

THE NATIONAL COUNCIL FOR TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING



OCCUPATIONAL STANDARDS

OCCUPATION: ARCHITECTURAL INTERIOR DESIGN TECHNICIAN

LEVEL: NTA LEVEL 4

FEBRUARY 2024

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ABBREVIATIONS

BOQ	Bill of Quantities
CAD	Computer-Aided Design
CBET	Competency Based Education and Training
EMP	Environmental Management Plan
ICT	Information Computer Technology
ID	Interior Design
NACTVET	National Council for Technical and Vocational Education and Training
NOS	National Occupational Standards
OS	Occupational Standards
PPE	Personal Protective Equipment
TET	Technical Education and Training
TVET	Technical and Vocational Education and Training

GLOSSARY OF TERMS

Circumstantial Knowledge:	Detailed knowledge, which allows the decision-making in regard to different circumstances and cross cutting issues.
Competence:	The ability to use knowledge, understanding, practical, and thinking skills to perform effectively to the workplace standards required in employment.
Competency:	A description of the ability one possesses when able to perform a given occupational task effectively and efficiently.
Competency-based Education:	An instructional programme that derives its content from validated tasks and bases assessment on the learner's performance.
Curriculum:	A description or composite of statements about "what is to be learned" by the trainee/student in a particular instructional programme; a product that states the "intended learning outcomes".
Educational/Training Programme:	The complete curriculum and instruction (what and how) that is designed to prepare a person for employment in a job or other particular performance situation.
Occupation:	A specific position requiring the performance of specific tasks – essentially the same tasks are performed by all employees having the same title. (Example: baker)
Occupational Area:	This is a broad grouping of related jobs. (Example: food service)
Occupational Competence:	The application of knowledge and skills that consistently meet the standards required by the work context.
Occupational Standards:	Specific requirements of competences people are expected to demonstrate in a particular occupational area, including knowledge and relevant attitudes. They also act as a performance tool of assessment of the prescribed outcomes.
Occupational/Job Analysis:	A process used to identify the tasks that are important to employees in any given occupation.
Performance Criteria:	Indicate expected end results or outcomes in the form of evaluative statements.
Skills:	The ability to perform occupational tasks with a high degree of proficiency within a given occupation. Skill is conceived of as a composite of three completely interdependent components: cognitive, affective, and psychomotor.

Standards:	A set of statements, which if proved true under working conditions, means that an individual is meeting an expected level and type of performance.
Task Analysis:	The process of analysing each task to determine the steps, circumstantial knowledge, attitudes, performance standards, tools and materials needed, as well as safety concerns required for the employees performing it.
Task:	A work activity that has a definite beginning and ending, is observable or measurable, and consists of two or more definite steps that leads to a product, service, or decision.
Underpinning Knowledge:	Crucial knowledge that an individual must acquire in order to demonstrate competences that are associated in performing a given task.
Verification Process:	The process of having experts review and confirm the importance of the task (competency) statements identified through occupational analysis. Other questions, such as the degree of task learning difficulty are also frequently asked. This process is also sometimes referred to as validation.

1.0 INTRODUCTION

Technical Education and Training (TET) is one of the most important education sub-sectors in Tanzania, responsible for developing a skilled workforce to support the country's industrialization economic agenda. Tanzania's *Development Vision 2025* intends to raise the country's economy to a middle-income status, with a high level of human development. This requires a skilled workforce that is aligned with the needs of the public and private sectors of the economy. The National Council for Technical and Vocational Education and Training (NACTVET) has begun the job of drafting Occupational Standards (OS) that will eventually be adopted as National Occupational Standards (NOS) for use in the delivery of TET that meets the needs of the labour market and the country's economic agenda.

Occupational Standards (OS) are performance criteria that are matched with labour market demands. Each of them describes the functions, performance standards, and understanding or knowledge underpinning a given occupation. They combine skills, knowledge, and attitudes to describe best practice. They are useful tools for establishing job roles, personnel recruitment, supervision, and appraisal, as well as TET Standards. They are also helpful for benchmarking and harmonizing job qualifications on a national and international level. Standards, in general, provide a solid framework for high-quality TET that is labour market-relevant, current, and consistent in application across all public and private institutions.

However, it must be noted that Occupational Standards are different from Training /Education Standards. Occupational standards are defined in terms of activities performed by a person in a selected occupation (e.g., an electrical engineer designs electrical circuits, performs troubleshooting in electrical circuits, etc.), and are usually defined by Employers following procedures as agreed upon by all the stakeholders. On the other hand, Training and Education Standards are developed from the activities defined in the occupational standards, and they specify learning objectives to ensure that the necessary skills and knowledge are developed by a person to enable him/her to function at an agreed level in an occupation. Training and Education Standards are used to define curricula in training institutions. It is critical, however, to establish a direct link between the occupational standards and the training standards for both of them to respond collaboratively to the demands of the labour market.

For the purpose of TET delivery, Tanzania has adopted the Competence Based Education and Training (CBET) approach. The CBET approach focuses on providing learners with the skills and knowledge required to meet the occupational standards. Occupational standards are thus the starting point for developing competency-based training (CBET) programmes. Therefore, it is quite pertinent for TET institutions to use the relevant occupational standards as a benchmark for formulating their curricula.

Occupational Standards are developed based on a given occupation's current and future demands. As a result, they serve as a means of bridging the gap between the worlds of employment and technical education and training. The document explains how the occupational standards were developed, as well as the scope, the occupational profile in the form of DACUM charts, and the Occupational Standards.

2.0 OCCUPATIONAL STANDARD DEVELOPMENT PROCESS

The process of developing these Occupational Standards involved both local and international expertise. The process began with an examination of major documents that guide Tanzanian skills development including the *10-year National Skills Development Strategy (2016-2026)*. NACTVET labour market reports were also used in the literature review to determine the skills demand in the Tanzanian labour market as a whole.

