No. 292 **5 March 2004**

SOUTH AFRICAN QUALIFICATIONS AUTHORITY (SAQA)

In accordance with regulation 24(c) of the National Standards Bodies Regulations of 28 March 1998, the Standards Generating Body (SGB) for

Architecture

Registered by NSB 12, Physical Planning and Construction, publishes the following qualifications and unit standards for public comment.

This notice contains the titles, fields, sub-fields, NQF levels, credits, and purpose of the qualification and unit standards upon which qualifications are based. The full qualification and unit standards can be accessed via the SAQA web-site at **www.saqa.org.za**. Copies may also be obtained from the Directorate of Standards Setting and Development at the SAQA offices, Hatfield Forum West, 1065 Arcadia Street, Hatfield.

Comment on the unit standards should reach SAQA at the address ***below and no later than 5 April 2004.*** All correspondence should be marked **Standards Setting – SGB Architecture** and addressed to

The Director: Standards Setting and Development
SAQA
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SOUTH AFRICAN QUALIFICATIONS AUTHORITY

TITLE OF QUALIFICATION

National Diploma in Architectural Technology

NQF LEVEL: NQF 06

NUMBER OF CREDITS: 240

FIELD: **NSB 12 PHYSICAL PLANNING AND CONSTRUCTION**

SUBFIELD: **PHYSICAL PLANNING, DESIGN AND MANAGEMENT**

ISSUE DATE:

REVIEW DATE:

RATIONALE:

- To align an academic Qualification for entry to the profession in the registration category “Candidate Architectural Technologist” as defined by the Architectural Professions Act.
- To provide a broad based architectural education that encompasses aspects of Design and Management within a technologically focused vocational stream.
- To implement a Qualification that focuses on development of the skills required in practicing as an Architectural Technologist.
- Provides for a wide range of professional career options with an architectural background, thus benefiting:
    - The profession of architecture by widening its influence with in the built environment
    - Learners by exposing them to a wide range of areas of specialisation within the architectural profession at large

THE PURPOSE OF THE QUALIFICATION

- Provide the learner with the academic knowledge, skills and competencies required to practice in the Built Environment as a “Candidate Architectural Technologist”. After a period of supervised practical experience and / or other

requirements as specified by the professional registration body, a candidate may register as an “Architectural Technologist”.

- To create wide encompassing comprehensive exit levels to:
  - Cover sufficient ground in each architectural aspect, allowing for direct access to NQF level 7 studies in a range of architectural specialisations.
  - Encourage life- long learning by setting achievable milestones
  - Introduce an academic Qualification in the event of interrupted studies

ACCESS TO THE QUALIFICATION

- National Certificate in Architectural Technology or equivalent
- Additional Institution- specific requirements related to minimum access standards such as language comprehension.
- Recognition of prior learning (formal, informal or non- formal) is included in consideration of access to the Qualification, as are related SAQA recognised courses.

LEARNING ASSUMED TO BE IN PLACE

Ability to demonstrate the competencies of the National Certificate in Architectural Technology

EXIT LEVEL OUTCOMES

Exit level outcomes are grouped into four components which together reflect the work of a “Candidate Architectural Technologist”. The critical outcomes are integrated into the exit level outcomes. The credits are allocated to the components as follows: component 1, 2, 3 and 4 should have 60, 72, 24 and 84 credits respectively.

Component 1
Competencies relating to architectural design theory and skills application

The focus of this component is on:
A. Design theory
- Historical and cultural context of Design and Architecture
- Formulating design strategy for design problems of moderate complexity

B. Design skill application
- Resolving design exercises of moderate complexity
- Creative problem solving in the context of the built environment

C. Cooperative learning
- In service training module under guidance of a mentor and monitored by the provider
- Process to be monitored according to the following criteria:
  - 80% minimum involvement in assessed work
  - All competencies in each ELO to be assessed
  - Mentor must be involved in assessments
  - Mentors must be approved by provider

Exit level outcomes

1.1 Demonstrate an understanding of the relationship between Architecture and its social context
1.2 Apply research and design strategy to creatively solve architectural problems of moderate complexity
1.3 Design Competent technical details that reflect the overall design concept

Evidence shows that :

- Appropriate precedents and case studies are selected, investigated, analysed and applied in relation to sourced materials from theoretical and physical sources
- Creative and practical design solutions are produced to comply with good practice relating to:
    - Aesthetics
    - Appropriate Technology
    - Planning and Functionality

Component 2

Competencies relating to construction technology theory and skills application as it applies to the field of architecture

The focus of this component is on:

A. Construction technology theory

- The construction methods and materials commonly used for advanced domestic, and low- to medium rise commercial buildings
- Integration of services requirements into such buildings
- Integration of SABS specifications and the National Building Regulations into Architecture

B. Design skill application

- Appropriate application of construction details, use of materials and service integration.

C. Cooperative learning

- In service training module under guidance of a mentor and monitored by the provider
- Process to be monitored according to the following criteria:
    - 80% minimum involvement in assessed work
    - All competencies in each ELO to be assessed
    - Mentor must be involved in assessments
    - Mentors must be approved by provider

Exit level outcomes

2.1 Demonstrate an understanding of the relationship between Architecture and its scientific context
2.2 Demonstrate an understanding of the on-site requirements and consequences of architectural documentation
2.3 Research appropriate construction precedents
2.4 Apply an understanding of accepted good construction practice
2.5 Compliance with all relevant constraints to produce appropriate construction detailing solutions
2.6 Integrate service requirements into building design
2.7 Consult, coordinate and integrate with specialist consultants and trades

Evidence shows that creative technological solutions complying with good practice and understanding of the practical constraints relating to:

- Materials and methods
- Site constraints
- Legislation
- Services

are demonstrated

Component 3
Competencies relating to written and verbal communication skills.

