

Module 3 Instructional Techniques

Unit 3.5 Unit Planning

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About this unit

Welcome to Unit 3.5 Unit Planning.

The unit has two sections.

Section One looks at the organisation of a total work plan, or a curriculum, into units of learning.

Section Two identifies the elements of a unit plan within a modular curriculum.

How to use this book

As well as information about unit planning this book includes some activities.

These activities don't play a part in your assessment for this unit; they are there to help you check your learning progress.

Read the information and do the activities as you work through the book.

How you'll be assessed

You will be assessed on your response to two assignments.

The assignments will require some research on your part.

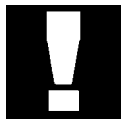
Please contact your tutor regarding the time allowed for their completion.

Finding your way

As you work through the text you'll see symbols in the left margin of some pages. These “icons” guide you through the content.



Read



Important—take note!



Check your progress



Self-checking questions or exercises



Competency

The curriculum of this training programme for Technical and Vocational teachers is competency based. The competency for each unit is expressed as a number of learning outcomes and assessment criteria.

Assessment criteria specify what you must be able to do to show you have gained the knowledge and skills needed to achieve each learning outcome.

Each unit has its own assessment criteria specified. Recognition of prior learning is encouraged. If you feel confident you have the necessary level of competence to successfully complete the elements shown under Assessment Criteria on the next page you may be able to take the assessment without studying the unit.

Learning outcomes

When you have completed this unit you should be able to:

- Explain the relationship of a unit plan to the total work program or curriculum.
- Explain the elements of a unit — outcomes, conditions, duration, learning activities, resources and assessment.
- Identify the importance of establishing time frames.
- State the importance of establishing the sequence and scope of units.
- Develop a useable unit plan for a given topic from a sample TVET curriculum, which illustrates the elements studied.

Assessment criteria

- State accurately in accordance with the information provided, the relationship of the unit plan to the total curriculum, work plan and lesson plan.
- Identify correctly the elements of a unit plan and state their importance in the ultimate delivery of well-planned and effective lessons.
- Give two reasons for establishing time frames during the development of a unit plan.
- Give two reasons for establishing the scope and sequence of units.
- Develop a useable unit plan for the teacher trainee's area of expertise.

Introduction

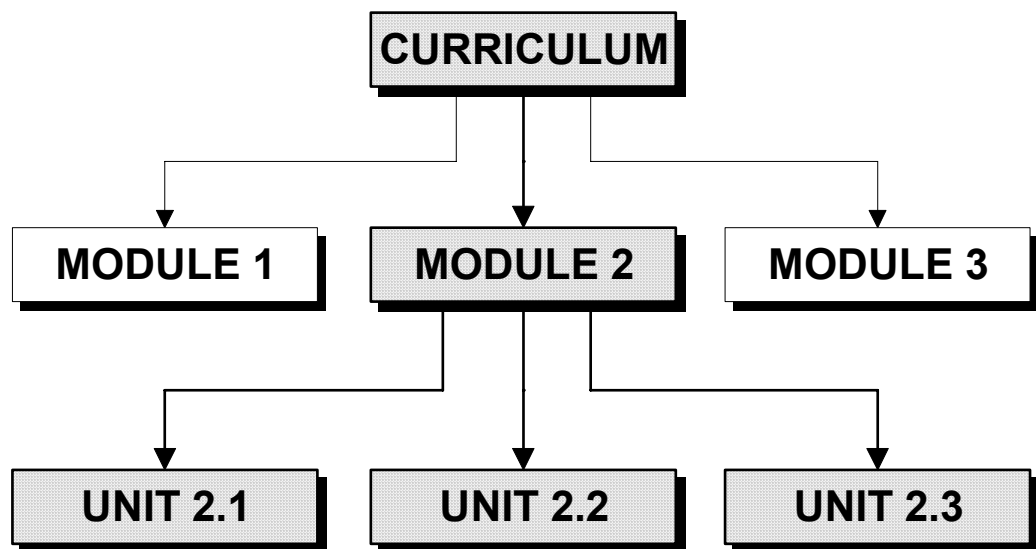


Curriculum documents are written in a variety of formats and how they are written will impact on the amount of work you will have to do in developing a Unit Plan.

