	4	8
		LO2: : Describe Motion in 1-Dimension	2	3	5
		LO3: Analyze motion in two Dimensions	3	3	6
		LO4: Demonstrate electrostatic phenomena	4	4	8
		LO5: Apply Geometric optics	4	3	7
		LO6: : Characterize sources of energy in the world	3	3	6

Total hours			**20**	**20**	**40**
12	**Applied Mathematics**	LO1: Solve algebraically or graphically linear and quadratic equations or inqualities	10	10	20
		LO2: Apply matrices in solving simultaneous linear equations	5	5	10
		LO3: Apply fundamentals of trigonometry	7	8	15
		LO4: Apply fundamentals of complex numbers	8	7	15
Total hours			**30**	**30**	**60**
13	**Applied Chemistry**	LO1: Describe the structure of atom and molecules	5	5	10
		LO2: Apply the basics of inorganic chemistry	5	5	10
		LO3: Perform acid base titration	5	5	10
Total hours			**15**	**15**	**30**
14	**Basic drawing principles**	1.Use construction drawing instruments, materials and tools	5	10	15
		2.Identify and use lines and symbols of technical drawing	9	21	30
		3.Perform 2 and 3 dimensional drawing	5	10	15
Total hours			**19**	**41**	**60**
15	**Preliminary pumping activities**	Collect basic information related to the Pumping schedule;	5	10	15
		Carry out preliminary	5	10	15

		pumping operations;			
		Carry out the proper safety and assembly of pumping system components	3	7	10
Total hours			**13**	**27**	**40**
16	**Preliminary pressurized irrigation system**	Collect preliminary information related to the irrigation schedule	**6**	**14**	**20**
		Carry out the proper safety and assembly of pressurized irrigation system	**9**	**21**	**30**
		Adjust the irrigation schedule	**9**	**21**	**30**
Total hours			**24**	**56**	**80**
17	**Maintenance of drip irrigation**	Check all components of drip irrigation system;	**3**	**7**	**10**
		Carry out regular hygienic conditions of the irrigation system;	**3**	**7**	**10**
		Carry out routine maintenance of drip irrigation system	**3**	**7**	**10**
Total hours			**9**	**21**	**30**
18	**Maintenance of pumping system**	Prepare for pump maintenance	3	7	10
		Carry out pump maintenance	3	7	10
		Carry out of routine maintenance of pumping and ancillary systems	3	7	10
		Conclude the pump maintenance activities	3	7	10

Total hours			**12**	**28**	**40**
19	**Pressurized irrigation maintenance**	Carry out pre- and post-season maintenance	3	7	10
		Carry out routine maintenance activities on pressurized irrigation system	3	7	10
		Maintain pressurized irrigation system components	3	7	10
		Remove and replace damaged pipes and fittings of pressurized irrigation system	3	7	10
Total hours			**12**	**28**	**40**
20	**Water pump oparation**	Prepare for pumping activities	6	14	20
		Operate a pump	6	14	20
		Conclude pump operations	3	7	10
Total hours			**15**	**35**	**50**
21	**Surface irrigation system operation**	Carry out pre-start checks	3	7	10
		Operate and monitor the surface irrigation system	6	14	20
		Measure and control the water levels, flow rates and volume of water	3	7	10
		Monitor drainage and tail water systems	3	7	10
		Shut down surface irrigation in response to irrigation indicators	3	7	10
Total hours			**18**	**42**	**60**
22	**Surface irrigation maintenance**	Prepare for surface irrigation maintenance activities	5	10	15

