Republic of Rwanda

Ministry of Education

WORKFORCE DEVELOPMENT AUTHORITY – WDA

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CSTMS1001-TVET FOUNDATION CERTIFICATE IN MASONRY

RTQF LEVEL 1 CURRICULUM

Kigali, March 2014

ACRONYMS

2D	Two Dimensions
3D	Three dimensions
AIDS	Acquired Immunodeficiency Syndrome
CD	Compact Disc
CDU	Curriculum Development Unit
CCM	Cross cutting Modules
CSTMS	Construction sector Masonry sub sector
DPM	Damp Proof Membrane
DVD	Digital Video Disc
HIV	Human Immunodeficiency Virus
ILO	International Labor Organization
PDA	Personal Digital Assistance
PPE	Personal Protective Equipment
RCC	Reinforced Concrete Cement
ROM	Read Only Memory
RTQF	Rwanda Technical Qualification Framework
STI	Sexual Transmission Infection
TSS	Technical Secondary School
TVET	Technical and Vocational Education and Training
VSO	Voluntary Service Overseas
ICT	Information Communication Technology
I/O	Input/output
NTQF	National Technical Qualification Framework

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SECTION 1: GENERAL INTRODUCTION

The curriculum presents a coherent and significant set of competences to acquire in order to perform the occupation of a mason. The curriculum design approach has taken 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 link with the choice of the learning activities. The competences are the targets of the training upon which one will be expected to confidently enter the labor market, even though minimum supervision for complex tasks would still be required

The curriculum is also the reference to carry out the assessment of learning. Assessment's tools can still be developed on the basis of this document, and at present only main guidelines are suggested

The present curriculum consists of three sections. The first section 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 section deals with the qualification the learner will achieve at the end of training. The last section is the actual training package containing all the modules of the qualification.

The pages describing the modules are the heart of a curriculum. They present the title of the module, the length of the training in terms of training hours and corresponding number of credits, the context in which the competence is performed, the prerequisite competences, the learning units as well as 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 unit. Also, learning activities and resources for learning are suggested.

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

CONCEPTS AND DEFINITIONS

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

Competence: Theability or capacity acquired through leaning, exposure to the tasks and series of training allowing one to perform specific task autonomously.

Complementary competences: 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 competence.

Core modules: Modules leading to competences' 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.

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

General competences: competences 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 competences.

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

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 competence, including the time allocated to evaluation, which is estimated between 5 and 10% of the total learning time of the competence.

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 competence and which can be Scored on its own or linked to others.

Occupation: The principal business of one's life.

Performance criteria: Descriptions of the quality requirements of the result obtained in labor performance.

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

SECTION 2: QUALIFICATION

TITLE OF THE QUALIFICATION:	**TVET Foundation level in construction : MASONRY**
LEVEL:	1
CREDITS:	**118**
SECTOR:	Construction
SUB-SECTOR:	Masonry
ISSUE DATE:	March , 2014
REVIEW DATE:	

PURPOSE

This qualification provides the skills, knowledge and attitudes for a learner to be competent in limited range of skills required to carry out simple tasks. Work would be undertaken in various construction enterprises where masonry activities are carried out. Learners may work under close supervision in a structured context

Graduates from this qualification will be able to demonstrate the following competences:

1.	Describe the occupation and training process
2.	Maintain Health, safety, security and sustain environment at workplace
3.	Communicate effectively at workplace
4.	Usebasic computer applications
5.	Perform basic workplace calculations
6.	Apply basic technical drawing
7.	Run microbusiness
8.	Estimate cost
9.	Perform steel bars work
10.	Erect foundation
11.	Communicate Orally in basicEnglish
12.	Erect wall
13.	Perform wall plastering
14.	Construct elements of structure
15.	Apply Tiles
16.	Perform concrete pavement
17.	Prepare concrete
18.	Prepare mortar
19.	Perform opening and fixing
20.	Integrate workplace

RATIONALE OF THE QUALIFICATION

Rwanda is striving to build a knowledge-based economy, with a particular emphasis on creating 200, 000 off-farm jobs a year. The focus is to reduce unemployment rate substantively, particularly in rural areas, and urban unemployment by providing relevant employability skills. To rationalize this, the government of Rwanda through WDA has put in place a benchmark tool, the TVET qualification framework, which comprises 7 levels that focus on job-oriented and transferable skills to increase productivity and employability. It is in this regard that this qualification –level one- emphases on active population, be it illiterate or literate in order to equip them with the necessary skills to meet labor demand in key economic sectors. TVET Foundation Level (RTQF LEVEL 1) constitutes a baseline for further learning in TVET;the individuals with this qualification can enter the TVET Basic Vocational Skills Level (RTQF LEVEL II) in order to be equipped with the necessary skills, knowledge and attitude to enable them to pursue the TVET Certificate I (RTQF LEVEL III).

Possible Job positions related to this qualification include:

- Mason helper
- Mason
- Steel fixer
- Fitter
- Tiller

ENTRY REQUIREMENTS TO THE QUALIFICATION

No entry requirements needed to this qualification as long as the person has the ability to acquire the competences. Only the consideration for age limitation, as the Rwandan labour law stipulates that nobody should be employed under 16 years old.(Direct Access)

EMPLOYABILITY AND LIFE SKILLS

Through the generic modules, individuals with this qualification have acquired the life skills and employability skills that are described in the table below.

Personal development	- Understand own personal values, strengths and areas of challenge or weakness and are able to effectively use or address them; - Develop, implement and evaluate progress toward personal goals; - Know own preferred way of learning, take initiative for learning new skills, and know how to monitor own learning progress.
Interpersonal communication	- Communicate and get along well with others, in a variety of settings and for a range of purposes; - Speak and listen actively and appropriately, one-on- one and in groups; - Cooperate and work effectively within a group; - Provide good customer service.
Health, hygiene and safety	- Know the standard health and safety practices and regulations in the workplace; - Maintain hygiene and personal grooming; - Identify unsafe situations; - Respond to emergencies and accidents at work; - Prevent HIV/AIDS and sexual violence.
Environment sustainability	- Know the environmental regulations in Rwanda; - Dispose of waste ; - Recycle waste ; - Report environmental hazards to appropriate person.
Integration of the workplace	- Know how to apply for and present themselves for employment; - Demonstrate good time management and show up for work on time; - Demonstrate behavior and attitudes that are appropriate for the workplace and understand that workplaces have policies and procedures that need to be followed; - Take initiative and responsibility for own work and know how to work under and respect supervision; - Know the rights and responsibilities of workers and employers and explore ways to exercise rights in the workplace.
Financial fitness	- Understand principles and tools behind personal and family money-management; - Understand the importance of saving and reducing expenses; - Organize and manage personal and household finances; - Create a personal budget and think strategically about their finances; - Evaluate their options for earning money and are familiar with ways to establish and maintain personal credit;

	- Be aware of the risks associated with credit.
Management of a small business	- Simulate income-generating activities with the basic cycles of business; - Plan for income-generating activity expenses and loan repayments; - Keep basic business financial records; - Evaluate the risks and opportunities of using credit in income generating contexts; - Distinguish between money to be used for investment into own income-generating activities, for family expenses, and for savings; - Know the different market actors.
Computer skills	- Operate a computer - Use word processing applications in the production of workplace or personal documents - Create and use spreadsheets and charts through the use of spreadsheet software - Design electronic presentations - Send, receive and manage electronic mail (email), as well as to collaborate online using chat rooms, intranets and instant messaging.
Language skills	- Communicate orally to simple discussion in English language in familiar context

MODULES AND QUALIFICATION RULES

To achieve the TVET foundation level in construction*: Masonry*, **20 modules** must be completed(**1180 learning hours)**:

-**9** Generic modules
-**11** Cores modules

Modules Code	Modules types and titles	Credit Value
Generic modules		
CCM001	Occupation and training process	2
CCM102	Health, Safety, security and environment at workplace	3
CCM103	Workplace communication skills	3
CCM104	Basic computer applications	3
CCM105	Oral basic English communication	3
CCM107	Running microbusiness	4
CCM110	Internship	30
CCM106	Basic workplace calculations	7
CCM108	Cost estimation	5
Core modules		
CSTMS101	Basic technical drawing	3
CSTMS102	Mortar preparation	3
CSTMS103	Concrete preparation	4
CSTMS104	Foundation	6
CSTMS105	Wall elevation	8
CSTMS106	Steel bars works	6
CSTMS107	Structure elements	7
CSTMS108	Wall plastering	5
CSTMS109	Opening and fixing	5
CSTMS1010	Concrete pavement	6
CSTMS1011	Tiles works	5

SECTION 3: TRAINING PACKAGE

The training package includes the list of modules, the description of each module and the course structure

COMPETENCES CHART

The competences chart is a table that presents an overview of the specific competences, the general competences, the work process and the time allocated to each competence. This table provides an overall view of the competences of the training program and allows identifying the logical sequence of the learning of these competences.

The competences chart shows the relationship between general competences and specific competences that are particular to the occupation, as well as the key stages of the work process. It shows the links between the elements in the horizontally axis and those vertical axis. The symbol (⬭) marks a relationship between a general competence and specific competence.

The symbol (△) indicates a relationship between a specific competence and a step in the process of work. When the symbols are darkened, it indicates that the link is taken into account in the description of the specific competence.

The competences chart allows the trainer to consider the complexity of the competences in the organization of the progress of learning. Therefore, the vertical axis shows the specific competences in the order they should be acquired. This is the starting point of the presentation of the competences in the flowchart presented in the following pages

MASON		DURATION	PROCESS					GENERAL COMPETENCIES							
SPECIFIC COMPETENCIES			Prepare the workplace	Select tools materials and equipment	Carryout the work	Clean work place , tool and equipment	Deliver the final work	Communicate Orally in basic English	Communicate effectively at workplace	Apply basic workplace calculations	Health ,Safety, security and environment at workplace	Apply basic technical drawing	Apply computer applications	Run microbusiness	TRAINING DURATION
NUMBER	NUMBER							5	3	7	2	6	4	19	
	DURATION	Hrs.						30	30	70	30	30	30	40	260
1	Describe the occupation and training process	20	▲	▲	▲	▲	▲								
9	Prepare mortar	30	▲	▲	▲	▲	▲	❍	❍	●	●	❍	❍	❍	
8	Estimate cost	50	▲	▲	▲	▲	▲	❍	❍	●	●	❍	❍	❍	
10	Prepare concrete	40	▲	▲	▲	▲	▲	❍	❍	●	●	❍	❍	❍	
13	Perform steel bars work	60	▲	▲	▲	▲	▲	❍	❍	●	●	❍	❍	❍	
11	Erect foundation	60	▲	▲	▲	▲	▲	❍	❍	●	●	❍	❍	❍	
12	Erect the walls	80	▲	▲	▲	▲	▲	❍	❍	●	●	❍	❍	❍	
15	Perform wall plastering	50	▲	▲	▲	▲	▲	❍	❍	●	●	❍	❍	❍	
17	Perform concrete pavement	60	▲	▲	▲	▲	▲	❍	❍	●	●	❍	❍	❍	
18	Apply tiles	50	▲	▲	▲	▲	▲	❍	❍	●	●	❍	❍	❍	
16	Perform opening and fixing	50	▲	▲	▲	▲	▲	❍	❍	●	●	❍	❍	❍	
14	Construct elements of structure	70	▲	▲	▲	▲	▲	❍	❍	●	●	❍	❍	❍	
20	Integrate workplace	300	▲	▲	▲	▲	▲	●	●	●	●	●	●	●	
	Total	**920**													**1180**

Between the process and particular competences

▲: Functional link application

∆: Functional link existence

between general and particular competences

●: Functional link application

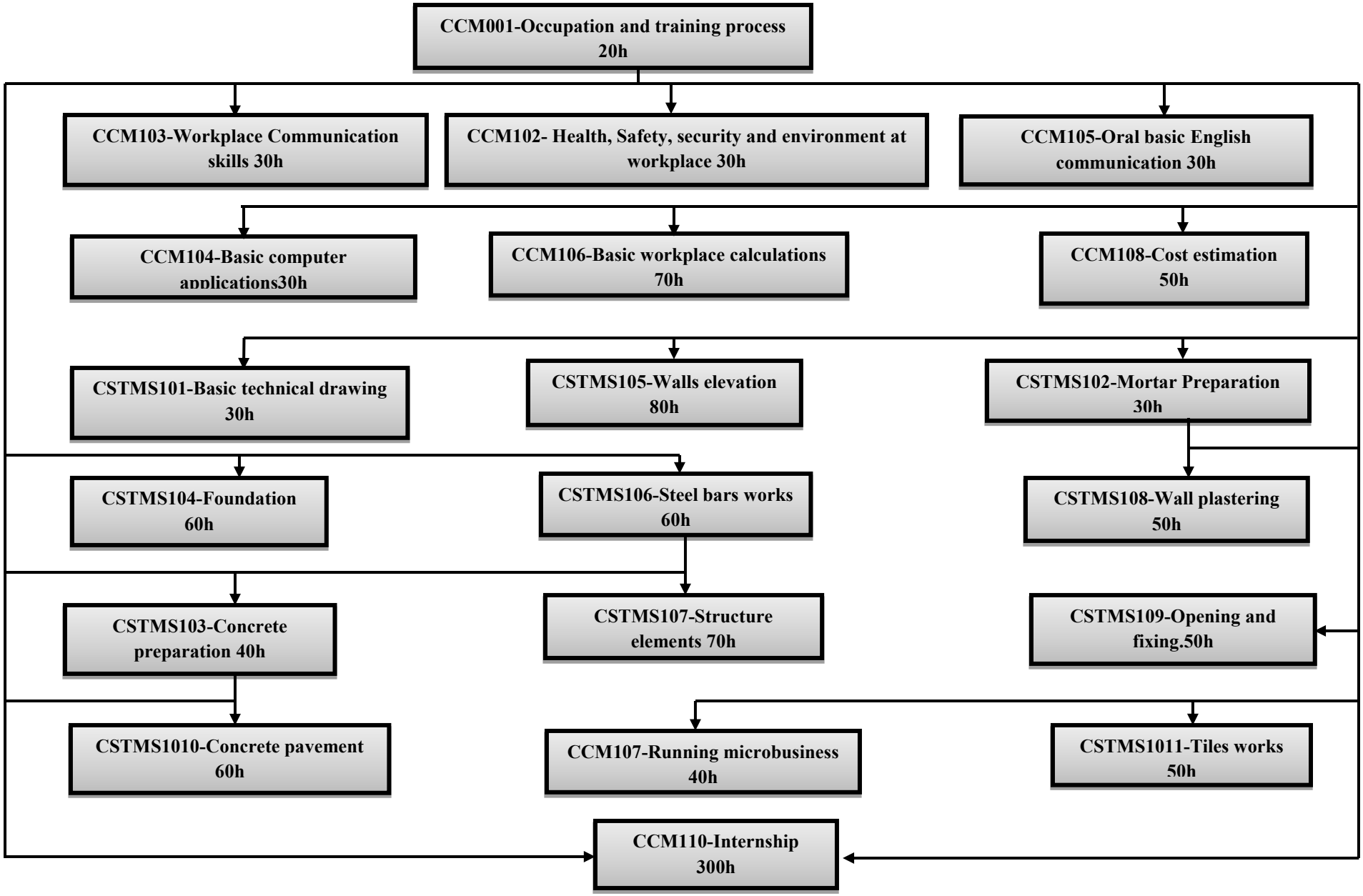
○: Functional link existence

FLOW CHART

The flowchart of sequencing for learning is a schematic representation of the order of acquisition of the competences. It provides an overall planning of the entire training program 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 prerequisite for the learning to take place, the sequence of modules' delivery indicating those which can be undertaken in parallel or in succession. The suggested sequence will have a decisive impact on all subsequent pedagogical choices.

The flowchart of the learning modules' sequence for the training program is presented on the following page:


CCM001-Occupation and training process 20h
CCM103-Workplace Communication skills 30h
CCM102- Health, Safety, security and environment at workplace 30h
CCM105-Oral basic English communication 30h
CCM104-Basic computer applications30h
CCM106-Basic workplace calculations 70h
CCM108-Cost estimation 50h
CSTMS101-Basic technical drawing 30h
CSTMS105-Walls elevation 80h
CSTMS102-Mortar Preparation 30h
CSTMS104-Foundation 60h
CSTMS106-Steel bars works 60h
CSTMS108-Wall plastering 50h
CSTMS103-Concrete preparation 40h
CSTMS107-Structure elements 70h
CSTMS109-Opening and fixing.50h
CSTMS1010-Concrete pavement 60h
CCM107-Running microbusiness 40h
CSTMS1011-Tiles works 50h
CCM110-Internship 300h

SECTION 4: ASSESSMENT PRINCIPLES

Competency-based training provides learners with the skills, knowledge and attitudes to demonstrate competency against standards and performance criteria in an applied context. The Rwanda national TVET system is competency-based, built on nationally recommended industry standards.

Competency-based assessment is the process of collecting evidence and making judgments about whether competency has been achieved. In this section you will find information that will help you design, conduct and validate competency-based assessments.

In order to demonstrate what a person can do in the workplace as a result of completing a program of training or based on workplace experience and learning, a candidate must prove that he/she is competent by providing the evidence needed either during formative assessment (a continuous assessment) or/and summative assessment (at the end of the module).

After Trainees have undergone competence based assessment (CBA), they are deemed either 'competent' or 'not yet competent'. If they are deemed not yet competent in any competence, they will be provided the chance to be reassessed till they are declared competent. Trainee will be declared competent after achieving all assessment indicators for any given competence

Therefore, there is a series of tools/methods suggested for collecting evidences:

i. **Portfolio:**A portfolio is a collection of student work representing student performance. It is a folder (or binder or even a digital collection) containing the student's work as well as the student'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 student learning. The portfolio is meant to show student growth, development, and achievements in the TVET 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 general modules/competences. Besides, itwill 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.

ii. **Integrated situation:** is a scenario simulating a real workplace situation that puts the student in a likely problem situation in the workplace context. This is carried out at the end of each specific module/competence, in order to allow the student to mobilize all the knowledge, skills and attitudes acquired during the training, and at end of which he/she is recognized competent or not yet competent

MODULES DESCRIPTION

The sequence of modules here is based on the above flowchart which rather considers the sequence of modules' delivery

CCM001-OCCUPATION AND TRAINING PROCESS		
Competence :Describe the occupation and training process		
RTQF level**: All**	Credits**: 2**	Learning hours **: 20**
Sector**: All**		Sub-sector**: All**
Issue date**: March,2014**		Review date**:**

PURPOSE STATEMENT

This core module describes the skills, knowledge and attitudes to be acquired for the trainee's full immersion into the trade of masonry. It is fundamental for a trainee to first understand the nature of the trade he/she is going to embrace through a constraint free decision. This module does not require specific prerequisite since it is a very first one from which one would decide whether he would take the next modules

LEARNING ASSUMED TO BE IN PLACE

Not applicable

LEARNING UNITS AND PERFOMANCE CRITERIA

Learning units describe the essential outcomes of a competence
Performance criteria describe the required performance needed to demonstrate achievement of the learning unit

Learning unit By the end of the module, the trainee will be able to :	**Performance criteria**
1. Understand oneself as part of a team and respect the rules of the workshop	1.1. Know each other. 1.2. Be part of a team and behave accordingly. 1.3. Rules and requirements are agreed upon and known.
2. Learn about the occupation and the training process	2.1. The occupation is understood. 2.2. The training required is known. 2.3. The training organization is known.
3. Reflect upon the teaching and learning methods	3.1. The active and participatory learning methods are applied. 3.2. The assessment method is understood.

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.

Learning Unit 1: Understand oneself as part of a team and respect the rules of the workshop			**Learning Hours : 6**
Learning outcomes	**Content**	**Learning activities**	**Resources**
1.1 Introduce oneself and get to know one another	• Introductions • Expectations about the training	○ Introduction ○ Game ○ Presentation of trainees' expectations	- Classroom - Playing area - Playing objects
1.2 Work as a team	• Working as a team • Building trust	○ Games ○ Group discussions	
1.3 Setting rules and responsibilities	• Rules of the classroom • Group responsibilities	○ Brainstorming ○ Discussions	- Classroom

Learning Unit 2: Learn about the occupation and the training process			Learning Hours: 12
Learning outcomes	**Content**	**Learning activities**	**Resources**
2.1 Understand the occupation	• Characteristics of the occupation • Working conditions	○ Personal research ○ Visit of a business in the neighborhood	- Pictures of people in working situation - Documents describing the occupation
2.2 Obtain an understanding of the goals of the training program	• Content of the training program (modules) • Importance of the initial and continuous training	○ Presentation by the teacher ○ Research	- Overview of the training program - Testimonies of people performing the occupation
2.3 Have a common understanding of the training organization	• Presentation of the timetable • Presentation of the classrooms and workshops	○ Visits of the premises of the school.	- School year calendar - Timetable

Learning unit 3: Reflect upon the teaching and learning methods			Learning Hours: 2
Learning outcomes	**Content**	**Learning activities**	**Resources**
1.1. Understand the teaching and learning methods	• Overview of the active and participatory teaching and learning methods	○ Experience sharing. ○ Presentation by the trainer	- Classroom - Staff room
1.2. Understand the assessment methodology	• Assessment methodology and its purpose	○ Explanation by the trainer	

ASSESSMENT GUIDELINES

To pass this module, the student has to Score:

1. Self-assessment form
2. Tree drawing
3. List of 5 goals
4. Skills and qualities assessment
5. Steps to reach goals
6. Learning goals and steps
7. Business visit's form

Elements 1 to 6 are available in the Work Readiness Training Programme – Participant's Manual

Suggestion for the business visit's form:

1. What interested you during the visit?
2. What surprised you?
3. What did you like?
4. What are your expectations?
5. What is your opinion on:
    - The working conditions
    - The training duration
    - The economic opportunities motivation

CCM102- HEALTH, SAFETY, SECURITY AND ENVIRONMENT AT WORKPLACE		
Competence :Maintain health , safety and sustain environmentat workplace		
RTQF level**: 1**	Credits**: 3**	Learning hours **: 30**
Sector**: All**		Sub-sector**: All**
Issue date**: March,2014**		Review date**:**

PURPOSE STATEMENT

This module describes the skills and knowledge required to follow health, safety and security procedures, identify hazards, assess the associated safety risks and take measures to eliminate or control and minimize the risk

It is an obligation for each employee to participate in the management of their own health and safety and that of their colleagues and anyone else in the workplace. They have a duty to cooperate with their employer's initiatives to ensure safety at work

LEARNING ASSUMED TO BE IN PLACE

Not applicable

LEARNING UNITS AND PERFORMANCE CRITERIA

Learning units describe the essential outcomes of a competence.
Performance criteria describe the required performance needed to demonstrate achievement of the learning unit

Elements of competence By the end of the module, the trainee will be able to :	**Performance criteria**	
1. Maintain personal health and hygiene	1.1 1.2 1.3	Hygiene of the entire body and dressing code according to the standards are respected. Clean materials and clothes are used and hygienic practices are respected to ensure that no cross-contamination of other items occurs. The proper work clothing or Personal Protective Equipment is worn to perform work.
2. Prevent HIV/AIDS and sexual violence	2.1 2.2 2.3	Reproductive health is understood Transmission, prevention and treatment of HIV/AIDS and other STI's are understood. Sexual violence is understood and can be avoided.
3. Address unsafe situations on the job	3.1 3.2 3.3 3.4 3.5	Appropriate methods are used to identify actual or foreseeable hazards that have the potential to harm the health, safety and security of workers or anyone else in the workplace. The work area is free from hazards. Control measures are implemented according to individual level of responsibility or appropriate personnel is referred to for permission or further action
4. Respond appropriately to emergencies at work	4.1 4.2 4.3 4.4	Emergency and potential emergency situations are recognized promptly and required actions are determined or taken within the scope of individual responsibility. Appropriately response to emergencies is provided. Assistance from colleagues or other authorities is sought promptly and when appropriate.
5. Sustain environment	5.1 5.2 5.3	National and enterprise environmental regulations are understood. Procedures to ensure compliance are followed. Identify and report workplace environmental hazards to appropriate personnel.

