



THE REPUBLIC OF UGANDA
Ministry of Education and Sports

Directorate of Industrial Training

	<p>Assessment and Training Package</p> <p>For an</p> <p>ARCHITECTURAL DRAFTER</p>
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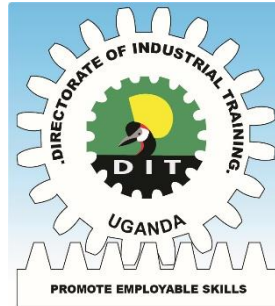
Qualification Level: 1

Occupational Cluster: Technology and Design

September 2020

Developed by:
Qualifications Standards Department
Directorate of Industrial Training

Funded by:
Government of Uganda



Assessment and Training Package

For an

ARCHITECTURAL DRAFTER

Qualification Level: 1

Occupational Cluster: Technology and Design

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Under BTVET Act, 2008, the functions of the Directorate of Industrial Training are:

- (a) To identify the needs of the labour market for occupational competencies that fall under the UVQF.
- (b) To regulate apprenticeship schemes.
- (c) To foster and promote entrepreneurial values and skills, as an integral part of the UVQF.
- (d) To secure adequate and sustainable financing for the efficient operations of the Directorate.
- (e) To accredit training institutions or companies as assessment centres.
- (f) To determine fees payable under the Act.
- (g) To develop, apply, expand and improve the purposeful application of Uganda vocational qualifications defined in the UVQF.
- (h) To assess and award Uganda Vocational Qualifications.
- (i) To promote on-the-job training in industry for apprenticeship, traineeship and indenture training and for other training such as further skills training and upgrading.
- (j) To prescribe the procedure for the making of training schemes.

Further to the above provisions, there is an established Uganda Vocational Qualifications Framework (UVQF), under part V of the BTVET Act, 2008. It is stated that:

The purpose of the UVQF is to;

- (a) Define occupational standards in the world of work.
- (b) Define assessment standards.
- (c) Award vocational qualifications of learners who meet the set standards of different studies.
- (d) Provide guidelines for modular training.

The UVQF shall follow principles of Competence Based Education and Training (CBET) which include:

- (a) Flexible training or learning modules.
- (b) Positive assessment and certification.
- (c) Assessment of prior learning.
- (d) Recognition of formal and non-formal training.
- (e) Self-paced or individual learning.
- (f) Work place learning.

For award and recognition of certificates, the BTVET Act, 2008 provides that:

- (1) The Directorate and other examination boards established under the Act shall award certificates and diplomas for Business, Technical or Vocational Education and Training under the UVQF.
- (2) The Certificates and Diplomas to be awarded shall be in the form prescribed by the Minister on the recommendation of the Industrial Training Council.
- (3) The Certificates and Diplomas awarded under the Act shall be recognised in the Uganda education system and by the labour market.

Under the TVET Implementation Standards 2020, the proposed new mandate of the Directorate of Industrial Training shall be restricted to promoting the highest standards in the quality and efficiency of industrial training in the country and ensuring an adequate supply of properly trained manpower at all levels in the industry and the world of work.

The functions shall include:

- (a) Regulating Industrial Training and Trainers.
- (b) Developing Industrial Training Curricula.
- (c) Harmonising Curricula and Certificates of competence.
- (d) Assessing Industrial Training.
- (e) Development of Occupational Standards and Assessment and Training Packages (ATPs) for Trade Testing for the industry and world of work.
- (f) Awarding certificates in that respect.

At operational level in the Directorate, the Qualification Standards Department performs development tasks related to concepts, procedures and instruments for establishment of the UVQF in close collaboration with both public and private stakeholders in vocational training.

In particular, the Department organises and coordinates the development of Assessment and Training Packages for use in competence-based vocational training as well as standards-based assessment and certification.

The Directorate has therefore produced this Assessment and Training Package for use in implementing Competence-Based Education and Training mechanisms.

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Word from Permanent Secretary

The Kajubi Report (1989) and the Uganda Government White Paper on Education Review (1992) emphasised that the Uganda Secondary School Education should be vocationalised.

The World Bank Report on education in Uganda 2007 observed that although Uganda was experiencing steady economic growth on one hand, the secondary education curriculum was inadequately addressing the social and economic needs of the country on the other. The Report further noted that it is not the very top academic cadres that contribute most to the growth of the GDP but rather the competent middle level technicians that are flexible and technologically literate that the economy needs in the labour market at all levels.

Correspondingly, the NDP III 2020/21- 2024/5 highlights (i) low labour productivity (ii) high youth unemployment (38%) (iii) low transition rates from training to employment (35%) as some of the key challenges to Human Capital Development in Uganda.

In order to overcome these challenges, NDP III 2020/21- 2024/5, under objective 2 peaks the need to train the learners for the urgently needed skills and mainstream a dual education and training system. This paved way for the development of the lower secondary school vocational curriculum which supports both academic and vocational training.

The afore is in line with the Uganda Vision 2040. Under section 261, it emphasises that learners will be accorded opportunities to excel in the skills areas they are placed into. These will range from sports and cut to technical and vocational training. Hitherto, section 262 clearly states that the entire education system will be changed to emphasise practical skills, attitude and moral values.

Government of Uganda through the Ministry of Education and Sports rolled out the New Lower Secondary Curriculum in secondary schools countrywide during the first term of the academic year 2020. The overall goal of this curriculum is to produce graduates with employable skills and who are competitive in the labour market. It should be emphasised that vocational training will produce graduates who are employable. In the New curriculum, emphasis will be on equipping learners with employable skills and competencies. This will enable learners perform the requisite duties of the specified occupations. This is the reason why the lower secondary school vocational curriculum was tailored to the assessment requirements of the world of work.

Reading from the Curriculum Framework page 12, it is stated that the learners will be assessed by DIT. Upon assessment and certification, the graduates will be employable and competitive in the labour market. It's against this background that DIT, within its mandate vested in the BTVET Act, 2008 comes on board to take the lead in the development of the requisite Assessment and Training Packages (ATPs) for the various occupations that will be assessed under the Lower Secondary Curriculum.

The ATPs can be used by any training provider and/or those who wish to present themselves for Occupational Assessment and Certification.

Herewith, the Directorate of Industrial Training presents the Assessment and Training Package for training, assessment and certification of an Architectural Drafter **QUALIFICATION LEVEL 1.**

Finally, I thank all individuals, organisations and review partners who have contributed and/or participated in the review of this noble document.



Alex Kakooza
Permanent Secretary

Executive Summary

This Assessment and Training Package is a Competence-Based Education and Training (CBET) tool and consists of three major parts:

- 0.1 **PART I: The Occupational Profile (OP) of an Architectural Drafter.** This Occupational Profile which was reviewed by Architectural Drafters practicing in the world of work mirrors the duties and tasks that Architectural Drafters are expected to perform.
- 0.2 **PART II: Training Modules** in the form of guidelines to train Architectural Drafters both on the job as well as in training centres (or combinations of both venues of learning). The Training Modules herein have been reviewed basing on the Occupational Profile and hence are directly relevant for employment.
- 0.3 **PART III: Assessment Instruments** in the form of performance (Practical) and written (theory) test items that can and should be used to assess whether a person complies with the requirements of employment as an Architectural Drafter. These assessment instruments were reviewed jointly by job practitioners (Architectural Drafters) and instructors based on the occupational profile and training modules.
- 0.4 While the Occupational Profile (OP) contained in PART I of this document provides the information on **WHAT a person is expected to do** competently in the world of work, the test items, - including performance criteria- of PART III qualify the **HOW and/or HOW WELL a person must do the job.**
- 0.5 The modular format of the curriculum (PART II) allows learners to acquire job specific skills and knowledge (i.e. competencies) module by module. A single module can be accomplished within a relatively short duration allowing flexibility for learners to move directly into an entry level job, go for further modules or advance to higher levels of training. Modular courses allow more learners to access the training system because training centres as well as companies can accommodate more learners in a given period of time.
- 0.6 In addition to improved access, equity and relevance of BTVET, the UVQF will also enable people who are convinced to have acquired competencies laid down in this ATP through prior training and on-the-job experience to access assessment and certification directly; be it on the basis of a single module, a group of modules or all modules pertaining to the occupation at once. This achievement will facilitate Recognition of Prior Learning (RPL).

0.7 The parts of this Assessment and Training Package were sequentially reviewed as follows:

- i Part 1: Occupational Profile: **August 2020**
- ii Part 2: Training Modules: **August 2020**
- iii Part 3: Assessment Instruments (initial bank): **August 2020**

This ATP (or parts of it) may be periodically revised to match the dynamic trends in the occupation and hence issued in different versions.