The focus of this component is on:
A. Theory
- Entrepreneurship
- Legal and contractual environment
- Industry specific terminology and communication
- Applied research methodology

B. Skill application
- Business communication methods
- Personal self image projection
- Accepted practice in Architectural Communication

C. Cooperative learning
- In service training module under guidance of a mentor and monitored by the provider
- Process to be monitored according to the following criteria:
    - 80% minimum involvement in assessed work
    - All competencies in each ELO to be assessed
    - Mentor must be involved in assessments
    - Mentors must be approved by provider

Exit level outcomes
3.1 Demonstrate an understanding of the relationship between Architecture and its legal context
3.2 Have a working knowledge of the dynamics of the architectural business environment
3.3 Communicate effectively and accurately with other professions and trades in the built environment
3.4 Be conversant with terminology used in the built environment
3.5 Able to project a professional image

Evidence shows that:
- appropriate use of terminology and syntax is demonstrated
- multi- modal communication aids (written, verbal and drawn) are used creatively
- An ability to employ business communication conventions demonstrated
- An understanding of the legal and contractual environment are demonstrated

Component 4
Competencies relating to graphic communication skills.
The focus of this component is on:
A. Theory
- Conventions of the professions and trades within the built environment
- Architectural drawing: Best practice

B. Skill application
- Graphic communication from conceptual design sketches to technologically competent instruction drawings.

- Best practice Draughtsmanship
- Incorporating computer technology in presentation and communication methods

C. Cooperative learning

- In service training module under guidance of a mentor and monitored by the provider
- Process to be monitored according to the following criteria:
    - 80% minimum involvement in assessed work
    - All competencies in each ELO to be assessed
    - Mentor must be involved in assessments
    - Mentors must be approved by provider

Exit level outcomes

4.1 Under supervision complete a full range of drawing types, from design presentation to full working drawings

4.2 Apply appropriate conventions to best practice draughtsmanship

4.3 Understand and integrate drawings produced by other professionals in the built environment

4.4 Demonstrate an understanding of on-site requirements and consequences of architectural documentation

Evidence shows that:

- Drawings are produced timeously
- a full range of drawings (from design presentation to a full set of competent working drawings) are produced as per the requirements of various individual users
-

Materials, workmanship and methods are detailed and specified

- Drawings are effectively cross referenced

INTERNATIONAL COMPARABILITY

Internationally, the registration categories within the Architectural Profession are mostly limited to first degree and upwards and usually for the category of Architect only.

The South African Council for the Architectural Profession allows for four registration categories. There is no precedent of a programme that is aimed specifically at producing a “Candidate Architectural Technologist” for professional registration purposes.

It is imperative that education providers respond to the requirements of professional registration at each registration category and that a suitable academic outcome is established.

INTEGRATED ASSESSMENT

- Summative evaluation through;
    - Tests
    - Examinations
    - Portfolio presentations

- Formative evaluation through;
    - Continuous evaluation of projects and assignments

- Panel evaluation and discussion
- Portfolio presentation

RECOGNITION OF PRIOR LEARNING

Formal Prior Learning

Prior learning of a learner is recognised if evidence is produced that shows that the learner has achieved, at a satisfactory level, the outcomes and associated assessment criteria for admission to programmes of study leading to the Qualification, and, if appropriate, allows the recognition of prior learning for the achievement of the Qualification in part or in full as determined and explained in the RPL Policy documents of providers

Non- Formal and In Formal Prior Experiential Learning

An applicant whose level of knowledge, skills, competencies and attitudes have not been assessed earlier in terms of the formal Qualification in question but can demonstrate in appropriate ways, through assessment by the institution to which application in is made that he/she has acquired those skills and competencies, may be considered for admission to a programme of study leading to this Qualification.

An applicant who, after such assessment is deemed to have sufficient potential but is in need of further academic development, will be directed to other suitable learning programmes prior to admission or to parallel programmes after admission.

ARTICULATION POSSIBILITIES

Vertical

Access to NQF level 7 Bachelor of Technology: Architecture subject to institutional discretionary requirements having been met.

Diagonally

Access to alternative related B.Tech studies within the wider field of Architecture

MODERATION OPTIONS

Criteria for the registration of Assessors

- Assessors must have the required interpersonal skills, subject matter expertise and assessment expertise as set out by SAQA regulations.
- Assessors may be sourced from
    - trainers / teachers / lecturers internal to the training provider
    - colleagues / peers
    - assessors external to the training provider
- Assessors assessing a learner against the performance criteria set for this Qualification must be registered with the relevant ETQA.

- Moderation of assessment will be overseen by the relevant ETQA according to the moderation guidelines in the relevant Qualification and the agreed ETQA procedures.

Moderations options include

- External peer reviews
- Assessment of standards by the South African Council for the Architectural Profession (SACAP) in terms of the Architectural Professions Act 44 of 2000.
- Compliance with frameworks, regulations, and requirements established by the Higher Education Qualification Committee (HEQC) which includes the appointment of accredited / registered external examiners (external to the provider).

NOTES:

Rules of combination

	COMPONENTS	**CREDIT ALLOCATION**
FUNDAMENTAL	Cooperative learning in- service training Verbal and written communication Entrepreneurship	24 06 06 **36**
ELECTIVE	Graphic communication Design theory / history Construction Theory Relevant laws and contracts	12 36 36 36 **60**
CORE	Architectural design Architectural technology Advanced architectural draughtsmanship	42 42 60 **144**