



NATIONAL CERTIFICATE (VOCATIONAL)

SUBJECT GUIDELINES

CONSTRUCTION SUPERVISION NQF Level 4

September 2007

CONSTRUCTION SUPERVISION - LEVEL 4

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INTRODUCTION

A. What is the subject Construction Supervision?

Construction Supervision provides training to students on supervisory activities and functions such as planning, leading, monitoring, controlling, organising, motivating, to ensure that work is productive in accordance with the requirements of the Civil Engineering and Building Construction industry.

B. Why is the subject important in the Civil Engineering and Building Construction programme?

Activities in this supervisory discipline play an important role in completion of building and civil construction projects. The subject also encourages a realisation of the need for quality in building projects. Learning in this subject could lead to entrepreneurship and job creation.

C. The link between the Learning Outcomes Construction Supervision and the Critical and Developmental Outcomes

The students will be able to identify activities and performance levels that ensure productivity. Students will learn about effective teamwork, will interpret health and safety programmes, work with policies and will deal with applicable documentation. They will communicate effectively in work processes, and deal with work instructions. Students will be required to understand world as set or related systems and will be able to use science and technology appropriately as required in this discipline.

D. Factors that contribute towards achieving the Construction Supervision Learning Outcomes

- Well preparedness for teaching and learning activities;
- creating a conducive teaching and learning environment by providing effective student support,
- motivation,
- commitment,
- positive attitude and
- interest in the Construction supervision processes

1 DURATION AND TUITION TIME

This is a one-year instructional programme comprising of 200 teaching and learning hours. 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

On completion of this subject the student will be able to lead, supervise and coordinate activities and functions on a construction site to ensure productivity and efficiency, and to supervise health and safety matters on construction sites and in projects in accordance to the requirements of the Civil Engineering and Building Construction sub-field

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 contributes towards the achievement of the qualification.

3.1.1 Theoretical Component

The theoretical component will form 40 percent of the internal assessment. 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.

- **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 this 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 PoE. 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 student's PoE. 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 (50 percent)

A national examination is conducted annually in October or November by means of a paper set externally and marked and moderated externally.

External assessment details are set out in the *Assessment Guidelines: Construction Supervision* (Level 4).

4 WEIGHTED VALUES OF THE TOPICS

TOPICS	WEIGHTED VALUES
1. Role players and their responsibilities on the construction site	5%
2. Perform site administration and reporting	20%
3. Supervision of health and safety on a construction site	15%
4. Lead and supervise construction teams	20%
5. Monitoring and controlling cost and productivity of construction work	20%
6. Industrial relations in construction	10%
7. Conflict management in the construction environment	10%
TOTAL	100

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

The student must obtain at least fifty (50) percent in ICASS and fifty percent (50) in the examination.

7 SUBJECT AND LEARNING OUTCOMES

On completion of Construction Supervision Level 4 the student should have covered the following topics:

- Topic 1: Role players and their responsibilities on the construction site
- Topic 2: Perform site administration and reporting
- Topic 3: Supervision of health and safety on a construction site
- Topic 4: Lead and supervise construction teams
- Topic 5: Monitoring and control cost and productivity of construction work
- Topic 6: Industrial relations in construction
- Topic 7: Conflict management in the construction environment

7.1 Topic 1: Role players and their responsibilities on the construction site

7.1.1 Subject Outcome 1: Identify and describe construction role players and site personnel and their responsibilities and functions.

Learning Outcomes:

- Identify different site personnel and role players on a construction site.
- Describe the functions and responsibilities of various construction site personnel.

7.2 Topic 2: Perform site administration and reporting

7.2.1 Subject Outcome 1: Implement an administration system to enable recordkeeping of personnel information and site activities and procedures.

Learning Outcomes:

- Implement recordkeeping documents for capturing of details on personnel and site activities in accordance with site, quality and human resources procedures and requirements.
Range: Attendance register, wages records, task analysis, critical path analysis, bar chart, material lists.
- Complete documentation accurately and legibly.

7.2.2 Subject Outcome 2: Maintain an administration system to enable recordkeeping of personnel information and site activities and procedures.

Learning Outcomes:

- Complete documentation accurately and legibly.
- Update records regularly in accordance with site procedures and quality management system.
- Store records in a manner which ensures ease of retrieval and currency.