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

Learning Unit 1: Maintain personal hygiene			**Learning hours: 10**
Leaning Outcome	**Content**	**Learning Activities**	**Resources**
1.1 Maintain good health	• Importance of maintaining good health • How to maintain good health: - Balance diet - Enough sleep - Periodical medical checkup - Sports	○ Brainstorming ○ Group discussion	- Flipcharts - Markers - Flipcharts stand - Training room
1.2 Maintain hygiene	• Importance of Body Cleanliness • Body Cleaning Products and equipment • Body cleanliness practices	○ Brainstorming ○ Documentary research and group discussion ○ Individual practice	- Water - Soaps - hand wash Basin - Hand towels - Equipped wash room
1.3 Wear work clothing or Personal Protective Equipment	• Composition of work clothing or Personal Protective Equipment • Proper Maintainance of work clothing	○ Individual practice	- work clothing or Personal Protective Equipment

Learning unit 2: Prevent HIV/AIDS and sexual violence			Learning hours: 5
Learning outcomes	**Content**	**Learning activities**	**Resources**
2.1 Understand reproductive health	• Puberty and body change • Female reproduction • Male reproduction • Consequences of early pregnancy	○ Small group discussions ○ Pair discussion	
2.2 Be sensitized to HIV /AIDS	• Definition • Transmission • Prevention (ABC) • Treatment • Other STI's • Stigma and VCT	○ HIV game ○ Questions and answers ○ True or false ○ Group work ○ Demonstration (condom use) ○ Role play (condom negotiation)	- Scenarios for HIV game - True and false statements
2.3 Be sensitized to sexual violence	• Definition of sexual violence • Definition of rape • Consequences of sexual violence	○ Story telling ○ Group discussion ○ Large group discussion	

Learning unit 3: Address unsafe situations on the job			Learning hours: 5
Learning outcomes	**Content**	**Learning activities**	**Resources**
3.1 Identify the primary hazards found in workplaces	• Types of hazards in the workplace (safety, chemical, biological, other health hazards)	○ Brainstorming ○ Group work ○ Discussion	Pictures
3.2 Understand why the situation or substance is hazardous	• Hazardous situations • Dangerous substances		
3.3 Identify the best ways to address specific problem situations	• Control methods (remove hazard, work policies and procedures, protective equipment)	○ Brainstorming ○ Discussion	Stories and pictures

Learning unit 4: Respond appropriately to emergencies at work			Learning hours: 5
Learning outcomes	**Content**	**Learning activities**	**Resources**
4.1 Identify emergencies	• Definition of emergency • Types of emergencies in a workplace	○ Presentation by the trainer ○ Experience sharing	
4.2 Handle emergencies	• Possible responses to emergencies in the workplace	○ Disaster Blaster Game ○ Role play	- Disaster Blaster Game board, paper, marker, dice, game cards
4.3 Manage safety equipment	• Safety equipment identification - Fire extinguisher - Fire Horse - Fire Blanket - First aid kit - Fire triangle - Water fire extinguisher • Safety equipment usage	○ Brainstorming on safety equipment ○ Demonstration on safety equipment usage ○ Organize safety drills ○ Compile activities reports	- Fire extinguisher - Fire Horse - Fire Blanket - First aid kit - Fire triangle - Water fire extinguisher

Learning unit 5: Sustain environment			Learning hours: 5
Learning outcomes	**Contents**	**Learning activities**	**Resources**
5.1 Understand the importance of environment sustainability	• Natural process that takes place in the environment • Awareness of the interdependence of all species • Attitude towards enjoying the benefits of nature without encroaching upon the rights of others.	○ Brainstorming ○ Group work ○ Role play	- Reference books - Role play scenario

5.2 Identify environmental regulations in Rwanda	• Law determining the modalities of protection, conservation and promotion of Environment in Rwanda. • Law relating to the prohibition of manufacturing, importation, use and sale of polythene bags in Rwanda	○ Group work ○ Plenary discussion	- Environmental regulations
5.3 Identify types of waste	• Non-hazardous waste • Hazardous waste	○ Group work ○ Research ○ Visit of an enterprise	- Reference books - Pictures - Videos
5.4 Follow procedures to sustain environment	• Waste reduction • Reuse of waste • waste recycling • reporting hazards to appropriate person	○ Brainstorming ○ Group discussion ○ role play	- sustain environment manual and procedures

Reference books:

1. **Work Readiness Training Programme – Trainer's Manual, AkaziKanoze – Youth Livelihoods Project.**
2. **Work Readiness Training Programme – Participant's Manual, AkaziKanoze – Youth Livelihoods Project.**
3. **HARE : Prevention of HIV and AIDS in Rwanda through education, Irish Aid and VSO.**

ASSESSMENT GUIDELINES

To pass this module, the student has to Score:

1. The following elements of the portfolio:

1. Self-assessment
2. Writing Space: Putting Safety Tips into Practice
3. Session 2 Writing Space: Dealing with Emergencies
4. Show What You Know Observation Form (filled out by trainer for each team)
5. Habits for Good Health

Those documents are found in the Module 5, Safety and Health at work, of the **Work Readiness Training Programme – Participant's Manual, Akazi Kanoze – Youth Livelihoods Project**

2. An integration-situation related to his/her future occupation or trade, with a Score equal or superior to the passing mark defined (recommended passing mark for this module: 70% or 15/20)

SUGGESTIONS OF SITUATIONS:

ICT

1. A director of an Enterprise of computer lab would like to protect lab users and is coming to you with pictures of his computer lab, which show various safety and health related problems. Identify the relevant problems that are portrayed by the shown pictures.

2. Write a 1 page set of general instructions related to health (at least 10 instructions), safety (at least 3) and security (at least 2) in a computer lab.

Resources:

- Drawing, pictures or video of a computer lab showing at least 4 safety and health related problems.
- Paper
- Pen

Criteria	Indicators
Identification of the safety hazards from the picture (≥3)	Problem 1 identified Problem 2 identified Problem 3 identified Problem 4 identified, etc.
Health precautions (≥3)	Example of health related instructions (other possible answers should be considered by the examiner) ➢ Don't smoke in the lab ➢ Maintain cleanliness in the room ➢ Provide comfortable furniture for the users: height of the chair should be adjustable so the user can sit with eye level on top of the screen ➢ Users should take regular breaks ➢ Maintain a conducive environment (temperature between 18 and 24 degrees Celsius, with humidity between 40 per cent and 60 per cent, oxygen, light, calm) in the room ➢ Protect users from eye damage (don't stare directly at the beam of a projector)
Safety precautions (≥7)	Example of safety related instructions (other possible answers should be considered by the examiner) ➢ Keep emergency exit clear. ➢ Keep carbon dioxide fire extinguishers near any ICT equipment. ➢ Maintain adequate ventilation as fluids used for cleaning and in some reprographic processes are flammable ➢ Eat and drink carefully, be aware of accidental damage caused by spilt liquid ➢ Cover and secure power cables ➢ Replace damaged plugs ➢ Check regularly plugs, leads and other electrical equipment. ➢ Avoid cluttered cables ➢ Avoid water flooding ➢ Protect the equipment from dust ➢ Insure the equipment ➢ Use mouse pads ➢ Protect computers by UPS
Security precaution (≥1)	Example of security related instructions (other possible answers should be considered by the examiner) ➢ Use of antivirus ➢ Protection of sensitive contents

Construction

TUBEHONEZA Construction Company has contracted to build a 14m x 15m home house in Gasabo district within five months. The study showed that the house will be near the road and 50 workers, female and male, will be involved. Workers will take lunch on construction site.

As one of employees, on 1 page maximum, you are asked to advise the site manager as well as your colleagues on health, safety and security practices so that the work can be accomplished as agreed. You have 40 minutes maximum. For each piece of advice, give precise examples.

RESOURCES

- Papers
- Pen

Criteria	Indicators	Scoring
Security precautions	Establish and communicate rules on the workplace	=5/5
	Provide protective equipment	
	Store equipment, tools and material	
	Fence the site	
	Use protective equipment	
Safety precautions	Identify hazards	≥2/2
	Address unsafe situations	
Health precautions	Provide clean water	≥4/6
	Have good diet	
	Use clean water	
	Provide waste disposal	
	Use toilet	
	Sensitize to HIV/AIDS prevention	
Precision	Relevant examples of security precautions	=3/3
	Relevant examples of safety precautions	
	Relevant examples of health precautions	

CCM103-WORKPLACE COMMUNICATION SKILLS		
Competence :Communicate effectively at workplace		
RTQF level**: 1**	Credits**: 3**	Learning hours **: 30**
Sector**: All**		Sub-sector**: All**
Issue date**: March,2014**		Review date**:**

PURPOSE STATEMENT

This module describes the skills and knowledge required to communicate and get along well with others, in a variety of settings and for a range of purposes. The module will allow the participant to speak and listen actively and appropriately, one-on-one and in groups, to cooperate and work effectively within a group, to lead a team, to provide good customer service and write simple reports

LEARNING ASSUMED TO BE IN PLACE

Not applicable

LEARNING UNITS AND PERFORMANCE CRITERIA

Learning units describe the essential outcomes of a competence.
Performance criteria describe the required performance needed to demonstrate achievement of the learning unit

Elements of competence By the end of the module, the trainee will be able to :	**Performance criteria**	
1. Listen and speak effectively	1.1 1.2 1.3	Strategies for effective listening are applied. Instructions are adequately interpreted and followed. Clear and accurate information and instructions are provided to colleagues.
2. Cooperate and work as a team member	2.1 2.2 2.3 2.5	Team objectives are reached through effective cooperation. Diversity of team members is respected. Lead a team efficiently Demonstrate problem solving and decision making skills
3. Apply customer care	3.1 3.2 3.3 3.4	Importance and principles of good customer service are understood. Quality service is provided. Clear verbal information is provided to customers face to face or on the telephone. Conflicts with customers are handled politely and adequately.
4. Write and submit a report	4.1 4.2	A handover report containing any relevant information on complete and incomplete work is written Reports are handed over to both colleague and supervisor.

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.

Learning unit 1: Listen and speak effectively			**Learning Hours: 6**
Learning outcomes	**Content**	**Learning activities**	**Resources**
1.1 Apply effective listen skills & strategies	• Effective listening skills & strategies • Assess one's listening skills • Model good listening skills	○ Role play ○ Observing role play ○ Feedback from observers ○ Discussion	- Role play scenarios - List of effective listening skills & strategies - Effective Listening Observation Form
1.2 Give and receive instructions	• Importance of giving clear, concise instructions • Formulation of instructions • Strategies to ask questions for clarification	○ individual work ○ group discussion	
1.3 Identify non-verbal communication signs and the impact on people's perceptions	• Importance of non-verbal communication • Impacts of non-verbal communication on how we give information and how we listen.	○ pair work ○ large group discussion	
1.4 Demonstrate effective speaking skills	• Effective speaking skills and strategies	○ small group work ○ practice presentations ○ large group discussion	- List of Effective Speaking Skills & Strategies - Speaking Scenarios for group work - Effective Speaking Observation Form

Learning unit 2: Cooperate and work as a team member			Learning Hours: 8
Learning outcomes	**Content**	**Learning activities**	**Resources**
2.1 Identify the different personalities	• Different personalities and approaches that individuals bring to a group	○ Self-assessment ○ large group activity (inner/outer circles) ○ Discussion	- Working in Groups Self-Assessment - Cooperating with Others Roles - Elements of an Effective & Cooperative Team Member
2.2 Handle different personalities in a group	• Strategies on how to handle different personalities in a group		
2.3 Cooperate with others to reach the same objective	• Characteristics of an effective and cooperative team member	○ Large group activity ○ Large group discussion ○ Individual reflection/journal writing ○ Pair work	
2.4 Lead a team efficiently	• Qualities of an effective leader • Different leadership styles • Appropriate leadership style in a given context • Strategies to lead a team efficiently	○ large group discussion ○ small group work ○ role plays ○ small group activity	- Role play scenarios
2.5 Demonstrate problem solving and decision making skills	• challenges and dynamics amongst people during the problem solving process • steps of problem solving to work and community related problems • Communication as a tool for problem solving	○ Large group activity ○ pair sharing ○ small group work ○ large group discussion ○ Task leadership competition	- Scenarios for problem solving activity

Learning unit 3: Apply customer care			learning Hours: 10
Learning outcomes	**Content**	**Learning activities**	**Resources**
3.1 Understand the importance of good customer care	• Definition of customer service • Levels of customer service • Customer care principles • Importance of customer care	○ Experience sharing ○ Brainstorming Presentation by trainer	
3.2 Provide exceptional quality service	• Basic customer needs • Service to meet basic customer needs • Definition of customer's perception • Meeting and exceeding expectations • Getting feedback on the provided service	○ individual reflection ○ large group discussion ○ role play	
3.3 Communicate effectively with customers by telephone and face to face	• Telephone tips • Recording a telephone message	○ large group discussion ○ skit ○ pair role plays	- Role Play scenarios for Communicating with Customers
3.4 Handle conflict with difficult customers	• Definition of conflict, conflict resolution/management • Steps of conflict management with difficult customers	○ individual reflection ○ Brainstorming ○ large group discussion ○ role play	

Learning unit 4: Write and submit a report			Learning Hours: 6
Learning outcomes	**Contents**	**Learning activities**	**Resources**
4.1 Identify types of reports required	Types of report used in the workplace	○ Documentation research ○ Brainstorming ○ Group discussion ○ Presentation	Reference books Different types of reports
4.2 Produce the relevant report	• Different sections of a report • Report writing tips	○ Observation ○ Presentation ○ Individual practice	Different types of reports
4.3 Hand the report to the appropriate persons	• Transmission route • Transmission slip	○ Observation ○ Presentation ○ Individual practice	Templates of routing slips

ASSESSMENT GUIDELINES

To pass this module, the student has to:

Score the porftolio, which includes:

Self-assessment form
Effective Listening Observation Form
Effective Speaking Observation Form

Session 1 Writing Space: listening and speaking strengths, weaknesses, ways to improve
Working in Groups Self-Assessment

Session 2 Writing Space: ways to improve cooperating and working in a group

DEMONSTRATE COMMUNICATION SKILLS IN A SITUATION related to his/her future occupation or trade, AND OBTAIN a Score equal or superior to the passing mark defined (recommended passing mark for this module: 70% or 15/20)

SUGGESTED SITUATION (HOSPITALITY)

You are a chef de cuisine at Beausejour hotel, and you received an order of spaghetti a la Napolitaine for 4 people from customers who are in a hurry. You oversee three people: the person in charge of the mise en place, the cook and the dish washer.

As the chef, you give instructions to your team to prepare the food and supervise the work. The order should be ready within 30min.

Criteria	Indicators
Relevance	Time is respected The required covers are communicated The required order is communicated (type of meals/order are specified)
Quality of process	The information is received and well understood by the candidate Responsibilities are assigned The clarifications are given according to staff' learning style (reading, speaking, listening, doing) The follow up is well done (e.g. identification of the problem, activity tracking) The problemissolved
Quality of information	The information is given precisely The information is short and clear The technical terms are used accordingly The information is given directly The information is given timely/immediately

CCM104-BASIC COMPUTER APPLICATIONS		
Competence :Use basic computer applications		
RTQF level**: 1**	Credits**: 3**	Learning hours **: 30**
Sector**: All**		Sub-sector**: All**
Issue date**: March,2014**		Review date**:**

PURPOSE STATEMENT

This module describes the skills and knowledge required to operate a computer, to use word processing applications in the production of workplace documents, to create and use spreadsheets and charts through the use of spreadsheet software and to send, receive and manage electronic mail (email), as well as to collaborate online using chat rooms and instant messaging.

LEARNING ASSUMED TO BE IN PLACE

Not applicable

LEARNING UNITS AND PERFORMANCE CRITERIA

Learning units describe the essential outcomes of a competence
Performance criteria describe the required performance needed to demonstrate achievement of the learning unit

Elements of competence By the end of the module, the trainee will be able to :	**Performance criteria**	
1.Apply computer fundamentals	1.1 1.2 1.3 1.4	Adequate identification of Various connectors and ports Proper use of different I/O devices Proper use of Desktop's elements Proper scanning of Viruses in the computer and Different Storages Devices
2. Use a current word processing package	2.1 2.2 2.3 2.4 2.5 2.6	Adequate text formatting Proper table creation and editing Proper text editing Proper printing Correct saving Proper insertion of header, footer and footnotes
3. Use current spreadsheet package	3.1 3.2 3.3 3.4 3.5	Adequate use of basic excel tasks Proper management of sheets in excel workbook Adequate Formatting of cells and their contents Correct use of functions and performance of mathematical operations Proper Excel worksheet Printing
3. Use Internet/Intranet (Outlook)	4.1 4.2 4.3 4.4 4.5	Correct Definition and explanation a website Adequate Interaction through instant messaging (Chatting) Adequate use of search Engines (example Google) Adequate Browsing of internet using the hyperlinks Correct downloading and uploading of files using internet

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

Learning Unit 1: Apply computer fundamentals			**Learning Hours: 10**
Learning outcomes	**Content**	**Learning activities**	**Resources**
1.1 Apply Computer basics	• Computer Definition • Types of computers ✓ Laptops ✓ Desktops ✓ Palm tops ✓ PDA (Personal Digital Assistance) • Computer Hardware Memory • Definition • Role of Memory • Features ✓ Capacity ✓ Speed ✓ Non Volatility • Types of Memory ✓ ROM (Read only memory) ✓ RAM (Randomaccess memory) ✓ External/Internal memories (Hard disk, diskette, CD, Flash disk,)	○ Open a computer case and Observe different types of memory ○ Group Discussion on each type of memory	- Computer Lab - Computer Tool Kit - CD, DVDs, Diskettes - White Board - Markers

1.2 Identify Various connectors and ports	• Connectors and ports ✓ Definition • I/O (Input and Output) Ports and connectors ✓ Serial ports and Parallel ports ✓ USB ✓ Keyboard, Mouse connectors ✓ VGA Connectors	○ Observe different connectors as well as input and output ports ○ Exercises on ports identifications	- Computer Lab - Computer Tool Kit - CD, DVDs, - Different types of Cables, Different types Connectors - White Board
1.3 Use different I/O devices	• Peripherals ✓ Definition ✓ Categories I/O devices ✓ Input devices (mouse, Keyboard, scanner, CD/DVD-ROM and diskettes drivers, etc.) ✓ Output devices (Monitor, Diskette, CD/DVD-ROM Writer, Printer,) ✓ Types of keyboards ➢ AZERTY and QWERTY	○ Practical exercises on connecting the mouse, keyboard. Monitor to the CPU (Central processing unit)	- Computer Lab - Computer Tool Kit - CD, DVDs, - Printer - Scanner - White Board
1.4 Use Desktop's elements	• Windows and its components: ✓ Desktop ✓ Task bar ✓ Start menu ✓ Minimize, Maximize, Close buttons ✓ My Computer	○ Brainstorming on Desktop's elements ○ Use the desktop, the tasks bar and the start menu	- Computer Lab - Projector
1.5 Scan Viruses in the computer and Different Storages Devices (Flash disk, External Hard disk)	• Antivirus definition • Importance of antivirus • Functionality • Different Types of antivirus ✓ Norton ✓ Kaspersky ✓ Symantec • Storages to be scanned ✓ Flash disk and External hard disk ✓ Memory card ✓ Computer hard disk	○ Brainstorming the use of antivirus ○ Practical exercises on Scanning viruses ○ Compile activities reports	- Computer Lab - Flash disks - External Hard disk - CDs, DVDs - Antivirus - White Board - Markers

Learning Unit 2: Use a word processing package			Learning Hours: 5
Learning outcomes	**Content**	**Learning activities**	**Resources**
2.1 Format a text	• Style,Font,Size,Colour • Paragraph • Column • Tabulation • Paragraph spacing • Inserting symbols:Special characters,bullet and numbering • Borders and shading,header and footer.	○ Reproduce document already formatted ○ Various exercises to familiarize with formatting a text.	- Computer Lab With Current Word processing Package installed in each computer - Projector - White Board - Markers
2.2 Create and edit a table	• Inserting a table • Inserting a column • Inserting a row • Deleting table • Deleting row • Deleting column • Merging cells • Splitting cells • Drawing a table • Table auto format • Formula	○ Practical exercises on creating, editing and handling a table	- Computer Lab With Current Word processing Package installed in each computer - Projector - White Board
2.3 Edit document (Text)	• Search/Find-Replace • Deleting a range of text • The undo command • Spelling and grammar • Synonyms	○ Brainstorming Editing text ○ Perform practical exercises on the various tips (options) ○ compile activities reports	- Computer Lab With Current Word processing Package installed in each computer - Projector - White Board - Markers

2.4 Print document	• Page setup • Print preview • Print dialog box • Selecting printer name • Printer options • Printing one or more copies • Printing in black/white or color • Print page ranges	○ Exercises on printing one or more copies of a colored document, in black and white ○ printing in landscape, portrait	- Computer Lab With Current Word processing Package installed in each computer - Printer - Projector
2.5 Save documents	• File management ✓ Creation of files ✓ Creation of Folders ✓ File Naming ✓ File Formats	○ Practical Exercises on creation of files, folders and file Saving ○ Compile activities reports	- Computer Lab With Current Word processing Package installed in each computer - Projector
2.6 Insert Header, Footer and footnotes	• Footnotes • Header and Footer ✓ Automatic page numbering ✓ Total number of pages ✓ Automatic date ✓ Automatic authors name	○ Exercises on footnotes ○ Create a document containing several pages ○ With elements such as the page number, date automation. ○ practical exercises.	- Computer Lab With Current Word processing Package installed in each computer - Projector

Learning Unit 3: Use spreadsheet package			Learning Hours: 9
Learning outcomes	**Content**	**Learning activities**	**Resources**
3.1 Use Some basic excel tasks	• Basic excel tasks ✓ Open ✓ Close ✓ New document ✓ Undo ✓ Save, save as…. ✓ Sheet ✓ Selecting a cell ✓ Validating a cell ✓ Deleting cell contents ✓ Modifying cell contents ✓ Selecting group of cells ✓ Increase and reduce the cell size ✓ Delete row and column ✓ Duplicate cell	○ Practical exercises on the use of basic excel tasks ○ Compile activities reports	- Computer Lab With Current spreadsheet package installed in each computer - Projector
3.2 Manage Sheets in excel workbook	• Selecting a sheet • Renaming a sheet • Insert new sheets • Moving a sheet in a workbook • Deleting a sheet	○ Practical exercises ○ On Managing sheets in excel workbook	- Computer Lab With Current spreadsheet package installed in each computer - Projector
3.3 Format cells and their contents	• Formatting text and cells ✓ Choosing font, size, colour ✓ Adjusting Cow height ✓ Alignment of cell ✓ Number format ✓ Inserting rows ✓ Merging cells ✓ Creating borders ✓ Patterns	○ Practical exercises in groups and individual homework on formatting cells ○ Compile activities reports	- Computer Lab With Current spreadsheet package installed in each computer - Projector

3.4 Use some functions and perform mathematical operations	• Numbers and Mathematical calculations ✓ Addition ✓ Multiplication ✓ Division ✓ Subtraction ✓ AutoSum ✓ Function ➢ Average ➢ Minimum ➢ Maximum	○ Practical exercises in groups and individual homework on formatting cells ○ Compile activities reports	- Computer Lab With Current spreadsheet package installed in each computer - Projector
3.5 Print an excel worksheet	• Page setup • Print preview • Print dialogue box • Print options • Print one or more copies • Print in black/white or color • Print page ranges • Printing a selection	○ Print one or more copies of a worksheet ○ Print colour or white and black worksheet ○ practical exercises (individual and in group) ○ print horizontally/vertically	- Computer Lab With Current spreadsheet package installed in each computer - Projector - Printer

Learning Unit 4: Use Internet/Intranet (Outlook)			**Learning Hours: 6**
Learning outcomes	**Content**	**Learning activities**	**Resources**
4.1 Define and explain a website	• Introduction ✓ World wide web ✓ Web page ✓ Web site	○ Visit web sites and browse different pages. ○ Group discussion based on observation	- Internet Connection - Computer Lab - projector
4.2 Interact through instant messaging (Chatting)	• Definition • Steps to create a chat account • Chatting options ✓ Instant messaging with or no web cam	○ Group Discussion on Interacting through instant messaging ○ Exercises on chatting in groups ○ Compile activities reports	- Internet Connection - Computer Lab - projector

	✓ Calling ✓ Sending files		
4.3 Use search Engines (example Google)	• Search engines ✓ Definition ✓ Role ✓ Some Types of search engine ➢ www.google.com ➢ www.yahoo.com	○ Perform practical exercises on the use of search engines	- Internet Connection - Computer Lab - projector
4.4 Browse the internet using the hyperlinks	• Web Browser ✓ Browser buttons ✓ Address bar ✓ Status bar ✓ Scroll bar ✓ Home page ✓ Front/Back arrows ✓ Refresh button ✓ Start page	○ Open a web using the address bar ○ Browse different web pages ○ practical exercises On Browsing internet using hyperlink	- Internet Connection - Computer Lab - projector
4.5 Download and Upload files using internet	✓ Downloading ✓ File attachment	○ Practical exercises on downloading and uploading files using internet	- Internet Connection - Computer Lab - projector

References

- Beskeen, D., Cram, C., Duffy, J., Friedrichsen, L., & Reding, E. (2007). Microsoft Office 2007-Illustrated Introductory, Windows XP Edition. Cengage Learning.
- MacDonald, M. (2013). Excel 2013: The Missing Manual. O'Reilly Media, Inc.
- Shelly, G., & Vermaat, M. (2008). Discovering Computers 2009: Introductory. Cengage Learning

ASSESSMENT GUIDELINES

Competency-based training provides learners with the skills, knowledge and understanding to demonstrate competence against standards and performance criteria in an applied context. The national VET system is competency-based, built around nationally endorsed industry standards.

Competency-based assessment is the process of collecting evidence and judgments about whether competency has been achieved. In this section you will inform that will help you design, conduct and validate competency-based assessments.