DIT takes responsibility of any shortcomings that might be identified in this publication and welcomes suggestions for effectively addressing the inadequacies. The suggestion can be communicated to DIT through P.O. Box 20050, Kampala or through email uvaf.dit@gmail.com.



Patrick Byakatonda
Ag Director

Acknowledgement

The Qualifications Standards Department of DIT wishes to sincerely acknowledge the valuable contributions to the review of this Assessment and Training Package by the following persons, Institutions and organisations:

- Members of the DIT Industrial Training Council,
- The Director and staff of DIT,
- Ministry of Education and Sports,
- The practitioners from the world of work,
- Teachers of Architectural Drafter from various Secondary Schools,
- Technology and Design Curriculum Specialists from NCDC,
- Examination Specialists from UNEB,
- The facilitators involved in guiding the review panel in their activities,
- The Government of Uganda for financing the review of this ATP.

Abbreviations and Acronyms

A&C	Assessment and Certification
ATP	Assessment and Training Packages
CBET	Competency Based Education and Training
DIT	Directorate of Industrial Training
ITC	Industrial Training Council
GoU	Government of Uganda
LWA	Learning-Working Assignment
MC	Modular Curriculum
MoES	Ministry of Education and Sports
OP	Occupational Profile
PEX	Practical Exercise
PTI	Performance (Practical) Test Item
QS	Qualification Standards
RPL	Recognition of Prior Learning
TIB	Test Item Bank
TVET	Technical, Vocational, Education and Training
UVQ	Uganda Vocational Qualification
UVQF	Uganda Vocational Qualifications Framework
WTI	Written (Theory) Test Item
PPE	Personnel Protective Equipment

Key Definitions

Assessment	Assessment is the means by which evidence is gathered and judged to decide if an individual has met the stipulated assessment standards or not. Testing is a form of formal assessment.
Certification	Certification is a formal procedure to issue a certificate (qualification) to an individual that has demonstrated during formal assessment that he/she is competent to perform the tasks specified in the occupational profile.
Competence	Integration of skills, knowledge, attitudes, attributes and expertise in doing /performing tasks in the world of work to a set standard.
Competency	(Occupational) competence is understood as the ability to perform tasks common to an occupation at an acceptable level.
CBET	Competence-based education and training means that programmes: <ol style="list-style-type: none">1. have content directly related to work2. focus is on 'doing something well'3. assessment is based upon industry work standards, and4. curricula are developed in modular form
Duty	A Duty describes a large area of work in performance terms. A duty serves as a title for a cluster of related Tasks (see also: TASK).
Learning-Working Assignment (LWA)	LWA are simulated or real job situations / assignments that are suitable for learning in a training environment (e.g. "small projects"). In a working environment LWA are real work situations/assignments.
Module	Modules are part(s) of a whole curriculum. Modules can be considered as "self-contained" partial qualifications which are described by learning outcomes or competencies and which can be assessed and certified individually.
Occupational Profile (OP)	An Occupational Profile is an overview of the duties and tasks a job incumbent is expected to perform competently in employment. Occupational Profiles developed by practitioners from the world of work enhance the relevance of training and learning to the requirements of the world of work.

Occupational Profiles which define what a person is supposed to do which become the reference points for developing assessment standards and modular curricula.

Qualification A qualification is a formal reward for demonstrating competence, based on formal assessment against set standards and provided to the individual in the form of a certificate specifying the nature of the competence.

Task Job tasks represent the smallest unit of job activities with a meaningful outcome. Tasks result in a product, service, or decision. They represent an assignable unit of work and have a definite beginning and ending point. Tasks can be observed and measured.
(Also see: Duty)

1.0 ATP-PART I

Occupational Profile for an ARCHITECTURAL DRAFTER

- 1.1 The OCCUPATIONAL PROFILE (OP) for “ARCHITECTURAL DRAFTER” below defines the **Duties** and **Tasks** a competent Architectural Drafter is expected to perform in the world of work (on the job) in Uganda and the East African region today.
- 1.2 Since it reflects the skill requirements of work life, the Occupational Profile is the reference document for the subsequent development of training modules and assessment instruments (test items) which are directly relevant to employment in Ugandan and the East African businesses and industries.
- 1.3 To ensure that the Occupational Profile is relevant for employment in Uganda and East Africa, the DIT used the method of “occupational/job profiling. This approach involves the brainstorming of a panel of 8 to 12 competent job practitioners guided by trained and experienced facilitators. During a two-day workshop the panellists defined the duties and tasks performed in employment, as well as the prerequisite skills, knowledge, attitudes, tools and equipment, and the future trends and concerns in the occupation/job.
- 1.4 The panellists, facilitators and coordinators who participated in developing this Occupational Profile are listed on the following page.

Expert Panel

Ronald Mutebi

Kyambogo College School

Aaron Karega

Amron international limited

Francis Tumwine

Mbarara High School

Robert Ntalo

Converge Technical and
construction Company

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School Nsambya

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Institute

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Andeh Fine Homes Limited

Robert Buyondo Bob

Mengo Senior School

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Funded by

Government of Uganda



THE REPUBLIC OF UGANDA
Ministry of Education and Sports

Directorate of Industrial Training

Occupational Profile

For an

"ARCHITECTURAL DRAFTER"

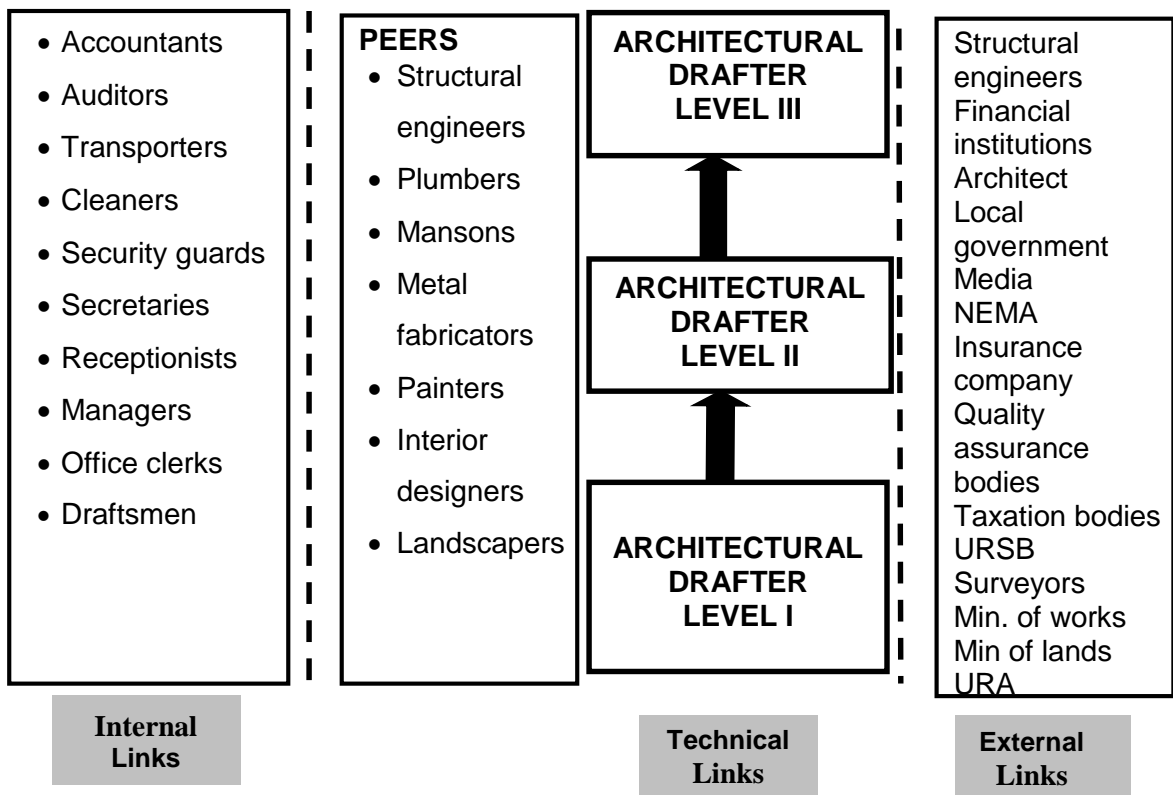
Developed by: Directorate of Industrial Training
(Qualifications Standards)

Dates of workshop: 14th – 18th September 2020

NOMENCLATURE FOR THE OCCUPATION OF ARCHITECTURAL DRAFTER

Definition: An ARCHITECTURAL DRAFTER is a person who plans, drafts, draws and documents building works.