After the literature review, a team of experts in consultation with practitioners developed draft occupational standards. The draft document was used to develop an occupational profile for each occupation (DACUM Chart), which is attached as an **Appendix** to every Occupational Standard.

The occupational standards were validated during stakeholders' forum held on 22nd and 23rd February 2024 at Morogoro. The information from stakeholders' forum provide insight from the workplaces, professional bodies, regulatory bodies and sector ministries regarding trends and changes in the profession, including how well graduates are prepared for working in the occupation.

3.0 THE SCOPE AND OVERVIEW OF THE OCCUPATION STANDARDS FOR ARCHITECTURAL INTERIOR DESIGN TECHNICIANS

These standards cover a broad range of duties and tasks that can be performed by an Architectural Interior Design Technician. However, the occupational standards are not meant to replace individual job descriptions. Instead, they are to be used for guidance in defining skill levels and knowledge for the technician in specific settings or positions. The Architectural Interior Design Technician may perform tasks in a number of key areas of the occupational standards, but not necessarily in all areas. For example, in large operations, other individuals may be employed or designated to perform specific tasks.

The Architectural Interior Design Technicians shall design interior space of new buildings, remodel and rebuild interior spaces of existing buildings, and provide suggestions for the restoration and preservation of interior spaces of old buildings. They are able to design interior spaces that are functional, safe, sustainable and aesthetically pleasing by taking advantage of their professional knowledge in interior design and excellent drafting skills.

Except for designing interior spaces, they need to write feasibility reports, determine environmental impact and create project proposals. Besides, they shall estimate costs, make schedules and supervise the construction. The Architectural Interior Design Technicians shall keep proactive throughout the interior design, adjusting their plans based on budget constraints, environmental factors, and customer needs. Generally, the Architectural Interior Design Technicians perform the following responsibilities:

- a) Preparation of project material
- b) Preparation of design results
- c) Construction drawing
- d) Compilation of project list
- e) Cooperation at the construction site
- f) Collation of project material
- g) Project summary

The Occupational Standards have been clustered into NTA qualification levels, i.e. NTA level 4, 5 and 6.

4.0 VALIDITY PERIOD

Due to the rapid development of technology, the validity period of occupational standards is 3-5 years. The review will proceed in the same manner as the one before it, with new occupational standards being developed based on current trends of the labour market.

5.0 OCCUPATIONAL STANDARDS

5.1 OCCUPATIONAL STANDARDS FOR ARCHITECTURAL INTERIOR DESIGN TECHNICIAN - NTA LEVEL 4

OCCUPATION	ARCHITECTURAL INTERIOR DESIGN TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	COLLATE INFORMATION AND MATERIALS FOR INTERIOR DESIGN	DUTY NO.	401
TASK TITLE	CARRYOUT PROJECT RESEARCH AND SITE SURVEYING	TASK NO.	4011
PERFORMANCE CRITERIA	The person performing this task must be able to research and survey the design project and finish the collection of preliminary data and materials needed by the construction project in accordance with specifications.		
RANGE STATEMENT	The task can be performed on site and in offices under the supervision of Senior Technicians or Architectural Interior Design Engineers. The tools and equipment to be used include:		

	<ol style="list-style-type: none"> 1. Notebook; 2. Pencil/pen; 3. GPS; 4. Camera; 5. Laser rangefinder/steel tape; 6. Personal protective equipment (PPE).
EVIDENCE REQUIREMENT	
PRACTICAL PERFORMANCE	UNDERPINNING KNOWLEDGE
<p>The person performing this task must be able to do the following:</p> <ol style="list-style-type: none"> 1. Select appropriate tools and equipment; 2. Get to know project requirements; 3. Collect information about building modeling and surrounding projects; 4. Collect internal environmental information of design projects, such as room area, storey height; and number of rooms; 5. Conduct site surveys; 6. Draw the site plan; 7. Take pictures of the project site for archiving; 8. Make analysis and summary; 9. Communicate with the team members in a timely manner; 8. Clean the tools, equipment and workplaces; 9. Safely arrange and store the tools and equipment. 	<p>Detailed knowledge about:</p> <p>1.0 Methods</p> <p>The person performing this task must be able to explain how to:</p> <ol style="list-style-type: none"> 1.1 Use measuring tools to measure the building site; 1.2 Identify architectural structures; 1.3 Record and archive project site information. <p>2.0 Principles</p> <p>The person performing this task must be able to explain the following principles:</p> <ol style="list-style-type: none"> 2.1 Technical regulations for surveying and setting out of architectural interior design; 2.2 Principles for layout of architectural interior space. <p>3.0 Theories</p> <p>The person performing this task must be able to explain the following:</p> <ol style="list-style-type: none"> 3.1 Standards for building construction; 3.2 Measurement process of interior size; 3.3 Ergonomic scale relations. <p>4.0 Essential Skills</p> <ol style="list-style-type: none"> 4.1 Communication skills; 4.2 Data analysis skills; 4.3 Teamwork skills.
DESCRIPTION OF THE END PRODUCT / SERVICE	<p>The design information is collected, and survey drawings are drawn on site in accordance with post requirements and operation specifications.</p>
CIRCUMSTANTIAL KNOWLEDGE	<p>Detailed knowledge about:</p> <ol style="list-style-type: none"> 1. Safety protection of project site; 2. Methods for project status analysis; 3. Specifications of technical indexes; 4. Occupational health and safety.