Portfolio / Formative assessment

Elements of competence	Assessment indicator	Checklist	Score		Observation
			Yes	No	
Apply computer fundamentals	Various connectors and ports are identified	Power ports and connectors			
		Serial ports and connectors			
		Parallel ports and connectors			
		Audiovisual ports and connectors			
		VGA ports and connectors			
		USB ports and connectors			
	Different I/O devices are used	Mouse			
		Keyboard			
		Scanner			
		CD/DVD-ROM drivers			
		Monitor			
		CD/DVD-ROM writer			
		Printer			
	Desktop's elements are used	My Computer			
		Start menu			
		Task bar			
		Desktop			
		Minimize button			
		Maximize button			
		Close button			
	Viruses in the computer and other Storage media are scanned	Hard Disc			
		Flash Disc/ External Hard Disc			

Use current word processing package	Text formatting is done	New document creation			
		Open document			
		Close document			
		Style			
		Font			
		Size			
		Colour			
		Paragraph			
		Column			
		Tabulation			
		Paragraph spacing			
		Inserting Special characters			
		Inserting bullets			
		Numbering			
		Borders and shading			
		Header and footer			
	Table creation and editing are done	Inserting a table			
		Inserting a column			
		Inserting a row			
		Deleting table			
		Deleting row			
		Deleting column			
		Merging cells			
		Splitting cells			
		Drawing a table			
		Table auto format			
		Formula usage			
	Text editing is done	Search/Find-Replace application			
		Deleting a range of text			
		The undo and redo commands application			
		Spelling and grammar application			
	Printing is done	Page setup usage			
		Print preview			
		Print dialog box			

		Selecting printer name			
		Printer options			
		Printing one or more copies			
		Printing in black/white or color			
		Print page ranges			
		Printing a selection			
	Saving is done	Creation of files			
		Creation of Folders			
		File Naming			
		File Formats			
	Insertion of header, footer and footnotes is done	Footnotes			
		Header and Footer			
		Automatic page numbering			
		Total number of pages			
		Automatic date			
		Automatic authors name			
Use current spreadsheet package	Basic excel tasks are used	Sheet			
		Selecting a cell			
		Validating a cell			
		Deleting cell contents			
		Modifying cell contents			
		Selecting group of cells			
		Increase and reduce the cell size			
		Delete row and column			
		Duplicate cell			
	Sheets management in excel workbook is done	Selecting a sheet			
		Renaming a sheet			
		Insert new sheets			
		Moving a sheet in a workbook			
		Deleting a sheet			
	Formatting of cells and their contents is done	Adjusting Cow height			
		Alignment of cell			
		Number format			
		Inserting rows			
		Merging cells			

	Mathematical operations are performed	Creating borders			
		Patterns usage			
		Addition			
		Multiplication			
		Division			
		Subtraction			
		AutoSum			
		Average			
		Minimum			
		Maximum			
Use Internet	Website is defined and explained	World wide web			
		Web page			
		Web site			
	Interaction through instant messaging (Chatting) is done	Steps to create a chat account			
		Instant messaging with or no web cam			
		Calling			
		Sending files			
	Search Engines (example Google) are used	Role			
		www.google.com usage			
		www.yahoo.com usage			
	Browsing internet using hyperlinks is done	Browser buttons			
		Address bar			
		Status bar			
		Scroll bar			
		Home page			
		Front/Back arrows			
		Refresh button			
		Start page			
	Downloading and uploading files using internet are done	Downloading			
		File attachment			

CCM105-ORAL BASIC ENGLISH COMMUNICATION		
Competence :Communicate orally in basic English		
RTQF level**: 1**	Credits**: 3**	Learning hours **: 30**
Sector**: All**		Sub-sector**: All**
Issue date**: March ,2014**		Review date**:**

PURPOSE STATEMENT

This module describes the skills and knowledge required to understand and use English language for very simple, commonly used expressions of a basic nature workplaces. It applies to individuals working in any industry context and at many different levels of responsibility. It covers activities such as welcoming and farewelling guests, providing information related to his routine workplace activities

LEARNING ASSUMED TO BE IN PLACE

Not applicable

LEARNING UNITS AND PERFORMANCE CRITERIA

Learning units describe the essential outcomes of a competence
Performance criteria describe the required performance needed to demonstrate achievement of the learning unit

Elements of competence By the end of the module, the trainee will be able to :	**Performance criteria**
1. Initiate English communication	1.1. Proper use of correct, very simple, and commonly-used courtesy English expressions with customers or colleagues including greeting and welcoming, fare welling, apologizing and thanking. 1.2. Correct self-introduction with colleagues in order to know each other 1.3. Proper making of inquiries in order to get relevant information
2. Maintain the flow of communication in English	2.1. Effective use of basic vocabularies in English language to enhance communication 2.2. Appropriate use of English connectors words in order to phrase simple sentences
3. Communicate in English to support workplace activities.	3.1. Correct use of vocabularies related to the time 3.2. Correct use of words related to the numbers 3.3. Appropriate use of English conventions to support communication.

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

Learning unit 1: Initiate English communication			**Learning Hours : 5**
Learning outcomes	**Content**	**Learning activities**	**Resources**
1.6 Use correct, very simple and commonly-used courtesy English expressions **1.7 Introduce yourself** **1.8 Make inquiries**	English Alphabet Greetings and goodbyes: - Formal - Informal - Greetings and goodbyes at different times of the day - Self-Introductions Welcoming techniques Polite expressions and asking for help - Phrases and expressions of apology, thanks and help Asking and answering Questions - Using 'wh' question words - Using auxiliary verbs	o Dialogues o Role Play o Demonstrations o Group work	- Videos - Recordings - Reference Books

Learning unit 2: Maintain the flow of communication in English			**Learning Hours : 15**
Learning outcomes	**Content**	**Learning activities**	**Resources**
2.1 Use basic vocabularies in English language	Basic English key words - Regular and irregular verbs - Articles - Nouns - Pronouns - Adjectives - Titles	o Dialogues o Demonstrations o Group work o Story telling o Practical exercises by filling the missing key words in sentences	- Videos - Conversationsrecordings - Reference Books

2.2 Phrase simple sentences	Parts of a sentence - Subject - Verb - Object Sentence types - Affirmative sentence - Interrogative sentence - Exclamatory sentence English connectors - Coordinating conjunctions - Subordinating conjunctions - Correlative conjunctions	○ Dialogues ○ Role Play ○ Group work	- Recordings - Reference Books

Learning unit 3: Communicate in English to support workplace activities			**Learning Hours : 10**
Learning outcomes	**Content**	**Learning activities**	**Resources**
3.1 Use vocabularies related to numbers	• Vocabulary and phrases related to the use of money • Ordinal numbers • Cardinal numbers • Vocabulary related to the use of dates • Vocabulary related to times of the day	○ Speaking and listening exercises ○ Reciting ○ Story telling	- Worksheets - Videos/Recordings - Reference Books
3.2 Use English conventions to support communication	• Common bodylanguage and gestures • Expressing sincerity and sympathy through appropriate body language and gestures	○ Demonstrations	- Videos

References

- http://esl.about.com/library/vocabulary/bl850_nouns3.htm
- Helen Barker, Cutting Edge Pre-intermediate New Editions Teacher's Book Pre-intermediate Teacher's Resource Book, Feb 1, 2007, 184 pages
- Helen Barker, English for International Tourism: Pre-Intermediate, New version, PEARSON, 2013

ASSESSMENT GUIDELINES

Competency-based training provides learners with the skills, knowledge and understanding to demonstrate competence against standards and performance criteria in an applied context. The national VET system is competency-based, built around nationally endorsed industry standards.

Competency-based assessment is the process of collecting evidence and judgments about whether competency has been achieved. In this section you will inform that will help you design, conduct and validate competency-based assessments.

Portfolio / Formative assessment

Elements of competence	**Assessment indicator**	**Checklist**	**Score**		**Observation**
			yes	**No**	
Initiate English communication	The simple and commonly- used courtesy English expressions are used	Excuse me			
		Forgive me			
		Good morning			
		Good afternoon			
		Good evening			
		Hello			
		How are you?			
		I am fine, thank you			
		I am sorry			
		I am grateful			
		No			
		Please			
		Thank you			
		You're welcome			
		Yes			
	Self-introduction with colleagues is done	Offer a handshake			
		Repeat the name of the person you meet			
		Say your full name			
		Give a one-sentence description of what you do			

	Inquiries are made	Offer a thankful			
		Offer an excuse			
		Ask for a talk			
		Say your full name			
		Give a one-sentence description of what you do			
		Ask for information			
		Offer a thankful			
Maintain the flow of communication in English	Basic vocabularies are used	Regular verbs			
		Irregular verbs			
		Articles			
		Nouns			
		Pronouns			
		Adjectives			
	Simple different types of sentences are phrased	Subject			
		Verb			
		Object			
		Affirmative sentence			
		Interrogative sentence			
		Exclamatory sentence			
		Negative sentence			
		Coordinating conjunctions			
		Subordinating conjunctions			
Communicate in English to support workplace activities	The vocabularies related to the numbers are used	Ordinal numbers			
		Cardinal numbers			
	The words related to the time are used	Vocabulary related to the use of dates			
		Vocabulary related to times of the day			
	English conventions to support communication are used	Common body languages			
		Common gestures			
		Signs of expressing sincerity			
		Signs of expressing sympathy			

CCM106-BASIC WORKPLACE CALCULATIONS		
Competence :Perform basic workplace calculations		
RTQF level**: 1**	Credits**: 7**	Learning hours **: 70**
Sector**: All**		Sub-sector**: All**
Issue date**: March, 2014**		Review date**:**

PURPOSE STATEMENT

This module describes the skills and knowledge required to prepare a small budget. They can keep basic business financial records.

LEARNING ASSUMED TO BE IN PLACE

Not applicable

LEARNING UNITS AND PERFORMANCE CRITERIA

Learning units describe the essential outcomes of a competence
Performance criteria describe the required performance needed to demonstrate achievement of the learning unit

Elements of competence By the end of the module, the trainee will be able to :	**Performance criteria**	
1. Apply basic arithmetic operations	1.1 1.2 1.3	Proper application of four fundamental operations Proper application of fractions and decimals Proper determination of percentages and ratios
2. Apply metric system	2.1 2.2 2.3	Proper identification of measurements systems Proper use of metric and non-metric measurements units Correct conversion of units of measurements
3. Perform basic geometric forms	3.1 3.2 3.3	Proper drawing of regular and irregular geometrical forms Adequate calculation of dimensions of regular geometrical forms Adequate calculation of dimensions of irregular geometrical forms

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

Learning unit 1: Apply basic arithmetic operations			**Learning Hours : 20**
Learning outcomes	**Content**	**Learning activities**	**Resources**
1.1 Apply fundamental operations	• Fundamental operations: ✓ Addition, ✓ Subtraction, ✓ Multiplication and ✓ Division	○ Group discussion on 4 fundamentals operations ○ Practical exercises on adding, subtracting, multiplying, and dividing	- Reference books - Pens
1.2 Apply fractions and decimals **1.3 Determine percentages and ratios**	• Fractions and decimals ✓ Addition of fractions ✓ Subtraction of fractions ✓ Multiplication of fractions ✓ Division of fractions ✓ Addition of decimals ✓ Subtraction of decimals ✓ Multiplication of decimals ✓ Division of decimals • Conversion of decimals to fractions and vice-versa • Simplification of fractions • Expressing percentages and ratios	○ Brainstorming on fractions and decimals ○ Group discussion on fractions and decimals ○ Practical exercises fractions and decimals, percentages and ratios	- Reference books - Pens

Learning unit 2: Apply metric system			Learning Hours : 30
Learning outcomes	**Content**	**Learning activities**	**Resources**
2.1 Use measurements systems	• Metric and non-metric measurements units ✓ Length ✓ Area ✓ Volume ✓ Mass ✓ Time • Application of metric and non-metric measurement units.	○ Brainstorming on Metric and non-metric measurement units ○ Group discussion on Metric and non-metric measurement unit ○ Practical exercises on Metric and non-metric measurement units	- Books - Handout - Calculator - Pens
2.2 Convert units of measurements	• Relationship between metric and non-metric measurement units	○ Brainstorming on Relationship between metric and non-metric measurement units ○ Group discussion on Relationship between metric and non-metric measurement units ○ Practical exercises on Relationship between metric and non-metric measurement units	

Learning unit 3: Perform basic geometric forms			Learning Hours : 20
Learning outcomes	**Content**	**Learning activities**	**Resources**
3.1 Draw regular and irregular geometrical forms	• Drawing instruments • Regular geometrical forms ✓ Square ✓ Rectangle ✓ Triangle ✓ Other polygons	○ Brainstorming on regular and irregular geometrical forms ○ Group discussion on regular and irregular geometrical forms ○ Practical exercises on drawing regular and irregular geometrical forms	- Books - Handout - Drawing set

	✓ Circle ✓ Cone • Irregular geometrical forms ✓ Irregular polygons		
3.2 Calculate dimensions of regular geometrical forms	• Basic formula for determining different dimensions of regular geometrical forms	○ Brainstorming in determining different dimensions of regular geometrical forms ○ Group discussion on determining different dimensions of regular geometrical forms ○ Practical exercises on determining different dimensions of regular geometrical forms	- Books - Handout - Drawing set - Calculator
3.3 Calculate dimensions of irregular geometrical forms	• Basic formula for determining different dimensions of irregular geometrical forms	○ Brainstorming in determining different dimensions of irregular geometrical forms ○ Group discussion on determining different dimensions of irregular geometrical forms ○ Practical exercises on determining different dimensions of irregular geometrical forms	- Books - Handout - Drawing set - Calculator

References

- Chancellor, W. E. (1901). *Children's Arithmetic by Grades: Fundamental operations. Second book, third year*. Globe School Book Company.
- *Key Maths 7/1*. (2000). Nelson Thornes.
- Punzalan, C. N., CO, K. H. P., & Close, J. F. (2011). *Fundamental Operations on Fractions*. Kendall Hunt Publishing Company.

ASSESSMENT GUIDELINES

Competency-based training provides learners with the skills, knowledge and understanding to demonstrate competence against standards and performance criteria in an applied context. The national VET system is competency-based, built around nationally endorsed industry standards.

Competency-based assessment is the process of collecting evidence and judgments about whether competency has been achieved. In this section you will inform that will help you design, conduct and validate competency-based assessments.

Portfolio / Formative assessment

Elements of competence	Assessment indicator	Checklist	Score		Observation
			Yes	No	
Apply basic arithmetic operations	Four fundamental are applied	Addition			
		Subtraction			
		Multiplication			
		Division			
	Fractions and decimals are applied	Addition of fractions			
		Subtraction of fractions			
		Multiplication of fractions			
		Division of fractions			
		Addition of decimals			
		Subtraction of decimals			
		Multiplication of decimals			
		Division of decimals			
		Simplification of fractions			
	Percentages and ratios are determined	Percentages			
		Ratios			
Apply metric system	Metric and non-metric measurements units are applied	Length			
		Area			
		Volume			
		Time			
		Mass			

	Conversion of units of measurements is done	Length			
		Area			
		Volume			
		Time			
		Mass			
Perform basic geometric forms	Drawing of regular and irregular geometrical forms are performed	Square			
		Rectangle			
		Triangle			
		Parallelogram			
		Trapezium			
		Rhombus			
		Other Polygons			
		Circle			
		Cone			
		Irregular polygons			
	Dimensions of regular geometrical forms are calculated	Perimeter			
		Area			
		Volume			
	Dimensions of irregular geometrical forms are determined	Perimeter			
		Area			
		Volume			

CSTMS101-BASIC TECHNICAL DRAWING		
Competence :Apply basic technical drawing		
RTQF level**: 1**	Credits**: 3**	Learning hours **: 30**
Sector**: Construction**		Sub-sector**: Masonry**
Issue date**: March, 2014**		Review date**:**

PURPOSE STATEMENT

This generic module describes the skills, knowledge and attitudes to be acquired by a learner to draw lines, symbols, views, sections and interpret basic technical drawings at construction site or in the office with respect to the standards. Even though the module is intended to trainees of level 1 and 2, the learning unit 3 may be relatively difficult for level 1's trainees, who would require more time to acquire the corresponding competence

LEARNING ASSUMED TO BE IN PLACE

Not applicable

LEARNING UNITS AND PERFORMANCE CRITERIA

Learning units describe the essential outcomes of a competence
Performance criteria describe the required performance needed to demonstrate achievement of the learning unit

Elements of competence By the end of the module, the trainee will be able to :	**Performance criteria**	
1.Use basic technical drawing instruments, materials and equipment	1.1 1.2 1.3 1.4	Correct Identification of drawing Materials, instruments and equipment Proper use of drawing materials, instruments and equipment Correct storage of drawing materials, instruments and equipment Correct maintenance of instruments and equipment
2. Apply lines, symbols and scale used in drawings	2.1 2.2 2.3 2.4 2.5	Proper differentiation of Types of lines Appropriate distinguishing of line Sizes Correct drawing of lines Proper identification of symbols used in construction drawing Proper use of Scale
3. Perform 2& 3 dimensional drawings	3.1 3.2 3.3 3.4	Proper Identification of Angle types Appropriate drawing of geometrical figures and objects Appropriate interpretation of construction plans Appropriate drawing of plans

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

Learning unit 1: Use basic technical drawing instruments, materials and equipment			**Learning hours: 5**
Learning outcomes	**Content**	**Learning activities**	**Resources**
1.1 Identify technical drawing materials	• General Introduction to basic technical drawing • Identification of paper formats: ✓ A0 (1189 × 841) ✓ A1 (841×594) ✓ A2 (594×420) ✓ A3 (420×297) ✓ A4 (297×210) ✓ A5 (210×148) • Types of papers: ✓ Dimensional sheet ✓ Bristol paper	○ Brainstorming on basic technical drawing materials ○ Group discussion on basic technical drawing materials ○ Demonstration of basic technical drawing materials.	- Ink - Pencil Lead - Eraser - Pencils - Paper formats A0(1189 × 841) A1(841×594) A2(594×420) A3(420×297) A4(297×210) A5(210×148)
1.2 Identify technical drawing instruments and equipment	• Writing instrument ✓ Ink-pen ✓ Pencils • Tracing instrument ✓ Rulers ✓ Set squares (45^0 set square, 30^0-60^0 set square, 45^0 set square with protractor). ✓ Protractor ✓ Compass ✓ Scale ruler • Accessory instruments ✓ Stencils	○ Brainstorming on basic technical drawing instruments and equipment ○ Demonstration of basic technical drawing instruments.	- Writing instrument ✓ Ink-pen ✓ Pencils - Tracing instrument ✓ Rulers ✓ Set squares (45^0 set square, 30^0-60^0 set square, 45^0 set

Learning unit 1: Use basic technical drawing instruments, materials and equipment			Learning hours: 5
Learning outcomes	**Content**	**Learning activities**	**Resources**
	✓ Template ✓ Proportion divider ✓ Pencil sharpener • Drawing board		square with protractor) ✓ Protractor ✓ Compass ✓ Scale rule - Accessories instrument ✓ Stencils ✓ Template ✓ Pencil sharpener - Drawing board
1.3 Prepare drawing materials, instruments and equipment	• preparation of drawing materials: ✓ Paper ✓ Ink ✓ eraser ✓ leads • preparation of drawing instruments and equipment: ✓ Protractor ✓ Compass ✓ Drawing pencil ✓ Drawing board • preparation of drawing accessories: ✓ Stencils ✓ Template ✓ Pencil sharpener	○ Demonstration on how to use drawing materials, instruments and equipment ○ Practical exercise on using drawing materials, instruments and equipment	- Drawing materials: ✓ Paper ✓ Ink ✓ Eraser ✓ Pencil lead - Drawing instruments and equipment: ✓ Protractor ✓ Drawing pins and clips ✓ Compass ✓ Drawing pencil ✓ Drawing board - drawing accessories: ✓ Stencils ✓ Template

Learning unit 1: Use basic technical drawing instruments, materials and equipment			Learning hours: 5
Learning outcomes	**Content**	**Learning activities**	**Resources**
			Pencil sharpener

Learning unit 2: Apply lines and symbols			learning hours: 10
Learning outcomes	**Content**	**Learning activities**	**Resources**
2.1 Perform lines	• Introduction on lines used in drawing: ✓ Continuous lines ✓ Discontinues lines • Identification of line Sizes: ✓ Thin ✓ Medium ✓ Thick • Application of lines.	○ Brainstorming on lines. ○ Practical exercises on drawing different lines.	- Compass - Rulers - Pencils - Protractor - Eraser - sheets - ink pen - set square
2.2 Perform symbols	• Introduction on symbols for basic technical drawing. • Types of symbols used in masonry drawings: • Interpretation of symbols for basic technical drawing.	○ Group discussion on symbols used in basic technical drawing. ○ Practical exercises on application and interpretation of symbols used in basic technical drawing.	- Reference document. - Pencils - ink pen - eraser - sheets
2.3 Apply techniques of freehand sketching	• Introduction on freehand sketching. • Preparation of materials and instruments • Application of freehand sketching techniques.	○ Brainstorming on freehand sketching. ○ Practical exercise on freehand sketching.	- Pencils - Pencil sharpener - ink pen - eraser - sheets

Learning unit 3: Perform 2& 3 dimensional drawing			Learning hours : 15
Learning outcomes	**Content**	**Learning activities**	**Resources**
3.1 Apply 2 & 3 dimensional drawing	• Introduction to: • 2D figures • 3Dobjects • Qualities of a good drawing : • Cleanliness • Meaningful • Well presented • Application of angles • Acute angle (less than 90°) • Right angle (90°exactly) • Obtuse angle (greater than 90° but less than 180°) • Straight angle (180° exactly) • Reflex angle (greater than 180°) • Full rotation angle (360° exactly)	○ Group discussion on 2D and 3D drawings. ○ Demonstration by video on 2 and 3D drawings. ○ Practical exercise on drawing different types of angles: - Acute angle. - Right angle. - Obtuse angle. - Straight angle. - Reflex angle. - Full rotation.	- Compass - Rulers - Set square - Pencils - Protractor - Reference documents - Sheets - Video aids
3.2 Apply dimensions and scales	• Introduction on Lettering • Types of dimensioning ✓ Aligned dimensioning ✓ Linear dimensioning ✓ Angled dimensioning ✓ Reference dimensioning • Introduction on scales: ✓ Metric Scale ✓ Civil Engineering Scale ✓ Architect's Scale	○ Brainstorming on lettering, dimensioning and scales. ○ Practical exercises on lettering, dimensioning and scales. ○ Demonstration by video on Lettering, dimensioning and scales.	- Reference documents - Compass - Rulers - Set square. - Pencils - Scale ruler - Stencil - Template - Video aids. - Sheets

Learning unit 3: Perform 2& 3 dimensional drawing			Learning hours : 15
Learning outcomes	**Content**	**Learning activities**	**Resources**
	• Presentation of scales: ✓ Representative Fraction ✓ Scale ratio		
3.3 Present drawing sheets	• Introduction on paper layout • Application of bordering and margin • Application of title block: ➢ Elements of the title block ✓ Title of the project ✓ Name of the owner ✓ Scales ✓ Date ✓ Name of Designer ✓ Location of the project ✓ The name of sponsor ➢ purpose of title block	○ Group discussion on sheet presentation. ○ Practical exercise on presentation of sheets. ○ Demonstration by video on how to present sheets	- Reference documents - Photos - Video aid - Sheets - Pencils - Ruler - Pencil leads - Template - Eraser - Pencil sharpener
3.4 Draw a simple house plan	• Introduction on plans • Application of floor plan. • Application of elevations : ✓ Front view ✓ Back view ✓ Left view ✓ Right view • Roof plan • Foundation plan • Perspective • Sectioning of a house plan: ✓ Longitudinal section ✓ Transversal Section	○ Brainstorming on plans ○ Video demonstration on different components of a house plan ○ Practical exercises on drawing a house plan drawing	- Reference document - Video aid - Compass - Rulers - Set square - Pencils - Protractor - Eraser - Sheets - Drawing table - Pencil sharpener

ASSESSMENT GUIDELINES

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Competency-based assessment is the process of collecting evidence and judgments about whether competency has been achieved. In this section you will inform that will help you design, conduct and validate competency-based assessments.

Portfolio / Formative assessment

Elements of competence	**Performance criteria**	**Checklist**	**Score**		**Observation**
			Yes	**No**	
Use basic technical drawing instruments and materials	Drawing Materials and instruments are selected	Ink			
		Pencil Lead			
		Eraser			
		Pencils			
		Paper			
		Writing instrument			
		Tracing instruments			
		Accessories instrument			
		Drawing board			
	Drawing materials and instruments are used	Drawing materials used			
		Drawing instruments and equipment used			
	Storage of drawing materials and instruments are done	Stock Arranged			
	Maintenance of instruments are done	Instruments maintained			

Apply lines, symbols and Scale used in drawings	Types of lines are differentiated	Lines are differentiated			
	Distinguishing of line Sizes is done	Different size of lines			
	Drawing of lines are done	Lines			
	Symbols used in construction drawing are	Symbols			
Perform 2 & 3 dimensional drawings	identified				
	Scaleis used	scale			
	Types of Angles are identified	Different Type of angle			
	Drawing of geometrical figures and objects is done	figures			
	interpretation of construction plans is done	construction plans interpreted			
	Drawing of plans is done	Plan view			
		Sections			
		Floor plan			

Summative Assessment

Integrated situation

E.T.Save in GISAGARA Districthas acontract with RWABUYE V.T.C to make an architectural study of a new classroom of the following dimensions for each room(6m*8m) with 3m of height and 20cm thick of wall and 60cm deep of foundation, the scale is 1/50 ,as a Mason of foundation level , you are requested to make drawings plans (Floor plan, Section plan and views) Instruments and materials are provided and this work should be done within 6hours.

Assessment criteria	Assessment indicator	Checklist	Score		Observation
			Yes	No	
Quality of process	Drawing Materials and instruments are Selected	Ink			
		Pencil Lead Eraser			
		Pencils			
		Paper			
		Writing instrument			
		Tracing instruments			
		Accessories instrument			
		Drawing board			
	Drawing materials and instruments are used	Drawing materials			
		Drawing Tools			
		Drawing instruments and equipment:			
	Storage and maintenance of drawing materials and instruments are done	materials stored			
		instruments stored			
Quality of product	Neat Drawing Floor plan is done	Neat Drawing Floor plan			
	Neat Drawing Section plans is done	Neat Drawing Section plans			
	Neat Drawing View plans is done	Neat Drawing View plans			
Relevance	Scale is used	Correct scale			
	Time is respected	Time required			
	Dimensions are respected	Correct Dimensions			
	Material are well used	No waste material			

CCM108-COST ESTIMATION		
Competence :Estimate the cost		
RTQF level**: 1**	Credits**: 5**	Learning hours **: 50**
Sector**: All**		Sub-sector**: All**
Issue date**: March, 2014**		Review date**:**

PURPOSE STATEMENT

This module describes the skills and knowledge required to prepare a small budget. They can keep basic business financial records.

