NATIONAL CERTIFICATE (VOCATIONAL)

SUBJECT GUIDELINES

CONSTRUCTION MASONRY AND TILING
NQF level 3

September 2007
CONSTRUCTION MASONRY AND TILING – LEVEL 3

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INTRODUCTION

A. What is Construction Masonry and Tiling?
Construciton Masonry and Tiling provides training to students in construction masonr y and tiling activities in construction processes. It equips students to become part of the mainstream construction industry.

B. Why is Construction Masonry and Tiling Important in the Building and Civil Construction Programme?
Construction Masonry and Tiling provides students with practical means to understand and become part of the mainstream construction industry.

C. The Link Between the Construction Masonry and Tiling Learning Outcomes and the Critical and Developmental Outcomes
Students will be able to perform masonry and tiling activities related to civil construction. They will work effectively with the other team members to complete plastering and tiling activities. Construction Masonry and Tiling also prepares students to communicate understanding through the identification and use of machines, tools, methods and processes to perform masonry and tiling activities.

D. Factors that Contribute to Achieving the Construction Masonry and Tiling Learning Outcomes
- Thorough preparation for teaching and learning activities
- An environment conducive to teaching and learning through effective student support, motivation, commitment and a positive attitude
- An interest in construction masonry and tiling
1 DURATION AND TUITION TIME
This is a one-year instructional programme comprising of 200 teaching and learning hours (20 credits). The subject may be offered on a part-time basis provided all of the assessment requirements set hereunder are adhered to.

Students with special education needs (LSEN) must be catered for in a way that eliminates any barriers to learning activities.

2 SUBJECT LEVEL FOCUS
- Perform masonry and tiling and civil construction activities that are related to masonry and tiling.
- Identify and use machines and tools, methods and processes to perform Masonry and Tiling activities
- Explain and apply health and safety procedures and practices applicable

3 ASSESSMENT REQUIREMENTS

3.1 Internal assessment (50 percent)
Internal assessment refers to continuous assessment, which is college-based assessment. The achievement of learning outcomes, count towards the achievement of a qualification. All internal assessments must be finalised by an assessor who has been declared competent by an accredited provider.

3.1.1 Theoretical Component
The theoretical component will form 40 percent of the internal assessment, based on the fact that the subject requires a broad base of theoretical knowledge. Evidence of theoretical assessment must be reflected in the Portfolio of Evidence (PoE).

3.1.2 Practical Component
The practical component will form 60 percent of the internal assessment. All students must have a Portfolio of Evidence, and evidence of all practical work produced by the student must be seen in the PoE.

- Some examples of practical assessments include, but are not limited to:
  - Presentations (lectures, demonstrations, group discussions and activities, practical work, observation, role play, self activity, judging and evaluation)
  - Use of aids
  - Exhibitions
  - Visits
  - Guest speaker presentations
  - Research
  - Structured environment

- Definition of the term “Structured environment”
“Structured environment” for the purposes of assessment refers to an actual or simulated workplace, or workshop environment.

Evidence of practical component must be provided in the form of a Logbook with a clear listing of the competencies to be assessed. The following information must be contained in the logbook:

- Date
- Task
- Summary of Task
- Supervisor’s signature
- Student’s signature
- Date of completion of task

For the logbook to be regarded as valid evidence it must be reflected in the student’s Portfolio of Evidence. An officially assigned supervisor must sign this off.
• Evidence in practical assessments
All evidence pertaining to evaluation of practical work must be reflected in the students’ Portfolio of Evidence. The tools and instruments constructed and used for the purpose of conducting such assessments must be clear from evidence contained in the PoE.

3.1.3 Processing of internal assessment mark for the year
A year mark out of 100 is calculated by adding the marks of the theoretical component and the practical component of the internal continuous assessment

3.1.4 Moderation of internal assessment mark
Internal assessment is subject to internal and external moderation procedures as set out in the National Examinations Policy for Further Education and Training College Programmes.

3.2 External assessment (75 percent)
A national examination is conducted annually in October or November by means of a paper set externally and marked and moderated internally.

External assessment details are set out in the Assessment Guidelines: Construction Masonry and Tiling (Level 3).

4 WEIGHTED VALUES OF THE TOPICS

<table>
<thead>
<tr>
<th>TOPICS</th>
<th>WEIGHTED VALUE</th>
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<tbody>
<tr>
<td>1. Plan and prepare a construction masonry work area</td>
<td>10%</td>
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<tr>
<td>2. Build a cement block wall with a wooden door frame and a steel window frame</td>
<td>25%</td>
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<tr>
<td>3. Build decorative masonry elements</td>
<td>20%</td>
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<tr>
<td>4. Build brick steps</td>
<td>20%</td>
</tr>
<tr>
<td>5. Apply basic business principles</td>
<td>25%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100</td>
</tr>
</tbody>
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5 CALCULATION OF FINAL MARK
Continuous Assessment: Student’s mark/100 x 50/1 = a mark out of 50 (a)
Theoretical Examination Mark: Student’s mark/100 x 50/1 = a mark out of 50 (b)
Final Mark: (a) + (b) = a mark out of 100

All marks are systematically processed and accurately recorded to be available as hard copy evidence for, amongst others, purposes of moderation and verification.