A curriculum that has been written in very general terms and offers only subject headings, will require considerably more work to develop into content and break into units than one that has already been developed into Modules or related topics.

A course developed from a curriculum written in competency terms is built as a series of modules, which are usually a group of related topics, and sometimes each of these topics then becomes a unit. As you are aware, the Core Curriculum you are using as the basis for this Technical Teacher Training program is written in very precise terms, and the Modules and Units have been identified. However, not all competency-based curricula are as precise as this and may need some Unit Planning.

This unit deals with unit planning, and it is assumed that many of the curriculum documents you are using are not written in precise, competency terms, and will therefore require you to develop unit plans, and from them, lesson plans.



Section 1



What is the purpose of a unit plan?

A Unit Plan provides the instructor with an overview of what content is to be covered in a section of the curriculum, and a brief outline of how it will be achieved. It serves as a basis upon which Lesson Plans are developed and assists in planning for resource allocation.

This section looks at the organisation of a total work plan, or a curriculum, into units of learning.

Module 3 “Instructional Techniques” is comprised of six units. They are:

- Instructional/learning strategies
- Writing objectives
- Competency-based education and training
- Measurement and evaluation
- Unit planning
- Lesson planning

Module 3 is about curriculum. It is about the essential elements of the curriculum development process. The aim of Module 3 is to provide trainee teachers with the fundamentals of vocational teaching, and advice for developing teaching skills that will benefit teachers, trainees and the industries that the vocational training embraces.

Before we start Unit 3.5 “Unit Planning,” it might be to our advantage to sit back and piece together the important elements of curriculum development, why they are there and how they all fit together.

A good model for curriculum development, and we say this without reservation, is the training program you have undertaken with TVET.

Normally, a teacher takes a teaching position and is handed documents that detail the teacher’s duties and responsibilities in the teaching process.

In most cases the curriculum for the subjects to be taught will have been prepared. The curriculum will be the result of consultations, meetings and investigations and analyses to determine the kind of training required by an industry and how best to organise it.

It is possible that the teacher has been involved in some of the information gathering and in so doing, has contributed personally to the plan for training.

The curriculum from which you conduct the training will be expressed in a variety of forms.

You may be fortunate to be working from a curriculum that has been developed logically and from which your teaching duties are clear, and the training function allows you to follow a planned pathway so that educational aims can be readily achieved.

Then again, your curriculum documents may lack this kind of expertise and detail. An inadequately prepared curriculum may only provide you with a list of topics to be covered, or maybe a set of headings.

So, what are we saying?

We are saying that a well-designed and well-prepared curriculum is the very essence for the efficient and effective delivery of training.

What is a good curriculum?

Definitions

Let's look at some definitions of the important items.

Definitions can vary between the academic field and technical vocational fields and from one country to another. As some of you will have done some study in the academic field, and possibly outside the Caribbean, the following tries to explain these so you have an awareness of the relationship.

Programme

A program of study is made up of a collection of courses or subjects that leads to an award or qualification, e.g. Bachelor of Education, or a Diploma of Tourism. A curriculum usually covers the entire programme.

Course

A component of the Program is sometimes referred to as a "Subject" comprised of a number of Modules. In the Core Curriculum you are currently studying, these "Courses" are Modules—they are individual topics of study or "subjects". These can be further broken down into units.

A course is also referred to in the TVET sector as a structured sequence of vocational education and training that leads to the acquisition of identified competencies¹.

Curriculum

A curriculum is a plan incorporating a structured series of intended learning outcomes and associated learning experiences. It is comprised of the objectives, structure, content, and assessment and sequencing of what has to be learned, generally organised as a related combination or series of modules/units/elements.

Module

A module is a specific learning segment complete in itself, which deals with one or a number of aspects of vocational education at a given level of understanding or skill performance in accordance with stated aims and objectives.

A module must be capable of being separately assessed and be capable of standing on its own or being linked to other modules in the same or related study areas.