LEARNING ASSUMED TO BE IN PLACE

Not applicable

LEARNING UNITS AND PERFORMANCE CRITERIA

Learning units describe the essential outcomes of a competence
Performance criteria describe the required performance needed to demonstrate achievement of the learning unit

Elements of competence By the end of the module, the trainee will be able to :	**Performance criteria**	
1.Examine the work	1.1 1.2 1.3 1.4	Proper determination of the work extent Proper scrutiny of complexity of the work Proper identification of the location where the work will be performed Accurate determination of the work duration
2. Determine required resources	2.1 2.2 2.3 2.4	Proper identification of materials needed Proper determination of quantities in terms of size and shape Proper identification of quality of materials needed Proper determination of human resource required

3. Calculate the cost estimation	3.1 3.2 3.3 3.4 3.5	Proper survey on actual prices of materials and human resources Accurate determination of unit and total prices of each item Precise calculation of the labor cost considering taxes, transport, equipment, benefit and other charges Neat filling in the bill of quantities of layout Accurate preparation of invoice

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

Learning unit 1: Examine the work			**Learning Hours : 10**
Learning outcomes	**Content**	**Learning activities**	**Resources**
1.1 Determine the work extent	• Determination of dimension: ✓ Length ✓ Width ✓ Thickness ✓ Accuracy ✓ Clearness ✓ Completeness	○ Brainstorming on dimension determination ○ Group discussion on analysis of the work ○ Physical demonstration of work analysis	- Books - Handout - Measuring tools - Calculator - Note book - Writing device
1.2 Scrutinize the complexity of the work	• Analysis of complexity of the work: ✓ Shape ✓ Accessories	○ Brainstorming on accurate work done ○ Group discussion on analysis of the work ○ Physical demonstration of work analysis	- Books - Handout - Measuring tools - Calculator - Note book - Writing device
1.3 Localize the working place	• Working location ✓ Indoor location ✓ Outdoor location	○ Brainstorming on factors to locate the working place ○ Group discussion on factors to locate the working place	- Handout - Places - Note book - Writing device
1.4 Determine the	• Steps of work duration	○ Brainstorming on time allocation of	- Scenarios

work duration	determination ✓ Time of each task ✓ Determination of concurrent tasks ✓ Total time	different tasks o Group discussion on time allocation of different tasks o Practical exercises on time allocation of different tasks	- Calculator - Note book - Writing device

Learning unit 2: Determine required resources			**Learning Hours : 10**
Learning outcomes	**Content**	**Learning activities**	**Resources**
2.1 Quantify materials	• Identification of materials ✓ Type of materials • Quantities of materials in terms of size and shape; ✓ Measurements ✓ Profiles	o Brainstorming on materials quantities o Group discussion on bills of quantities	- Calculator - Note book - Writing device - Proforma invoice
2.2 Identify the quality of materials	• Quality of material needed: ✓ Specification of material ✓ Description of material	o Brainstorming on condition of the quality of materials o Group discussion on condition of the quality of materials o Practices of identification of materials	- Books - Handout - Measuring tools - Calculator - Note book - Writing device
2.3 Determine human resources	• Factors for human resource determination: ✓ Variety of tasks ✓ Extent of work ✓ Duration of work	o Brainstorming on factors to determine human resource required o Group discussion on factors to determine human resource required o Practical exercises	- Calculator - Handout - Places - Note book - Writing device

Learning unit 3: Calculate the cost estimation			Learning Hours : 30
Learning outcomes	**Content**	**Learning activities**	**Resources**
3.1 Actualize the prices	• Materials survey prices ✓ Window shopping ✓ Proforma invoice	○ Brainstorming on prices ○ Group discussion on factors to fix the cost. ○ Discussion on surveying the prices	- Books - Handout - Places - Note book - Writing device
3.2 Determine the units and total costs of materials	• Determination of units and total prices of each item: ✓ Cost per unit measures ✓ Total cost	○ Brainstorming in determining the units and total costs ○ Group discussion cost unit and total cost determination	- Calculator - Note book - Writing device - Pro forma invoice
3.3 Perform calculation of charges and benefits **3.4 Fill in bill of Quantities**	• Calculation of charges and benefits: ✓ The Labor Cost ✓ Taxes, ✓ Transport, ✓ Equipment, ✓ Benefits ✓ Transportation of materials ✓ Other Charges • Calculation of grand total cost • Layout for bill of quantities	○ Brainstorming on calculating the charges benefits and grand total ○ Group discussion on bills of quantities ○ Practices on calculations of charges and grand total.	- Calculator - Note book - Writing device - Pro forma invoice
3.5 Prepare invoice	• Types of invoice ✓ Performa ✓ Service • Invoice elements ✓ Invoice number ✓ Item description ✓ Service description ✓ Quantities ✓ Unit prices ✓ Total prices	○ Brainstorming on cost estimation ○ Demonstration of invoice preparation ○ Practical exercises on invoice preparation	- Books - Internet - Bills books - Invoice samples

References

- Publishing, B. (2013). *Good Small Business Guide 2013, 7th Edition: How to start and grow your own business*. A&C Black.
- Sweeting, J. (1997). *Project Cost Estimating: Principles and Practice*. IChemE.
- Vijaya, K. R., Elanchezhian C. , Ramanath B., Kesavan, R., Elanchezhian, C., & Ramanath, B. V.
- (2009). *Process Planning and Cost Estimation*. New Age International.

ASSESSMENT GUIDELINES

Portfolio / Formative assessment

Elements of competence	Assessment indicator	Checklist	Score		Observation
			Yes	No	
Examine work	Determination of the work extent is done	Complexity level of the component shape			
		Time for the work			
	Working place is identified	Indoor location			
		Outdoor location			
	Work duration is determined	Time of each task			
		Determination of concurrent tasks			
Determine required resources	Materials are quantified	Type of materials			
		size and shape			
	Quality of materials is identified	Specification of material			
		Prices			
	Human resources are determined	Availability of labor			
		Availability of funds			
Calculate the cost estimation	The prices are actualised	Market prices			
		Proforma invoice			
	Bill of quantities are calculated	Labor Cost			
		Taxes			

		Transport			
		Equipment			
		Benefits			
		Miscellaneous Charges			
	Invoice is prepared	Invoice number			
		Item description			
		Service description			
		Quantities			
		Unit prices			
		Total prices			

CSTMS102-MORTAR PREPARATION		
Competence :Prepare Mortar		
RTQF level**: 1**	Credits**: 3**	Learning hours **: 30**
Sector**: Construction**		Sub-sector**: Masonry**
Issue date**: March, 2014**		Review date**:**

PURPOSE STATEMENT

This core module describes the skills, knowledge and attitudes required to a learner to carry out batching of mortar ingredients, mixing of mortar ingredients and transportation of mortar with respect to the standards

LEARNING ASSUMED TO BE IN PLACE

This module must be assessed after the following prerequisite modules:

CCM102 Health, Safety, security and environment at workplace
CCM106 Basic workplace calculations
CCM108 Cost estimation
CSTMS101 Basic technical drawing

LEARNING UNITS AND PERFORMANCE CRITERIA

Learning units describe the essential outcomes of a competence
Performance criteria describe the required performance needed to demonstrate achievement of the learning unit

Elements of competence By the end of the module, the trainee will be able to :	**Performance criteria**	
1. Select ingredient of mortar	1.1 1.2 1.3	Proper identification of mortar ingredients Proper identification of mortar types Proper identification of mortar area application
2. Apply batching and ratio	2.1 2.2 2.3	Proper selection of tools and equipment Proper determination of ratio types Proper batching of mortar ingredients
3. Mix ingredients	3.1 3.2 3.3 3.4	Adequate preparation of mixing area Proper selection of mixing tools and equipment Proper use of mixing methods Adequate production of mortar

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

Learning Unit 1: Select ingredient of mortar			**learning hours: 5**
Learning outcomes	**Content**	**Learning activities**	**Resources**
1.1 **Identify types of mortar**	• Introduction on mortar • Types of mortar ✓ Cement mortar ✓ Lime mortar ✓ Lime –cement mortar • Advantages and disadvantages of different types of mortar ✓ Cement mortar ➢ Advantage: is strong ➢ Disadvantage: is expensive ✓ Lime mortar ➢ Advantage: is strong ➢ Disadvantage: is expensive ✓ Lime –cement mortar ➢ Advantage: is strong Disadvantage: is expensive	o Observation ofTypes of mortar o Brainstorming on type of mortar. o Group discussion on advantages and disadvantages of different types of mortar	- Cement - Lime - Pans - Sand - Water - Additive - Pictures - Video aids - Reference documents

1.2 Select ingredients	• Introduction on ingredients ✓ cement ✓ Sand ✓ Lime ✓ Water ✓ Additives. • Characteristics of good materials used for mortar: ✓ Aggregates are well graded ✓ Aggregate are free from dust ✓ Cement not expired ✓ Water is free from chemicals and organic matters • Transport techniques of mortar ingredients: ✓ Manual ✓ mechanical	○ Observation**:** Different types of ingredients: ✓ cement ✓ Sand ✓ Lime ✓ Water ✓ Additive. ○ Brainstorming on Characteristics of good materials used for mortar ○ Workshop practice on selection of materials used for mortar.	- Cement - Lime - Pans - Sand - Water - Additive - Wheelbarrow - Pictures - Video aids - Reference documents - PPE: ✓ Gloves ✓ Boots ✓ Helmet ✓ Overall - Pans Trucks
1.3 identify mortar area application	• Introduction on mortar area application. • Application of different types of mortar: ✓ Cement mortar ✓ Lime mortar ✓ Lime –cement mortar • Uses of mortar: ✓ Joining bricks, stones and blocks. ✓ Plastering. • Pavement	○ Brainstorming on mortar area application ○ Group discussion on application of different types of mortar	- Cement - Lime - Pans - Sand - Water - Additive - Wheelbarrow - Hoe - Spades - Pictures - Video aids - Reference documents

Learning Unit 2: Apply batching ratio			**learning hours: 10**
Learning outcomes	**Content**	**Learning activities**	**Resources**
2.1 **Select tools and equipment**	• Introduction on batching ratio • Safety tools and equipment used for mortar: PPE ✓ Gloves ✓ Boots ✓ Helmet ✓ Overall • Tools and equipment used for mortar: ✓ Wheelbarrow ✓ Hoe ✓ Spades ✓ Pans ✓ Shovels ✓ Bucket ✓ Mortar mixer	○ Workshop practice on selection of safety tools and equipment used for mortar ○ Group discussion on tools and equipment used for batching mortar	- Mortar mixer - Shovels - Wheelbarrow - Buckets - PPEs ✓ Gloves ✓ Boots ✓ Helmet ✓ Overall - Spades - Pans - Hoe

2.2 **Determine ratio type**	• Introduction on ratio types • Types of ratio according to their applications: ✓ Sand :cement: water ✓ Sand : Lime: cement: water • Applications of ratio: ✓ Floor ✓ Walls ✓ Elements of the structure	○ Brain storming on types of ratio ○ Group discussion on uses and application of ratio	- Cement - Lime - Pans - Sand - Water - Additive - Wheelbarrow - Hoe - Spades - PPE ✓ Gloves ✓ Boots ✓ Helmet ✓ Overall - Pictures - Video aids - Reference documents
2.3 **Batch mortar ingredients**	• Introduction on batching ingredients • Identification of ingredients quantities : ✓ Sand ✓ Cement ✓ Lime ✓ Water ✓ Additive • Batching techniques: ✓ Manual ✓ Mechanical	○ Brainstorming on identification of ingredients quantity for batching. ○ Practical exercise on batching techniques. ○ Video demonstration on batching techniques ○	- Cement - Lime - Pans - Sand - Water - Additive - Wheelbarrow - Hoe - Spades - PPE ✓ Gloves ✓ Boots

Learning Unit 3: Mix ingredients			Learning hours: 15h
Learning outcomes	**Content**	**Learning activities**	**Resources**
3.1 **Prepare mixing area**	• Cleaning of mixing surface. • Planning of steps to Score work. • Provision of safeguards and signs posts.	○ Workshop practices on cleaning surface. ○ Practical exercise on Positioning tools, equipment and materials accordingly ○ Practical exercise on Provision of safeguards and sign posts	- Brushes - Brooms - Shovels - Wheelbarrow - Pans - Spades - Hoe - Cement - Lime - Aggregates
3.2 **Select mixing tools and equipment**	• Introduction on selection of mixing tools and equipment • Common hand tools and heavy equipment/ machines in masonry trade. • Safety equipment related to the tasks.	○ Brainstorming on mortar mixing tools and equipment ○ Group discussion on PPE. ○ Practical exercise for selecting mixing tools and equipment	- Pans - Wheelbarrow - Hoe - Spades - PPE - Gloves - Boots - Helmet - Overall - Pictures - Video aids - Reference documents - Trucks (machines) - Mortar mixer

3.3 **Apply mixing methods**	• Introduction on mixing. • Mixing methods: ✓ Hand mixing ✓ Machine mixing • Delivering of mortar: ✓ By hand ✓ By machine	○ Demonstration of mixing mortar. ○ Practice exercise on mixing mortar. ○ Video demonstration on mixing techniques	- Shovels - Buckets - Mortar mixer - Pans - Wheelbarrow - Hoe - Spades - PPE ✓ Gloves ✓ Boots ✓ Helmet ✓ Overall - Pictures - Video aids - Reference documents - Trucks (machines)

ASSESSMENT GUIDELINES

Competency-based training provides learners with the skills, knowledge and understanding to demonstrate competence against standards and performance criteria in an applied context. The national VET system is competency-based, built around nationally endorsed industry standards. Competency-based assessment is the process of collecting evidence and judgments about whether competency has been achieved. In this section you will inform that will help you design, conduct and validate competency-based assessments.

Portfolio / Formative assessment

Elements of competence	**Performance criteria**	**checklist**	**Score**		**Observation**
			Yes	**No**	
Select ingredient of mortar	Mortar ingredients are selected	Cement			
		Sand			
		Lime			

		Water			
		Additive			
	Mortar types are Identified	Cement mortar			
		Lime mortar			
		Lime –cement mortar			
	Mortar area application are prepared	Area levelled			
		Area cleaned			
		Area arranged			
Apply batching ratio	Tools and equipment are selected	Mixing tools			
		PPE			
	Ratio types are determined	Sand : cement: water			
		Sand : Lime: cement: water			
	Batching of mortar ingredients is done	Batching boxes sizes			
		Ingredients mixture			
Mix ingredients	mixing area is prepared	Area levelled			
		Area cleaned			
		Area arranged			
	Mixing tools and equipment are selected	Mixing tools			
		PPE			
		Mortar mixer			
	Mixing methods is used	Hand mixing / Machine mixing			
	Production of mortar is done	Mortar paste			

Summative Assessment

Integrated situation

KICUKIRO Primary school in KICUKIRO District launched an offer of Supplying 2 m^3 of cement mortar for construction wall masonry of staff offices, the mix ratio is 1:4, and AKAGERA construction Ltd has signed a contract to accomplish this work. As a mason of Contractor Company you are requested to prepare that mortar. Within 4 hours and all materials and tools are provided on the site.

Assessment criteria	**Assessment indicator**	**Checklist**	**Score**		**Observation**
			Yes	**No**	
Quality of	Mortar ingredients are selected	Cement			

process		Sand			
		Lime			
		Water			
		Additive			
	Mortar area application are prepared	Area levelled			
		Area cleaned			
		Area arranged			
	Mixing tools and equipment are selected	Mixing tools			
		PPE			
	Mixing method is used	Machine mixing			
		Mechanical method			
	Production of mortar is done	Mortar paste			
Quality of product	Homogeneous mortar is done	Homogeneous mortar			
	Workable mortar is done	Workable mortar			
Relevance	Ratio is respected	Ratio (1:4) respected			
	Time is respected	Time required			
	Materials are well used	No waste materials			

CSTMS103-CONCRETE PREPARATION		
Competence :Prepare concrete		
RTQF level**: 1**	Credits**: 3**	Learning hours **: 40**

Sector**: Construction**	Sub-sector**: Masonry**
Issue date**: March, 2014**	Review date**:**

PURPOSE STATEMENT

This core module describes the skills, knowledge and attitudes required to a learner to carry out batching of mortar ingredients, mixing of mortar ingredients and transportation of mortar with respect to the standards.

LEARNING ASSUMED TO BE IN PLACE

This module must be assessed after the following prerequisite modules:

CCM102 Health, Safety, security and environment at workplace
CCM106 Basic workplace calculations
CCM108 Cost estimation
CSTMS101 Basic technical drawing

LEARNING UNITS AND PERFORMANCE CRITERIA

Learning units describe the essential outcomes of a competence
Performance criteria describe the required performance needed to demonstrate achievement of the learning unit

Elements of competence By the end of the module, the trainee will be able to :	**Performance criteria**	
1. Select ingredients of concrete	1.1 1.2 1.3 1.4	Proper identification of concrete ingredients Proper identification of concrete types proper identification of concrete area application Proper transportation of concrete ingredients

2. Apply batching ratio	2.1 2.2 2.3	Adequate preparation of mixing area Adequate batching of concrete ingredients Proper use of ad mixtures
3. Mix ingredients	3.1 3.2 3.3	Proper selection of mixing tools and equipment Proper use of mixing methods Adequate production of concrete

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

Learning Unit 1: Select ingredient of concrete			**Learning hours: 5**
Learning outcomes	**Content**	**Learning activities**	**Resources**

1.1 Identify types of concrete	• Introduction on concrete • Types concrete ✓ Mass concrete ✓ Reinforced concrete ✓ Pre- cast concrete • Types of ingredients ✓ Cement ✓ Sand ✓ Aggregates ✓ Water ✓ Additives	○ Observation of concrete Types ○ Brainstorming on type of concrete ○ Group discussion on advantages and disadvantages of different types of concrete ○ Documentary Research	- Cement - Aggregates - Pans - Sand - Water - Additive - Pictures - Video aids - Reference documents
1.2 Select ingredients	• Introduction on ingredients • Characteristics of good ingredients used for concrete: ✓ Water is free from chemicals and organic matters ✓ Additives are respecting instructions required. ✓ Aggregates are well graded	○ Observation: Different types of ingredients: ✓ cement ✓ aggregates ✓ Water ✓ Additive. ○ Brainstorming on Characteristics of good materials. ○ Workshop practice on selection of materials	- Cement - Pans - aggregates - Water - Additives - Pictures - Video aids - Reference documents
1.3 identify concrete area application	• Introduction on concrete area application. • Application of different types of concrete: ✓ Mass concrete ✓ Reinforced concrete ✓ Pre- cast concrete • Use of concrete: ✓ Walls ✓ Floors ✓ Elements of the	○ Brainstorming on concrete area application ○ Group discussion on application of different types of concrete	- Cement - Pans - Aggregates - Water - Additive - Wheelbarrow - Hoe - Spades - PPE ✓ Gloves

	structure		✓ Boots ✓ Helmet ✓ Overall - Pictures - Video aids - Reference documents

Learning Unit 2: Apply batching and ratio			**Learning hours: 15**
Learning outcomes	**Content**	**Learning activities**	**Resources**
2.1 Select tools and equipment	• Introduction on batching and ratio • Safety tools and equipment used for concrete: PPE ✓ Gloves ✓ Boots ✓ Helmet ✓ Overall ✓ Security belt • Tools and equipment used for concrete: ✓ Wheelbarrow ✓ Hoe ✓ Spades ✓ Pans ✓ Shovels ✓ Bucket Concrete mixer	○ Workshop practice on selection of safety tools and equipment used for mortar ○ Group discussion on tools and equipment used for mortar	- Concrete mixer - Shovels - Wheelbarrow - Buckets - PPEs ✓ Gloves ✓ Boots ✓ Helmet ✓ Overall - Spades - Pans - Hoe
2.2 Use admixtures	• Classification of admixtures: ✓ Mineral ✓ Chemical • Types of admixtures: ✓ Retarding admixtures ✓ Water reducing admixtures ✓ Accelerating admixtures Application of admixtures ratio	○ Demonstration on how to use admixtures ○ Group discussion on how to use admixtures ○ Video on how to use admixtures ○ Practical exercises on using admixtures.	- Aggregates - Cement - Pans - Water - Additive - Admixtures (minerals,

			chemicals) - Wheelbarrow - Hoe - Spades - PPE ✓ Gloves ✓ Boots ✓ Helmet ✓ Overall - Pictures - Video aids Reference documents
2.3Batch concrete ingredients	• Introduction on batching ingredients • Identification of ingredients quantities: ✓ Aggregates ✓ Cement ✓ Water ✓ Admixtures • Batching techniques: ✓ Manual ✓ Mechanical	○ Brainstorming on identification of ingredients quantities. ○ Practical exercise on batching techniques. ○ Video demonstration on batching techniques	- Cement - Aggregates - Pans - Water - Additives. - Admixtures - Wheelbarrow - Hoe - Spades - PPE ✓ Gloves ✓ Boots ✓ Helmet ✓ Overall
Learning Unit 3: Mix ingredients			**Learning hours: 20**
Learning outcomes	**Content**	**Learning activities**	**Resources**

3.1 Prepare mixing area	• Clearing area of mixing • Planning of steps to Score work. • Provision of safeguards and sign posts.	○ Workshop practices on cleaning surface. ○ Practical exercises on positioning tools, equipment and materials accordingly ○ Practical exercise on provision of safeguards and sign posts.	- Brushes - Brooms - Shovels - Wheelbarrow - Spades - Hoe - Water - Aggregates - Admixtures - Cements - Limes
3.2 Select mixing tools and equipment	• Introduction on selection of mixing tools and equipment • Common hand tools and heavy equipment/ machines of concrete mixing Safety equipment related to the tasks.	○ Brainstorming on concrete mixing tools and equipment. ○ Group discussion on PPE. ○ Practical exercise for selecting mixing tools and equipment	- Pans - Wheelbarrow - Concrete mixer - Trucks (machines) - Hoe - Spades - PPE - Pictures - Video aids Reference documents
3.3 Apply mixing methods	• Introduction on mixing • Mixing methods. ✓ Hand mixing ✓ Machine mixing • Delivering of concrete ✓ By hand • By machine	○ Demonstration of mixing concrete. ○ Practice exercise on mixing concrete. ○ Video demonstration on mixing techniques	- Shovels - Buckets, - Concrete mixer - Pans - Wheelbarrow - Hoe - Spades - PPE - Cement - Aggregates - Water

ASSESSMENT GUIDELINES

Competency-based training provides learners with the skills, knowledge and understanding to demonstrate competence against standards and performance criteria in an applied context. The national VET system is competency-based, built around nationally endorsed industry standards.

Competency-based assessment is the process of collecting evidence and judgments about whether competency has been achieved. In this section you will inform that will help you design, conduct and validate competency-based assessments.

Portfolio / Formative assessment

Elements of competence	Performance criteria	checklist	Score		Observation
			Yes	No	
Select ingredients of concrete	Concrete ingredients are identified	Cement			
		Water			
		Fine aggregates			
		Coarse aggregates			
		Additives			
	Types concrete are identified	Plain concrete,			
		Reinforced concrete			
		Pre- cast concrete			
	Concrete area applications are identified	Wall, beam, column, slab, stairs, dams, septic tanks, manhole cover, roads, bridge, culvert, flooring, foundation			
Apply batching ratio	Batching of concrete ingredients ratio are done	Batching boxes size			
		Ingredients mixture			
	Admixtures are used	Retardating admixtures			
		Water reducing admixtures			
		Accelerating admixtures			
Mix ingredients	Mixing area is prepared	Area Cleaned,			
		area levelled			

		Area arranged			
	Mixing tools and equipment are selected	Setting out tools			
		Finishing tools			
		Mixing tools			
		Tape measure, Sprit level,			
	Mixing methods are used	Machine mixing used			
	Mixing of ingredients is done	Concrete paste			

Summative Assessment

Integrated situation

RUBANGURA family has a tender of making concrete for a septic tank cover, two Columns and two beams on their commercial building located at NYARUGENGE District. As a mason who won this job you are requested to prepare concrete for this work and to Score it within 6 hours. The septic tank cover measurements are: 3m *2m of section with 20cm of thickness, The Columns measurements are: 2m of height with 20cm side, the beam between two columns has: 3m of length with 20cm of width and 20cm of thickness.

- ✓ The mixing ratio to be used for all tasks is: 1:2:4
- ✓ Steel bars framework and formwork are already put and fixed in their places

Assessment	Assessment indicator	Checklist	Score	Observation

criteria			Yes	No	
Quality of process	Materials, Tools and equipment are selected	➢ Cement			
		➢ Water			
		➢ Fine aggregates			
		➢ Coarse aggregates			
		➢ Additives			
		➢ Setting out tools			
		➢ mixing tools			
		➢ finishing tools			
		➢ PPE			
		➢ Wheelbarrow			
		➢ Concrete mixer			
	Batching of concrete ingredients ratio is done	➢ Batching boxes size			
		➢ Ingredients batched			
	Mixing concrete ingredients is done	➢ machine Mixing is used			
		➢ Concrete paste			
Quality of product	Homogeneous concrete is done	➢ Homogeneous concrete			
	Workable Concrete is done	➢ Workable Concrete			
Relevance	Mix ratio is respected	➢ Correct ratio (1:2:4)			
	Time is respected	➢ Time required			
	Materials are well used	➢ No waste materials			

CSTMS104- FOUNDATION		
Competence :Erect foundation		
RTQF level**: 1**	Credits**: 6**	Learning hours **: 60**
Sector**: Construction**		Sub-sector**: Masonry**
Issue date**: March, 2014**		Review date**:**

PURPOSE STATEMENT

This core module describes the skills, knowledge and attitudes required to a learner to carry out: preparation of working area, setting out of the building, excavation of foundation trenches and construction of the foundation at construction sites with respect of the standards.