OCCUPATION	ARCHITECTURAL INTERIOR DESIGN TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	COLLATE INFORMATION AND MATERIALS FOR INTERIOR DESIGN	DUTY NO.	401
TASK TITLE	PREPARE ARCHIVE FOR INTERIOR DESIGN MATERIALS	TASK NO.	4012
PERFORMANCE CRITERIA	The person performing this task must be able to collect interior design materials of project research and on-site surveying, and make them into documents.		
RANGE STATEMENT	<p>The task can be performed on the project site or in offices under the supervision of senior technicians or architectural interior design engineers.</p> <p>The tools and equipment to be used include:</p> <ol style="list-style-type: none"> 1. Notebook; 2. Pencil/pen; 3. GPS; 4. Camera; 5. Laser rangefinder/steel tape; 6. Personal protective equipment (PPE); 7. Computer; 8. Printer. 		
EVIDENCE REQUIREMENT			
PRACTICAL PERFORMANCE	UNDERPINNING KNOWLEDGE		
<p>The person performing this task must be able to do the following:</p> <ol style="list-style-type: none"> 1. Collect and collate preliminary project materials; 2. Classify and archive the collected documents; 3. Create electronic folders or file management systems; 4. Store collated documents in electronic folders by classification; 5. Change document name; 6. Regularly back up documents; 7. Create document indexes or directories; 8. Regularly update and maintain the filing system. 	<p>Detailed knowledge about:</p> <p>1.0 Methods</p> <p>The person performing this task must be able to explain how to:</p> <ol style="list-style-type: none"> 1.1 Use office software; 1.2 Carry out network retrieval and material classification; 1.3 Integrate and process preliminary design materials; 1.4 Classify and file. <p>2.0 Principles</p> <p>The person performing this task must be able to explain the following principles:</p> <ol style="list-style-type: none"> 2.1 Material classification and network retrieval methods; 2.2 Classification and filing principles for design materials. <p>3.0 Theories</p> <p>The person performing this task must be able to explain the following:</p> <ol style="list-style-type: none"> 3.1 Collection methods of design materials; 		

	<p>3.2 Design documentation process.</p> <p>4.0 Essential Skills</p> <p>4.1 Teamwork skills;</p> <p>4.2 Communication skills.</p>
DESCRIPTION OF THE END PRODUCT / SERVICE	The project material files are created in accordance with post requirements and operation specifications.
CIRCUMSTANTIAL KNOWLEDGE	<p>Detailed knowledge about:</p> <ol style="list-style-type: none"> 1. Library support and internet resources; 2. Classification and filing of design materials; 3. Occupational health and safety.

OCCUPATION	ARCHITECTURAL INTERIOR DESIGN TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	CARRYOUT SIMPLE INTERIOR DESIGN	DUTY NO.	402
TASK TITLE	COLLATE INTENTIONAL MATERIALS OF THE DESIGN SCHEME	TASK NO.	4021
PERFORMANCE CRITERIA	The person performing this task must be able to judge styles in accordance with project requirements and provide advice on the style orientation of the design project at construction sites or in the office.		
RANGE STATEMENT	<p>The task can be performed in offices under the supervision of senior technicians or architectural interior design engineers.</p> <p>The tools and equipment to be used include:</p> <ol style="list-style-type: none"> 1. Notebook; 2. Pencil/pen; 3. Computer; 4. Printer; 5. Paper. 		
EVIDENCE REQUIREMENT			
PRACTICAL PERFORMANCE		UNDERPINNING KNOWLEDGE	
<p>The person performing this task must be able to do the following:</p> <ol style="list-style-type: none"> 1. 2. Understand design requirements; 3. Collate design schemes; 4. Determine the space plan; 5. Choose the right furniture; 6. Make design drawings; 7. Communicate with customers; 8. Submit design schemes. 		<p>Detailed knowledge about:</p> <p>1.0 Methods</p> <p>The person performing this task must be able to explain how to:</p> <ol style="list-style-type: none"> 1.1 Determine design style; 1.2 Clarify design intention; 1.3 Coordinate customer needs and make reasonable suggestions; 1.4 Assist in the completion of the project design scheme and sign the design contract. <p>2.0 Principles</p> <p>The person performing this task must be able to explain the following principles:</p> <ol style="list-style-type: none"> 2.1 The principle for coordination between functionality and artistry; 2.2 The principle of economic rationality. <p>3.0 Theories</p> <p>The person performing this task must be able to explain the following:</p> <ol style="list-style-type: none"> 3.1 Coordination criteria between design specifications and owner's needs; 3.2 Requirements for interior design procedure; 	

	<p>3.3 Requirements for design documents at each stage.</p> <p>4.0 Essential Skills</p> <p>4.1 Teamwork skills;</p> <p>4.2 Communication skills;</p> <p>4.3 Customer service skills.</p>
DESCRIPTION OF THE END PRODUCT / SERVICE	The design factors are coordinated, reasonable suggestions are provided to customers, in accordance with interior design requirements and specifications.
CIRCUMSTANTIAL KNOWLEDGE	<p>Detailed knowledge about:</p> <ol style="list-style-type: none"> 1. Standards and specifications for interior design; 2. Architectural expertise; 3. Occupational health and safety.

OCCUPATION	ARCHITECTURAL INTERIOR DESIGN TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	CARRYOUT SIMPLE INTERIOR DESIGN	DUTY NO.	402
TASK TITLE	PREPARE SPACE LAYOUT DRAWINGS	TASK NO.	4022
PERFORMANCE CRITERIA	The person performing this task must be able to draw space layout drawings by hand in accordance with the floor plan design process.		
RANGE STATEMENT	<p>The task can be performed in offices under the supervision of senior technicians or architectural interior design engineers.</p> <p>The tools and equipment to be used include:</p> <ol style="list-style-type: none"> 1. Notebook; 2. Pencil/pen; 3. Computer; 4. Printer; 5. Paper. 		
EVIDENCE REQUIREMENT			
PRACTICAL PERFORMANCE		UNDERPINNING KNOWLEDGE	
<p>The person performing this task must be able to do the following:</p> <ol style="list-style-type: none"> 1. Prepare tools, materials, drawing paper or CAD software, pen and paper, measuring tools and calculator; 2. Measure the dimensions of the space; 3. Set scale; 4. Draw the outline of the space; 5. Draw the wall; 6. Mark out dimensions; 7. Draw decoration; 8. Draw details; 9. Clean up the drawings; 10. Complete the drawings. 		<p>Detailed knowledge about:</p> <p>1.0 Methods</p> <p>The person performing this task must be able to explain how to:</p> <ol style="list-style-type: none"> 1.1 Divide functional space; 1.2 Lay out furniture; 1.3 Design line; 1.4 Draw indoor furniture layout; 1.5 Communicate regarding design scheme. <p>2.0 Principles</p> <p>The person performing this task must be able to explain the following principles:</p> <ol style="list-style-type: none"> 2.1 Functional principles; 2.2 Principles of artistry; 2.3 Principles of economy; 2.4 Security principles. <p>3.0 Theories</p> <p>The person performing this task must be able to explain the following:</p> <ol style="list-style-type: none"> 3.1 Design process of floor plan; 3.2 Ergonomic scale relations between humans and furniture and interior spaces. <p>4.0 Essential Skills</p>	