6 PASS REQUIREMENTS
A student must obtain at least fifty (50) percent in ICASS and fifty (50) percent in the examination.
7 SUBJECT AND LEARNING OUTCOMES
On completion of Construction Masonry and Tiling Level 3 the student should have covered the following topics

Topic 1: Plan and prepare a construction masonry work area
Topic 2: Build cement block wall with a wooden door frame and a steel window frame
Topic 3: Build decorative masonry elements
Topic 4: Build brick steps
Topic 5: Apply basic business principles

7.1 Topic 1: Plan and prepare a construction masonry work area

7.1.1 Subject Outcome: Plan and prepare the work area according to drawings and specifications

Learning Outcome:
- Identify and explain specifications and other notes in terms of work requirements as specified in building plans and activities.
- Interpret symbols and abbreviations in terms of their functions and meanings in various components of masonry.
  - Range: ordinary brick, face bricks, stonework, plaster, tiles, glass bricks, etc as required in decorations.
- Interpret layout in terms of different views shown.

7.1.2 Subject Outcome: Set out and prepare construction masonry work area

Learning Outcome:
- Select appropriate tools, equipment and materials and ensure its functionality.
- Complete necessary measurements prior to work.
- Use tools equipment and materials to set out masonry work area.
- Maintain neat and clean work area.
- Maintain tools, equipment nad materials.

7.2 Topic 2: Build a cement block wall with a wooden door frame and a steel window frame

7.2.1 Subject Outcome 1: Prepare work area and select, use and maintain tools, equipment and materials.

Learning Outcome:
- Select appropriate tools, equipment and materials.

7.2.2. Subject Outcome 2: Set up vertical profiles and set out walls.

Learning Outcome:
- Use tools, equipment and materials correctly.
- Set up vertical profiles plumb in line and level.
- Mark off profiles in accordance with predetermined course height.
- Install damp proof course.
- Set out door frames and window frames.
7.2.3 Subject Outcome 3: Build walls and install door and window frames.

Learning Outcome:
- Install door and window frames plumb and level
- Build walls plumb and level
- Install horizontal brick force to accommodate specified movement and strength requirements
- Insert roof wires where required
- Build internal sill with quarry tile
- Build external sill with brick on edge
- Install beam filling
- Build walls according to building plan

7.3 Topic 3: Build decorative masonry elements

7.3.1 Subject Outcome 1: Prepare for work activities by selecting tools and equipment

Learning Outcome:
- Select appropriate tools and equipment for work.
- Ensure tools are functional

7.3.2 Subject Outcome 2: Identify materials and determine required quantities.

Learning Outcome:
- Calculate material required based on measurements made

7.3.3 Subject Outcome 3: Build decorative elements.

Learning Outcome:
- Build range of decorative elements
- Build all the courses level, plumb, straight and square
- Build the bricks on edge courses equally, level and plumb
- All the exterior and interior joints are recessed square
- Finish off the decorative elements
- Clean the site and walls after decorative masonry brickwork

7.4 Topic 4: Build brick steps

7.4.1 Subject Outcome 1: Build brick steps

Learning Outcome:
- Construct steps in face brick from the top down
- Erect a riser wall for each step in stretcher bond
- Build a number of steps with risers.
  Range: Risers of 180mm high and 305mm deep
- Erect balustrade wall and finish off with a brick-on-edge course
  Range: Walls 7 courses high plus brick-on-edge course
- Strike tread joints flush.
7.5 Topic 5: Apply basic business principles

7.5.1 Subject Outcome 1: Explain how to start up a small business and apply basic business principles

Learning Outcome:
- Describe how to set up and conduct a small business offering masonry and tiling services in accordance with healthy business standards
- Draw up an elementary business plan to start up a small masonry and tiling business
  *Range: Name and logo for business, contact details, services rendered, start-up capital, equipment and tools, price structures, advertising, staff and staff remuneration, competitors, profit and loss*

7.5.2 Subject Outcome 2: Explain record keeping of business activities

Learning Outcome:
- Describe different methods of payments by customers and related documents to record business transactions
- Explain correct handling of cash flow
  *Range: Purchases of materials, payment of wages, unforeseen payments and expenses, shortage and surplus of funds*

7.5.3 Subject Outcome 3: Explain correct procedures of dealing with customers or clients

Learning Outcome:
- Explain professional dealing with customers and delivering of good customer services
  *Range: contact and communication with customers, planning of work activities, overlap of contracts and services offered, deadlines*
- Explain how to deal with customer complaints

8 RESOURCE NEEDS FOR THE TEACHING OF CONSTRUCTION MASONRY AND TILING - LEVEL 3

8.1 Human Resources
Minimum educator qualifications in Construction Masonry and Tiling and Civil Construction, competent assessor and on-going top-up training and up-skilling requirements

8.2 Physical Resources
Masonry and Tiling workshop, tools, and machines, teaching aids and pre-designed models, work tables, chairs, chalkboards.

8.3 Learning and Teaching Materials
Overhead projector, chalkboard, pre-designed models tools/equipment requirements, teaching and learning materials/resources.

8.4 Other Resources
Budget according to Construction Masonry and Tiling requirements)