7.2.3 Subject Outcome 3: Compile and submit appropriate reports timeously.

- Verify data in records for accuracy and precision.
- Draft accurate and relevant reports within prescribed deadlines.
- Submit reports to relevant role players within prescribed deadlines.

7.3 Topic 3: Supervision of health and safety on a construction site

7.3.1 Subject Outcome 1: Describe health and safety procedures and principles on a construction site.

Learning Outcomes:

- Explain the legal implications of the Health and Safety Act on a construction site.
- Describe the principles of a safety management plan on a construction site.

7.3.2 Subject Outcome 2: Explain, identify and act appropriately towards potential hazards in the work area.

Learning Outcomes:

- Correctly identify, remove, reduce or report potential hazards in the work area.
- Identify protective requirements and equipment and demonstrate their use.
- Explain the implications of working in confined spaces.
- Explain the implications of the handling, transportation, storage and utilisation of hazardous materials on construction site.

7.3.3 Subject Outcome 3: Limit damage to persons or property in the case of an emergency.

Learning Outcomes:

- Describe correct location of fire extinguishers, hoses and alarms.
- Identify and correctly use different fire extinguishers.
- Describe and use the correct procedures for identification of emergencies.
- Correctly report injuries involving individuals to the relevant persons.

7.4 Topic 4: Lead and supervise construction teams

7.4.1 Subject Outcome 1: Explain how to lead and supervise teams on a construction site.

Learning Outcomes:

- Describe what supervision on a construction site is and explain why it is needed.
- Describe the role and responsibilities of the construction site supervisor or construction site manager.
Range: Plan, organise, lead, control. Communicate with and motivate working teams.
- Plan and conduct regular site meetings with site personnel, construction team and other role players.
- Conduct meetings with construction teams.
- Give team members and other relevant parties regular input and feedback on proceedings and developments.
- Coordinate and monitor implementation of follow up actions subsequent to meetings.

7.5 Topic 5: Monitoring and controlling cost and productivity of construction work

7.5.1 Subject Outcome 1: Measure and record activity production and resource costs on a construction project.

Learning Outcomes:

- Allocate all construction resources to relevant activities.
- Record the actual usage cost of resources.
- Measure and record team activity and production outputs.

7.5.2 Subject Outcome 2: Compile a production and cost activity report.

Learning Outcomes:

- Calculate actual total costs of production and actual unit costs.
- Calculate activity profit or loss by comparing actual total cost with allowed total cost.
- Utilise information from report for decision making according to company procedures.

7.5.3 Subject Outcome 3: Control cost of construction activities.

Learning Outcomes:

- Compare actual unit cost for an activity with allowable unit cost.
- Utilise information and take decisions to control cost of construction activities.

7.5.4 Subject Outcome 4: Implement productivity improvement measures on a construction project.

Learning Outcomes:

- Establish and review productivity targets in conjunction with senior management.
- Identify and implement measures to improve productivity in accordance with the activity report.
- Monitor the implementation of productivity improvement measures.

7.6 Topic 6: Industrial relations in construction

7.5.1 Subject Outcome 1: Explain and define various aspects provided by the Labour Relations Act regarding workplace relations.

Learning Outcomes:

- Explain the importance of proper communication in workplaces.
- Explain the objectives and functions of works councils.
- Explain the functions of the unions in labour issues.
- Explain different ways of dealing with strikes.
- Explain the different grievance and disciplinary procedures.

7.7 Topic 7: Conflict management in the construction environment

7.6.1 Subject Outcome 1: Explain the causes, management and prevention of conflict in the construction environment.

Learning Outcomes:

- Identify and define various types and causes of conflict in the construction industry.
- Explain the effects of conflict on productivity in the construction environment.
- Identify and explain ways of dealing with conflict in the construction environment.
- Explain ways of preventing conflict in the construction environment.

8 RESOURCE NEEDS FOR THE TEACHING OF CONSTRUCTION SUPERVISION - LEVEL 4

8.1 Human resources

Minimum educator qualifications and training, ongoing upskilling requirements.

8.2 Physical resources

Building infrastructure, fixtures, networks, plant, workshops and machinery.

8.3 Teaching and learning resources

Educator and student teaching and learning materials, teaching and learning aids, etc.

8.4 Financial resources

Budget, consumables, learning materials/resources.