	<p>4.1 Teamwork skills;</p> <p>4.2 Communication skills.</p>
DESCRIPTION OF THE END PRODUCT / SERVICE	Space layouts are drawn by hand in accordance with post requirements and operation specifications.
CIRCUMSTANTIAL KNOWLEDGE	<p>Detailed knowledge about:</p> <ol style="list-style-type: none"> 1. Occupational health and safety; 2. Drawing knowledge.

OCCUPATION	ARCHITECTURAL INTERIOR DESIGN TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	CARRYOUT SIMPLE INTERIOR DESIGN	DUTY NO.	402
TASK TITLE	CARRYOUT DESIGN OF SCHEME RENDERINGS	TASK NO.	4023
PERFORMANCE CRITERIA	The person performing this task must be able to show renderings by taking advantage computer or other ways in accordance with the interior design representation process, and modify and improve the drawings based on feedback.		
RANGE STATEMENT	<p>The task can be performed in offices under the supervision of senior technicians or architectural interior design engineers.</p> <p>The tools and equipment to be used include:</p> <ol style="list-style-type: none"> 1. Notebook; 2. Pencil/pen; 3. Computer; 4. Printer; 5. Paper. 		
EVIDENCE REQUIREMENT			
PRACTICAL PERFORMANCE		UNDERPINNING KNOWLEDGE	
<p>The person performing this task must be able to do the following:</p> <ol style="list-style-type: none"> 1. Identify design needs and requirements; 2. Collect materials and make preparations; 3. Start designing and adding materials; 4. Improve details and lighting effects; 5. Finish rendering; 6. Review and revise the drawings; 7. Finish and display renderings; 8. Write design notes and reports; 9. Communicate with the construction team; 10. Supervise, check and accept the project. 		<p>Detailed knowledge about:</p> <p>1.0 Methods</p> <p>The person performing this task must be able to explain how to:</p> <ol style="list-style-type: none"> 1.1 Grasp and understand the design intents; 1.2 Carry out detailed processing of the scheme layout; 1.3 Publish the final renderings. <p>2.0 Principles</p> <p>The person performing this task must be able to explain the following principles:</p> <ol style="list-style-type: none"> 2.1 The principles of aesthetics in layout; 2.2 The principles of material, light and shadow authenticity; 2.3 The principle of harmony between the coldness and warmth of the picture and the contrast between virtual and real. <p>3.0 Theories</p> <p>The person performing this task must be able to explain the following:</p> <ol style="list-style-type: none"> 3.1 The representation process of interior design; 3.2 The adjustment principle of effect diagram parameters. <p>4.0 Essential Skills</p>	

	<p>4.1 Communication skills;</p> <p>4.2 Teamwork skills.</p>
DESCRIPTION OF THE END PRODUCT / SERVICE	The renderings design is carried out in accordance with interior design requirements and specifications.
CIRCUMSTANTIAL KNOWLEDGE	<p>Detailed knowledge about:</p> <ol style="list-style-type: none"> 1. Computer cleaning protection; 2. Occupational health and safety.

OCCUPATION	ARCHITECTURAL INTERIOR DESIGN TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	CARRYOUT SIMPLE INTERIOR DESIGN	DUTY NO.	402
TASK TITLE	COLLATE PRIMARY MATERIALS AND PRODUCT INFORMATION	TASK NO.	4024
PERFORMANCE CRITERIA	The person performing this task must be able to collect and collate primary material information and make primary material samples in accordance with customer needs and design styles.		
RANGE STATEMENT	<p>The task can be performed in offices under the supervision of senior technicians or architectural interior design engineers.</p> <p>The tools and equipment to be used include:</p> <ol style="list-style-type: none"> 1. Notebook; 2. Pencil/pen; 3. Computer; 4. Printer; 5. Paper. 		
EVIDENCE REQUIREMENT			
PRACTICAL PERFORMANCE		UNDERPINNING KNOWLEDGE	
<p>The person performing this task must be able to do the following:</p> <ol style="list-style-type: none"> 1. Establish project requirements; 2. Determine the primary material and product list; 3. Research suppliers and brands; 4. Collect materials and samples; 5. Archive and collate materials; 6. Write technical documents; 7. Manage resume sample library; 8. Update and maintain. 		<p>Detailed knowledge about:</p> <p>1.0 Methods</p> <p>The person performing this task must be able to explain how to:</p> <ol style="list-style-type: none"> 1.1 Make samples by using the collected primary material information; 1.2 Prepare materials manual. <p>2.0 Principles</p> <p>The person performing this task must be able to explain the following principles:</p> <ol style="list-style-type: none"> 2.1 The principle of authenticity of information; 2.2 The principle of logical rationality of information. <p>3.0 Theories</p> <p>The person performing this task must be able to explain the following:</p> <ol style="list-style-type: none"> 3.1 Requirements for supporting documents of primary materials and product information; 3.2 Constitution standards for the material information of the primary material samples. <p>4.0 Essential Skills</p> <ol style="list-style-type: none"> 4.1 Analysis skills; 4.2 Teamwork skills; 4.3 Communication skills. 	