JOB ORGANISATION CHART FOR AN ARCHITECTURAL DRAFTER



Descriptions for the levels in the occupation of Architectural Drafter

UVQ Level I Architectural Drafter; is a person who plans, drafts, draws and documents a straight single storied domestic building with either a lean-to or gable roof.

UVQ Level II Architectural Drafter; is a person who plans, drafts, draws and documents a T-shaped, L-shaped and U shaped single storied domestic building with either a butterfly or hipped roof.

UVQ Level III Architectural Drafter; is a person who plans, drafts, draws and documents multi-shaped commercial, industrial and institutional buildings with either a dome, monitor or barrel vault roof.

Duties and Tasks

A. PLAN ARCHITECTURAL WORK	A1 Record client's needs	A2 Conduct site visit	A3 Prepare preliminary sketch
	A4 Review preliminary sketch with client	A5 Make final sketch of building	A6 Cost architectural work
	A7 Prepare an MoU		

B. MAKE ARTISTIC IMPRESSION	B1 Sketch drawing media	B2 Set drawing defaults	B3 Draw walls of building
	B4 Fit slabs	B5 Fit openings	B6 Fit roof
	B7 Apply surfaces	B8 Render building	B9 Create compound layout

C. DRAW ARTHOGRAPHIC VIEWS	C1 Draw floor plan	C2 Dimension floor plan	C3 Draw building cross sections
	C4 Dimension building cross section	C5 Draw building elevations	C6 Draw roof plan

D. DRAW SEWAGE STORAGE SYSTEM	D1 Draw pit latrine plan	D2 Draw pit latrine section	D3 Draw pit latrine elevation
	D4 Draw man holes	D5 Draw septic tank plan	D6 Draw septic tank cross section
	D7 Draw percolation trench	D8 Draw soak pit plan	

E. DRAW SITE LAYOUT	E1 Draw boundary outline	E2 Draw blocks	E3 Draw drainage system
	E4 Draw drive ways	E5 Draw compound	E6 Dimension site

F. DRAW SITE LOCATION PLAN	F1 Draw nearby physical features	F2 Draw roads	F3 Draw compass directions
	F4 Locate site	F5 Name nearby location	F6 Name directions

G. DRAW BOUNDARY WALL	G1 Draw boundary wall plan	G2 Draw boundary wall cross section	G3 Draw boundary wall elevation
	G4 Print title	G5 Dimension boundary wall	G6 Name boundary wall parts

H. DOCUMENT ARCHITECTURAL INFORMATION	H1 Print title block	H2 Draw door and window schedule	H3 Write specifications
	H4 Draw dimension table of septic tank	H5 Draw sizes table of inspection chamber	H6 Write revision notes
	H7 Print architectural documents		

I. PRESENT ARCHITECTURAL PLAN	I1 Prepare approval forms	I2 Seek architect's verification	I3 Submit documents for assessment
	I4 Pay approval fees	I5 Submit documents for approval	I6 Handover documents to client
	I7 Make revision on differed documents		

J. PERFORM ADMINISTRATIVE TASKS	J1 Keep records of previous works	J2 Recruit workers	J3 Communicate with stake holders
	J4 Remunerate workers	J5 Contract/ Sub-construct work	J6 Orient workers
	J7 Assign work	J8 Supervise work	J9 Manage worker's discipline
	J10 Motivate workers	J11 Appraise workers	J12 Maintain tools, and equipment
	J13 Procure tools, equipment and materials	J14 Keep human resource records	J15 Keep Inventory
	J16 Keep sales records	J17 Prepare BOQs/ quotations	

K. MARKET ARCHITECTURAL DRAFTS MAN SERVICES	K1 Advertise services	K2 Maintain customer relationship	K3 Market Architectural work
	K4 Costing architectural work	K5 Advertise services	K6 Network with peers
	K7 Maintain financial records	K8 Administer office	K9 Manage risk

Additional Information

Generic Knowledge & skills

- | | |
|--|---|
| 1. Literacy | Interpersonal relations |
| 2. Numeracy | 20. Customer care |
| 3. Tools and equipment usage | 21. Training skills |
| 4. Negotiation skills | 22. Good with the hands |
| 5. Records keeping | 23. Problem solving skills |
| 6. Analytical skills | 24. Safety, health and environment |
| 7. Measurement | 25. Public relations |
| 8. Chemical preparation | 26. Business |
| 9. Marketing skills | 27. Time management |
| 10. First aid administration | 28. Good hand-eye co-ordination |
| 11. Waste disposal and management | 29. An eye for detail |
| 12. Communication skills | 30. Financial management |
| 13. Information and communication technology | 31. Different architectural drafting software |
| 14. Firefighting | 32. Structural designing |
| 15. Store management | 33. Construction management |
| 16. Planting seasons | 34. Land surveying skills |
| 17. Human resource management | 35. Quantity surveying skills |
| 18. Entrepreneurship skills | 36. Interior design skills |
| 19. Environmental awareness and satiability | 37. Building material properties |

Tools, Equipment and Materials

- | | |
|------------------------|-----------------------|
| 1. Computer | 19. Trimmer/cutter |
| 2. Rulers | 20. Gloves |
| 3. Set rulers | 21. Fire extinguisher |
| 4. Printer | 22. Ink and ink pot |
| 5. stepping machine | 23. Scaled ruler |
| 6. Punching machine, | 24. Electric eraser |
| 7. Gaggles | 25. Stencils |
| 8. Ultra-violent glass | 26. Paper clips |
| 9. Plotter | 27. Overall |
| 10. Calculator | 28. Ear plugs |
| 11. Led light box | 29. Drafting chair |
| 12. Photo copier | 30. X- Acto knife set |
| 13. Paper clips | 31. Rubber |
| 14. Brush | 32. Flip chart |
| 15. Box files | 33. Scissors |
| 16. Note books | 34. Graph book |
| 17. Sharpener | 35. Drawing board |
| 18. Helmet | |

Attitudes/Traits/Behaviour

- | | |
|--------------------------|--------------------------------|
| 1. Self-motivated | 16. Innovative |
| 2. Time management | 17. Diligent |
| 3. Patient | 18. Confidentiality |
| 4. Observant | 19. Responsible |
| 5. Trustworthy | 20. Physically fit |
| 6. Honest | 21. Knowledgeable |
| 7. Tolerant | 22. Good hand-eye coordination |
| 8. Hard working | 23. Respectful |
| 9. Customer care | 24. Intelligent |
| 10. Disciplined | 25. Trainable |
| 11. Good time management | 26. Creative |
| 12. Committed | 27. Sharing skills |
| 13. Good listener | 28. Quality of output |
| 14. Flexible | 29. Trustworthy |
| 15. Result oriented | 30. Work under pressure |

Trends and Concerns

1. Legal recognition of Architectural Drafter
2. Professional recognition of Architectural Drafter
3. Government policy
4. Software rights
5. Advancement in technology
6. Digital marketing
7. Competition
8. Economy
9. Cost of materials
10. Advancement of materials
11. Computer literacy

2.0 ATP-PART II

Training Modules for an ARCHITECTURAL DRAFTER

- 2.1 A curriculum is a “guide / plan for teaching and learning” which provides a guide to teachers, instructors and learners. In the envisaged system of competence-based or outcome-oriented education and training (CBET), Curricula are no longer the benchmark against which assessment is conducted. It is rather the Occupational Profile and the related Test Items that provide the benchmark for assessment as well as for Curriculum development.
- 2.2 This modular format of the curriculum allows learners of the Architectural Drafter Occupation to acquire job specific skills and knowledge (i.e. competencies) module by module. A single module can be accomplished within a relatively short duration allowing learners to move directly into an entry level job, do further modules and advance to higher levels of training. Modular courses allow more learners to access the training system because training centres as well as companies can accommodate more learners in a given period of time.
- 2.3 The modules were developed jointly by both instructors from training centres and job practitioners. They were developed using the Occupational Profile as a reference point and taking into account the specifications of training and learning outcomes in the form of Test Items described in Part II.
- 2.4 The modules contain “Learning-Working Assignments” (LWAs) and related “Practical Exercises” (PEXs) as key elements.
- LWAs are simulated or real job situations / assignments that are suitable for learning in a training environment (e.g. “small projects”). In a working environment, LWAs are real work situations.
- PEXs are therefore sub-sets of a LWA.
- 2.5 In principle, and following the philosophy of Competence-Based Education and Training (CBET), the modules can be used as a guide for learning in a training centre or at the work place; or combinations of both.