LEARNING ASSUMED TO BE IN PLACE

This module must be assessed after the following prerequisite modules:

CCM102 Health, Safety, security and environment at workplace
CCM106 Basic workplace calculations
CCM108 Cost estimation
CSTMS101 Basic technical drawing

LEARNING UNITS AND PERFORMANCE CRITERIA

Learning units describe the essential outcomes of a competence
Performance criteria describe the required performance needed to demonstrate achievement of the learning unit

Elements of competence By the end of the module, the trainee will be able to :	**Performance criteria**	
1. Level the plot	1.1 1.2 1.3 1.4 1.5	Proper assessment of the site condition Proper selection of filling materials Proper filling and cutting Proper compaction of the area Proper application of leveling methods
2. Set out	2.1 2.2 2.3 2.4	Proper selection of tools and materials Adequate setting of profiles and pegs Adequate taking of measurements proper application of checking out techniques
3. Excavate Foundation trench	3.1 3.2 3.3	Proper selection of tools and equipment Proper excavation of trenches Proper checking of foundation trenches
4. Construct the foundation	4.1 4.2 4.3 4.4 4.5	Proper selection of tools and materials Adequate application of blinding concrete Proper dressing of stones Proper application of stone masonry Adequate finishing of the foundation

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

Learning unit 1: level the plot			**learning hours: 10**
Learning outcomes	**Content**	**Learning activities**	**Resources**
1.1 Identify the types of foundations	introduction on foundation Types of loads : ✓ Dead loads ✓ Live loads • Types of foundations: ✓ Deep foundation ✓ Shallow foundation	○ Brain storming on foundation ○ Site visit on types of foundation ○ Demonstration by video on types of foundation	- Reference documents - Video aids - Pictures
1.2 Carry out filling and cutting	• Assessment of the site condition • Selection of tools and equipment • Characteristics of good soil used in filling: ✓ Enough Bearing capacity ✓ Coherent ✓ Free from water absorption • Flatness of the surface: ✓ Fill ✓ cut	○ Site visit. ○ Group discussion on characteristic of good soil ○ Practical exercise on flatness of the surface area. ○ Demonstration by video on how to make the surface area flat	- site - Hoe - Shovel - Wheelbarrow - Spirit level - Video aid - PPE: ✓ Helmet ✓ Over all ✓ Boots ✓ Dust mask ✓ Goggles ✓ gloves
1.3 Compact the surface area	• tools and equipment: ✓ roller ✓ timber	○ Practical exercises on surface compaction ○ Group discussion on surface	- Site - Soil - water - Timber

	• Selection of materials: ✓ Soil ✓ water • methods of compaction: ✓ manual ✓ mechanical	compaction	- hammer - nails - Hoe - Shovel - Wheelbarrow - Roller - Spirit level - PPE: ✓ Helmet ✓ Over all ✓ Boots ✓ Dust mask ✓ Goggles ✓ Gloves

Learning unit 2: Set out			**Learning hours: 15h**
Learning outcomes	**Content**	**Learning activities**	**Resources**
2.1 Prepare materials, tools and equipment	• Introduction on building set out. • Selection of materials, tools and equipment. • Preparation of materials ,tools and equipment	○ Brainstorming on building set out. ○ Practical exercises on preparation of materials. ○ Workshop exercise on tools and equipment	- Timber - Profiles - Pegs - Building line - pang - Hoe - Wheelbarrow - Spirit level - Nails - hammer - PPE: ✓ Helmet ✓ Over all ✓ Boots ✓ Goggles ✓ Gloves

2.2 Set pegs and profiles	• Setting out of the site datum • Introduction on 3-4-5 method • Marking of the profile positions • Fixing of the pegs and profiles • Fixing of building line.	○ Practical exercise on setting out the site datum ○ Practical exercise on setting out the foundation	- Timber - Profiles - Pegs - pang - Hoe - Building line - Wheelbarrow - Spirit level - Nails - Hammer - Tape measure - Plumb bob - PPE: ✓ Helmet ✓ Over all ✓ Boots ✓ Goggles ✓ Gloves
2.3 check the measurements	• Verification of measurement by using 3-4-5 method. • Verification of verticality • Verification of horizontality	○ Group discussion on verification of measurements ○ Demonstration by video on how to check the measurements ○ Workshop practices on verification of measurement by using 3-4-5 method	- Spirit level - Tape measure - Plumb bob - PPE: ✓ Helmet ✓ Over all ✓ Boots ✓ Gloves

Learning unit 3: Excavate Foundation trench			Learning hours: 10
Learning outcomes	**Content**	**Learning activities**	**Resources**
3.1 Identify tools and equipment	• Types of soils: • Cohesive soil • Non cohesive soil • Tools and equipment: ✓ hoe ✓ pick axe ✓ pneumatic drill ✓ excavator • Excavation techniques: ✓ Mechanical ✓ manual	○ Group discussion on types of soil ○ Brain storming on excavation techniques ○ Physical demonstration of tools and equipment used in excavation	- hoe - pick axe - video aids - pictures - shovel - wheel barrow - pneumatic drill - excavator - PPE: ✓ Over all ✓ Helmet ✓ Dust mask ✓ Boots ✓ Goggles ✓ Gloves
3.2 Dig out foundation trenches	• Introduction on digging out of the foundation trench. • Soil Removal techniques: ✓ Mechanical ✓ manual • Checking of foundation trench measurements	○ Practical works on digging and removing soil. ○ Demonstration by video on how to dig out the foundation trenches	- Hoe - pick axe - shovel - truck - spirit level - pneumatic drill - excavator - video aids - PPE: ✓ Over all ✓ Helmet ✓ Dust mask ✓ Boots ✓ Goggles ✓ Gloves

3.3 Carry out closing activity	• Selection of tools and equipment • Transportation of soil • Cleaning of the working place. • Storing of tools and equipment	○ Practical exercise on transporting the soil ○ Practical exercise on cleaning the working place.	- Hoe - shovel - brooms - wheel barrow - truck - PPE: ✓ Over all ✓ Helmet ✓ Dust mask ✓ Boots ✓ Goggles ✓ Gloves

Learning unit 4: Construct the foundation			**Learning hours: 25h**
Learning outcomes	**Content**	**Learning activities**	**Resources**
4.1 Prepare materials tools and equipment	• Selection of tools, equipment and materials • Dressing of stones • Preparation of mortar/concrete	○ Group discussion on tools, equipment and materials used in foundation. ○ Practical exercise on dressing stones and preparation of mortar/concrete.	- Stones - Mortar - Hammer - Concrete mixer - Mass concrete - Reinforced concrete cement (RCC) - shovel - spades - wheel barrow - truck - PPE: ✓ Over all ✓ Helmet ✓ Dust mask ✓ Boots ✓ Goggles

4.2 Carry out elevation of foundation	• Selection of tools and materials. • Types of stone masonry structure: ✓ Uncoursed random rubble ✓ coursed random rubble ✓ squared rubble walls built up to courses ✓ regular coursed rube • types of concrete foundation: ✓ Raft foundation ✓ Piled foundation ✓ Pad foundation ✓ Stepped strip foundation	○ Practical exercise on elevation of stones foundation ○ Group discussion on types of stones masonry structure ○ Demonstration by video on elevation of foundation. ○ Practical exercise on elevation of concrete foundation	- Stones - Mortar - Hammer - Concrete mixer - Mass concrete - Reinforced concrete cement (RCC) - shovel - spades - wheel barrow - Tape measure - Spirit level - Try square - Building line - Trowel - truck - PPE: ✓ Over all ✓ Helmet ✓ Dust mask ✓ Boots ✓ Gloves
4.3 Carry out closing activities	• Jointing and pointing of the foundation • Cleaning of the surface area • Cleaning of tools and equipment • Storing of tools, equipment and unused materials • Finishing of concrete foundations	○ Practical exercise on jointing and pointing of stone foundation ○ Demonstration by video on jointing and pointing of foundation. ○ Practical exercise on cleaning tools, equipment and work place ○ Practical exercise on finishing of concrete foundation	- Mortar - Shovel - spades - wheel barrow - Trowels - Video aids - truck - PPE: ✓ Over all ✓ Helmet ✓ Goggles

ASSESSMENT GUIDELINES

Competency-based training provides learners with the skills, knowledge and understanding to demonstrate competence against standards and performance criteria in an applied context. The national VET system is competency-based, built around nationally endorsed industry standards.

Competency-based assessment is the process of collecting evidence and judgments about whether competency has been achieved. In this section you will inform that will help you design, conduct and validate competency-based assessments.

Portfolio / Formative assessment

Elements of competence	Performance criteria	Checklist	Score		Observation
			Yes	No	
Level the plot	Assessment of the site condition is done	Topography of site			
		Accessibility of site			
	Selection of filling materials is done	Filling materials			
	Filling/ cutting is done	Area filled/cut			
	Compaction of the area is done	Area compacted			
	Application of levelling methods is done	Topographic instruments			
Set out	Select tools and materials	Timber			
		Profiles			
		Pegs			
		Building line			
		Nails			
		Cutting tools			
		Setting out			
		Fixing tools			
		PPE			
	setting of profiles and pegs is done	Profiles and pegs Set			
	Measurements are take	Length			
		Width			
	Checking out techniques	diagonals			

Excavate Foundation trench	Tools and equipment are selected	Excavating tools			
		PPE			
	Excavation is done	Foundation trench			
	Foundation trenches is checked	Length			
		Width			
		depth			
Construct the foundation	Tools and materials are selected	Stones			
		Mortar			
		Mass concrete			
		Cutting tools			
		Mixing tools			
		PPE			
	blinding concrete is applied	Base of foundation with blinding concrete			
	dressing of stones is done	Stones dressed			
	Foundation stone masonry is done	Stone masonry foundation			
	Adequate finishing of the foundation is done	Pointing done			
		Earth filling			

Summative Assessment
Integrated situation
IPRC Kigali in KICUKIRO District wants to build the fence for its enclosure using mason labours of his own students. Trenches have been excavated before and the blinding concrete has been poured in. As a mason of KICUKIRO vocation training centre, you are requested to start the work by building the foundation in the following places of the fence, in the corner 1 m each side
The foundation is in stone, with cement mortar, 40 cm of thickness and 60 cm of depth.
The work will be executed in 6 hours.

Assessment criteria	Assessment indicator	checklist	Score		Observation
			Yes	No	
Quality of process	Site is located and levelled	Site levelled			
	Tools, materials and equipment are selected	Cutting tools			
		Setting tools Mixing tools			
		Stones			
		Cement			
		Aggregates(coarse &fine)			
		water			
		Building line			
	Setting of profiles and pegs is done	Profiles and pegs			
	Measurements are taken	Length of Trench			
		Width of Trench			
	Excavation is done	Foundation trench			
	Foundation trenches is checked	Length			
		Width			
		Depth			
	Foundation is constructed	Foundation			
Quality of product	Finished Foundation is done	Finished Foundation			
	Foundation Strong is done	Foundation Strong			
	Foundation Levelled is done	Foundation Levelled			
Relevance	Dimensions are respected	Correct width			
		Correct length			
		Correct thickness			
	Time is respected	Time required			
	Materials are well used	No waste materials			

CSTMS105-WALL ELEVATION		
Competence :Erect wall		
RTQF level**: 1**	Credits**: 8**	Learning hours **: 80**
Sector**: Construction**		Sub-sector**: Masonry**
Issue date**: March, 2014**		Review date**:**

PURPOSE STATEMENT

This core module describes the skills, knowledge and attitudes required to a learner to carry out: preparation of working area, building of brick walls, and building of block walls, building of stone walls and jointing the walls at construction sites with respect of the standards

LEARNING ASSUMED TO BE IN PLACE

This module must be assessed after the following prerequisite modules:

CCM102 Health, Safety, security and environment at workplace
CCM106 Basic workplace calculations
CCM108 Cost estimation
CSTMS101 Basic technical drawing

LEARNING UNITS AND PERFORMANCE CRITERIA

Learning units describe the essential outcomes of a competence
Performance criteria describe the required performance needed to demonstrate achievement of the learning unit

Elements of competence By the end of the module, the trainee will be able to :	**Performance criteria**	
1. Apply DPM	1.1 1.2 1.3 1.4	Proper selection of DPM to be used Take measurements accurately Proper cutting of DPM Appropriate laying of DPM
2. Build bricks/ blocs walls	2.1 2.2 2.3 2.4	Proper selection of tools and materials Appropriate laying of the first coarse Appropriate laying of the following coarse Appropriate preparation of mortar
3. Build stones walls	3.1 3.2 3.3 3.4 3.5	Proper selection of tools and equipment Adequate preparation of the mortar Appropriate laying of first coarse Appropriate laying of the following coarse Proper dressing of stones
4.Make jointing	4.1 4.2 4.3	Proper selection of tools Proper respect of joint thickness Proper making of joint horizontally and vertically

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

Learning Unit 1: Apply damp proof membrane (DPM)			**Learning hours: 10h**
Learning outcomes	**Content**	**Learning activities**	**Resources**
1.1 Prepare materials and tools	• Introduction on DPM • tools used for applying DPM: ✓ measuring tools ✓ Cutting tools • Selection of materials, tools and equipment	○ Group discussion on tools and materials used for applying DPM ○ Physical demonstration of DPM ○ Demonstration of DPM by video /picture	- Brushes - Tape measure - Brooms - Shovels - Video aid - Pictures - Hammer - Wheelbarrow - Building line - DPM - Scissors
1.2Prepare working area	• Cleaning of working area • Interpretation of drawings • Demarcation of the work place	○ Workshop practices on cleaning the working area ○ Brain storming on how to demarcate the work place ○ Practical exercises on interpretation of drawings	- Brushes - Brooms - Shovels - Hammer - Wheelbarrow - Building line - Tape measure
1.3 Lay DPM	• Measuring of the required size • Cutting of DPM • Placement of DPM	○ Practical exercises on measuring, cutting and placing DPM	- Tape measure - DPM - Building line - Scissors

Learning Unit 2: Build bricks/ blocs walls			Learning hours: 30h
Learning outcomes	**Content**	**Learning activities**	**Resources**
2.1 Select materials, tools and equipment	• Introduction on bricks and blocks • Selection of tools and equipment for brick/block works • Definition of :½ and ¾ of brick/block • Qualities of a good brick/bloc: ✓ Well dried/burnt ✓ Accurate measurements ✓ Clear sound	○ Brain storming on materials, tools and equipment for brick/ block works	- Shovels - Wheelbarrow - Building line - Tape measure - Try square - Spirit level - Bricks - Blocks - Saws - Buckets - Water - sand - Cement - Lime - PPE: - Timber - Hammer - Nails - Scaffoldings - Trowels
2.2 Prepare working area and materials	• Cleaning of the work place. • Transport of materials, tools and equipment for brick/block works. • Preparation of mortar.	○ Brainstorming on cleaning of the workplace ○ Group discussion on transport of materials, tools and equipment for brick/block works ○ Practical exercises on preparation of mortar	- Brooms - Shovels - Wheelbarrow - Building line - Hammer - Nails - Bricks - Blocks - Saw - Lime

			- Cement - Sand - Water - Pan - Trowel - Mortar mixer - PPE: ✓ Gloves ✓ Goggles ✓ Boots ✓ Overall ✓ Dust mask
2.3 Elevate the brick/block walls	• Introduction on walls. • Types of walls: ✓ Half brick (partition walls or non-bearing walls) ✓ Whole brick (load bearing walls) • Types of bonds: ✓ Flemish bond ✓ English bond ✓ header bond ✓ stretcher bond ✓ Dutch bond • Creation of openings. • Erection of Scaffolding: ✓ Dependent (metal or wooden) ✓ Independent (metal or wooden)	○ Brainstorming on walls. ○ Group discussion on bonding of bricks and blocks. ○ Practical exercises on erecting courses of bricks and blocks ○ Practical exercises on erecting scaffolding. ○ Demonstration by video on how to erect brick and block walls.	- Shovels - drawings - Wheelbarrow - Building line - Tape measure - Try square - Spirit level - Trowel - Pan - Bricks - Blocks - Buckets - mortar - Hammer - Nails - Scaffoldings - Reference documents - Saw - Pang - PPE: - Video aids - Picture

Learning Unit 3: Build stones walls			Learning hours: 20h
Learning outcomes	**Content**	**Learning activities**	**Resources**
3.1 Select materials, tools and equipment	• Introduction on stone masonry • Identification of tools and equipment for stones masonry : ✓ Measuring tools ✓ Cutting tools and equipment ✓ Dressing tools • Qualities of stones used in stone masonry: ✓ Free from cracks ✓ Free from organic matters ✓ strength	○ Brain storming on materials, tools and equipment for stone masonry. ○ Group discussion on qualities of a good stone ○ Group discussion on characteristics of walls ○ Practical exercise on selecting materials, tools and equipment for stone masonry works	- Brooms - Shovels - Wheelbarrow - Building line - Tape measure - Try square - Spirit level - stones - Buckets - Water - sand - Cement - Lime - Hammer - Nails - Scaffoldings - Trowels - Saw - PPE
3.2 Prepare working area and materials	• Cleaning of the work place • Dressing of stones • Preparation of mortar	○ Practical exercises on preparation of mortar. ○ Practical exercises on dressing stones.	- Brooms - Shovels - Hoe - Wheelbarrow - Building line - Pegs - Hammer - Stones - Cement - Grinder - Sand - Water - Pans - Hammer - Saws

			- PPE: ✓ Gloves ✓ Goggles ✓ Helmet ✓ Boots ✓ Overall ✓ Dust mask
3.3 Elevate stone walls	• Construction of different types of stone masonry: ✓ Uncoursed rubble (undressed or dressed) ✓ Coursed rubble(undressed or dressed) • Creation of openings • Erection of Scaffolding: ✓ Dependent (metal or wooden) ✓ Independent (metal or wooden)	○ Brainstorming on types of stone masonry. ○ Practical exercises on erecting stones masonry. ○ Practical exercises on making scaffolding ○ Demonstration by video and on how to erect stones masonry.	- PPE: ✓ Gloves ✓ Goggles ✓ Helmet ✓ Boots ✓ Overall - Shovels - drawings - Wheelbarrow - Building line - Tape measure - Try square - Spirit level - Trowels - Saws - Pans - stones - Buckets - Mortar - Timber - Hammer - Nails - Scaffoldings - Reference documents - pang - Video aids

Learning Unit 4: Make jointing			Learning hours: 20h
Learning outcomes	**Content**	**Learning activities**	**Resources**
4.1 Prepare tools, materials and surface area	• Introduction on making jointing. • Selection of tools and materials. • Pointing of the surface area	○ Group discussion on making jointing. ○ Practical exercise on selection of tools and materials. ○ Practical exercise for pointing surface area	- Wire brush - Shovels - Wheelbarrow - Buckets - Water - Sand - Chisel - Cement - Hammer - Scaffoldings - Trowels - PPE
4.2 Fill the joints with mortar	• Preparation of mortar. • Delivering of mortar on the work place. • Application of mortar.	○ Practical exercises on preparation of mortar. ○ Practical exercises on filling the joints with mortar.	- Shovels - Wheelbarrow - Cement - Sand - Water - Pans - PPE:
4.3. perform closing activities	• Cleaning of surface area. • Cleaning tools and work place. • Store tools.	○ Practical exercises on cleaning of tools, work place and surface area. ○ Practical exercises on storing tools.	- PPE: ✓ Gloves ✓ Goggles ✓ Helmet ✓ Boots ✓ Overall - Shovels - Wheelbarrow - Trowels - Pans - Buckets - Scaffoldings - Video aids

ASSESSMENT GUIDELINES

Competency-based training provides learners with the skills, knowledge and understanding to demonstrate competence against standards and performance criteria in an applied context. The national VET system is competency-based, built around nationally endorsed industry standards.

Competency-based assessment is the process of collecting evidence and judgments about whether competency has been achieved. In this section you will inform that will help you design, conduct and validate competency-based assessments.

Portfolio / Formative assessment

Elements of competence	Performance criteria	checklist	Score		Observation
			Yes	No	
Apply DPM	DPM is selected	Dpm			
	Measurements are taken	Length, width, Thickness			
	Cutting of Dpm is done	Dpm cut			
	DPM is laid	Dpm laid			
Build bricks/ blocks walls	Tools and materials are selected	Mixing tools			
		Bricks/bocks			
		Cement			
		Sand			
		Water			
	First course is laid	Course laid			
	Following courses are laid	Courses laid			
Build stones walls	Tools and equipment are selected	Cutting tools			
		Setting out tools			
		Brick			
		Block stones			
		Cement			
		Sand			
		PPE			
	Stones are dressed	Dressed stones			
	Mortar is prepared	Cement paste			
	First course is laid	Course laid			
	Following courses are laid	Courses laid			
Make jointing	Tools and materials are selected	Cutting tools			
		Pointing tools			
		Cement			
		Sand			
		Water			
	Joint thickness is respected	Joints measured			

Summative Assessment

Integrated situation

NYAMATA TSS located in BUGESERA district, NYAMATA sector wants to build the fence for its enclosure using their students. Foundation has been constructed before. As a student, you are requested to start the work by building the fence wall within 5hours in the middle near the main entrance along the length of 2m by laying on 4 first brick courses using Flemish bond

Assessment criteria	Assessment indicator	checklist	Score		Observation
			Yes	No	
Quality of process	Tools, materials and equipment are selected	Mixing Tools			
		Fixing tools			
		Cement			
		Sand			
		Blocks/bricks			
		Stone			
		DPM			
		PPE			
	Measurements are taken	Width, length, thickness			
	Laying of DPM is done	DPM laid			
	Making of joint horizontally and vertically is done	Horizontal vertical joints			
Quality of product	Durable Wall is done	Durable Wall			
	Strong wall is done	Strong wall			
	Finished Wall is done	Finished Wall			
Relevance	Measurements are respected	Correct width			
		Correct length			
		Correct thickness			
	Materials are well used	No waste materials			
	Time is respected	Time required			

CSTMS106-STEEL BARS WORKS		
Competence:Perform Steel bars works		
RTQF level**: 1**	Credits**: 6**	Learning hours **: 60**
Sector**: Construction**		Sub-sector**: Masonry**
Issue date**: March, 2014**		Review date**:**

PURPOSE STATEMENT

This core module describes the skills, knowledge and attitudes required to a learner to perform steel bar works according to the set standards.

LEARNING ASSUMED TO BE IN PLACE

This module must be assessed after the following prerequisite modules:

CCM102 Health, Safety, security and environment at workplace
CCM106 Basic workplace calculations
CCM108 Cost estimation
CSTMS101 Basic technical drawing

LEARNING UNITS AND PERFORMANCE CRITERIA

Learning units describe the essential outcomes of a competence
Performance criteria describe the required performance needed to demonstrate achievement of the learning unit

Elements of competence By the end of the module, the trainee will be able to :	**Performance criteria**	
1. Select steel bars	1.1 1.2 1.3	Proper identification of steel bar types Proper interpretation of drawings Proper choice of steel bars
2. Cut steel bars	2.1 2.2 2.3 2.4 2.5	Adequate Preparation of the work place Correct Interpretation of Drawings Appropriate selection of tools for Steel Bar Works Accurate measurement Proper application of cutting techniques
3. Bend steel bars	3.1 3.2 3.3	Correct Interpretation of Drawings Accurate measurement of steel bars Proper hooking of steel bars
4.Tie steel bars	4.1 4.2 4.3	Accurate measurement of spacing Proper fixing of steel bars with binding wire Proper checking of tightness

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

Learning Unit 1: Select steel bars			**Learning hours: 15**
Learning outcomes	**Content**	**Learning activities**	**Resources**
1.1Identify steel bars types	• Introduction on steel bars • Types of steel bars ✓ Round ✓ Twisted • Characteristics of good steel bars: ✓ Resistance to tensile forces ✓ Free from rust ✓ Adhesion	○ Physical demonstration of different types of steel bars in the workshop. ○ Brainstorming / or group discussion on types of steel bars.	- Round bars - Twisted bars - Reference documents
1.2 Interpret steel bars drawings	• Dimensioning • Lettering • Scale • Symbols	○ .Practical exercises on interpretation of steel bars Drawings ○ Brainstorming / or group discussion on drawing symbols.	- Reference documents - Drawing tables - Drawing set
1.3 Select Materials for Steel bars works	• Types of steel bars ✓ Round ✓ Twisted • Identification of wires ✓ Galvanized ✓ Non Galvanized • Transportation of materials:	○ Demonstration of different types of steel bars in the workshop. ○ Demonstration of different types of wires in the workshop	- Steel bars - Wires - Video Aid - Pictures

	✓ Manual and mechanical		

Learning Unit 2: Cut steel bars			**Learning hours: 25**
Learning outcomes	**Content**	**Learning activities**	**Resources**
2.1Prepare the work place	• Methods of cleaning work place: ✓ By water ✓ By brush ✓ By air compressor • Removal of waste materials • Provision of safeguards and signs	○ Workshop practices: ✓ Positioning of tools, Equipment and Materials accordingly ○ Practical work on provisioning safeguards and Sign posts	- Brushes - Brooms - Shovels - Wheelbarrow - Spades - Hoe - Pans
2.2 Use tools and equipment for steel bars work	• Classification of tools and equipment for Steel Bar Works: ✓ Straightening Tools and equipment ✓ Measuring tools ✓ Cutting Tools and equipment ✓ Bending Tools and equipment • Selection of tools and equipment • Manipulate tools and equipment.	○ . Demonstration on how to use tools and equipment for steel bar work. (physical or by video) ○ Brainstorming / or group discussion on how to use tool and Equipment for steel bar work ○ Practical exercise on use of tools / Equipment for steel bar works (Workshop)	- Hummer - Straightening machines - Tape measure - Vernier calliper - Chisel - Vice - Pliers - Pincers - Hacksaw - Cutting machine - Bending Machine - Bend bar
2.3 Perform cutting steel bars	• Measurement of steel bars • Marking of steel bars • Cutting steel bars	○ Practical exercise on measuring and cutting. ○ Demonstration by video on measuring and cutting.	- Hand notes - Hummer - Tape measure - Chisel - Vice - Pliers - Pincers - Hacksaw

			- Grinder - PPE

Learning Unit 3: Bend steel bars			**Learning hours: 10**
Learning outcomes	**Content**	**Learning activities**	**Resources**
3.1Interpret drawing	• Diameters of steel bars interpretation • Spacing of steel bars interpretation • Stirrups interpretation	○ Workshop exercise on interpretation of diameters, spacing and stirrups	- Drawing - Stirrups - steel bars
3.2 Hook steel bars	• Measurement of hooks length • Marking of steel bars • Bending of steel bars	○ Practical exercises on hooking steel bars. ○ Demonstration by video on hooking steel bars.	- Video aid - Reference documents - Lubricants - Steel bars - Tape measure - Pencils - Bending machine - PPE ✓ Gloves ✓ Boots ✓ Helmet ✓ Overall
3.3 Deliver prepared steel bars	• Transportation of prepared steel bars • Manual • Mechanical • Storing of prepared steel bars • Cleaning the work place	○ Practical exercise on transporting and storing prepared steel bars	- Brushes - Brooms - Shovels - Wheelbarrow - Spades - Pans - Trucks

Learning unit 4: Tie steel bars			Learning hours: 10
Learning outcomes	**Content**	**Learning activities**	**Resources**
4.1Prepare work place	• Selection of tools and equipment. • Removal of unwanted elements • Flatness provision of work place	○ Practical exercise on preparation of work place. ○ Brainstorming on preparation of workplace	- Lubricants - Brushes - Brooms - Shovels - Wheelbarrow - Spades - Pans - Trucks - Hoe
4.2 Fix steel bars	• Measuring steel bars • Marking steel bars • Tying steel bars	○ Practical exercises (in workshops) on fixing steel bars ○ Demonstration by video on fixing steel bars.	- Video aid - Lubricants - Steel bars - Tape measure - Pencils - Bending tools (bender) - PPE ✓ Gloves ✓ Boots ✓ Helmet ✓ Overall - Internet - Pencils - Pincer
4.3 Carry out closing activities	• Checking of required measurement • Tightening of steel bars frame work. • Cleaning of tools and the work place	○ Practical exercises on closing activities	- Lubricants - Trucks - Pans - Brushes - Brooms - Shovels - Wheelbarrow - Spades

			- Hoe

ASSESSMENT GUIDELINES

Competency-based training provides learners with the skills, knowledge and understanding to demonstrate competence against standards and performance criteria in an applied context. The national VET system is competency-based, built around nationally endorsed industry standards. Competency-based assessment is the process of collecting evidence and judgments about whether competency has been achieved. In this section you will inform that will help you design, conduct and validate competency-based assessments.