<p>DESCRIPTION OF THE END PRODUCT / SERVICE</p>	<p>The primary materials and product information are collected to make main material samples in accordance with post requirements and operation specifications.</p>
<p>CIRCUMSTANTIAL KNOWLEDGE</p>	<p>Detailed knowledge about:</p> <ol style="list-style-type: none"> 1. Specifications for fire protection of interior design; 2. Specifications for limit control of indoor design pollutant; 3. Specifications for construction and quality acceptance of interior design; 4. Occupational health and safety.

OCCUPATION	ARCHITECTURAL INTERIOR DESIGN TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	CARRYOUT SIMPLE INTERIOR DESIGN	DUTY NO.	402
TASK TITLE	PREPARE DESIGN SCHEME REPORT	TASK NO.	4025
PERFORMANCE CRITERIA	The person performing this task must be able to summarize the materials required for the scheme design report and compile the text of the scheme design report in accordance with the requirements for the report of the design scheme.		
RANGE STATEMENT	<p>The task can be performed in offices under the supervision of senior technicians or architectural interior design engineers.</p> <p>The tools and equipment to be used include:</p> <ol style="list-style-type: none"> 1. Notebook; 2. Pencil/pen; 3. Computer; 4. Printer. 		
EVIDENCE REQUIREMENT			
PRACTICAL PERFORMANCE		UNDERPINNING KNOWLEDGE	
<p>The person performing this task must be able to do the following:</p> <ol style="list-style-type: none"> 1. Collect the project information; 2. Conduct analysis and evaluation; 3. Conduct creative development; 4. Optimize design details; 5. Conduct 3D modeling and rendering; 6. Produce technical drawings; 7. Select and procure; 8. Implement projects and manage construction; 9. Complete and accept the project; 10. Deliver the project to customers and provide after service. 		<p>Detailed knowledge about:</p> <p>1.0 Methods</p> <p>The person performing this task must be able to explain how to:</p> <ol style="list-style-type: none"> 1.1 Understand and grasp design intent; 1.2 Integrate and analyze the information of the scheme report meeting; 1.3 Prepare the scheme design report. <p>2.0 Principles</p> <p>The person performing this task must be able to explain the following principles:</p> <ol style="list-style-type: none"> 2.1 The principle of authenticity of information; 2.2 The principle of logical rationality of information. <p>3.0 Theories</p> <p>The person performing this task must be able to explain the following:</p> <ol style="list-style-type: none"> 3.1 Indoor design standards; 3.2 Operation requirements for electronic document software. <p>4.0 Essential Skills</p> <ol style="list-style-type: none"> 4.1 Analysis skills; 4.2 Communication skills; 4.3 Teamwork skills. 	

DESCRIPTION OF THE END PRODUCT / SERVICE	The scheme design report is prepared in accordance with the post requirements and operation specifications.
CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: <ol style="list-style-type: none"> 1. Interior design process; 2. Computer cleaning protection; 3. Occupational health and safety.

OCCUPATION	ARCHITECTURAL INTERIOR DESIGN TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PREPARE DETAILED CONSTRUCTION DRAWING	DUTY NO.	403
TASK TITLE	PREPARE CONSTRUCTION DRAWING	TASK NO.	4031
PERFORMANCE CRITERIA	The person performing this task must be able to use computer-aided design means to draw the main plan and elevation in accordance with the standards and specifications of the interior design drawing.		
RANGE STATEMENT	<p>The task can be performed in offices under the supervision of senior technicians or architectural interior design engineers.</p> <p>The tools and equipment to be used include:</p> <ol style="list-style-type: none"> 1. Notebook; 2. Pencil/pen; 3. Computer; 4. Printer; 5. Paper. 		
EVIDENCE REQUIREMENT			
PRACTICAL PERFORMANCE		UNDERPINNING KNOWLEDGE	
<p>The person performing this task must be able to do the following:</p> <ol style="list-style-type: none"> 1. Collect design materials; 2. Determine the scale; 3. Conduct preliminary layout; 4. Draw layout plans; 5. Draw facade walls; 6. Draw wall profiles; 7. Mark details; 8. Draw construction detail drawings; 9. 10. 		<p>Detailed knowledge about:</p> <p>1.0 Methods</p> <p>The person performing this task must be able to explain how to:</p> <ol style="list-style-type: none"> 1.1 Determine the design representation content of construction drawings; 1.2 Determine the design depth of construction drawings; 1.3 Draw construction drawings. <p>2.0 Principles</p> <p>The person performing this task must be able to explain the following principles:</p> <ol style="list-style-type: none"> 2.1 Principles of ergonomics; 2.2 The uniform principle between functionality and artistry; 2.3 Security principles. <p>3.0 Theories</p> <p>The person performing this task must be able to explain the following:</p> <ol style="list-style-type: none"> 3.1 Ergonomic scale relations between humans and furniture and interior spaces; 3.2 Standards and specifications for interior design drawings; 3.3 Underpinning knowledge of projection; 3.4 Underpinning knowledge of three-views. 	

	<p>4.0 Essential Skills</p> <p>4.1 Analysis skills;</p> <p>4.2 Teamwork skills;</p> <p>4.3 Communication skills.</p>
DESCRIPTION OF THE END PRODUCT / SERVICE	The construction drawing for interior design is prepared in accordance with the standards and specifications for interior design drawing.
CIRCUMSTANTIAL KNOWLEDGE	<p>Detailed knowledge about:</p> <ol style="list-style-type: none"> 1. Interior design process; 2. Computer cleaning protection; 3. Occupational health and safety.