The flexibility of a modular curriculum structure makes it easier to organise learning programs to meet the individual trainee's needs and abilities.

Modular course structures make the organisation of learning more flexible in order to meet the individual learner's needs and abilities.

One of the features of the module is that a precise time for learning need not be stated, nor is it essential to follow the module order in any set sequence. However, a minimum duration will normally be included to assist both learners and providers in scheduling. The nominal time frame will depend on the content and the competencies to be achieved.

Another feature of the modular system is that it enables the learner to achieve prescribed outcomes that can be linked to occupational competencies where these exist.

Unit

A module is usually comprised of a group of related topics or Units, each with their own specific learning outcomes and assessment criteria.

¹ VEETAC (Vocational Education Employment and Training Advisory Committee)

—definitions in “User’s Guide in Course Design for Competency-based Curriculum”
Sept. 1992

These Units are single task or knowledge segments and it is upon these which lessons are developed. For example, a Module may be:

Module 1 Sauces

And it may be broken down into the following units

Unit 1.1 White Sauce

Unit 1.2 Béchamel Sauce

Unit 1.3 Bernaise Sauce

Unit 1.4 Hollandaise Sauce

Objective

An objective is a statement describing the intended result of completing a unit of training. For example, competence to perform a specific task to the standard expected in employment.

Learning outcome

A three-part statement that specifies precisely:

- what a learner is expected to be able to do as a result of a learning experience (*performance*)
- the facilities and constraints under which the assessments are to be carried out (*conditions*)
- the level of performance in terms of time, accuracy and completeness of the tasks involved (*standards*)

These are integral parts of competency-based training.

Competency-based training

Training geared to the attainment and demonstration of skills, knowledge and attitudes, to meet industry-specified standards rather than to an individual's achievement relative to that of others in a group

See how these things link together?

Let's direct our attention to the module. Modules have been called the *building blocks of the curriculum*.

Modules form part of a total course and are intended to build a comprehensive body of skills, knowledge and attitudes.

In a competency-based training system, course modules focus on those competencies that the learner(s) will be able to demonstrate upon completion. These competencies must be expressed in demonstrable and assessable terms.

It is important that modules incorporate criterion-referenced assessment rather than norm-referenced assessment, to ensure that all graduates achieve the required standard.²

In the early stages of curriculum development, a task analysis is conducted. The task analysis describes the steps required to complete the task. Skills, knowledge and attitude components for each step in the task are identified and integrated into the learning process.

Objectives are formed from this information. Objectives state what the learner should be able to do as an outcome to the learning process, the conditions under which the performance takes place and the standard to which the learner will be expected to perform.

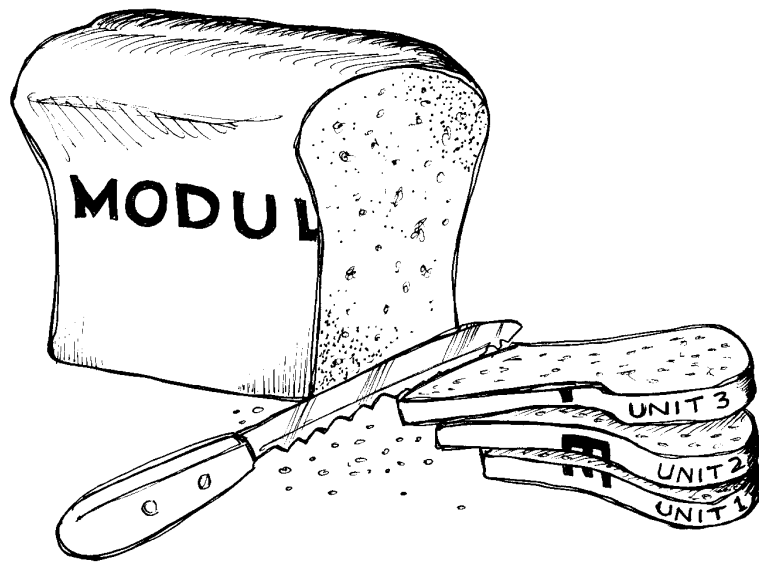
In Unit 3.2 “Writing Objectives,” we state that performance statements and standards are known by a number of names. In the TVET curriculum we prefer to call performance statements *learning outcomes*, and standards are incorporated into *assessment criteria*.