WHO IS AN ARCHITECTURAL DRAFTER QUALIFICATION LEVEL 1

An Architectural Drafter level 1 is a person who plans, drafts, draws and documents a straight single storied domestic building with either a lean-to or gable roof.

TRAINING MODULES FOR ARCHITECTURAL DRAFTER UVQ LEVEL 1

Code	Module Title	Average duration	
		Contact hours	Weeks
UE/AD/M1.1	Plan Architectural Work	160	4
UE/AD/M1.2	Make Working Drawings	400	10
UE/AD/M1.3	Make Artistic Impression	320	8
UE/AD/M1.4	Document Architectural Work	240	6
UE/AD/M1.5	Perform Entrepreneurship Roles	160	4
Summary	5 Training modules	1280 hours	32 weeks

Note: Average duration is contact time but NOT calendar duration

It is assumed that:

- 1 day is equivalent to 8 hours of nominal learning and
- 1 month is equivalent to 160 hours of nominal learning.

Information given on the average duration of training should be understood as a guideline. Quick learners may need less time than indicated or vice versa.

At completion of a module, the learner should be able to satisfactorily perform the included Learning Working Assignments, their Practical Exercises and attached theoretical instruction, as the minimum exposure.

Prior to summative assessment by recognised Agencies, the users of these Module Guides are encouraged to carefully consider continuous assessment using samples of (or similar) performance (practical) and written test items available in Part 3 of this ATP.

Code	UE/AD/M1.1
Module title	M1.1: Plan Architectural Work
Related Qualification	<u>Part of:</u> Uganda Vocational Qualification (Architectural Drafter UVQ1)
Qualification Level	1
Module purpose	On completion of this module, a trainee shall be able to record client's ideas, conduct site visits and cost architectural work
Learning-Working Assignments (LWAs)	<p>LWA 1/1: Record Client's Ideas LWA 1/2: Conduct Site Visit LWA 1/3: Cost Architectural Work LWA 1/4: Perform Occupational Health, Safety and Environment Protection Practices</p> <p>Note:</p> <ol style="list-style-type: none"> <i>The learning exercises may be repeated until the trainee acquires targeted competence</i> <i>The trainee is advised to deliver relevant theoretical instruction with demonstrations as required to perform each learning working assignment</i>
Related Practical Exercises (PEXs)	<p>LWA 1/1: Record Client's Ideas PEX 1.1: Write client's ideas PEX 1.2: Make Conceptual framework PEX 1.3: Make preliminary sketch</p>
	<p>LWA 1/2: Conduct Site Visit PEX 2.1: Determine gradient PEX 2.2: Measure site boundary PEX 2.3: Note removal obstacles PEX 2.4: Conduct sub soil test PEX 2.5: Determine services available PEX 2.6: Position frontage and setback distances</p>
	<p>LWA 1/3: Make Agreement With Client PEX 3.1: Make final sketch PEX 3.2: Cost labour PEX 3.3: Sign MOU</p>

	<p>LWA 1/4: Perform Occupational Health, Safety and Environment Protection Practices</p> <p>PEX 4.1: Manage waste PEX 4.2: Wear protective gear PEX 4.3: Perform firefighting PEX 4.4: Administer first aid</p>
Occupational health and safety	Precautions, rules and regulations of applications safety and environmental protection, included in the listed related knowledge should be observed and demonstrated during LWAs and PEXs.
Pre-requisite modules	None
Related knowledge/ theory	<p><i>For occupational theory suggested for instruction/ demonstration, the trainer is not limited to the outline below. In any case, related knowledge/ theory may be obtained from various recognised reference materials as appropriate:</i></p> <ul style="list-style-type: none"> • Knowledge of maps • Knowledge of rules and regulations governing building construction • Knowledge of local authority regulations • Knowledge of market prices of architectural materials • Knowledge of plumbing and electrical work • Knowledge of technical drawing • Knowledge of types of foundations
Average duration of learning	<p>160 hours (20 days) of nominal learning suggested to include:</p> <ul style="list-style-type: none"> • 05 days of occupational theory and • 15 days of occupational practice
Suggestions on organisation of learning	The acquisition of competencies (skills, knowledge, attitudes) described in this module may take place at a training centre or its equivalent provided that all equipment and materials required for this module training are in place.
Assessment	Assessment to be conducted according to established regulations by a recognised assessment body using related written test items from item bank.
Minimum required tools/ equipment/ implements or equivalent	computer, rulers, set rulers, printer, stepping machine, punching machine, gaggles, ultra-violent glass, plotter, calculator, led light box, photo copy, paper clips, brush, box files, note books, sharpener, helmet, trimmer/cutter, gloves, fire extinguisher, ink and ink pot, scaled ruler, electric eraser, scissors, graph book, drawing board, rubber, flip chart, x-acto knife set, steel ruler, stencils, paper clips, overall, ear plugs, drafting chair

Minimum required materials and consumables or equivalent	paper, cartridge, pencils, masks, gloves, rubber, software, sketch book, masking tape, tracing paper, bond paper, flip chart, Ink, graph paper, sanitiser.
Special notes	

Code	UE/AD/M1.2
Module title	M1.2: Make Working Drawings
Related Qualification	<u>Part of:</u> Uganda Vocational Qualification (Architectural Drafter UVQ1)
Qualification Level	1
Module purpose	On completion of this module, a trainee shall be able to make working drawings
Learning-Working Assignments (LWAs)	<p>LWA 2/1: Draw Site Layout Plan LWA 2/2: Draw Site Location Plan LWA 2/3: Draw Orthographic Views LWA 2/4: Draw Sewage Storage System LWA 2/5: Draw Boundary Wall LWA 2/6: Perform Occupational Health, Safety, and Environmental Protection Practices.</p> <p>Note:</p> <ol style="list-style-type: none"> 1. <i>The learning exercises must be repeated until the trainee acquires a targeted competence.</i> 2. <i>The trainer is advised to deliver relevant theoretical instruction with demonstrations as required to perform each learning working assignment.</i>
Related Practical Exercises (PEXs)	<p>LWA 2/1: Draw Site Layout Plan PEX 1.1: Draw site boundary outline PEX 1.2: Draw site blocks PEX 1.3: Draw site drainage system PEX 1.4: Draw drive and walk ways PEX 1.5: Draw compound layout</p>
	<p>LWA 2/2: Draw Site Location Plan PEX 2.1: Draw nearby physical features PEX 2.2: Draw roads PEX 2.3: Draw compass PEX 2.4: Locate site PEX 2.5: Draw contour lines PEX 2.6: Draw grid lines PEX 2.7: Name features</p>

	<p>LWA 2/3: Draw Orthographic Views PEX 3.1: Draw floor plan PEX 3.2: Draw building elevations PEX 3.3: Draw building cross section PEX 3.4: Draw roof plan</p> <p>LWA 2/4: Draw Sewage Storage System PEX 4.1: Draw pit latrine floor plan PEX 4.2: Draw pit latrine floor PEX 4.3: Draw pit latrine cross section PEX 4.4: Draw man hole plan PEX 4.5: Draw man hole cross section PEX 4.6: Draw septic Tank plan PEX 4.7: Draw septic Tank cross section PEX 4.8: Draw inlet and out let pipes PEX 4.9: Draw soak pit/ percolation trench</p> <p>LWA 2/5: Draw Boundary Wall PEX 5.1: Draw boundary wall plan PEX 5.2: Draw boundary wall elevation PEX 5.3: Draw boundary wall cross section PEX 5.4: Name boundary wall parts</p> <p>LWA 2/6: Perform Occupational Health, Safety, and Environmental Protection Practices PEX 6.1: Manage waste PEX 6.2: Wear protective gear PEX 6.3: Perform firefighting PEX 6.4: Administer first aid</p>
Occupational health and safety	Precautions, rules and regulations on occupational health, safety and environmental protection included in the listed related knowledge should be observed and demonstrated during LWAs and PEXs.
Pre-requisite modules	None
Related knowledge/ theory	<p><i>For occupational theory suggested for instruction/ demonstration, the trainer is not limited to the outline below. In any case, related knowledge/ theory may be obtained from various recognised reference materials as appropriate:</i></p> <ul style="list-style-type: none"> • Knowledge of use of computer applications • Knowledge of dimensioning • Knowledge of grid references • Knowledge of contours