OCCUPATION	ARCHITECTURAL INTERIOR DESIGN TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PREPARE DETAILED CONSTRUCTION DRAWING	DUTY NO.	403
TASK TITLE	PRINTOUT OF CONSTRUCTION DRAWINGS	TASK NO.	4032
PERFORMANCE CRITERIA	The person performing this task must be able to output construction drawings in a standard format in accordance with the standards and specifications for interior design drawing.		
RANGE STATEMENT	<p>The task can be performed in offices under the supervision of senior technicians or architectural interior design engineers.</p> <p>The tools and equipment to be used include:</p> <ol style="list-style-type: none"> 1. Notebook; 2. Pencil/pen; 3. Computer; 4. Printer; 5. Printing paper. 		
EVIDENCE REQUIREMENT			
PRACTICAL PERFORMANCE		UNDERPINNING KNOWLEDGE	
<p>The person performing this task must be able to do the following:</p> <ol style="list-style-type: none"> 1. Make preparations; 2. Open the construction documents; 3. Design configuration pages; 4. Display configuration layers; 5. Adjust the view scale; 6. Set configured printers; 7. Preview and print; 8. Monitor the printing process; 9. Check the printout; 10. Archive and deliver. 		<p>Detailed knowledge about:</p> <p>1.0 Methods</p> <p>The person performing this task must be able to explain how to:</p> <ol style="list-style-type: none"> 1.1 Collate drawings and materials; 1.2 Design the printing layout; 1.3 Deliver design documents. <p>2.0 Principles</p> <p>The person performing this task must be able to explain the following principles:</p> <ol style="list-style-type: none"> 2.1 Overall design requirements; 2.2 The functional principle of interior space; 2.3 The principle of economic rationality; 2.4 The principle of interior space artistry. <p>3.0 Theories</p> <p>The person performing this task must be able to explain the following:</p> <ol style="list-style-type: none"> 3.1 Standards and specifications for interior design drawings; 3.2 The process of interior design drawing. <p>4.0 Essential Skills</p> <ol style="list-style-type: none"> 4.1 Analysis skills; 4.2 Teamwork skills; 	

	4.3 Communication skills.
DESCRIPTION OF THE END PRODUCT / SERVICE	The construction drawings are printed in accordance with the standards and specifications for interior design drawing.
CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: <ol style="list-style-type: none"> 1. Interior design process; 2. Computer cleaning protection; 3. Occupational health and safety; 4. Operation of printers.

OCCUPATION	ARCHITECTURAL INTERIOR DESIGN TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PREPARE CONSTRUCTION MATERIAL REQUIREMENT	DUTY NO.	404
TASK TITLE	PREPARE QUANTITIES	TASK NO.	4041
PERFORMANCE CRITERIA	The person performing this task must be able to calculate the quantities of partitioned and sub-item projects in accordance with the calculation specifications of interior design quantities.		
RANGE STATEMENT	<p>The task can be performed in offices under the supervision of senior technicians or architectural interior design engineers.</p> <p>The tools and equipment to be used include:</p> <ol style="list-style-type: none"> 1. Notebook; 2. Pencil/pen; 3. Computer; 4. Printer; 5. Printing paper. 		
EVIDENCE REQUIREMENT			
PRACTICAL PERFORMANCE		UNDERPINNING KNOWLEDGE	
<p>The person performing this task must be able to do the following:</p> <ol style="list-style-type: none"> 1. Make preparations; 2. Determine the scope of the project; 3. Get the material specification; 4. Measure dimensions; 5. Calculate area and volume; 6. Summarize the material lists; 7. Calculate the costs; 8. Check and adjust; 9. Generate reports; 10. Archive and deliver. 		<p>Detailed knowledge about:</p> <p>1.0 Methods</p> <p>The person performing this task must be able to explain how to:</p> <ol style="list-style-type: none"> 1.1 Calculate quantities; 1.2 Determine the partitioned and sub-item projects. <p>2.0 Principles</p> <p>The person performing this task must be able to explain the following principles:</p> <ol style="list-style-type: none"> 2.1 Calculation specifications of quantities for interior design; 2.2 Calculation principles of quantities. <p>3.0 Theories</p> <p>The person performing this task must be able to explain the following:</p> <ol style="list-style-type: none"> 3.1 Category standards for partitioned and sub-item projects; 3.2 Accuracy requirements for calculation of partitioned and sub-item projects. <p>4.0 Essential Skills</p> <ol style="list-style-type: none"> 4.1 Analysis skills; 4.2 Teamwork skills; 4.3 Communication skills. 	

DESCRIPTION OF THE END PRODUCT / SERVICE	The quantities of interior design partitioned and sub-item projects are prepared in accordance with requirements and operation specifications.
CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: <ol style="list-style-type: none">1. Decoration materials and structures;2. Occupational health and safety;3. Project costs.

OCCUPATION	ARCHITECTURAL INTERIOR DESIGN TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PREPARE CONSTRUCTION MATERIAL REQUIREMENT	DUTY NO.	404
TASK TITLE	PREPARE CONSTRUCTION OF MATERIAL LIST	TASK NO.	4042
PERFORMANCE CRITERIA	The person performing this task must be able to prepare the material list of interior design project in accordance with the specifications for the preparation of the bill of quantities for the interior design project.		
RANGE STATEMENT	<p>The task can be performed in offices under the supervision of senior technicians or architectural interior design engineers.</p> <p>The tools and equipment to be used include:</p> <ol style="list-style-type: none"> 1. Notebook; 2. Pencil/pen; 3. Computer; 4. Printer; 5. Printing paper. 		
EVIDENCE REQUIREMENT			
PRACTICAL PERFORMANCE		UNDERPINNING KNOWLEDGE	
<p>The person performing this task must be able to do the following:</p> <ol style="list-style-type: none"> 1. Collect design drawings and planning requirements; 2. Analyze the scope of construction; 3. Identify the material and quantity; 4. Determine brands and specifications; 5. Organize lists by items; 6. Check list accuracy; 7. Estimate the costs; 8. Generate material list reports; 9. Archive and deliver. 		<p>Detailed knowledge about:</p> <p>1.0 Methods</p> <p>The person performing this task must be able to explain how to:</p> <ol style="list-style-type: none"> 1.1 Analyze the scope of construction; 1.2 Determine brands of materials for interior design; 1.3 Estimate the costs of construction material for interior design. <p>2.0 Principles</p> <p>The person performing this task must be able to explain the following principles:</p> <ol style="list-style-type: none"> 2.1 Brands of interior construction materials 2.2 Requirement for preparation of construction materials for internal design. . <p>3.0 Theories</p> <p>The person performing this task must be able to explain the following:</p> <ol style="list-style-type: none"> 3.1 Category of partitioned and sub-item projects; 3.2 Requirements for description of characteristics of partitioned and sub-item projects; 3.3 Standards for measurement unit of partitioned and sub-item projects. <p>4.0 Essential Skills</p>	

	<p>4.1 Analysis skills;</p> <p>4.2 Teamwork skills;</p> <p>4.3 Communication skills.</p>
DESCRIPTION OF THE END PRODUCT / SERVICE	The construction material list is prepared in accordance with post requirements and operation specifications.
CIRCUMSTANTIAL KNOWLEDGE	<p>Detailed knowledge about:</p> <ol style="list-style-type: none"> 1. Occupational health and safety; 2. Operation of printers.