² see Unit 3.4 Measurement and Evaluation

Assignment No. 3.5 – 1

Unit 3.5 Unit Planning

You are now required to do Assignment 3.5 – 1 that you will find at the end of the unit or distributed by your Tutor.



Section 2



The structure of a unit plan

This section identifies the elements of a unit plan, which provides flexibility of learning, nominal time frames and prescribed outcomes within a modular curriculum.

These elements would normally include:

- Learning outcomes
- Assessment criteria
- Conditions
- Learning activities
- Assessment instruments

A Unit Plan may be written in a number of formats but regardless of the style, should include the above information, as then it is only a short step to developing the more detailed Lesson Plan. It is the Lesson Plan that actually indicates how the information will be transferred to the trainees.

As we mentioned earlier, Module 3 Instructional Techniques is divided into six units. As stated, a module is complete within itself; that is, it embodies a collection of information that is inter-related.

In the curriculum development process it is often evident that segments of information are seen to be complete within themselves (Units), but still part of an overall picture.

We shall use an example you would all be familiar with from the tourism and hospitality industry to apply some focus on unit planning and to illustrate the value of incorporating the elements listed.

Module 3.4 Electronic Dishwashers

Unit 3.4.1 Electronic Dishwasher characteristics

Unit 3.4.2 Electronic Dishwasher pre-operational servicing

Unit 3.4.3 Electronic Dishwasher controls

Unit 3.4.4 Electronic Dishwasher loading

Unit 3.4.5 Electronic Dishwasher operation

Let's analyse one unit to see how it has been planned.

Unit 3.4.4 Electronic Dishwasher Controls

Learning outcomes:

At the conclusion of the unit the student will be able to:

- Identify correctly all individual controls and switches.
- State correctly the function of all controls is correctly stated.
- Apply the correct settings for specified tasks; for example, washing glassware.

Assessment criteria:

- Identify correctly all individual controls on the control panel by naming each symbol.
- Describe the function of each control according to manufacturers specification.
- Given four different types of wash requirements, including “*Economical without heater drying*” the trainee will correctly select the appropriate settings for each.

Conditions:

The trainee will have access to:

- a fully installed and operational electronic dishwasher.
- A copy of the manufacturers *Owners Operating Manual*.

Learner activities:

Explanation of each control and symbol and their function.

Demonstration identifying the actual symbols and controls on the machine.

Discussion on the combinations of functions to achieve specific wash programmes.

Demonstration of setting sample wash programmes.

Exercises for trainees to nominate the correct settings for specific wash programmes using photocopied diagrams of the control panel.

Practise on machine.

Assessment:

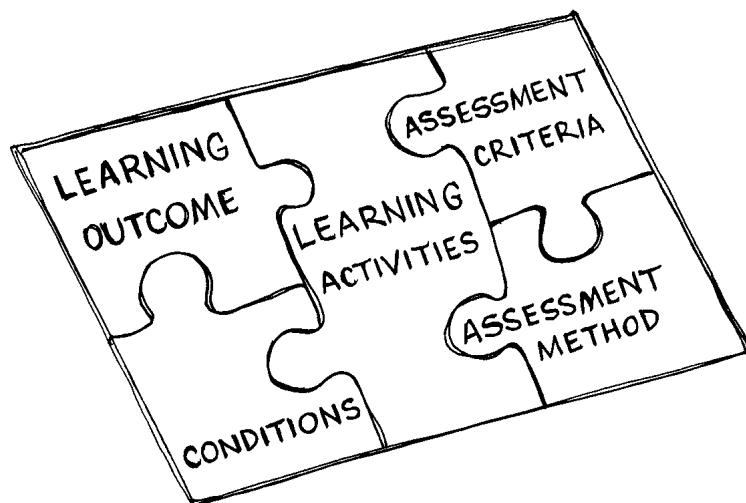
To achieve the assessment criteria the trainee will be required to:

- Correctly name every switch and symbol on the Control panel of the selected dishwashing machine.
- Correctly match each switch and symbol with a description of its function.
- From given loads of dirty cockery, cutlery and cookware, identify the individual loads required and nominate the controls appropriate for each load, complying with the manufacturers recommendations.