	<ul style="list-style-type: none"> • Knowledge of use of scales • Knowledge of technical drawing • Knowledge of imperial and metric unit systems • Knowledge of rules and regulations governing building construction • Knowledge of local authority regulations • Knowledge on maps
Average duration of learning	400 hours (50 days) of nominal learning suggested to include: <ul style="list-style-type: none"> • <i>15 days of occupational theory and</i> • <i>35 days of occupational practice</i>
Suggestions on organisation of learning	The acquisition of competencies (skills, knowledge, attitudes) described in this module may take place at a training centre or its equivalent provided that all equipment and materials required for this module training are in place.
Assessment	Assessment to be conducted according to established regulations by a recognised assessment body using related practical and written test items from item bank.
Minimum required tools/ equipment/ implements or equivalent	computer, rulers, set rulers, printer, stepping machine, punching machine, gaggles, ultra-violent glass, plotter, calculator, led light box, photo copy, paper clips, brush, box files, note books, sharpener, helmet, trimmer/cutter, gloves, fire extinguisher, ink and ink pot, scaled ruler, electric eraser, scissors, graph book, drawing board, rubber, flip chart, X-Acto knife set, steel ruler, stencils, paper clips, overall, ear plugs, drafting chair
Minimum required materials and consumables or equivalent	paper, cartridge, pencils, masks, gloves, rubber, software, sketch book, masking tape, tracing paper, bond paper, flip chart, ink, graph paper, sanitiser.
Special notes	

Code	UE/AD/M1.3
Module title	M1.3: Make Artistic Impression
Related Qualification	<u>Part of:</u> Uganda Vocational Qualification (Architectural Drafter UVQ1)
Qualification Level	1
Module purpose	On completion of this module, a trainee shall be able to prepare drawing space, draw and finish the structure
Learning-Working Assignments (LWAs)	<p>LWA 3/1: Prepare Drawing Space LWA 3/2: Draw Structure LWA 3/3: Finish Structure LWA 3/4: Perform Occupational Health, Safety and Environmental Protection Practices</p> <p>Note:</p> <ol style="list-style-type: none"> 1. <i>The learning exercises must be repeated until the trainee acquires a targeted competence.</i> 2. <i>The trainer is advised to deliver relevant theoretical instruction with demonstrations as required to perform each learning working assignment.</i>
Related Practical Exercises (PEXs)	<p>LWA 3/1: Prepare Drawing Platform PEX 1.1: Select media PEX 1.2: Set drawing defaults</p>
	<p>LWA 3/2: Draw Structure PEX 2.1: Draw slabs PEX 2.2: Draw building walls PEX 2.3: Draw openings PEX 2.4: Draw roof</p>
	<p>LWA 3/3: Finish Structure PEX 3.1: Apply surfaces PEX 3.2: Draw compound PEX 3.3: Render structure</p>
	<p>LWA 3/4: Perform Occupational Health, Safety, and Environmental Protection Practices. PEX 3.1: Manage waste PEX 3.2: Wear protective gear</p>

	<p>PEX 3.3: Perform firefighting PEX 3.4: Administer fight aid</p>
Occupational health and safety	<p>Precautions, rules and regulations on occupational health, safety and environmental protection included in the listed related knowledge should be observed and demonstrated during LWAs and PEXs.</p>
Pre-requisite modules	<p>None</p>
Related knowledge/ theory	<p><i>For occupational theory suggested for instruction/ demonstration, the trainer is not limited to the outline below. In any case, related knowledge/ theory may be obtained from various recognised reference materials as appropriate:</i></p> <ul style="list-style-type: none"> • Knowledge of technical drawing • Knowledge of computer applications • Knowledge of art and design • Knowledge of finishing materials • Knowledge of landscaping • Knowledge of standardisation of building components • Knowledge of empirical and metric unit systems • Knowledge of building materials, characteristics, and usage
Average duration of learning	<p>320 hours (40 days) of nominal learning suggested to include:</p> <ul style="list-style-type: none"> • 05 days of occupational theory and • 35 days of occupational practice
Suggestions on organisation of learning	<p>The acquisition of competencies (skills, knowledge, attitudes) described in this module may take place at a training centre or its equivalent provided that all equipment and materials required for this module training are in place.</p>
Assessment	<p>Assessment to be conducted according to established regulations by a recognised assessment body using related practical and written test items from item bank.</p>
Minimum required tools/ equipment/ implements or equivalent	<p>computer, rulers, set rulers, printer, stepping machine, punching machine, gaggles, ultra-violent glass, plotter, calculator, led light box, photo copy, paper clips, brush, box files, note books, sharpener, helmet, trimmer/cutter, gloves, fire extinguisher, ink and ink pot, scaled ruler, electric eraser, scissors, graph book, drawing board, rubber, flip chart, X-Acto knife set, steel ruler, stencils, paper clips, overall, ear plugs, drafting chair.</p>
Minimum required materials and consumables or equivalent	<p>paper, cartridge, pencils, masks, gloves, rubber, software, sketch book, masking tape, tracing paper, bond paper, flip chart, Ink, graph paper, sanitiser.</p>
Special notes	

Code	UE/AD/M1.4
Module title	M1.4: Document Architectural Work
Related Qualification	<u>Part of:</u> Uganda Vocational Qualification (Architectural Drafter UVQ1)
Qualification Level	1
Module purpose	On completion of this module, the trainee shall be able to make schedules, title blocks, plan notes and architectural documents
Learning-Working Assignments (LWAs)	<p>LWA 4/1: Print Schedules</p> <p>LWA 4/2: Print Title Block</p> <p>LWA 4/3: Make Plan Notes</p> <p>LWA 4/4: Prepare Architectural Documents</p> <p>LWA 4/5: Perform Occupational Health, Safety, and environmental Protection Practices.</p> <p>Note:</p> <ol style="list-style-type: none"> 1. The learning exercises may be repeated until the trainee acquires targeted competence; 2. The trainer is advised to deliver relevant theoretical instruction with demonstrations as required to perform each learning working assignment.
Related Practical Exercises (PEXs)	<p>LWA 4/1: Print Schedules</p> <p>PEX 1.1: Print door information</p> <p>PEX 1.2: Print window information</p>
	<p>LWA 4/2: Print Title Block</p> <p>PEX 2.1: Draw title block outline</p> <p>PEX 2.2: Print title block information</p>
	<p>LWA 4/3: Make Plan Notes</p> <p>PEX 3.1: Print plan specification</p> <p>PEX 3.2: Draw septic tank dimension table</p> <p>PEX 3.3: Draw inspection chamber sizes table</p> <p>PEX 3.4: Print revision notes</p>
	<p>LWA 4/4: Prepare Architectural Documents</p> <p>PEX 4.1: Prepare BOQ</p> <p>PEX 4.2: Prepare quotation</p> <p>PEX 4.3: Prepare invoice</p> <p>PEX 4.4: Print tracing paper</p> <p>PEX 4.5: Make a blueprint of plans</p>

	<p>LWA 4/5: Perform Occupational Health, Safety, and Environmental Protection Practices</p> <p>PEX 5.1: Manage waste PEX 5.2: Wear protective gear PEX 5.3: Perform firefighting PEX 5.4: Administer fight aid</p>
Occupational health and safety	Precautions, rules and regulations on occupational health, safety and environmental protection, included in the listed related knowledge should be observed and demonstrated during LWAs and PEXs.
Pre-requisite modules	None
Related knowledge/ theory	<p><i>For occupational theory suggested for instruction/ demonstration, the trainer is not limited to the outline below. In any case, related knowledge/ theory may be obtained from various recognised reference materials as appropriate.</i></p> <ul style="list-style-type: none"> • Knowledge of types of doors • Knowledge of types of windows • Knowledge of types materials, characteristics and uses of doors • Knowledge of tools, equipment, and drawing instruments • Knowledge of computer Microsoft office • Knowledge of title block types • Knowledge of arithmetic (addition, subtraction, multiplication, division) • Knowledge of document management i.e. printing and saving • Knowledge of different types of letterings • Knowledge of units of measurement and dimensioning
Average duration of learning	<p>240 hours (30 days) of nominal learning suggested to include:</p> <ul style="list-style-type: none"> • 10 days of occupational theory and • 20 days of occupational practice
Suggestions on organisation of learning	The acquisition of competencies (skills, knowledge, attitudes) described in this module may take place at a training centre or its equivalent provided that all equipment and materials required for this module training are in place.
Assessment	Assessment to be conducted according to established regulations by a recognised assessment body using related written test items from item bank