OCCUPATION	ARCHITECTURAL INTERIOR DESIGN TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PROVIDE SERVICE DURING CONSTRUCTION	DUTY NO.	405
TASK TITLE	DESIGN DISCLOSURE	TASK NO.	4051
PERFORMANCE CRITERIA	The person performing this task must be able to participate in the design disclosure, control of difficult and key issues in the project, and organize and form the disclosure meeting minutes and file them in accordance with the quality control requirements of the interior design project.		
RANGE STATEMENT	<p>The task can be performed at construction sites under the supervision of senior technicians or architectural interior design engineers.</p> <p>The tools and equipment to be used include:</p> <ol style="list-style-type: none"> 1. Measuring tape; 2. Laser rangefinder; 3. Notebook; 4. Pencil/pen; 5. Camera; 6. Computer; 7. Personal protective equipment (PPE). 		
EVIDENCE REQUIREMENT			
PRACTICAL PERFORMANCE		UNDERPINNING KNOWLEDGE	
<p>The person performing this task must be able to do the following:</p> <ol style="list-style-type: none"> 1. Understand design documents and specification requirements; 2. Determine the scope of construction disclosure; 3. Analyze the construction process; 4. Conduct on-site disclosure; 5. Record the contents of disclosure; 6. Confirm the implementation of disclosure; 7. Adjust and supplement the contents of disclosure; 8. Feedback and communicate. 		<p>Detailed knowledge about:</p> <p>1.0 Methods</p> <p>The person performing this task must be able to explain how to:</p> <ol style="list-style-type: none"> 1.1 Check and control project quality; 1.2 Prepare disclosure meeting minutes. <p>2.0 Principles</p> <p>The person performing this task must be able to explain the following principles:</p> <ol style="list-style-type: none"> 2.1 Standards and specifications for interior design engineering construction; 2.2 Standards and specifications for quality acceptance of interior design project. <p>3.0 Theories</p> <p>The person performing this task must be able to explain the following:</p> <ol style="list-style-type: none"> 3.1 Contents and method requirements for pre-construction inspection of interior design projects; 3.2 Characteristics, application and selection standards of interior design project materials; 3.3 Interior design project construction technology and node processing requirements; 3.4 Interior design project quality control matters. 	

	<p>4.0 Essential Skills</p> <p>4.1 Analysis skills;</p> <p>4.2 Teamwork skills;</p> <p>4.3 Communication and coordination skills.</p>
DESCRIPTION OF THE END PRODUCT / SERVICE	The disclosure meeting minutes are formed and filed in accordance with post requirements and operation specifications.
CIRCUMSTANTIAL KNOWLEDGE	<p>Detailed knowledge about:</p> <p>1. Occupational safety and health.</p>

OCCUPATION	ARCHITECTURAL INTERIOR DESIGN TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PROVIDE SERVICE DURING CONSTRUCTION	DUTY NO.	405
TASK TITLE	PROVIDE TECHNICAL SUPPORT ON THE DESIGN AT SITE	TASK NO.	4052
PERFORMANCE CRITERIA	The person performing this task must be able to conduct on-site review, propose rectification schemes, and supplement or design change drawings in accordance with the quality control requirements of interior design projects.		
RANGE STATEMENT	<p>The task can be performed at construction sites or in offices under the supervision of senior technicians or architectural interior design engineers.</p> <p>The tools and equipment to be used include:</p> <ol style="list-style-type: none"> 1. Measuring tape; 2. Laser rangefinder; 3. Notebook; 4. Pencil/pen; 5. Camera; 6. Computer; 7. Personal protective equipment (PPE). 		
EVIDENCE REQUIREMENT			
PRACTICAL PERFORMANCE		UNDERPINNING KNOWLEDGE	
<p>The person performing this task must be able to do the following:</p> <ol style="list-style-type: none"> 1. 2. Carry out coordination and communication; 3. Review construction drawings; 4. Measure the construction site; 5. Interpret the design intent; 6. Disclose construction service design; 7. Participate in quality control; 8. Solve technical problems; 9. Record and report; 10. Finish post work. 		<p>Detailed knowledge about:</p> <p>1.0 Methods</p> <p>The person performing this task must be able to explain how to:</p> <ol style="list-style-type: none"> 1.1 Propose rectification schemes; 1.2 Supplement or design change drawings; 1.3 Write written stage acceptance report. <p>2.0 Principles</p> <p>The person performing this task must be able to explain the following principles:</p> <ol style="list-style-type: none"> 2.1 Ergonomic scale relations; 2.2 Standards and specifications for interior design engineering construction; 2.3 Specifications for quality acceptance of interior design. <p>3.0 Theories</p> <p>The person performing this task must be able to explain the following:</p> <ol style="list-style-type: none"> 3.1 Interior design engineering design change process; 3.2 Interior design project construction technology and node processing standards; 	

	<p>3.3 Interior design project quality control requirements.</p> <p>4.0 Essential Skills</p> <p>4.1 Analysis skills;</p> <p>4.2 Teamwork skills;</p> <p>4.3 Communication and coordination skills.</p>
DESCRIPTION OF THE END PRODUCT / SERVICE	The disclosure meeting minutes are prepared and filed in accordance with post requirements and operation specifications.
CIRCUMSTANTIAL KNOWLEDGE	<p>Detailed knowledge about:</p> <p>1. Occupational safety and health.</p>