The nominal duration for this Unit is 4 hours.

The above example from the tourism and hospitality industry is already in a style very similar to Unit Plans, but if you are working with a curriculum that only indicates topics or subject headings, you will need to identify each of these elements yourself.

For example, your curriculum might look like the example on page 16. In this case you would then need to create the elements that we listed earlier for each one of the Unit Plans for that section.



Commercial Cook—Level 1

Curriculum—1990

Course No.	Course Title	Unit	Time
1.	Vegetables	1.1 Identify, Select and Store Vegetables 1.2 Clean, Pare, Cut and Tournier Vegetables 1.3 Principles of Vegetable Cooking 1.4 Cooking Vegetables by: <ul style="list-style-type: none"> • Moist Heat • Dry Heat • Fat • Other Methods 1.5 Pasta and Rice 1.6 Spices, Herbs and Condiments	
2.	Meat and Poultry	2.1 Types and cuts 2.2 Preparation 2.3 Cooking Meats by: <ul style="list-style-type: none"> • Moist Heat • Dry Heat • Fat • Other Methods 2.4 Cooking Poultry by: <ul style="list-style-type: none"> • Moist Heat • Dry Heat • Using Fat • Other Methods 2.5 Portion, truss, carve, slice meat and poultry	

3.	Seafood	3.1 Identify Types and Quality 3.2 Prepare and Portion Seafoods 3.3 Principles of Seafood and Fish Cookery 3.4 Cooking Seafood by: <ul style="list-style-type: none"> • Moist Heat • Dry Heat • Using Fat • Other Methods 3.5 Seafood and Fish Garnishes	
4.	Stocks, Sauces and Soups	4.1 Stocks and bases 4.2 Thickening agents 4.3 Sauces 4.4 Soups	
5.	Cut Meat	5.1 Primal cuts 5.2 Secondary cuts	
6.	Cold Kitchen Items	6.1 Sandwiches 6.2 Canapés and Hor D'oeuvres 6.3 Salads, Garnishes, Salad Bar 6.4 Patés, Dairy products	
7.	Baking and Desserts	7.1 Principles and ingredients 7.2 Yeast 7.3 Quickbreads 7.4 Decoration 7.5 Cookies, Pastries, Pies 7.6 Desserts	
8.	Convenience Food and Equipment	8.1 Convenience food—types 8.2 Preparation, storage, reheat 8.3 Microwave, Bain Maree	
9.	Eggs and Breakfast	9.1 Eggs 9.2 Cereals, Meats 9.3 Beverages	

10.	Safety	10.1 Attitude, sanitation, appearance, habits 10.2 Equipment, knives 10.3 Fire 10.4 First Aid 10.5 Sanitation Standards 10.6 Human Relations principles	
11.	Kitchen Management	11.1 Weights and Measures 11.2 Recipes, Terminology 11.3 Nutritional Fundamentals 11.4 Purchasing, Receiving and Storage 11.5 Inventory 11.6 Labour costs, Food costs 11.7 Menus	
12.	Basic Principles and Methods of Cooking	12.1 Principles of Cooking: <ul style="list-style-type: none">• roasting, baking, broiling• sautéing, pan-frying, deep-fat frying• grilling• blanching, simmering, poaching, steaming• combination cooking	



Activity 1

1. Does the hospitality & tourism example express the essential elements of a unit plan? Name these elements and give your considered opinion of this unit example.

[illegible]

[illegible]

Discuss your responses with your tutor.



Unit content

Unit content is divided into learnable chunks of related information and lesson plans are then formed.

The actual process and techniques for lesson planning are covered in Unit 3.6.

It becomes obvious that the unit and its place in the curriculum structure are vital to the flow and balance of the instructional information.