Minimum required tools/ equipment/ implements or equivalent	computer, rulers, set rulers, printer, stepping machine, punching machine, gaggles, ultra-violent glass, plotter, calculator, led light box, photo copy, paper clips, brush, box files, note books, sharpener, helmet, trimmer/cutter, gloves, fire extinguisher, ink and ink pot, scaled ruler, electric eraser, scissors, graph book, drawing board, rubber, flip chart, X-Acto knife set, steel ruler, stencils, paper clips, overall, ear plugs, drafting chair
Minimum required materials and consumables or equivalent	paper, cartridge, pencils, masks, gloves, rubber, software, sketch book, masking tape, tracing paper, bond paper, flip chart, ink, graph paper, sanitiser.
Special notes	

Code	UE/AD/M1.5
Module title	M1.5: Perform Entrepreneurship Roles
Related Qualification	<u>Part of:</u> Uganda Vocational Qualification (Architectural Drafter UVQ1)
Qualification Level	1
Module purpose	On completion of this module, the trainee shall be able to perform administrative roles and market architectural work
Learning-Working Assignments (LWAs)	<p>LWA 5/1: Market Architectural Work LWA 5/2: Perform Administrative Roles LWA 5/3: Perform Occupational Health, Safety and Environment Protection Practices</p> <p>Note:</p> <ol style="list-style-type: none"> 1. <i>The learning exercises may be repeated until the trainee acquires targeted competence;</i> 2. <i>The Trainer is advised to deliver relevant theoretical instruction with demonstrations as required to perform each learning working assignment</i>
Related Practical Exercises (PEXs)	<p>LWA 5/1: Market Architectural Work PEX 1.1: Advertise architectural work PEX 1.2: Promote architectural work PEX 1.3: Offer customer care PEX 1.4: Network with peers</p>
	<p>LWA 5/2: Perform Administrative Roles PEX 2.1: Prepare books of accounts PEX 2.2: Prepare budget PEX 2.3: Procure architectural materials, tools and equipment PEX 2.4: Keep architectural profile PEX 2.5: Source for funding PEX 2.6: Maintain tools and equipment PEX 2.7: Store materials, tools and equipment</p>

	<p>LWA 5/3: Perform Occupational Health, Safety, and Environmental protection Practices</p> <p>PEX 3.1: Manage waste PEX 3.2: Wear protective gear PEX 3.3: Perform firefighting PEX 3.4: Administer fight aid</p>
Occupational health and safety	Precautions, rules and regulations on occupational health, safety and environmental protection, included in the listed related knowledge should be observed and demonstrated during LWAs and PEXs.
Pre-requisite modules	None
Related knowledge/ theory	<p><i>For occupational theory suggested for instruction/ demonstration, the trainer is not limited to the outline below. In any case, related knowledge/ theory may be obtained from various recognised reference materials as appropriate:</i></p> <ul style="list-style-type: none"> • Knowledge of marketing strategies • Knowledge of marketing methods • Knowledge of accounts • Knowledge of book keeping • Knowledge of procurement procedures • Knowledge of structure of administration • Knowledge of current affairs
Average duration of learning	<p>160 hours (20days) of nominal learning suggested to include:</p> <ul style="list-style-type: none"> • 05 days of occupational theory and • 15 days of occupational practice
Assessment	Assessment to be conducted according to established regulations by a recognised assessment body using related written test items from item bank.
Minimum required tools/ equipment/ implements or equivalent	computer, rulers, set rulers, printer, stepping machine, punching machine, gaggles, ultra-violent glass, Plotter, calculator, led light box, photo copy, paper clips, brush, box files, note books, sharpener, helmet, trimmer/cutter, gloves, fire extinguisher, ink and ink pot, scaled ruler, electric eraser, scissors, graph book, drawing board, rubber, flip chart, x-Acto knife set, steel ruler, stencils, paper clips, overall, ear plugs, drafting chair
Minimum required materials and consumables or equivalent	paper, cartridge, pencils, masks, gloves, rubber, software, sketch book, masking tape, tracing paper, bond paper, flip chart, ink, graph paper, sanitiser.

Suggestions on organisation of learning	The acquisition of competencies (skills, knowledge, attitudes) described in this module may take place at a training centre or its equivalent provided that all equipment and materials required for this module training are in place.
Special notes	

3.0 ATP-PART III

Assessment Instruments for an ARCHITECTURAL DRAFTER

- 3.1 **Assessment** of occupational competence is the procedure by which evidence is gathered and judged to decide if an individual (candidate) has met the stipulated assessment standards or not. In this ATP the **standards** to assess occupational competences are reflected in the form of the Occupational Profile and related Test Items.
- 3.2 Assessment of occupational competence should comprise both practical (performance) testing and written (theory/knowledge) testing.
- 3.3 Based on the Occupational Profile, a combined panel of job practitioners and Instructors developed a substantial number of test items for assessing (practical) performance as well as items for assessing occupational knowledge (theory) all stored in an electronic Test Item Bank (TIB) at Directorate of Industrial Training.
- 3.4 Performance (Practical) Test Items (PTI) are closely related to typical work situations in Ugandan business and manufacturing enterprises. They comprise a test assignment for candidates and assessment criteria and/or scoring guides for assessors' use.
- 3.5 Written Test items (WTI) for written testing of occupational theory, (knowledge) are presented in different forms which include:
 - Short answer test items.
 - Multiple choice test items and,
 - Matching test items, These WTIs herein focus on functional understanding as well as trouble-shooting typically synonymous with the world of work.
- 3.6 Composition of assessment / test papers will always require good choices of different types of WTI in order to ensure the assessment of relevant occupational knowledge required of candidates to exhibit competence.
- 3.7 The test items contained in the Test Item Bank may be used for continuous / formative assessment during the process of training as well as for summative assessment of candidates who have acquired their competences non-formally/or informally.
- 3.8 In this document, the following samples of test items for assessing both performance (practical) and occupational knowledge (theory) of an ARCHITECTURAL DRAFTER are included:

Overview of Test Item samples included:

No	Type of test items	Numbers
1	Written (Theory) –short answer	2
2	Written (Theory) - multiple choice	4
4	Written (Theory) - matching with work sequences	1
5	Written (Theory) - matching with generic	1
6	Performance (Practical) test item	1
Total		9

WRITTEN TEST ITEMS (SAMPLES)

DIT/ QS	Test Item Database Written (Theory) Test Item- No. 1			
Occupational Title:	Architectural Drafter			
Competence level:	Level 1			
Code no.				
Test Item type:	Short answer	✓		
	Multiple choice			
	Matching item	Generic	Cause effect	Work sequence
Complexity level:	C 1			
Date of OP:	September 2020			
Related modules:	M1.1			
Time allocation:	2 minutes			

Test Item	List any five tools and equipment used by an architectural Drafter.
Answer spaces	(i) (ii) (iii) (iv) (v)
Expected answers	(i) Note book (ii) Pen (iii) Eraser (iv) Pencil (v) Tape measure (vi) Industrial boots (vii) Helmet (viii) Mask (ix) Refractive jacket

DIT/ QS	Test Item Database Written (Theory) Test Item- No. 2			
Occupational Title:	Architectural Drafter			
Competence level:	Level 1			
Code no.				
Test Item type:	Short answer	✓		
	Multiple choice			
	Matching item	Generic	Cause effect	Work sequence
Complexity level:	C 1			
Date of OP:	September 2020			
Related modules:	M1.1			
Time allocation:	2 minutes			

Test Item	Give three personal protective equipment a Drafter uses on a site.
Answer spaces	(i) (ii) (iii) (iv) (v)
Expected answers	(i) Helmet (ii) Gumboots (iii) Reflecting jacket (iv) Masks (v) Mason gloves (vi) Safety boots (vii) Safety goggles (viii) Standard quality ear muffs (ix) Rain coat (x) Overall

DIT/ QS	Test Item Database Written (Theory) Test Item- No. 3			
Occupational Title:	Architectural Drafter			
Competence level:	Level 1			
Code no.				
Test Item type:	Short answer			
	Multiple choice	✓		
	Matching item	Generic	Cause effect	Work sequence
Complexity level:	C 2			
Date of OP:	September 2020			
Related modules:	M1.2			
Time allocation:	1 minute			

Test ItemIs a factor that is used to reduce or magnify a drawing on paper.
Distractors and correct answer	A. Default B. Format C. Scale D. Safety

key (answers)	C
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DIT/ QS	Test Item Database Written (Theory) Test Item- No. 4			
Occupational Title:	Architectural Drafter			
Competence level:	Level 1			
Code no.				
Test Item type:	Short answer			
	Multiple choice	✓		
	Matching item	Generic	Cause effect	Work sequence
Complexity level:	C 2			
Date of OP:	September 2020			
Related modules:	M1.2			
Time allocation:	1 minute			