APPENDIX: DACUM CHARTS FOR ARCHITECTURAL INTERIOR DESIGN

TECHNICIAN - NTA LEVEL 4

DUTIES	TASKS	ENABLERS
<p>1.0 Preparation of project material</p>	<p>1.1 Project research and site surveying.</p>	<p>General skills and knowledge</p> <ul style="list-style-type: none"> • Construction site measurement and setting-out skills • Hand painting skills • Interior design drawing reading and drawing skills • Information collection and classification skills • Teamwork skills • Communication and cooperation skills • Computer skills (office software) • Document processing skills <p>Tools and equipment</p> <ul style="list-style-type: none"> • Notebook, pencil/pen, calculator • Computers, printers, cameras, projectors • Personal protective equipment (PPE) • Measuring tools (measuring tape, distance measuring instrument, etc.) <p>Materials</p> <ul style="list-style-type: none"> • Paper for drawing and printing <p>Requirements for employees</p> <ul style="list-style-type: none"> • Passion in job, honesty and trustworthiness, meticulousness, hard working, solidarity and cooperation, time consciousness
	<p>1.2 Collation and archiving of the project materials.</p>	
<p>2.0 Preparation of design results</p>	<p>2.1 Collation of intentional materials of the design scheme.</p>	<p>General skills and knowledge</p> <ul style="list-style-type: none"> • Computer office software operation skills (Office) • Interior design construction drawing reading and drawing skills (AutoCAD) • Rendering skills (3dsMAX) • Information collection and classification skills • Teamwork skills
	<p>2.2 Drawing of space layout drawings.</p>	
	<p>2.3 Participation in the design of scheme renderings.</p>	
	<p>2.4 Collection of primary materials and product information.</p>	

DUTIES	TASKS	ENABLERS
	2.5 Preparation of design scheme text.	<ul style="list-style-type: none"> • Communication and cooperation skills • Basic knowledge of interior decoration materials • Standards and specifications for architectural interior design • Circumstantial knowledge of building equipment • Circumstantial knowledge of ergonomics <p>Tools and equipment</p> <ul style="list-style-type: none"> • Notebook, pencil/pen and calculator • Computer and printer <p>Materials</p> <ul style="list-style-type: none"> • Paper for drawing and printing <p>Requirements for employees</p> <ul style="list-style-type: none"> • Passion in job, honesty and trustworthiness, meticulousness, hardworking, solidarity and cooperation, time consciousness
3.0 Construction drawing	3.1 Drawing of simple construction drawings.	<p>General skills and knowledge</p> <ul style="list-style-type: none"> • Interior design construction drawing reading and drawing skills (AutoCAD) • Communication and cooperation skills • Basic knowledge of interior decoration materials • Standards and specifications for architectural interior design • Circumstantial knowledge of building equipment • Circumstantial knowledge of ergonomics <p>Tools and equipment</p> <ul style="list-style-type: none"> • Notebook, pencil, pen, computer, printer and binding machine <p>Materials</p> <ul style="list-style-type: none"> • Paper for drawing and printing
	3.2 Printout of construction drawing.	

DUTIES	TASKS	ENABLERS
		<p>Requirements for employees</p> <ul style="list-style-type: none"> • Passion in job, honesty and trustworthiness, meticulousness, hardworking, solidarity and cooperation, time consciousness
4.0 Compilation of project list	4.1 Calculation of quantities. 4.2 Preparation of material list.	<p>General skills and knowledge</p> <ul style="list-style-type: none"> • Reading and drawing skills of interior design construction drawings • Computer office software application skills (metering and pricing software) • Mathematical calculation skills • Communication and cooperation skills • Basic knowledge of interior decoration materials and structures • Calculation specifications of quantities for interior design • Building area calculation specifications <p>Tools and equipment</p> <ul style="list-style-type: none"> • Notebook, pencil/pen, computer, printer, seal, binding machine <p>Materials</p> <ul style="list-style-type: none"> • Paper and ink <p>Requirements for employees</p> <ul style="list-style-type: none"> • Passion in job, honesty and trustworthiness, meticulousness, hard working, solidarity and cooperation, time consciousness
5.0 Cooperation at the construction site	5.1 Participation in design disclosure. 5.2 Providing cooperation for design at construction site.	<p>General skills and knowledge</p> <ul style="list-style-type: none"> • Design disclosure skills • Drawings changing skills • Project quality inspection skills • Reading and drawing skills of interior design construction drawings • Communication and cooperation skills • Standards and specifications for interior design engineering construction

DUTIES	TASKS	ENABLERS
		<ul style="list-style-type: none"> • Specifications for quality acceptance of interior design • Circumstantial knowledge of interior decoration materials • Circumstantial knowledge of engineering project management <p>Tools and equipment</p> <ul style="list-style-type: none"> • Office furniture, computer, office software, office stationery, printer <p>Materials</p> <ul style="list-style-type: none"> • Ink cartridge and paper <p>Requirements for employees</p> <ul style="list-style-type: none"> • Passion in job, honesty and trustworthiness, meticulousness, hard working, solidarity and cooperation, time consciousness
6.0 Collation of project material	6.1 Material collation and archiving during the project.	<p>General skills and knowledge</p> <ul style="list-style-type: none"> • Text preparation skills • Reading and drawing skills of interior design construction drawings • Communication and cooperation skills • Computer operation skills • Archival expertise • Applied document writing methods • Standards and specifications for architectural interior design <p>Tools and equipment</p> <ul style="list-style-type: none"> • Computer, printer, paper, measuring tape, • notebook, clipboard, pencil, pen, camera, etc. <p>Requirements for employees</p> <ul style="list-style-type: none"> • Passion in job, honesty and trustworthiness, meticulousness, hardworking, solidarity and cooperation, time consciousness