		Carry out surface irrigation maintenance activities	5	10	15
		Monitor the surface irrigation infrastructures	3	7	10
Total hours			**13**	**27**	**40**
23	**Pipe joining**	Prepare the workplace	3	7	10
		Identify and Select tools, equipment and materials to be used	3	7	10
		Perform pipes Joining methods	3	7	10
		Clip the pipe work	2	3	5
		Test piping system	3	7	10
		Finish the work	2	3	5
Total hours			**16**	**34**	**50**
24	**Surface drainage**	Plan for drainage system installation	3	7	10
		Prepare the site for installation of drainage system	3	7	10
		Undertake installation of drainage system	3	7	10
		Complete installation of drainage system	3	7	10
Total hours			**12**	**28**	**40**
25	**Industrial attachment program**	LO1 :Apply for internship	10	0	10
		LO2:Demonstrate workplace behaviour and attitudes	10	0	10
		LO3 :Analyze own professional gaps in	10	0	

		line with industry demands			10
		LO4:Enhance acquired competencies at the workplace I	0	170	0
Total hours			**30**	**170**	**170**
26	**Topographical data collection**	Prepare for topographic data collection operations	3	7	10
		Perform surveying	6	14	20
		Display survey results	6	14	20
Total hours			**15**	**35**	**50**
					1180

3. TRAINING PACKAGE

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

3.1 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.

3.2 Flowchart

The flowchart of sequencing of learning is a schematic representation of the order of acquisition of the competencies. It provides an overall planning of the entire training programme and shows the relationship between the modules. This type of planning is to ensure consistency and progression of learning. For each module, the flowchart shows the learning that is already in place, the learning that is to take in parallel or later. The positions defined will have a decisive impact on all subsequent pedagogical choices. The flowchart of the sequence of learning of the modules of the training programme is presented on the following page.