Portfolio / Formative assessment

Elements of competence	Performance criteria	checklist	Score		Observation
			Yes	No	
Select steel bars	Steel bars types are identified	Mild steel, yield steel			
		Deformed steel bars			
	Drawings are interpreted	Reinforcement detailing			
		Views			
		sections			
	Steel bars are chosen	Steel bars of 8mm,10mm,12,14mm,16mm,20mm Diameters			
Cut steel bars	The workplace is prepared	Workplace cleaned			
		Workplace levelled			
		Workplace arranged			
	Drawing interpretation is done	Reinforcement detailing			
		views			
		sections			
	Tools for steel work are selected	Measuring tools			
		Cutting tools			
	Measurements are taken	length			
	Cutting techniques are applied	Mechanical technique			
Bend steel bars	Drawing interpretation is done	Steel bars bent			
	Measurements are taken	length			

	Hooking is done	Steel bars hooks			
Tie steel bars	Measurements of spacing are taken	Distance between stirrups			
	Steel bars are fixed	Steel bar frame			
	Tightness is checked	Steel frame tied			

Summative Assessment

Integrated situation

United Sons Enterprise gave a subcontract of steel bar work to a competent Mason, on his construction site of shopping mall located at kisimenti in GASABO District. The work includes steel bar framework for beam. As a mason, you are asked to make Steel bar framework for beam within 5hours

Assessment criteria	**Assessment indicator**	**Evidence / checklist**	**Score**		**Observation**
			Yes	**No**	
Quality of process	Tools, materials and equipment are selected	Cutting tools			
		Angle grinder			
		Bender machine			
		Steel bars			
		Binding wire			
		Cutting disk			
		PPE			
	Cutting of steel bars is done	Steel bars cut			
	Bending of steel bars is done	Steel bars bent			
	Fixing of steel bars is done	Steel frame			
Quality of product	Strong Steel frame is done	Strong Steel frame			
	Stable Steel frame is done	Stable Steel frame			
	Finished Steel frame is done	Finished Steel frame			
Relevance	Measurements are respected	Correct width			
		Correct length			
	Time is respected	Time required			
	Materials are well used	No waste materials			

CSTMS107-STRUCTURE ELEMENTS		
Competence:Apply elements of structure		
RTQF level**: 1**	Credits**: 7**	Learning hours **: 70**
Sector**: Construction**		Sub-sector**: Masonry**
Issue date**: March, 2014**		Review date**:**

PURPOSE STATEMENT

This core module describes the skills, knowledge and attitudes required to a learner to apply elements of structure such as construction of beams, columns, stairs and making slabs in respect of set standards.

LEARNING ASSUMED TO BE IN PLACE

This module must be assessed after the following prerequisite modules:

CCM102 Health, Safety, security and environment at workplace
CCM106 Basic workplace calculations

CCM108 Cost estimation
CSTMS101 Basic technical drawing
CSTMS106 Steel bars works

LEARNING UNITS AND PERFORMANCE CRITERIA

Learning units describe the essential outcomes of a competence
Performance criteria describe the required performance needed to demonstrate achievement of the learning unit

Elements of competence By the end of the module, the trainee will be able to :	**Performance criteria**	
1. Erect columns	1.1 1.2 1.3 1.4 1.5	Appropriate selection of materials, tools and equipment Proper fixing of steel bar frame Proper pouring and casting of concrete Proper curing of concrete Proper removal of formwork
2. Construct beams	2.1 2.2 2.3 2.4 2.5	Appropriate selection of materials, tools and equipment Appropriate fixing of steel bars frame Proper pouring and casting of concrete Proper curing of concrete Proper removal of formwork
3. Make slabs	3.1 3.2 3.3 3.4	Appropriate selection of materials, tools and equipment Adequate disposition of concrete spacers Proper pouring and casting of concrete Proper curing of concrete

4.Construct stairs	4.1 4.2 4.3 4.4	Appropriate selection of materials, tools and equipment Adequate disposition of concrete spacers Proper pouring and casting of concrete Proper curing of concrete

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

Learning Unit 1: Erect columns			**Learning hours: 15h**
Learning outcomes	**Content**	**Learning activities**	**Resources**
1.1 Select tools, equipment and materials	• Introduction on columns. • Interpretation of drawing. • Selection of tools and equipment. • Selection of materials : ✓ Steel bars ✓ Aggregates ✓ Cement ✓ Wires ✓ Water ✓ Spacer blocks	○ Brainstorming on columns. ○ Practical exercise on interpretation of drawing. ○ Workshop exercise on selection of tools, equipment and materials.	- PPE: ✓ Gloves ✓ Goggles ✓ Helmet ✓ Boots ✓ Overall - Pincer - Steel bars - Hack saw - Steel bender - Clamps - Cement - Aggregates - Water

			- Scaffolds - Wires - Spacer blocks - Bucket - Wheelbarrow - Pans - Concrete mixer - Spades - Shovel - Vibrator machine - Grinder - Tape measure - Timber - Hammer - Saws
1.2Apply RCC for columns	• Preparation of steel bars frame. • Fixing of steel bars frame. • Preparation of concrete. • Pouring and casting of concrete • Curing of concrete.	○ Practical exercise on preparation and fixing steel bars frame. ○ Demonstration by video on applying RCC for columns. ○ Workshop exercise on pouring, casting and curing concrete. ○ Site visit.	- PPE: - Pincer - Steel bars - Saws - Steel bender - Hammer - Clamps - Timber - Cement - Aggregates - Water - Scaffolds - Spacers - Bucket - Wheelbarrow - Pans - Concrete mixer - Video aids - Shovels - Grinder

1.3 Remove formwork.	• Selection of tools and equipment. • Striking of formwork. • Storing of materials. • Cleaning of tools and equipment. • Storing tools and equipment.	○ Workshop exercise on selection of tools and equipment. ○ Practical exercise on striking of formwork. ○ Group discussion on storing materials. ○ Demonstration by video on striking of form work.	- Pictures. - PPE: - Hammer - Scaffolds - Wheelbarrow - Truck

Learning Unit 2: Construct beams			**Learning hours: 15h**
Learning outcomes	**Content**	**Learning activities**	**Resources**
2.1 Select tools, equipment and materials	• Introduction on beams. • Interpretation of drawing. • Selection of tools and equipment. • Cleaning of the working area. • Selection of materials : ✓ Steel bars ✓ Aggregates ✓ Cement ✓ Wires ✓ Water ✓ Spacer blocks	○ Brainstorming on beams. ○ Practical exercise on interpretation of drawing. ○ Workshop exercise on selection of tools, equipment and materials.	- Reference documents - Pictures - PPE: ✓ Gloves ✓ Goggles ✓ Boots ✓ Overall - Pincer - Steel bars - Hack saw - Steel bender - Clamps - Cement - Aggregates - Water - Scaffolds - Wires - Spacer blocks - Bucket - Wheelbarrow - Pans

			- Concrete mixer - Spades - Shovel - Vibrator machine - Grinder - Tape measure - Timber - Hammer - Saws
2.2 Apply RCC for beams	• Preparation of steel bars frame. • Fixing of steel bars frame. • Preparation of concrete. • Pouring and casting of concrete • Curing of concrete.	○ Practical exercise on preparation and fixing steel bars frame. ○ Demonstration by video on applying RCC for beams. ○ Workshop exercise on pouring, casting and curing concrete. ○ Site visit.	- Reference documents - Pictures - PPE: ✓ Gloves ✓ Goggles ✓ Helmet ✓ Boots ✓ Overall - Pincer - Steel bars - Saws - Steel bender - Hammer - Clamps - Timber - Cement - Aggregates - Water - Scaffolds - Wires - Spacers - Bucket - Wheelbarrow - Concrete mixer - Shovels - Grinder

2.3 Apply removal of formwork	• Selection of tools and equipment. • Striking of formwork. • Storing of materials. • Cleaning of tools and equipment. • Storing tools and equipment.	○ Workshop exercise on selection of tools and equipment. ○ Practical exercise on striking of formwork. ○ Group discussion on storing materials. ○ Demonstration by video on striking of form work.	- Pictures. - PPE: ✓ Gloves ✓ Goggles ✓ Helmet ✓ Boots ✓ Overall - Hammer - Scaffolds

Learning Unit 3: Make slabs			**Learning hours: 20h**
Learning outcomes	**Content**	**Learning activities**	**Resources**
3.1 Select tools, equipment and materials	• Introduction on slabs. • Interpretation of drawing. • Selection of tools and equipment. • Cleaning of the working area. • Selection of materials : ✓ Steel bars ✓ Aggregates ✓ Cement ✓ Wires ✓ Water ✓ Spacer blocks	○ Brainstorming on slabs. ○ Practical exercise on interpretation of drawing. ○ Workshop exercise on selection of tools, equipment and materials	- Reference documents - Pictures - PPE: ✓ Gloves ✓ Goggles ✓ Helmet ✓ Boots ✓ Overall - Pincer - Steel bars - Hack saw - Steel bender - Clamps - Cement - Aggregates - Water - Scaffolds - Wires - Spacer blocks - Bucket - Wheelbarrow - Concrete mixer

			- Spades - Shovel - Vibrator machine - Grinder - Tape measure - Timber - Saws
3.2 Apply RCC for slabs	• Preparation of steel bars frame. • Fixing of steel bars frame. • Preparation of concrete. • Pouring and casting of concrete • Curing of concrete.	○ Practical exercise on preparation and fixing steel bars frame. ○ Demonstration by video on applying RCC for slabs. ○ Workshop exercise on pouring, casting and curing concrete. ○ Site visit.	- Reference documents - Pictures - PPE: ✓ Gloves ✓ Goggles ✓ Helmet ✓ Boots ✓ Overall - Steel bars - Steel bender - Hammer - Timber - Cement - Aggregates - Water - Scaffolds - Wires - Spacers - Bucket - Wheelbarrow - Concrete mixer - Video aids - Shovels - Pan - Grinder
3.3 Apply removal of formwork	• Selection of tools and equipment.	○ Workshop exercise on selection of tools and	- Pictures. - PPE:

	• Striking of formwork. • Storing of materials. • Cleaning of tools and equipment. • Storing tools and equipment.	equipment. ○ Practical exercise on striking of formwork. ○ Group discussion on storing materials. ○ Demonstration by video on striking of form work.	✓ Gloves ✓ Goggles ✓ Boots - Hammer - Scaffolds - Wheelbarrow - Truck

Learning Unit 4: Construct stairs			**Learning hours: 20h**
Learning outcomes	**Content**	**Learning activities**	**Resources**
4.1 Select tools, equipment and materials	• Introduction on stairs. • Interpretation of drawing. • Selection of tools and equipment. • Cleaning of the working area. • Selection of materials : ✓ Steel bars ✓ Aggregates ✓ Cement ✓ Wires ✓ Water ✓ Spacer blocks	○ Brainstorming on stairs. ○ Practical exercise on interpretation of drawing. Workshop exercise on selection of tools, equipment and materials	- Reference documents - Pictures - PPE: ✓ Goggles ✓ Helmet ✓ Boots ✓ Overall - Steel bars - Hack saw - Steel bender - Clamps - Cement - Aggregates - Water - Scaffolds - Wires - Spacer blocks - Bucket - Wheelbarrow - Pans - Concrete mixer

			- Spades - Shovel - Vibrator machine - Grinder - Tape measure - Timber - Hammer
4.2 Apply RCC for stairs	• Preparation of steel bars frame. • Fixing of steel bars frame. • Preparation of concrete. • Pouring and casting of concrete • Curing of concrete.	○ Practical exercise on preparation and fixing steel bars frame. ○ Demonstration by video on applying RCC for stairs. ○ Workshop exercise on pouring, casting and curing concrete. ○ Site visit.	- PPE: ✓ Gloves ✓ Goggles ✓ Helmet ✓ Boots ✓ Overall - Steel bars - Saws - Steel bender - Hammer - Clamps - Timber - Cement - Aggregates - Water - Scaffolds - Wires - Bucket - Wheelbarrow - Pans - Concrete mixer - Video aids - Shovels - Pan - Grinder
4.3 Apply removal of formwork	• Selection of tools and equipment. • Striking of formwork. • Storing of materials.	○ Workshop exercise on selection of tools and equipment. ○ Practical exercise on striking	- Pictures. - PPE: ✓ Gloves ✓ Goggles

	• Cleaning of tools and equipment. • Storing tools and equipment.	of formwork. ○ Group discussion on storing materials. ○ Demonstration by video on striking of form work.	✓ Helmet ✓ Boots ✓ Overall - Hammer - Scaffolds - Wheelbarrow - Truck

ASSESSMENT GUIDELINES

Competency-based training provides learners with the skills, knowledge and understanding to demonstrate competence against standards and performance criteria in an applied context. The national VET system is competency-based, built around nationally endorsed industry standards. Competency-based assessment is the process of collecting evidence and judgments about whether competency has been achieved. In this section you will inform that will help you design, conduct and validate competency-based assessments.

Portfolio / Formative assessment

Elements of competence	Performance criteria	checklist	Score		Observation
			Yes	No	
Erect columns	Materials Tools and equipment are selected	Steel bars			
		Fine aggregates			
		Coarse aggregates			
		Water			
		Nails			
		Timbers			
		Binding Wires			
		Cement			
		Blade Concrete Spacers			
		Cutting tools			
		Setting out tools			
		Fixing tools			
		Mixing tools			
		PPE			

		Wheelbarrow			
		Concrete mixer			
		Vibrator machine			
	Tying and fixing of steel bar frame are done	steel bar frame tied and fixed			
	Pouring and casting of concrete are done	Column poured and casted			
	Curing of concrete is done	Column cured			
	The formwork is removed	Column finished			
Construct beams	Materials Tools and equipment are selected	Steel bars			
		Fine aggregates			
		Coarse aggregates			
		Water			
		Nails			
		Timbers			
		Binding Wires			
		Cement			
		Blade Concrete Spacers			
		Cutting tools			
		Finishing tools			
		Setting out tools			
		Mixing tools			
		PPE			
		Wheelbarrow			
		Concrete mixer			
		Vibrator machine			
	Tying and fixing of steel bar frame are don	steel bar frame tied and fixed			
	Pouring and casting of concrete are done	Beam poured and casted			
	Curing of concrete is done	Beam Is cured			
	Formwork is removed	Beam finished			
Make slabs	Materials, Tools and equipment are selected	Steel bars			
		Fine Aggregates			
		Coarse Aggregates			
		Water			
		Nails			
		Timbers			
		Binding Wires			

		Cement			
		Blade Concrete Spacers			
		Cutting tools			
		Setting out tools			
		Mixing tools			
		Finishing tools			
		PPE			
		Wheelbarrow			
		Concrete mixer			
		Vibrator machine			
	Tying and fixing of steel bar frame are done	steel bar frame tied and fixed			
	Disposition of steel bars and concrete spacers are done	Correct disposition of steel bars			
		concrete spacers are tied			
	Pouring and casting of concrete are done	Slab poured and casted			
	Curing of concrete is done	Slab cured			
Construct stairs	Materials, Tools and equipment are selected	Steel bars			
		Fine aggregates			
		Coarse aggregates			
		Water			
		Nails			
		Timbers			
		Binding wires			
		Cement			
		Blade concrete spacers			
		Cutting tools			
		Finishing tools			
		Setting out tools			
		Fixing tools			
		Mixing tools			
		PPE			
		Wheelbarrow			
		Concrete mixer			
		Vibrator machine			
	Tying and fixing of steel bar frame are done	steel bar frame tied and fixed			

	disposition of steel bars and concrete spacers are done	Correct disposition of steel bars			
		Concrete spacers are tied			
	Pouring and casting of concrete are done	Stairs poured and casted			
	Curing of concrete is done	Stairs cured			

Summative Assessment

Integrated situation

Centre Saint Andre KABGAYI has launched an offer of making slab cover for manhole having square shape with 50cm of side and 10cm thick on its hotel located at NYAMABUYE Sector in MUHANGA District. As a mason who won this job you are requested to execute that work within 5hours. The steel bars has 8mm diameter; ϕ6@ 100mm and hook of 8mm and the mixing ratio for concrete is 1:3:6.

All materials, tools and equipment needed are provided.

Assessment criteria	**Assessment indicator**	**checklist**	**Score**		**Observation**
			Yes	**No**	
Quality of process	Materials, Tools and equipment are selected	Steel bars			
		Cement			
		Fine Aggregates			
		Coarse Aggregates			
		Water			
		Binding Wires			
		Concrete Spacers			
		Cutting tools			
		Finishing tools			
		Fixing tools			
		Setting out tools			
		Mixing tools			
		PPE			
		Wheelbarrow			
		Concrete mixer			

		Vibrator machine			
	Working area is prepared	Area cleaned			
		Area Arrangement			
		Area levelled			
	Measurements are taken	Length			
		Width			
		Height			
		Thickness			
	Cutting and bending are done	Steel bars cut and bent			
	Fixing and tying are done	Steel bar frame fixed and tied			
	Finishing of steel bars frame is done	Steel bar frame correct			
	Pouring and casting of concrete are done	Slab poured and casted			
	Curing of concrete is done	Slab cured			
	The formwork is removed	Slab cover			
Quality of product	durable Slab cover is done	durable Slab cover			
	strong Slab cover is done	strong Slab cover			
	finished Slab cover is done	finished Slab cover			
Relevance	Dimensions are respected	Correct dimensions(Length, Width and Thickness)			
	Time is respected	Time required			
	Mixing ratio is respected	Correct ratio(1:3:6)			
	Materials are well used	No waste materials			

CSTMS108-WALL PLASTERING		
Competence:Perform wall plastering		
RTQF level**: 1**	Credits**: 5**	Learning hours **: 50**
Sector**: Construction**		Sub-sector**: Masonry**
Issue date**: March, 2014**		Review date**:**

PURPOSE STATEMENT

This core module describes the skills, knowledge and attitudes required to a learner to carry out all preliminary works for the application of different coats of plaster on the walls and finishing coats in respect of the standards.

LEARNING ASSUMED TO BE IN PLACE

This module must be assessed after the following prerequisite modules:

CCM102 Health, Safety, security and environment at workplace
CCM106 Basic workplace calculations

CCM108 Cost estimation
CSTMS101 Basic technical drawing
CSTMS102 Mortar preparation

LEARNING UNITS AND PERFORMANCE CRITERIA

Learning units describe the essential outcomes of a competence
Performance criteria describe the required performance needed to demonstrate achievement of the learning unit

Elements of competence By the end of the module, the trainee will be able to :	**Performance criteria**	
1. Carry out preliminary works	1.1 1.2 1.3	Proper selection of the ingredients Appropriate selection of tools and equipment. Prepare the surface and work place.
2. Apply coats	2.1 2.2 2.3 2.4 2.5	Adequate identification of plastering type Proper batching of ingredients. Proper mixing of ingredients Proper application of plaster Appropriate cleaning of tools equipment and workplace
3. Carry out finishing coat	3.1 3.2 3.3 3.4	Adequate selection of materials and tools Adequate batching of ingredients Adequate mixing of ingredients Proper application of the plaster

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

Learning Unit 1: Carry out preliminary works			**Learning hours: 10**
Learning outcomes	**Content**	**Learning activities**	**Resources**
1.1 Identify types of plaster	• Introduction on plastering • Different coats used in plastering: ✓ First coat ✓ Second coat ✓ Finishing coat • Types of plaster: ✓ Lime mortar ✓ Cement mortar ✓ Lime cement mortar	○ group discussion on plastering ○ Brainstorming on types of plastering and coats ○ Demonstration by video on types of plastering and coats ○ Site visit	- Video aids - Reference documents - Pictures
1.2 Select mortar ingredients, tools and equipment	• mortar ingredients: ✓ lime ✓ cement ✓ water ✓ sand: ➢ coarse ➢ fine	○ Physical demonstration of ingredients, tools and equipment for plastering works ○ Brainstorming on different qualities of good mortar for plastering works. ○ Site visit.	- Cement - Lime - Sand - Water - Trowel - Steel float - Wooden float

	• Plastering tools and equipment: ✓ Trowel ✓ Straight edge ✓ plaster floats - steel - wooden ✓ spirit level ✓ sponge ✓ chisel ✓ edge board ✓ spatter dash ✓ Plastering machine. • qualities of good mortar used in plastering: ✓ free from organic matters ✓ made with appropriate ratio ✓ Well prepared.		- Spirit level - Sponge - Chisel - PPE: ✓ Gloves ✓ Goggles ✓ Helmet ✓ Boots ✓ Overall - Edge board - Spatter dash - Plastering machine - Straight edge - Wheel barrow - Brush - Bucket
1.3 Prepare surface area	• Cleaning of surface area • Curing of the wall with water • Transport of mortar ingredients, tools and equipment	○ Practical exercise on surface cleaning and curing. ○ Brainstorming on curing of the wall.	- Wheel barrow - Bucket - Brush - Blooms - cement - lime - sand - water - trowel - steel float - wooden float - spirit level - sponge - chisel - edge board - PPE: ✓ Gloves ✓ Goggles ✓ Helmet

			✓ Boots ✓ Overall - spatter dash - plastering machine - straight edge

Learning Unit 2: Apply coats			**Learning hours: 30**
Learning outcomes	**Content**	**Learning activities**	**Resources**
2.1 Carry out batching and mixing of mortar ingredients	• Preparation of batching area • Identification of ratio/Mixing proportions: ✓ 1:4 ✓ 1:3 ✓ 1:1 • Quantification of the materials to be used. • Mixing of mortar ingredients • Transport methods of mortar: ✓ Manual ✓ Mechanical	○ Group discussion on ratio used for plastering works. ○ Demonstration by video on how to batch and mix mortar ingredients. ○ Workshop practices on batching and mixing of mortar ingredients	- cement - lime - sand - trowel - wheelbarrow - shovels - video aids - reference documents - pans - mortar mixer - spades - PPE: ✓ Gloves ✓ Goggles ✓ Helmet ✓ Boots ✓ Overall
2.2 Apply mortar	• Delivering of mortar on the work place. • Spreading of mortar on the surface. • Leveling of the surface area	○ Practical exercise on applying mortar on the surface. ○ Demonstration by video on how to apply mortar on the surface	- Wheel barrow - Bucket - mortar - trowel - steel float

			- wooden float - spirit level - sponge - chisel - edge board - spatter dash - plastering machine - straight edge - video aids - PPE: ✓ Gloves ✓ Goggles ✓ Helmet ✓ Boots ✓ Overall
2.3 Apply hygiene	• Removal of waste materials • Cleaning of tools and equipment • Storing of tools, equipment and unused materials	○ Group discussion on how to clean tools and equipment. ○ Practical works on cleaning the workplace, tools and equipment	- Wheel barrow - Bucket - Blooms - Wire brush - Trowel - steel float - wooden float - spirit level - sponge - chisel - edge board - PPE: ✓ Gloves ✓ Goggles ✓ Helmet ✓ Boots ✓ Overall - spatter dash - plastering machine

			- straight edge - oil - water

Learning Unit 3: Carry out finishing coat			Learning hours: 10
Learning outcomes	**Content**	**Learning activities**	**Resources**
3.1 Prepare materials, tools, equipment and the surface area	• Selection of tools and equipment • Cleaning of the surface area • Curing the surface area with water	○ Group discussion on cleaning the surface area. ○ Practical exercise on preparation of the surface, tools, equipment and materials.	- Wheel barrow - Bucket - Wire Brush - Bloom - Trowel - Cement - Sand - Sieve - steel float - wooden float - spirit level - sponge - edge board - spatter dash - plastering machine - Straight edge. - water - video aids - PPE: ✓ Gloves ✓ Goggles

			✓ Helmet ✓ Boots ✓ Overall
3.2 Carry out batching and mixing of mortar ingredients	• Identification of ratio • Qualities of sand used in plastering for finishing coat: ✓ Well graded ✓ Well sieved ✓ fine ✓ Free from dust • Preparation of mortar	○ Brainstorming on ratio used for finishing coat. ○ Group discussion on qualities of sand for finishing coat. ○ Workshop practices on batching and mixing of mortar ingredients.	- Wheel barrow - Bucket - Cement - Sand - water - shovel - mortar mixer - pans - PPE: ✓ Gloves ✓ Goggles ✓ Helmet ✓ Boots
3.3 Apply mortar	• Spreading of mortar on the surface. • Leveling of the surface • Finishing of the surface: ✓ By wooden float (for rough surfaces) ✓ By steel float/trowel (for smooth surfaces) • Curing of the surface	○ Group discussion on how to apply mortar on the surface. ○ Demonstration by video on how to apply mortar on the surface. ○ Practical exercise on applying mortar, finishing and curing the surface.	- Wheel barrow - Bucket - Trowel - mortar - steel float - wooden float - spirit level - PPE: - sponge - spatter dash - plastering machine - video aids - water
3.4 Apply hygiene	• Removing of waste materials. • Cleaning of tools and equipment. • Storing of tools, equipment and unused materials.	○ Practical works on cleaning tools, equipment and the workplace. ○ Practical works on storing tools, equipment and unused materials. ○ Demonstration by video on application of hygiene after plastering works.	- Wheel barrow - Bucket - Wire Brush - Bloom - Trowel - Sieve

			- steel float - wooden float - spirit level - edge board - spatter dash - plastering machine - straight edge - water - video aids

ASSESSMENT GUIDELINES

Competency-based training provides learners with the skills, knowledge and understanding to demonstrate competence against standards and performance criteria in an applied context. The national VET system is competency-based, built around nationally endorsed industry standards.