Test ItemIs the main reason for a drafter to visit the site prior to starting work.
Distractors and correct answer	A. To sign a memorandum of understanding with the client B. To cost the work C. To ascertain the nature of the gradient D. To know the location of the site

key (answers)	C
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DIT/ QS	Test Item Database Written (Theory) Test Item- No. 5			
Occupational Title:	Architectural Drafter			
Competence level:	Level 1			
Code no.				
Test Item type:	Short answer			
	Multiple choice	✓		
	Matching item	Generic	Cause effect	Work sequence
Complexity level:	C 2			
Date of OP:	September 2020			
Related modules:	M1.2			
Time allocation:	1 minute			

Test ItemIs the orthographic view that shows the material details of an architectural drawing.
Distractors and correct answer	A. The front view B. The plan view C. The cross section D. The site layout

key (answers)	C
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DIT/ QS	Test Item Database Written (Theory) Test Item- No. 6			
Occupational Title:	Architectural Drafter			
Competence level:	Level 1			
Code no.				
Test Item type:	Short answer			
	Multiple choice	✓		
	Matching item	Generic	Cause effect	Work sequence
Complexity level:	C 1			
Date of OP:	September 2020			
Related modules:	M1.1			
Time allocation:	1 minute			

Test Item	When using AUTO CAD in orthographic mode, lines are drawn to each other
Distractors and correct answer	A. Inclined B. Perpendicular C. Any direction D. 45 degrees

key (answers)	B
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DIT/ QS	Test Item Database Written (Theory) Test Item- No. 7			
Occupational Title:	Architectural Drafter			
Competence level:	Level 1			
Code no.				
Test Item type:	Short answer			
	Multiple choice			
	Matching item	Generic	Cause effect	Work sequence
		✓		
Complexity level:	C 2			
Date of OP:	September 2020			
Related modules:	M1.2			
Time allocation:	2 minutes			

Test Item	Match the following lines to their uses
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Column A	
1	Continuous lines
2	Short dash medium lines
3	Thin chain line
4	Thick chain line

Column B	
A	Sectioning line
B	Show hidden details
C	Show final outlines
D	Show center lines
E	Show movable parts
F	Show break lines

Key(answer)	1-C, 2-B, 3-D, 4-A
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DIT/QS	Test Item Database Written (Theory) Test Item- no.8			
Occupational Title:	Architectural Drafter			
Competence level:	Level 1			
Code no.				
Test Item type:	Short answer			
	Multiple choice			
	Matching item	Generic	Cause- Effect	Work-sequence
				√
Complexity level:	C 2			
Date of OP:	September 2020			
Related module:	M1.1			
Time allocation:	2 minutes			

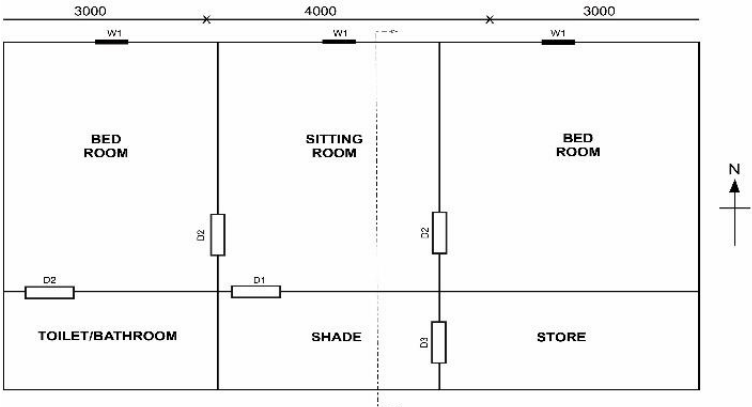
Test Item	Arrange the following steps in order of execution by the Architectural Drafter
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Column A (chronology)	Column B (work steps) in wrong chronological order	
1 st	A	Cost architectural work
2 nd	B	Prepare conceptual sketches
3 rd	C	Review sketches with client
4 th	D	Conduct site visit
5 th	E	Commence drafting
6 th	F	Record client's needs

Key (answer)	1-F,2-B,3-D,4-C,5-A,6-E.
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PERFORMANCE TEST ITEMS (SAMPLES)

DIT/ QS	Test Item Database Performance Test Item- No. 9
Occupational Title:	Architectural Drafter
Competence level:	Level 1
Code no.	
Test Item:	<p>Using the line diagram and specifications of the building shown in the figure, draw the following views and tables using Auto CAD</p> <p>The floor plan Cross section A-A Front elevation Rear elevation East end elevation West end elevation Door and window schedule Specification notes (roof, floors, foundation) Horizontal title block</p> <p style="text-align: center;">Specification</p> <p>Doors: D1- Metallic casement 900x2100 D2- Flush door 900x2100 D2- Metallic door 900x2100</p> <p>Windows: W1- Metallic casement 1200x1200 W2- Metallic casement 600x600</p> <p>Splash apron -500mm wide</p> <p>Walls -230mm thick plinth wall and 150mm thick super structure walls. Plastered and rendered either side, 3000mm high from screed to tie beam 200mm thick ring beam</p> <p>Roof Gable roof pitched at 22.5° covered with gauge 30 galvanised corrugated iron sheets on; 75x50 Timber purlins 100x50 Timber rafter 100x50 Timber ties & struts 150x50 Timber tie beam 100x50 Timber wall plate The ridge cap is made from gauge 30 iron sheet</p>

	<p>Foundation - Strip foundation with, 25mm cement sand screed on 100mm thick site concrete on 1000 gauge Polythene dpm on 50mm well compacted sand blinding on 200mm well compacted hard core on well rammed and compacted marram 690x230 concrete strip foundation</p> <p>Ceiling - 50x50mm Timber branderings and joists on an expanded metal lathe with motor mix finished with a cornice</p>  <p>The floor plan shows a rectangular house divided into several rooms. The top row consists of three sections: a 'BED ROOM' (width 3000), a 'SITTING ROOM' (width 4000), and another 'BED ROOM' (width 3000). The bottom row consists of a 'TOILET/BATHROOM', a 'SHADE' area, and a 'STORE'. There are three windows labeled 'W1' along the top wall. There are three doors labeled 'D1', 'D2', and 'D3'. A north arrow is located on the right side of the plan.</p>
Complexity level:	P 3
Date of OP:	September 2020
Related module:	M1.3, M1.5
Related skills and knowledge:	<ul style="list-style-type: none"> • Knowledge of technical drawing • Knowledge of computer applications • Knowledge of art and design • Knowledge of finishing materials • Knowledge of landscaping • Knowledge of standardisation of building components • Knowledge of empirical and metric unit systems • Knowledge of building materials , characteristics, and usage
Required tools, Materials and Equipment:	computer, rulers, set rulers, printer, stepping machine, punching machine, gaggles, ultra-violent glass, calculator, led light box, photo copy, paper clips, brush, box files, note books, sharpener, helmet, trimmer/cutter, gloves, ink and ink pot, scaled ruler, electric eraser, scissors, graph book, drawing board, rubber, flip chart, X-Acto knife set, steel ruler, stencils, paper clips, overall, ear plugs, drafting chair.
Time allocation:	6 hours

Preferred venue:	A room with power supply
Remarks for candidates	<ul style="list-style-type: none"> Wear personnel protective equipment
Remarks for assessors	<ul style="list-style-type: none"> Provide necessary tools, equipment and materials

#	Assessment criteria	Scoring guide	Max Score	
			Process	Result
1	Planning for architectural work	Wore protective gear		1
		Goggles		1
		Gloves		1
		Ear plugs		
		Assembled tools and equipment		2
2	Drawing of the floor plan	Opened Auto-CAD and created a new project		1
		Set workspace defaults	2	
		Units, dimension types and sizes verified	2	
		Drew walls	2	
		Horizontal and vertical lines drawn to the required dimension (thickness) observed		2
		Drew doors	1	
		Openings created along walls and doors fixed with the hinging side closer to the return angle verified		2
		Drew windows	1	
		Openings created along wall and windows fixed, including windows sills observed		2
		Drew Roofline	1	
2	Drawing of the floor plan	Sort dashed lines drawn vertically and horizontally observed		2
		Printed rooms		2
		Printings observed in the bedroom, sitting room, store, toilet/ bathroom		2
		Dimensioned plan	1	
		Vertical and horizontal dimension observed along the plan		2