Although an exact time for delivery of a unit of training may not be specified, a nominal duration is usually indicated as a guide to learners and providers of the course. Nominal times are normally estimated when the completed curriculum can be viewed, after having been sequenced into a logical order, and when the scope of the training is clearly evident.

The training program must fit into a schedule that enables the training to be thorough and effective. In other words, the training objectives for the module, the unit and the lesson are to be met.

Units of learning should be arranged so that the course design has sequence, continuity and unity.

A general rule for setting time frames for training is to:

- establish the total time available
- develop time-frames based on the must know, useful to know, nice to know principle, giving priority to *must know*

As mentioned in a previous unit (3.1) the range of trainee characteristics: language, literacy, numeracy skills, background etc., must be taken into account when planning a training segment. The success of any training will, in part, depend upon how well you have analysed the characteristics and differences of your trainees.

Topic analysis

Some training unit developers prefer to work from content rather than performance perspective. Topics and tasks are at about the same level of breakdown; topics describe information and tasks describe performance. The scheme most often used for determining the content (subject matter) of a training unit is to group the content into the following three categories:

Must learn — (essential) these are the target things that each trainee must learn if they are to be considered competent in the task or job for which the training is designed. These are the things that the teacher should stress when conducting the training. These are the things for which the bulk of the training objectives have been written.

Useful to learn — surrounding the “must learn” target are very many other things which are useful to learn, but do not need the same emphasis. Some of the relatively less important objectives would fall into this category.

Nice to learn — (peripheral) finally there are many other facts and skills which are nice to learn. These are the things which, if given sufficient time, would help “round-out” or supplement the *must learn* and *useful to learn* categories. These are the things that are usually eliminated from a unit plan when time constraints mean that something has to be omitted. The least important objectives are placed in this category.

If you follow the principles expressed above you will achieve two important functions:

- you will refine the unit material so that it is clear-cut and decisive, so enabling the training to reach its destination without excess baggage
- meet the pre-mentioned course time schedules more readily

Sequencing

In some training functions it may not be necessary to set a strict sequence of training steps.

For instance, in one self-paced training program for automotive trainees sequencing of units is not necessary. Each training unit is complete within itself and, although the inter-relationship with other units in the module is vital, there is no sequence of units.

This offers advantages in the training workshop where equipment can be programmed by the teacher to allow trainees to proceed through their training units without incurring hold-ups or delays.

However, it is more likely that training steps must be arranged to follow a logical sequence.

Check the sequence of the Units in our tourism and hospitality industry example on page 13.

It's obvious that you would need to do **Unit 3.4.2 Electronic Dishwasher pre-operational servicing** before you did **Unit 3.4.5 Electronic Dishwasher operation**.

Considering sequence is important at all levels of planning for instruction, whether it is at the curriculum level or in actual teaching. Would you achieve the desired result if you changed the sequence of this procedure?

Mushroom Omelette:

1. Heat the oil in a frying pan
2. Fry mushrooms for 3 minutes
3. Add bean sprouts and stir for 20 seconds
4. Add beaten eggs, spring onions, coriander and a little salt and pepper
5. Stir gently till cooked
6. Serve hot when eggs have set.

Moral: To produce an acceptable omelette, first establish a clear set of goals, and then get the sequence right.



We include here a sample unit plan. It has been borrowed from a course in *Workplace First Aid*.

Unit 1.1 The role of a workplace first aider.

Learning outcomes:

The student will be able to:

- Identify and use first aid facilities.
- Assess first aid incidents.
- Minimise effects of a victim's injury.
- Record information relating to an incident.

Assessment criteria:

The student will be able to:

- Identify and use workplace first aid facilities in accordance with standard first aid practises.
- Assess given first aid incidents without error.
- Minimise the effects of injury in accordance with standard first aid practises.
- Record information regarding the incident and forward it to the appropriate authority.

Conditions:

Access to:

- All necessary first aid equipment, materials and requirements.
- Company first aid policy and procedures.