Competency-based assessment is the process of collecting evidence and judgments about whether competency has been achieved. In this section you will inform that will help you design, conduct and validate competency-based assessments.

Portfolio / Formative assessment

Elements of competence	Performance criteria	Checklist	Score		Observation
			Yes	No	
Carry out preliminary works	Ingredients are selected	Cement			
		Lime			
		Sand			
		Water			
	tools and equipment are selected	Cutting tools			
		Cleaning tools			
		Setting out tools			
		Finishing tools			
		PPE			
		spatter das			
	Prepare the surface and work place	Area levelled			

		Area arranged			
		Area cleaned			
Apply coats	Plastering types are identified	Lime mortar			
		Cement mortar			
		Lime cement mortar			
	Batching of ingredients is done	Batching boxes sizes Ingredients mixture			
	Mixing of ingredients is done	Plaster paste			
	Application of plaster is done	Area plastered			
	tools equipment and workplaceare	Tools, equipment and workplace			
	cleaned	cleaned			
Carry out finishing coats	selection of materials, tools and equipment is done	Water			
		Sand			
		Cement/Lime			
		Mixing tools			
		Finishing tools			
		Setting out tools			
		PPE			
		spatter dash			
		straight edge			
	batching of ingredients is done	Correct batching boxes			
		Ingredients mixtures			
	mixing of ingredients is done	Finishing Plaster paste			
	Application of the plaster is done	Area finished with plaster			

Summative Assessment

Integrated situation

APEC primary school located in NYARUGENGE district offered a work to fair construction of plastering one of their classroom walls, the wall is 8m^2 the ratio is 1:4 and the thickness of the plaster is 2cm, as a mason from the foresaid company which will do this work you are asked to Score it with in 6 hrs., tools, equipment and materials provided by the client. The plaster to be used is cement plaster

Assessment criteria	Assessment indicator	Checklist	Score		Observation
			Yes	No	
Quality of process	Materials, Tools and equipment are selected	Cement/Lime			
		Sand			
		Water			
		Setting out tools			
		Finishing tools			
		Plastering tools			
		Cleaning tools			
	Work place is prepared	Area levelled			
		Area arranged			
		Area cleaned			
	Plaster paste of different coats are prepared	Plaster paste			
	Area is plastered	Area plastered			
Quality of product	Durable Area plastered is done	durable Area plastered			
	Area plastered without cracks is done	Area plastered without cracks			
	Area plastered free from impurities is done	Area plastered free from impurities			
Relevance	Dimensions are respected	Correct height, width and thickness			
	Materials are well used	No waste materials			
	Time is respected	Time required			

CSTMS109-OPENING AND FIXING		
Competence:Perform opening and fixing		
RTQF level**: 1**	Credits**: 5**	Learning hours **: 50**
Sector**: Construction**		Sub-sector**: Masonry**
Issue date**: March, 2014**		Review date**:**

PURPOSE STATEMENT

This is a core module that describes the skills, knowledge and attitudes required to a learner in order to perform opening and fixing

LEARNING ASSUMED TO BE IN PLACE

This module must be assessed after the following prerequisite modules:

CCM102 Health, Safety, security and environment at workplace
CCM106 Basic workplace calculations
CCM108 Cost estimation
CSTMS101 Basic technical drawing

LEARNING UNITS AND PERFORMANCE CRITERIA

Learning units describe the essential outcomes of a competence
Performance criteria describe the required performance needed to demonstrate achievement of the learning unit

Elements of competence By the end of the module, the trainee will be able to :	**Performance criteria**	
1. Make opening	1.1 1.2 1.3	Proper taking of measurements Appropriate setting out of openings Proper application of techniques of making openings
2. Fix opening **(doors, windows, Ventilators and louvers)**	2.1 2.2 2.3	Proper selection of tools, material and equipment Proper preparation of materials Appropriate fixation of openings Proper finishing around frames Proper checking of functionality
3. Carry out opening and fixing finishing	3.1 3.2 3.3 3.4	Appropriate selection of tools and materials Proper preparation of the surface area Proper application of filled materials Appropriate closing of activities

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

Learning unit 1: Make openings			**Learning hours: 10**
Learning outcomes	**Content**	**Learning activities**	**Resources**
1.1 Prepare tools and equipment	• Introduction on openings. • Identification of tools and equipment. • Use of tools and equipment.	○ Brainstorming on openings. ○ Group discussion on tools and equipment	- Tape measure - Hammer - Chisels - Wheelbarrow - Try square - Trowel - PPE: ✓ Googles ✓ Dust mask ✓ Over all ✓ Safety shoes
1.2 Set out openings	• Cleaning of surface area. • Interpretation of drawing.	○ Practical exercise on setting out openings.	- Tape measure - Try square

	• Taking of measurement. • Marking of openings		- Building line - Marker pen - Spirit level - PPE: ✓ Dust mask ✓ Over all ✓ Safety shoes - Blooms - Spades - Shovels - Wheelbarrow
1. 3 Provide space for openings.	• Erection of structure. • Checking of measurements • Removal of unwanted elements. • .Cleaning and storing of tools.	○ Practical exercise on erecting and checking measurement of structure. ○ Brainstorming on cleaning and storing tools	- Tape measure - Try square - Building line - Marker pen - Spirit level - Spades - Shovels - Pan - Wheelbarrow - Cement - Aggregates - Bricks /blocks - Stones - Water - PPE: ✓ Googles ✓ Dust mask ✓ Over all ✓ Safety shoes

Learning unit 2: Fix opening (doors, windows, Ventilators and louvers)			Learning hours: 10
Learning outcomes	**Content**	**Learning activities**	**Resources**
2.1 Select tools, equipment and materials	• Introduction on fixing openings. • Identification of tools and equipment. • Identification of materials : ✓ Doors ✓ Windows ✓ Ventilators ✓ Iron bars ✓ Louvers	○ Brainstorming on tools, equipment and materials. ○ Site visit	- Doors - Windows - Ventilators - Iron bars - Louvers - Hammer - Screw - Wall plug - Screwing machine - Drilling machine - Expansion foam - Cement - Sand - Water - Spirit level - PPE: ✓ Googles ✓ Dust mask ✓ Over all ✓ Safety shoes

2.2 Prepare the surface area	• Preparation of mortar. • Taking of measurement. • Making of holes.	○ Practical exercise on preparation of the surface. ○ Practical exercise on preparation of mortar.	- Blooms - Spades - Wheelbarrow - Cement - Aggregates - Drilling machine - Tape measure - Spirit level - Trowel - PPE: ✓ Googles ✓ Dust mask ✓ Over all ✓ Safety shoes - Shovels - Chisel - Pan
2.3 Perform Adjustment of opening	• Placing of opening devices (door, window and ventilator). • Checking of opening device functioning. • Refill the holes	○ Practical exercise on adjusting of openings. ○ Group on checking of opening device functioning.	- Spades - Wheelbarrow - Cement - Aggregates - Drilling machine - Tape measure - Spirit level - Trowel - Shovels - Chisel - Pan - Hammer - PPE: ✓ Googles ✓ Dust mask ✓ Over all

			✓ Safety shoes

Learning unit 3: Carry out finishing works			**Learning hours: 20**
Learning outcomes	**Content**	**Learning activities**	**Resources**
3.1 Select tools and materials	• Introduction on finishing works for openings. • Identification of tools • Identification of materials	○ Brainstorming on finishing works for openings. ○ Group discussion on tools, and materials.	- Spades - Wheelbarrow - Cement - Aggregates - Tape measure - Spirit level - Trowel - Shovels - Chisel - Pan - Hammer - Wooden floats - Steel floats - Water - PPE: ✓ Googles ✓ Dust mask ✓ Over all ✓ Safety shoes
3.2 Apply last coat	• Preparation of mortar. • Delivering of mortar.	○ Practical exercise on application of	- Spades - Wheelbarrow

	• Application of mortar	mortar. ○ Demonstration by video on application of mortar.	- Cement - Aggregates - Tape measure - Spirit level - Trowel - Shovels - Wooden floats - Steel floats - Chisel - Pan - Hammer - Water - PPE: ✓ Googles ✓ Dust mask ✓ Over all ✓ Safety shoes
3.3 Closing activities	• Cleaning of the working area. • Cleaning of tools. • Storing of tools and unused materials.	○ Group discussion on cleaning and storing tools. ○ Practical exercises on cleaning and storing tools.	- Blooms - Spades - Wheelbarrow - Tape measure - Spirit level - Trowel - PPE: ✓ Googles ✓ Dust mask ✓ Over all ✓ Safety shoes - Shovels - Pan

ASSESSMENT GUIDELINES

Competency-based training provides learners with the skills, knowledge and understanding to demonstrate competence against standards and performance criteria in an applied context. The national VET system is competency-based, built around nationally endorsed industry standards.

Competency-based assessment is the process of collecting evidence and judgments about whether competency has been achieved. In this section you will inform that will help you design, conduct and validate competency-based assessments.

Portfolio / Formative assessment

Elements of competence	**Performance criteria**	**Checklist**	**Score**		**Observation**
			Yes	**No**	
Make openings	Measurements are take	Opening height measured			
		Opening width measured			
	Setting out of openings is done	Openings setting out done			
	Application of techniques of making openings is done				
Fix openings(doors, windows, Ventilators and louvers)	Tools, material and equipment are selected	Cements			
		Aggregates			
		Sand			
		Water			
		Additives			
		Doors/ Windows			

		Ventilators / Louvers			
		Screw			
		Wall plug			
		Cutting tools			
		Finishing tools			
		Setting out tools			
		Cleaning tools			
		Fixing tools			
		PPE			
	Materials are prepared	Drilling machine			
		Mortar/concrete			
		Doors/ Windows			
		Ventilators/ Louvers			
	Fixation of openings is done	Doors fixed			
		Windows fixed			
		Ventilators fixed			
		Louvers fixed			
	Finishing around frames is done	Area around frames finished			
	Checking of functionality is done	Iron mongeries fixation			
Carry out openings and fixing finishing	Selection of materials and tools are done	Cutting tools			
		Setting out tools			
		Finishing tools			
		Cleaning tools			
		Cements			
		Aggregates			
		Sand			
		water and additives			
		Doors/ Windows			
		Ventilators / Louvers			
		Screw			
		Wall plug			
	Surface area is prepared	Area levelled			
		Area cleaned			

		Area arranged			
	Application of filled materials is done	Area plastered with filled materials			
	Closing of activities is done	Workplace cleaned			
		Tools and equipment cleaned			
		Tools and equipment stored			

Summative Assessment

Integrated situation

ROKO construction company located in KICUKIRO district wishes to carry out the works of fixing doors and windows in one of theirs construction site in Kigali. That site is commercial building the size of the door is 210*90 and size of windows is 160*120*, Units are in cm, as a mason from the foresaid company, you are asked to Score this work with in 6hrs. All materials tools and equipment are available on the site

Assessment criteria	**Assessment indicator**	**Checklist**	**Score**		**Observation**
			Yes	**No**	
Quality of process	Measurements and setting out is done	Opening height measured			
		Opening width measured			
	tools, material and equipment are selected	Cements			
		Aggregates			
		Sand			
		water and additives			
		Doors/ Windows/			
		Ventilators / Louvers			
		Screw			
		Wall plug			
		Setting out tools			
		Fixing tools			

		Finishing tools			
		PPE			
		Drilling machine			
	materials are prepared	Mortar/concrete			
		Doors/ Windows/			
		Ventilators/ Louvers			
	fixation of openings is done	Doors fixed			
		Windows fixed			
		Ventilators fixed			
		Louvers fixed			
	Finishing around frames is done	Area around frames finished			
	checking of functionality is done	Iron mongery			
Quality of product	Stable Doors and windows are done	stable Doors and windows			
	Doors and windows fixing finished is done	Doors and windows fixing finished			
Relevance	Dimension is respected	Correct dimensions			
	Time is respected	Time required			
	Materials are well used	No waste materials			

CSTMS1010-CONCRETE PAVEMENT		
Competence:Perform concrete pavement		
RTQF level**: 1**	Credits**: 6**	Learning hours **: 60**
Sector**: Construction**		Sub-sector**: Masonry**
Issue date**: March, 2014**		Review date**:**

PURPOSE STATEMENT

This core module describes the skills, knowledge and attitudes required to a learner to perform a floor pavement and all other related tasks in respect of the standards

LEARNING ASSUMED TO BE IN PLACE

This module must be assessed after the following prerequisite modules:

CCM102 Health, Safety, security and environment at workplace
CCM106 Basic workplace calculations
CCM108 Cost estimation
CSTMS101 Basic technical drawing
CSTMS103 Concrete preparation

LEARNING UNITS AND PERFORMANCE CRITERIA

Learning units describe the essential outcomes of a competence
Performance criteria describe the required performance needed to demonstrate achievement of the learning unit

Elements of competence By the end of the module, the trainee will be able to :	**Performance criteria**	
1. Prepare the surface	1.1 1.2 1.3	Proper earth cuttingandfillingof the area Proper removal of the soil from the area Proper application of compaction methods
2. Perform sub floor	2.1 2.2 2.3	Proper identification of sub floor types Proper selection of tools and material Appropriate laying of hardcore
3. Apply mortar/ concrete	3.1 3.2 3.3 3.4 3.5 3.6	Proper selection of ingredients Proper batching of ingredients Proper mixing of ingredients Adequate transport and placing of the concrete Proper vibration of the concrete Adequate curing of the floor pavement

4.Perform pavement finishing	4.1 4.2 4.3 4.4 4.5	Appropriate selection of tools and material Proper batching of ingredients Appropriate mixing of ingredients Adequate application of finishing mortar Proper cleaning and curing

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

Learning unit 1: Prepare the surface area			**Learning hours: 20h**
Learning outcomes	**Content**	**Learning activities**	**Resources**
1.1 Select tools, equipment and materials	• Introduction on floor pavement. • Identification of tools and equipment used: ✓ Trowels ✓ Floats ✓ Straight edges ✓ PPE: ➢ Helmet ➢ Overall ➢ Gloves	○ Demonstration of tools, materials and equipment in the workshop.	- PPE: ✓ Overall ✓ Gloves ✓ Boots - Wooden float - Steel float - Spirit level - Straight edge - Trowels - Cement - Aggregates

	➢ Boots • Selection of materials. ✓ Cement ✓ Aggregates ✓ Water		- Water - Spades - Hoe - Pegs - Building line - Hammer - Straight edge
1.4 Perform levelling	• Digging out the top soil • Removal of soil on the surface. • Curing of the surface area: ✓ Manual ✓ Mechanical	○ Site visit. ○ Group discussion on characteristic of good soil ○ Practical exercise on levelling the surface area. ○ Group discussion on digging out to top soil.	- Hoe - Books - Hoe - Wheel barrow - Pick axe - Spades - Straight edge
1.5 Compact the surface	• Selection of appropriate soil. • Spreading the soil on the surface. • Compaction methods: ✓ Manual ✓ Mechanical • Cleaning tools, equipment and the surface: ✓ By oil ✓ By water ✓ Air compressor • Storing of tools and equipment.	○ Practical exercises on selection of the soil. ○ Site visit. ○ Demonstration by video on compaction of the soil. ○ Practical exercise on compaction of the soil.	- Compacting Machine - Video aids - Oil - Water - Air compressor

Learning unit 2: Perform sub floor			**Learning hours: 30h**
Learning outcomes	**Content**	**Learning activities**	**Resources**
2.1 Select tools	• Introduction on sub floor. • Identification of tools and	○ Practical exercises on selection of tools	- PPE:

and equipment.	equipment: ✓ Trowel ✓ Straight edge ✓ Floats ✓ Vibrator machine • Use of tools and equipment.	and equipment. ○ Group discussion on use of tools and equipment. ○ Brain storming on sub-floor.	✓ Helmet ✓ Overall ✓ Gloves ✓ Boots - Trowel - Straight edge - Floats - Vibrator machine
2.2 Apply hard core	• Lying of aggregates, stones, bricks and sand. • Compaction of the aggregates ✓ Manual ✓ Mechanical • Levelling of the sub-floor.	○ Practical exercise on levelling and compacting sub-floor. ○ Demonstration by video on levelling and Compacting the sub-floor.	- Water - Spirit level - Building line - Hammer - Aggregates - Bricks - Tape measure - Wheelbarrow - Reference documents - Compacting machine - PPE: ✓ Helmet ✓ Overall ✓ Gloves ✓ Boots
2.3 Carry out closing activities	• Verification of sub-floor dimensions. • Cleaning of work place, tools and equipment. • Storing of tools and equipment.	○ Group discussion on cleaning the work place. ○ Practical exercise on verification of sub-floor dimensions. ○ Practical exercise on cleaning and storing tools and equipment.	- Spirit level - Stones - Bricks - Sand - Water - Spirit level - Wheelbarrow - Bloom - Spades - Building line

			- Hammer - Shovels - Hoe - PPE: ✓ Helmet ✓ Overall ✓ Gloves ✓ Boots

Learning unit 3: Apply mortar/concrete			**Learning hours: 10h**
Learning outcomes	**Content**	**Learning activities**	**Resources**
3.1 Identify types of pavement	• Type of pavements: ✓ Tile pavement ✓ Terrazzo pavement ✓ Concrete pavement • Thickness dimensions of pavements • Mixing ratio of ingredients.	○ Group discussion on different types of floor pavement. ○ Demonstration by video on different types of floor pavement.	- Aggregates - Water - Tape measure - Video aids - Tiles - Cement
3.2 Perform screeding	• Preparation of sub-floor • Application of mortar/concrete ingredients • Levelling of surface area.	○ Site visit. ○ Practical exercise on applying mortar/concrete ingredients. ○ Demonstration by video on screeding.	- Sand - Cement - Water - Straight edge - Wooden float - Steel float - PPE: - Helmet - Overall

			- Gloves - Boots
3.3 Floor pavement finishing	• Identification of tools and materials for floor pavement finishing. • Finishing layer. • Cleaning and curing the floor pavement.	○ Practical exercise on making finishing layer. ○ Group discussion on cleaning and curing the floor pavement.	- Cement - Sand - Water - Spades - Trowel - Wheelbarrow - Sponge - Straight edge - Steel floats - Wood floats - PPE: ✓ Helmet

ASSESSMENT GUIDELINES

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Competency-based assessment is the process of collecting evidence and judgments about whether competency has been achieved. In this section you will inform that will help you design, conduct and validate competency-based assessments.

Portfolio / Formative assessment

Elements of competence	**Performance criteria**	**checklist**	**Score**		**Observation**
			Yes	**No**	
Prepare the surface	The earth cutting/ filling of area is done	The surface area filled/cut			
	The soil is removed from the area	Area cleaned			
	The compaction methods are applied	Mechanical method			
Perform subfloor	Subfloor types are prepared	Area compacted,			
		Area levelled			
		Area cleaned			

	Tools and material are identified	Setting out tools			
		Fixing tools			
		Pegs			
		Stone			
		Blocks/bricks			
		Profile			
	Hard-core is laid	Hard-core laid			
Apply mortar/concrete	Ingredients are selected	Mixing tools			
		Sand			
		Gravels			
		Cement			
		Water			
	Batching of ingredients is done				
Perform pavement finishing	Mixing of ingredients is done	Homogenous of Concrete paste			
	Concrete transportation and placing are done	Mechanical methods			
	Floor pavement curing is done	Pavement cured			
	Tools and materials are selected	Finishing Tools			
		Materials: sand, cement, water admixtures			
	Batching of ingredients is done	Correct batching box sizes			
		Ingredients mixtures			
	Mixing of ingredients is done	Homogenous of Concrete paste			
	Transportation and placing are done	Concrete transported and placed			
	Vibration is done	No voids in the concrete			
	Finishing mortar is applied	Finished pavement			
	Curing and cleaning are done	Pavement cleaned and cured			

Summative Assessment

Integrated situation

IPRC KIGALI located in KICUKIRO district, NIBOYE Sector wants to build a concrete pavement parking for principal car having 4mx3m the thickness must be 10cm. ROKO Construction Ltd signed a contract, and as a mason of the foresaid company, you are asked to execute those task within 7hours. The mix ratio: 1:2:4 all materials and tools are available on the site, roughness is a must.

Assessment criteria	**Assessment indicator**	**checklist**	**Score**		**Observation**
			Yes	**No**	
Quality of process	Tools, materials and equipment are selected	Finishing tools			
		Fixing tools			
		Compaction tools			
		Stone			
		Sand			
		Gravel			
		Cement			
		Water			
		PPE			
	Subfloor is compacted	Area compacted			
	Hard-core is laid	Hard-core laid			
	Mixing of ingredients is done	Homogeneous of			

		Concrete paste			
	Concrete Transportation and placing are done	Concrete paste			
	Vibration is done	No voids			
	Finishing mortar is applied	Finishing pavement			
Quality of product	Strong Concrete pavement is done	Strong Concrete pavement			
	Durable Concrete pavement is done	Durable Concrete pavement			
	Pavement finished is done	Pavement finished			
Relevance	Measurements are respected	Correct width			
		Correct length			
		Correct thickness			
	Materials are well used	No waste materials			
	Time is respected	Time required			

CSTMS1011-TILES WORKS		
Competence:Apply tiles		
RTQF level**: 1**	Credits**: 5**	Learning hours **: 50**
Sector**: Construction**		Sub-sector**: Masonry**
Issue date**: March, 2014**		Review date**:**

PURPOSE STATEMENT

This core module describes the skills, knowledge and attitudes required to the learner in order to apply tiles on the floor, walls and skitting. The learner will also be able to cut and grouting.

LEARNING ASSUMED TO BE IN PLACE

This module must be assessed after the following prerequisite modules:\

CCM102 Health, Safety, security and environment at workplace
CCM106 Basic workplace calculations
CCM108 Cost estimation
CSTMS101 Basic technical drawing

LEARNING UNITS AND PERFORMANCE CRITERIA

Learning units describe the essential outcomes of a competence
Performance criteria describe the required performance needed to demonstrate achievement of the learning unit

Elements of competence By the end of the module, the trainee will be able to :	**Performance criteria**	
1. Set out the work place	1.1 1.2 1.3 1.4	Adequate preparation of the surface Proper taking of measurements Precise setting out of the surface area Cleaning the workplace
2. Apply mortar/ concrete	2.1 2.2 2.3 2.4	Proper selection of material, tools and equipment Proper batching of ingredients Proper mixing of ingredients Appropriate placing of mortar/concrete

3. 1. Place tiles	3.1 3.2 3.3 3.4 3.5	Proper selection of material ,tools and equipment Accurate cutting of tiles Appropriate application of tiles Appropriate pointing of joints(grouting) Proper cleaning of the tiled area

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

Learning Unit 1: Set out the work place			**Learning hours: 15h**
Learning outcomes	**Content**	**Learning activities**	**Resources**
1.1 Select tools, equipment and materials	• Introduction on tiles work: • Use of tools and equipment for tile works. • PPE for tile work: ✓ Googles ✓ Dust mask ✓ Over all ✓ Safety shoes	○ Practical exercise on how to use PPE ○ Group discussion on tile works. ○ Demonstration of different tools and equipment for tile works.	- Pictures - PPE: ✓ Googles ✓ Dust mask ✓ Over all ✓ Safety shoes ✓ Ear protector - ceramic tiles - granite tiles

	✓ Ear protector • Maintenance of tools and equipment.		- rough tiles - smooth tiles - cement - angle line - sand - mark pen - water - spacers - tile cutter machine - pincer - trowel - wheelbarrow - shovels - straight edge - spirit level - tape measure - hammer - pans
1.2 Prepare the work place	• Cleaning of the work place. • Leveling of the work place by screeding. • Curing of the surface area.	○ Brainstorming on how to clean the work place. ○ Practical exercise on leveling and curing of the surface area.	- PPE: ✓ Googles ✓ Dust mask ✓ Over all ✓ Safety shoes ✓ Ear protector - wheelbarrow - spades - shovels - straight edge - spirit level - chisels - cement - sand - tape measure - hammer - pans - Sponge

			- Brooms - Trowels - Wooden floats - Steel floats.
1.3 Apply gauges	• Taking measurements • Marking and gauging • Cleaning the surface area.	○ Practical exercise on measuring, marking and gauging ○ Demonstration by video on marking and gauging.	- Pencils - Chalk line - Tiles. - Tape measure - Spirit level - Building line - Cement - Sand - Wheelbarrow - Trowel - Spades - Wooden float - Steel float - Water

Learning Unit 2: Prepare mortar			**Learning hours: 20h**
Learning outcomes	**Content**	**Learning activities**	**Resources**
2.1 Select tools, materials and equipment	• Identification of tools and equipment. • Identification of materials: ✓ Water: free for organic matter and chemicals. ✓ Sand: fine sand and free from impurities ✓ Cement ➢ Portland cement ➢ White cement • Methods of mortar preparation: ✓ Manual	○ Brainstorming on tools, equipment and materials. ○ Group discussion on methods of mortar preparation.	- PPE: ✓ Googles ✓ Dust mask ✓ Over all ✓ Safety shoes ✓ Ear protector - wheelbarrow - spades - shovels - cement ✓ Portland cement ✓ White cement