		Printed Headings & scale	1	
		Headings and scale observed below the drawing		1
3	Drawing of the Cross section A-A	Drew foundation	2	
		Hing for concrete strip, Plinth wall, compacted marram observed		2
		Drew plinth walls	1	
		Vertical lines drawn in all required Positions		2
		Drew floor		1
		Straight horizontal lines observed for site concrete, hard core stones at given thickness		2
		Drew splash apron	1	
		Drew horizontally exceeding the walls		1
		Drawn walls		1
		Vertically drawn walls observed	1	
		Drew windows and doors		1
		Vertically positioned in the middle of the wall	1	
		Drew roof		2
		Tie beam, struts and ties, purlins, roofing materials, ridge cover indicated	2	
		Drew symbols		2
		All hatchings for the wall, concrete, hard core, stones, timber, and marram observed	1	
		Dimension section		2
		Vertical and horizontal dimensions observed	1	
		Printed heading and scale		1
Heading and scale observed below the drawing		1		
4	Drawing of the	Drew splash apron and floor	1	1

	Front elevation	Horizontal lines observed	1	
		Drew walls(vertical)		2
		Drew doors and windows		2
		Windows and doors drawn vertically with required details observed		2
		Drew ring beam	1	
		Horizontal lines to the required thickness/ spans observed		2
		Drew ventilators		1
		Positioned above ring beam and showing all details		1
		Drew fascia board		1
		Drew roof	2	
		Positioned on top of walls and procedure of obtaining pitch height observed	1	
		Drew symbols		1
		Iron sheets and glass hatchings observed		1
		Printed headings and scale		1
		Wordings observed below the drawing		1
5	Drawing of the Rear elevation	Drew splash apron and floor		2
		Splash apron drawn to given thickness observed	1	
		Drew walls		2
		Vertically drawn walls observed	1	
		Drew windows		2
		Windows in accordance to the specification observed	2	
		Drew ring beam		1
		Horizontal lines drawn to given thickness observed		1
		Drew ventilators		1
		Ventilators positioned above the ring beam and to the required specification		1

		Drew fascia board		1
		Fascia board to given specification covering observed		1
		Drew roof		3
		Positioned on top of walls and procedures of obtaining pitch height observed	1	
		Drew symbols		2
		Iron sheet and glass hatchings observed	1	
		Print headings and scales		1
		Observed below the drawing		1
6	Drawing of the East elevation	Drew splash apron and floors		2
		Splash apron drawn to given thickness observed		1
		Drew walls		1
		Vertically drawn lines observed		1
		Drew ring beam		1
		Horizontal lines drawn to given thickness observed		1
		Drew barge board		2
		Barge board drawn to the given pitch angle	1	1
		Drew roof		2
		Positioned on top of walls with required details		1
		Drew symbols		2
		Iron sheet hatchings observed		1
		Printed heading and scale		1
		Observed below the drawing		1
7	Drawing of the West elevation	Drew splash apron and floor		2
		Splash apron drawn to a given thickness observed		1
		Drew walls		2

		Vertically drawn lines observed		1
		Drew windows		1
		Windows vertically drawn in accordance to given specification		1
		Drew ring beam		1
		Horizontal lines drawn to given thickness observed		2
		Drew ventilators	2	
		Observed above the ring beam with all the details		1
		Drew verge board	2	
		Inclined at 22.5 ⁰		2
		Drew roof	1	
		Positioned on top of walls with required details		2
		Drew symbols		2
		Iron sheets and glass hatchings observed		1
		Printed heading and scale	2	
		Observed below the drawing		1
8	Drawing of the Draw door and window schedule	Partitions of table drawn on the paper		2
		Drew door and window symbols		2
		Printed dimensions of doors and windows		1
		Dimensions observed in table		2
		Printed quantity of doors and windows		1
		Quantities observed in table		1
		Printed descriptions of each window and door		2
		Descriptions observed in table		1
		Printed headings		1
		Observed above the table		1
9	Printing	Printed roof specifications		2

UVQF: Assessment and Training Package (ATP) for an ARCHITECTURAL DRAFTER
QUALIFICATION LEVEL: 1 **September 2020**

	specification notes	Required roof specification observed		1
		Printed foundation specification		2
		Printed floor specification		2
		Floor specification observed		1
		Printed building notes		2
		Building notes observed		1
10	Making of horizontal notes	Drew boarder lines		1
		Boarder line observed		1
		Drew title block outline		1
		Title block outline observed		1
		Printed client details		1
		Printed architectural details		1
		Printed site location notes		1
		Printed revision notes		1
		Printed date		1
		Printed scale		1
		Printed drawing number		1
	TOTAL		40	148
			188	

4.0 ATP- PART IV

INFORMATION ON DEVELOPMENT PROCESS

4.1 Occupational Profile Development (September 2020)

The Occupational Profile was exclusively developed by job practitioners who were working in the Architectural Drafter Occupation. The job expert panel, guided by UVQF Facilitators defined duties and tasks performed and provided additional generic information regarding the occupation.

4.2 Training Module Development (September 2020)

Based on the Occupational Profile for Architectural Drafter of September 2020, Training Modules were developed by job practitioners, guided by UVQF Facilitators.

4.3 Test Item Review (September, 2020)

Based on the Occupational Profile for Architectural Drafter of September, 2020, and Training Modules, Test Items were developed by combined panels of instructors and job practitioners, guided by UVQF Facilitators.

4.4 Methodology

The rationale for the Assessment and Training Package development was to link Vocational Education and Training to the real world of work by bridging Occupational Standards to Training Standards through industry-led Standards-Based Assessment.

Active participation of both instructors and job practitioners' panels consolidated the development philosophy.

The panellists worked as teams in workshop settings complemented by off-workshop field research and literature review activities including international benchmarking.

4.5 Development Panel

The participating panel of Job Practitioners required for different stages of the assessment training package i.e. occupational profile, training modules, assessment instruments were constituted by members from the following organisations;

Development Panel		
No.	Name	Institution/ Organisation
1.	Ronald Mutebi	Kyambogo College School
2.	Aaron Karega	Amron International Limited
3.	Francis Tumwine	Mbarara High School
4.	Robert Ntalo	Converge Technical And Construction Company
5.	Jonathan Kizito	Converge Technical And Construction Company
6.	Michael Kato	St. Peters S.S Nsambya
7.	Jackson Mosinghi	Nakawa Vocational Training Institute
8.	Andrew Ngolobe	Andeh Fine Homes Limited
9.	Robert Buyondo Bob	Mengo Senior School
10.	Wiliam Okello	Mx. Technical Services

4.6 Facilitator team

This Assessment and Training Package was developed by a Facilitator team listed below:

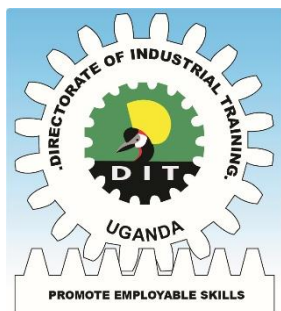
1. **Team Leader:** Ms. Mukyala Ruth, Ag Deputy Director, DIT
2. **Facilitators:** Ms. Lovance Kyarizi, Mr. Lubowa Christopher Derrick., QS, DIT.
3. **Data Entrants:** Ms. Nakato Annet, Muwanguzi Willy, Mr. Twinamatsiko Davis
4. **Compiled by:** Ms. Nakato Annet
5. **Edited by:** Ms. Mukyala Ruth Ag. DD, DIT, Qualification Standards Dept. DIT
6. **Coordinated by:** Mr. Byakatonda Patrick, Ag. Director, DIT; and Ms. Mukyala Ruth Ag. DD Qualification Standards Dept. DIT

4.7 References time:

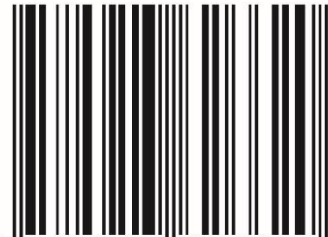
The Assessment and Training Package was compiled in September 2020 and may be periodically revised to msatch the dynamic trends in the occupation and hence issued in different versions.

References

1. Ronald, M. (2001). Building construction theory. Kampala: Muro Technical consults.
2. Ronald, M. (2008). Introduction to Building drawing. Kampala: Muro Technical consults.
3. Ronald, M. (2009). Illustrated approach to Technical drawing- Book 1. Kampala: Muro Technical consults.
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