Learning activities:

- Identification of the location and the contents of first aid kits.
- Discussion/explanation in assessing victims requiring first aid treatment.
- Discussion/explanation of treatment required to minimise the victim's discomfort.
- Supervise trainee practise using simulated conditions.
- Demonstrate incident recording and reporting procedures.

Assessment instruments:

Competency is demonstrated by the performance of the following:

- Emergency first aid is performed in the workplace in accordance with standard first aid procedures.
- First aid procedures in simulated situations are accurately demonstrated and explained.
- Incident particulars are accurately recorded and reported.

Assignment No. 3.5 – 2

Unit 3.5 Unit Planning

You are now required to do Assignment 3.5 – 2 which you will find at the end of the unit or distributed by your Tutor.

Assessment Instrument

Module 3 Instructional Techniques

Unit 3.5 Unit Planning

Assignment 1

This assignment has been designed as a short answer type. It tests whether you have an understanding of the basic terminology used in the development of curricula as it relates to Unit Planning. It also requires you to relate this knowledge to your own experience.

Question 1 has ten parts and to achieve the level of competence required, you will need to obtain 8 correct responses.

Question 2 requires you to discuss your own curriculum and your competence will be judged on your ability to analyse this in relation to the information provided in the unit.

In 2.1 you need to include in your answer all stakeholders who had input into the content of the curriculum and the process used to develop it. This may require some research on your part.

In 2.2 you need to supply your assessor with a clear indication of what format your curriculum is in and the degree to which it is in a form suitable for implementation.



Assignment Number 3.5 – 1

Unit 3.5 Measurement and Evaluation

To be completed and returned to your tutor for assessment.

This is an Open Book assignment and you may refer to whatever references you have at your disposal.

Name: _____ Due date: _____

Question 1

Answer true or false to the following questions:

- 1.1 _____ In the planning of work from a curriculum, the Module is usually the smallest element in the breakdown of content.
- 1.2 _____ There is usually only one unit in a module.
- 1.3 _____ A curriculum is usually broken down into related topics called modules.
- 1.4 _____ A Unit Plan is the instrument that tests students' knowledge of a topic.
- 1.5 _____ Lesson plans are developed from Units.
- 1.6 _____ A well-designed and well prepared curriculum document is the essence for efficient and effective delivery of training.
- 1.7 _____ All curriculum documents will express the outcomes intended very clearly.
- 1.8 _____ A Bachelor of Education is an example of a programme of study.
- 1.9 _____ A learning outcome is quite different from an Objective.
- 1.10 _____ A system of competency based training never allows for individual assessment of skills attained.

1 mark each = 10 marks

Question 2

From curriculum developed for your area of expertise, describe in detail:

- 2.1 how the information for the content was obtained – who had input, who made the decisions
- 2.2 how the information is structured for training purposes.

20 Marks

No more than a half page on each section is all that is required.

Total 30 Marks

Assessment Instrument

Module 3 Instructional Techniques

Unit 3.5 Unit Planning

Assignment 2

This assignment calls upon you to develop a Unit Plan for your own area, which indicates that you are competent in all the requirements of a well-written plan. Each of the elements listed will need to be contained in your plan and it should be clear enough that another teacher in your area could implement this unit as you would wish. To achieve the level of competence required, you will need to include in your plan:

- Learning Outcomes
- Assessment criteria
- Conditions for learning and assessment
- Learning activities that match the learning outcomes
- Methods of assessment
- Learning resources
- Nominal duration

The choice of assessment and learning outcomes must be justified by logical argument



Assignment Number 3.5 – 2

Unit 3.5 Measurement and Evaluation

To be completed and returned to your tutor for assessment.

Name: _____ Due date: _____

Question 1

Develop a Unit Plan from curriculum within your area of expertise.

The Unit Plan should include:

- Learning outcomes
- Assessment criteria
- Conditions for learning and assessment
- Learning activities which match the learning outcomes
- Methods of assessment
- Learning resources
- Nominal duration

5 Marks each for element

5 Marks for format

Total 40 Marks

Question 2

Write a paragraph justifying your choice of assessment

15 Marks

Question 3

Write a paragraph justifying your choice of learning activities

15 Marks

Total 30 Marks