	✓ mechanical		- sand - pans - mortar mixer
2.2 Carry out batching and mixing	• Introduction on mixing ratio. • Quantification of materials • Mixing of mortar ingredients.	○ site visit ○ Practical exercise on batching and mixing. ○ Demonstration by video on batching and mixing concrete ingredients.	- PPE: ✓ Dust mask ✓ Over all ✓ Safety shoes ✓ Ear protector - wheelbarrow - spades - shovels - cement ✓ Portland cement ✓ White cement - sand - pans - mortar mixer
2.3 Deliver mortar	• Introduction on setting time of mortar. • Methods of delivering mortar: ✓ Manual ✓ Mechanical • Cleaning of the work place, tools and equipment • Storing of tools and equipment	○ Practical exercise on delivering of mortar. ○ Brainstorming on setting time of mortar. ○ Demonstration by video on delivering mortar.	- PPE: ✓ Dust mask ✓ Over all ✓ Safety shoes ✓ Ear protector - wheelbarrow - spades - shovels - mortar - pans - mortar mixer

Learning Unit 3: place tiles			Learning hours: 15h
Learning outcomes	**Content**	**Learning activities**	**Resources**
3.1 Select tools, materials and equipment	• Identification of tools and equipment : ✓ cutting tools and equipment ✓ setting tools and equipment ✓ Mixing tools and equipment. • Identification of materials : ✓ sand ✓ water ✓ tiles ✓ white cement ✓ Portland cement • Use of tools and equipment.	○ brainstorming on tools, materials and equipment ○ Practical exercise on using tools and equipment.	- Tiles. - Tape measure - Spirit level - Building line - Cement - Sand - Wheelbarrow - Trowel - Spades - Water - Reference document - Mortar mixer - Straight edge - Spacers - Angle line - PPE: ✓ Googles ✓ Dust mask ✓ Over all ✓ Safety shoes ✓ Ear protector
3.2 Apply tiles	• Soaking of the tiles. • Curing of the surface area. • Application of mortar on the tiles. • Lying of the tiles. • Cutting of tile pieces.	○ Practical exercise on laying tiles. ○ Practical exercise on cutting tiles. ○ Site visit	- Tiles. - Tape measure - Spirit level - Building line - Cement - Sand - Wheelbarrow - Trowel

			- Water - Reference document - Mortar mixer - Straight edge - Angle line - PPE: ✓ Over all ✓ Safety shoes ✓ Ear protector - ceramic tiles - granite tiles - rough tiles - smooth tiles
3.3 Carry out finishing works	• Removal of spacers. • Pointing and grouting • Cleaning of work place, tools and equipment :	○ Practical exercise on pointing and grouting. ○ Practical exercise on cleaning of surface area.	- Grouts - Water - Wheelbarrow - Trowel - Spades - PPE: ✓ Dust mask ✓ Over all ✓ Safety shoes ✓ Ear protector

ASSESSMENT GUIDELINES

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Portfolio / Formative assessment

Elements of competence	Performance criteria	Checklist	Score		Observation
			Yes	No	
Set out the work place	Surface is prepared	Surface cleaned			
		Area arranged			
		Area levelled			
	Measurements are taken	Length			
		Width			
	Setting out of the surface area is done	Setting out done			
	Clean the workplace	Workplace cleaned			
Apply mortar/ concrete	Material, tools and equipment are selected	Cutting tools			
		Setting out tools			
		Mixing tools			
		Finishing tools			
		PPE			
		Tiles			
		Cement			
		Sand			
		Water			
		Grout			
		Profiles			
		Nails			
	Batching ingredients is done	Batching boxes sizes			
		Ingredients mixtures			

Place tiles	Mixing of ingredients is done	Mortar paste			
	Placing of mortar is done	Mortar placed			
	Material ,tools and equipment are selected	Setting out tools			
		Cutting tools			
		Finishing tools			
		Fixing tools			
		PPE			
		Tiles			
		Cement			
		Sand			
		Water			
		Grout			
		Profiles			
		Nails			
	Cutting of tiles is done	Tiles cut			
	Application of tiles is done	Tiles laid			
	Grouting is done	Joints done			
	Tiles area is cleaned	Tiles area cleaned			

Summative Assessment

Integrated situation

MUSANZE district located in Northern Province offered a work to Real construction company of laying tiles in the district mayor office, room 5m*4m in size the tiles to be laid are 50 cm*50cm and the floor tiles must be in rectangular form after finishing. As mason who will do this work you are asked to Score within 6hrs, materials are provided by MUSANZE district

Assessment criteria	Assessment indicator	Checklist	Score		Observation
			Yes	No	
Quality of process	Area is prepared and measured	Area prepared and measured			
	Tools, equipment and materials are selected	Cutting tools			
		Setting out tools			
		Fixing tools			
		Finishing tools			
		Cleaning tools			
		PPE			
		Tiles			
		Cement			
		Sand			
		Water			
		Grout			
		Profiles			
		Nails			
	Batching of ingredients is done	Batching boxes sizes			
		Ingredients mixtures			
	Mixing of ingredients is done	Mortar paste			
	Placing of mortar is done	Area where mortar is placed			
Quality of product	Tiles pavement levelled is done	Tiles pavement levelled			
	Uniform tiles pavement joints is done	Uniform tiles pavement joints			
	Finished pavement of tiles is done	Tiles pavement finished			
Relevance	Dimension is respected	Correct dimensions			
	Time is respected	Time required			
	Materials are well used	No waste materials			

CCM107-RUNNING MICROBUSINESS		
Competence :Run microbusiness		
RTQF level**: 1**	Credits**: 4**	Learning hours **: 40**
Sector**: All**		Sub-sector**: All**
Issue date**: March, 2014**		Review date**:**

PURPOSE STATEMENT

This module describes the skills and knowledge required to prepare a business plan for a small business and operate a small business. At the end of this module, the participants understand the principles and tools behind personal and family money-management. They are able to understand the importance of saving and reducing expenses. They are able to organize and manage personal and household finances. They can create a personal budget and think strategically about their finances. They can evaluate their options for earning money and are familiar with ways to establish and maintain personal credit. They are aware of the risks associated with credit. The participants simulate income-generating activities after which they are familiar with the basic cycles of business. They can plan for income-generating activity expenses and loan repayments. They can keep basic business financial records. They are able to evaluate the risks and opportunities of using credit in income generating contexts. They are able to distinguish between money to be used for investment into their income-generating activities, for their family expenses, and for savings. They learn about different market actors

LEARNING TO BE ASSUMED IN PLACE

Not applicable

LEARNING UNITS AND PERFORMANCE CRITERIA

Learning units describe the essential outcomes of a competence
Performance criteria describe the required performance needed to demonstrate achievement of the learning unit

Elements of competence By the end of the module, the trainee will be able to :	**Performance criteria**	
1. Develop entrepreneurial mindset	1.1 1.2 1.3 1.4	Proper identification of livelihood activities and business in the community Proper description of characteristics of an entrepreneur and their role in the society Adequate identification and examination of risks related to a certain business as per its nature and size and responding to them accordingly Accurate identification of a business idea and selection of a good- profitable-ones among many
2. Manage finance	2.1 2.2 2.3 2.4 2.5 2.6 2.7	Proper identification of personal and business financial needs in different life situations. Proper mobilization of the required amount of money for different needs. Effective management of business money as per procedures in a way to avoid waste of money. Appropriate saving of money in a recognized financial institution. Effective management of business debts. Adequate execution of basic record-keeping as per standards Effective development of a financial plan over a defined period of time
3. Manage a small business	3.1 3.2 3.3	Proper description of basic business cycle in terms of buying, adding value and selling for profit Correct identification of credit risks and unexpected costs and dealt with accordingly Adequate development of record-keeping sheet as per standards and on time
4. Develop a business plan for a micro business	4.1 4.2 4.3	Realistic formulation of objectives of the small business, and are clearly stated and measurable Appropriate filling out of the business plan template as per standards. The simulated small business has brought benefits

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.

Learning unit 1: Develop entrepreneurial mindset			**Learning hours: 5**
Learning outcomes	**Content**	**Learning activities**	**Resources**
1.1 Identify income generating activities	• Categorization of income generation activities • Characteristics of livelihood business activities in the community	○ Small group discussion ○ brainstorming ○ large group discussion ○ Presentation	- Flipchart - Pen - Notebooks - Projector
1.2 Describe an entrepreneur	• Characteristics of an entrepreneur (mindset) • Role of entrepreneur in community	○ small group discussion ○ brainstorming ○ large group discussion ○ presentation ○ case studies ○ Site visit ○ guest speakers	- Flipchart - Pen - Notebooks - Projector - Videos
1.3 Examine business risks	• Types of business risks and their impact on business • Strategies to overcome business risks	○ exercise ○ role-play ○ large group discussion ○ case studies ○ guest speakers ○ Practical exercises on evaluation of business risks	- Role play scenarios - Videos
1.4 Select a business idea	• Characteristics of a promising business idea	○ Brainstorming ○ large group discussion ○ Practical exercises on selection of a business idea ○ Visit a nearby business settings	- Flipchart - Pen - Notebooks - Projector

Learning unit 2: Manage finance			learning hours: 10
Learning outcomes	**Content**	**Learning activities**	**Resources**
2.1 Examine business financial needs	• Identification of money needs in daily life ✓ Personal needs ✓ Business needs • Identification of how the things they need money for change as their life situations change	○ small group discussion ○ brainstorming ○ large group discussion ○ Presentation	- Flipchart - Pen - Notebooks - Projector
2.2 Raise fund (money)	• Planning of getting money • Sources of funds for a business ✓ Borrowing (financial institution of friends/family) ✓ Saving ✓ Working to earn money)	○ small group discussion ○ brainstorming ○ prioritizing ○ role-play ○ large group discussion ○ presentation ○ Case studies	- Role play scenarios - Flipchart - Pen - Notebooks - Projector
2.3 Manage money effectively	• Good ways to manage money • Ways of wasting money • Ways to cut costs through ✓ Reducing ✓ Recycling ✓ Repairing ✓ Reusing	○ exercise ○ role-play ○ large group discussion ○ Case studies	- Role play scenarios
2.4 Save money	• Definition of the concept of saving • Recognize that not only rich people can save • Reasons for saving (unexpected events and specific needs) • Savings goals • Saving possibilities and institutions	○ Brainstorming ○ large group discussion ○ role-play ○ individual goal setting ○ guest speakers	- Flipchart - Pen - Notebooks Projector
2.5 Manage debts	• Definition of the concept of debt • Risks of getting into debt • Strategies to avoid debt • Strategies to get out of debt	○ large group discussion ○ group work ○ prioritizing ○ case studies	- Role play scenarios

Learning unit 3: Perform record keeping and budgeting			Learning hours:5
Learning outcomes	**Content**	**Learning activities**	**Resources**
3.1 Keep basic personal financial records	• Income • Expenses • Balance calculations	○ group work ○ case study	
3.2 Perform basic budgeting	• Definition of budget • Definition of the concept of budgeting • Principle of budgeting	○ group work ○ case study ○ Practical individual budgeting respecting principles	
3.3 Develop a financial strategic plan	• structure of a financial plan • the importance of a financial plan	○ Brainstorming ○ large group discussion ○ demonstration on developing a financial plan ○ Practical individual work on developing a financial plan ○ Case studies	- Financial fitness plan - Template of a financial plan - Flipchart - Pen - Notebooks - Projector

Learning unit 4: Manage a small business			Learning hours:15
Learning outcomes	**Content**	**Learning activities**	**Resources**
4.1 Describe the business cycle	• Basic cycle of business: buying, adding value, selling for profit • Allocation of income between the business, personal expenses and savings • Importance of maintaining positive cash flow	○ Simulation game ○ large group discussion	- Entrepreneurs' profiles - Entrepreneur's Cycle Chart
4.2 Plan for unexpected costs	• Possible unexpected expenses or financial events • Strategies of planning and dealing with, unexpected financial events	○ simulation game ○ large group discussion ○ Case studies	- Life cards for simulation game

4.3 Identify the risks of credits	• Risks and potential benefits of selling to customers on credit • Financial risks involved with extending credit to friends and family members	○ simulation game ○ large group discussion	- Life cards for simulation game
4.4 Fill in a record-keeping sheet	• Value of keeping records • Sections of a record-keeping sheet	○ simulation game, ○ large group discussion ○ Demonstration on filling up a record keeping sheet ○ Practical individual work on filling up a record keeping sheet	- Record-keeping template

Learning unit 5: Prepare a business plan for a micro business			**learning Hours: 5**
Learning outcomes	**Content**	**Learning activities**	**Resources**
5.1 **Describe the value of a business plan**	• Value of a business plan • Flexibility of a business plan • Importance of realistic goals • Sections of a business plan	○ simulation game ○ large group discussion ○ Demonstration on preparing a business plan ○ Practical individual work on preparing a business plan	- Entrepreneur's Cycle Chart - Record-keeping template - Business plan template

References

- Work Readiness Training Programme – Trainer's Manual, Akazi Kanoze – Youth Livelihoods Project.
- Work Readiness Training Programme – Participant's Manual, Akazi Kanoze – Youth Livelihoods Project

ASSESSMENT GUIDELINES

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Portfolio / Formative assessment

Elements of competence	Assessment indicator	Checklist	Score		Observation
			Yes	No	
Develop entrepreneurial mindset	Livelihood activities and business in the community are identified	Non-farm' natural resource based livelihood activities			
		Farm-based livelihood activities and Processing of products			
	Characteristics of an entrepreneur and their role in the society are described	Opportunity seeking			
		Initiative taking			
		Ownership of a development			
		Commitment to see things through			
		Personal locus of control (autonomy)			
		Intuitive decision making with limited information			
		Networking capacity			
		Strategic thinking			
		Negotiation capacity			
		Selling/persuasive capacity			
		Achievement orientation			
		Incremental risk taking			
		Living with uncertainty and complexity			
		Having to do everything under pressure (financial and time)			
		Coping with loneliness			

		Building know how and trust relationships			
		Learning by doing, copying, making things up, problem solving			
		Managing interdependencies			
		Working long hours and unsocial hours			
		Belief that rewards come with your own effort			
		Belief that you can make things happen			
		Belief in individual and the community			
		Motivation to succeed			
		Motivation to make a difference			
		Ability to cope with doing something different to others			
		Ability to see problems as opportunities			
		Job creator Social corporate responsibility			
		Creating market to local products and services			
	Risks related to a certain business are identified and examined as per their nature and size and are responding to them accordingly.	Human factors (talent management, strikes),			
		Technological factors (emerging technologies),			
		Physical factors (failure of machines, fire or theft) Operational factors (access to credit, cost cutting, advertisement)			
		Economic factors (market risks, pricing pressure)			
		Natural factors (floods, earthquakes)			
		Political factors (compliance and regulations of government)			
		Risk Acceptance strategy			
		Risk Avoidance strategy			
		Risk Limitation strategy			
		Risk Transference strategy			
	A business idea is accurately identified and a good- profitable-one among many is selected.	Fulfills a customer need – a problem is solved			
		Innovative			
		Unique			
		Clear focus			
		Profitable in the long term			

Manage finance	Personal and business financial needs are identified in different life situations.	Mortgage or rent			
		Food and groceries			
		Property taxes			
		Insurance costs			
		Savings and investment contributions			
		Home maintenance costs			
		Heating and air conditioning expenses			
		Utilities, such as electricity, water, sewer, trash pick up			
		Medical expenses, such as medical bills, prescriptions			
		Child care and child support expenses			
		Vehicle expenses			
		Loans			
		Credit cards			
		Clothing			
		Memberships			
		Personal care			
		Entertainment, recreation and hobby expenses			
		Rent and lease payments.			
		Loan repayments			
		Phone and utilities			
		Maintenance and repair of premises, equipment, and vehicles			
		Office supplies and stationary			
		Operating stock/ suppliers bills			
		Advertising and promotion			
		Delivery and shipping costs			
		Personal drawings and employee wages			
		Insurance premiums			
		Taxes			
		Membership fees and subscriptions			
		Investment			

	The required amount of money for different needs is mobilized.	Savings			
		Borrowing from friends and family			
		Lease			
		Warrants			
		Banks loan			
		Government Programs			
		Bonds			
	Business money is effectively managed as per procedures in a way to avoid waste of money	Assessing and budgeting for your current financial situation			
		Developing a financial plan			
		Managing			
		Recognizing signs of financial trouble			
		Handling financial emergencies			
		Dealing with unmanageable debt			
	Money is saved in a recognized financial institution.	Banks			
		Credit Unions			
		Savings and Loans			
	Business debts are managed.	Cut unnecessary costs and free up cash			
		Revisit the budget			
		Prioritize debt payments			
		Speak with creditors			
		Consolidate your loans			
	Basic record-keeping is executed as per standards.	Importance of figuring out how money flows through your business and why			
		Need to keep good records			
		The main records you may need to keep			
		Keep basic paper records			
		Complete a cash payments book and a cash receipts book.			
Manage a small business	Basic business cycle is described in terms of buying, adding value and selling for profit.	Commodity prices			
		Freight rates			
	Credit risks and unexpected costs are	Qualifications of loan review personnel			
		Independence of loan review personnel			

	identified and dealt with accordingly.	Frequency of reviews			
		Scope of reviews			
		Depth of reviews			
		Review of findings and follow-up			
		Work paper and report distribution.			
	Record-keeping sheet is developed as per standards and on time.	Total exposure and segment exposures, including subordinated debt and equity			
		Risk rating distribution and migration data			
		Noncompliance with covenants,			
		Performing assets			
		Impaired loans			
		Compliance with internal procedures			
		The aggregate level of exceptions to policy and underwriting standards.			
Develop a business plan for a micro business	Realistic formulations of objectives of the small business are clearly stated and measurable.	Desired sales or profit levels			
		Rates of growth			
		Increased turnover			
		Value of the business or dividends paid to shareholders			
	The business plan template is filled out as per standards.	Executive summary			
		General company description			
		Products and services			
		Marketing plan			
		Operational plan			
		Management and organization			
		Personal financial statement			
		Startup expenses and capitalization			
		Financial plan			
		Appendices			
		Refining the plan			
	The simulated small business has brought benefits.	Planning activities and resources			
		Staffing			
		Organizing resources			
		Coordinating business activities			
		Controlling for achievements			

CCM110- INTERNSHIP		
Competence :Integrate workplace		
RTQF level**: 1**	Credits**: 30**	Learning hours **: 300**
Sector**: All**		Sub-sector**: All**
Issue date**: March, 2014**		Review date**:**

PURPOSE STATEMENT

This module describes the skills and knowledge required to integrate the workplace for an internship or employment. At the end of this module, participants know how to apply for and present themselves for employment. They demonstrate good time management and show up for work on time. They demonstrate behaviour and attitudes that are appropriate for the workplace and understand that workplaces have policies and procedures that need to be followed. They take initiative and responsibility for their own work and know how to work under and respect supervision. Participants are familiar with the rights and responsibilities of workers and employers and have explored ways to exercise rights in the workplace.

LEARNING ASSUMED TO BE IN PLACE

CCM001 Occupation and training process
CCM102 Health, Safety, security and environment at workplace
CCM103 Workplace communication skills
CCM104 Basic computer applications
CCM105 Oral basic English communication
CCM107 Running microbusiness
CCM106 Basic workplace calculations
CCM108 Cost estimation
CSTMS101 Basic technical drawing
CSTMS102 Mortar preparation
CSTMS103 Concrete preparation
CSTMS106 Steel bars works
CSTMS107 Structure elements
CSTMS108 Wall plastering
CSTMS109 Opening and fixing
CSTMS1010 Concrete pavement
CSTMS1011 Tiles Works

CSTMS104 Foundation
CSTMS105 Wall elevation
LEARNING UNITS AND PERFORMANCE CRITERIA

Learning units describe the essential outcomes of a competence.
Performance criteria describe the required performance needed to demonstrate achievement of the learning unit

Elements of competence By the end of the module, the trainee will be able to :	**Performance criteria**	
1. Apply for internship / employment	1.1 1.2 1.3 1.4	Appropriate resources in the community or nationwide are used to find employment information. A basic CV that is accurate and neat is written. Application letters that target specific jobs or types of jobs are written. Effective interviewing skills are demonstrated
2. Demonstrate appropriate workplace behaviour and attitudes	2.1 2.2 2.3	Appropriate workplace habits and attitudes are observed. Strategies to manage time effectively are implemented. Personal and work lives are managed efficiently
3. Have a good understanding of worker's and employer's rights and responsibilities	3.1 3.2 3.3	Worker's and employer's obligations according to the Rwandan Labour code are understood. The worker's responsibilities are performed on the workplace. Exercise rights on the workplace
4 Organize and evaluate one's internship	4.1 4.2 4.3 4.4	The internship agreement is concluded with the enterprise. The internship report contains all the required elements as well as one's own findings and experience. Active participation in the assessment of one's internship
5 Develop one's competences on the workplace	5.1 5.2 5.3	The tasks assigned according the agreement with the enterprise are performed adequately Positive response and active participation in meetings with the "maître de stage" Adequate work behaviour and attitudes are demonstrated

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

Learning unit 1: Apply for internship / employment			**Learning Hours : 9**
Learning outcomes	**Contents**	**Learning activities**	**Resources**
1.1 Identify and use resources to find a job	• Resources to find employment in the community and at national level • Identify contact persons	○ small group work ○ panel discussion ○ large group discussion ○ speakers	- Job announcements and information: newspaper advertisements; information from recruitment agencies, youth organizations such as YES Rwanda and government agencies such as the RDB, WDA; sample advertisements posted on business walls or bulletin boards, internet websites, through cooperatives…
1.2 Write a Curriculum Vitae (CV) and an application letter	• Differences between a CV and an application letter • Types of application letters • Elements of a well written CV • Elements of an application letter	○ large group discussion ○ individual work ○ pair work	- sample CVs and application letters - format of an application letter
1.3 Take part in an interview	• Main parts of an interview • Interviewing tips : what to do before, during and after the interview • Typical questions asked during an interview	○ small group work ○ interview role plays ○ large group discussion	- Interview Observation Tool

Learning unit 2: Demonstrate appropriate workplace behaviour and attitudes			Learning Hours: 6
Learning outcomes	**Content**	**Learning activities**	**Resources**
2.1 Identify appropriate workplace behaviours and attitudes	• Appropriate workplace behaviours and attitudes (dress code, time management, respect, honesty, integrity, work as a team member) • Work habits (cooperation, initiative, courtesy, constructive criticism, supervision, accuracy, pace of work, time usage, adaptability, personal appearance, attendance, punctuality)	○ Small group work ○ Large group discussion ○ Brainstorming	- Workplace behaviour scenarios - Work habits inventory
2.2 Manage time	• Importance of task planning and managing time • Strategies to better manage time	○ Large group discussion ○ Small group activity (tower building) ○ Reflection ○ Pair sharing	
2.3 Balance work and personal life	• Common situations that make it challenging to balance work & personal life • Tips to manage personal and work lives	○ Large group discussion ○ Individual work ○ Self-assessment ○ Pair sharing	- Scenarios: “Did S/he Do the Right Thing?”

Learning unit 3: Have a good understanding of worker’s and employer’s rights and responsibilities			Learning Hours: 9
Learning outcomes	**Content**	**Learning activities**	**Resources**
3.1 Be familiar with the universal human rights	• Definition of “right” and “human right” • Universal Declaration of Human Rights	○ small group work ○ large group discussion	Universal Declaration of Human Rights – plain language version

3.2 Explore one's personal rights and responsibilities	• Definition of "responsibility" • Relationship between rights and responsibilities	○ individual work ○ pair share ○ large group brainstorming and discussion	
3.3 Identify one's rights and responsibilities at work	• 'rights' (what you can expect your employer to provide) • 'responsibilities' (what your employer can expect that you will do)	○ large group discussion ○ small group work ○ skits	- Worksheet on Rights and Responsibilities at Work.
3.4 Become familiar with some of the provisions of the Rwandan Labour Law	• legal obligations of employers • legal obligations of workers	○ large group activity ○ discussion ○ small group work ○ observation	- Statements and Answers for Agree/Disagree Game on Rwandan Labour Law - Articles 47 and 48 of the labour Code
3.5 React appropriately when the Labour Code is broken	• Possible solutions or responses in case the labour Code is broken	○ small group work ○ scenario analysis ○ large group discussion	- Labour Code Scenarios - Labour Code Excerpts

Learning unit 4: Organize and evaluate one's internship			Learning Hours: 10
Learning outcomes	**Content**	**Learning activities**	**Resources**
4.1 Conclude an internship agreement	• Definition of the concept "internship" • Objectives of the internship • Presentation of internship agreement	○ Brainstorming ○ Group discussion ○ Presentation by the trainer	- Sample internship agreement
4.2 Outline one's findings and experience	• Presentation of the logbook • Tips to fill in the logbook	○ Presentation by the trainer	- Logbook
4.3 Write and present the report of the internship	• Contents of the internship report • Presentation techniques	○ Group discussion ○ Role play	- Sample internship report
4.4 Participate actively to the assessment of one's internship	• Internship assessment and self-assessment guidelines	○ Group discussion ○ Presentation by the trainer	

Learning unit 5: Develop one's competences on the workplace	Learning Hours: 270

ASSESSMENT GUIDELINES

In order to pass this module, the student must Score and submit to the trainer:

The portfolio, including:

1. Interview Observation Tool
2. Work habits inventory
3. CV and Application letter writing
4. Rights & Responsibilities Drawing
5. Worksheet on Rights and Responsibilities at Work
6. Rights & Responsibilities Statements
7. Observation form for demonstration
8. Using Rwandan Labor Law

Those documents are found in Work Readiness Training Programme – Trainer's Manual, Akazi Kanoze – Youth Livelihoods Project, modules 3 and 6.

And Score (or have the relevant person to Score) and submit to the school and company:

9. Industry Attachment Company logbook
10. Industry Attachment Director/liaison officer logbook, including the Overall Assessment by Company Supervisor with a minimal C grade
11. Industry Attachment Student's logbook, including a 90% attendance Score

Documents 1 to 3 are found in the module 3, *Work habits and conducts,* of **Work Readiness Training Programme – Participant's Manual, Akazi Kanoze – Youth Livelihoods Project.**

Documents 4 to 8 are found in the module 6*, Rights and responsibility of employers and employees,* of **Work Readiness Training Programme – Participant's Manual, Akazi Kanoze – Youth Livelihoods Project.**

Documents 9 to 11 are the WDA's/JICA TVET Industrial attachment program (IAP) set of documents.

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- Building construction Principles and practices by D. Walton
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