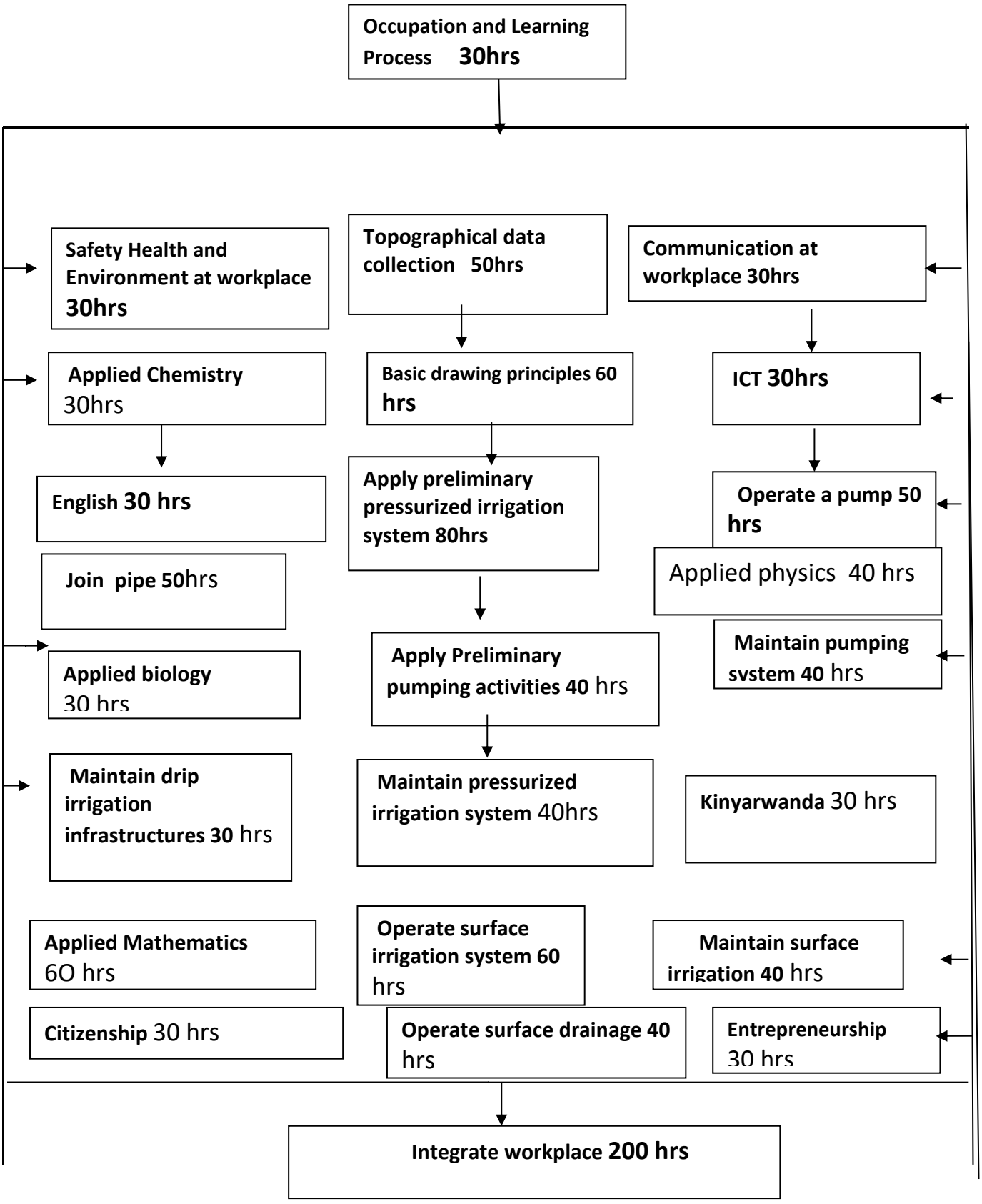


Figure 2: ***Flowchart***

4. ASSESSMENT GUIDELINES

4.1 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.

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

Formative Assessment

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

A trainee to be competent for a formative 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

Summative Assessment

All Summative/Integrated assessment should match with the content of the module in the curriculum.
Summative/Integrated Assessment is always in 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 on 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="4">Formative assessment</td><td>30%</td><td rowspan="4">50%</td></tr>
<tr><td colspan="2">Practical work:</td><td rowspan="3">70%</td><td rowspan="3">70%</td></tr>
<tr><td>Group project and presentation</td><td>20%</td></tr>
<tr><td>Individual project /Work</td><td>50%</td></tr>
<tr><td colspan="3"></td><td colspan="2">Summative Assessment</td><td>50%</td></tr>
</table>

Note: 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.

GLOSSARY

1. **Assessment**: A process of gathering and judging evidence in order to decide whether a person has attained a standard of performance.
2. **Assessment criteria:** Statements which describe performances and place them in context with sufficient precision to allow valid and reliable assessment.
3. **Best practice:** Management practices and work processes that lead to outstanding or top-class performance and provide examples for others.
4. **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.
5. **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.
6. **Competency-based assessment (or CBA):** The gathering and judging of evidence in order to decide whether a person has achieved a standard of competency.
7. **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.
8. **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.
9. **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.

10. **Credit**: The acknowledgement that a person has satisfied the requirements of a module.
11. **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.
12. **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.**
13. 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.
14. **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.
15. **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.
16. **Generic modules**: Modules leading to the attainment of complementary competencies.
17. **Informal education:** The acquisition of knowledge and skills through experience, reading, social contact, etc.
18. **Internship**: An opportunity for a learner to integrate career related experience by participating in planned, supervised work.
19. **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.
20. **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.

21. **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.
22. **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.
23. **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.
24. **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.
25. **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
26. **Module**: A unit of training which corresponds to one competency and which can be completed on its own or linked to others.
27. **Occupation**: The principal business of one's life.
28. **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.
29. **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.
30. **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.
31. **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.
32. **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).

33. **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
34. **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.
35. **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.

Employable Skills for Sustainable Job Creation

Rwanda TVET Board (RTB)

Kigali-Rwanda

Email: info@rtb.gov.rw

Web: www.rtb.gov.rw

P.O. Box: 4940 Kigali, Rwanda