

# Training & Education on Call

Human Resource Development

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Specialists in:  
Management, Supervisory, Safety,  
Survey, Artisan & Skills Training  
in the Construction Industry

Reg No: CK 2000\007775\23

Accredited by Construction Education & Training Authority

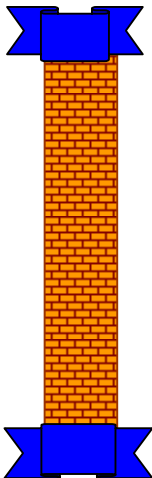
## COMPANY PROFILE

For many years we were members of the CEITS, a training scheme under the Manpower Training Act. The Skills Development Act has now replaced this act.

T E C will continue to provide a wide range of the tried, tested and proven courses, with additional Modules & Courses to suit a broader Corporate and Individual need.

## MISSION STATEMENT

As a leading provider of Corporate, Emerging Business, Individual Training, Education & Development, we strive to create an improved learning environment through:



- Promoting Technical, Generic Management & Skills performance improvement.
- Promoting & Providing Emerging Business Training, Education & Support.
- Providing proven subject matter by competent & experienced tutors.
- Providing outcomes based Training & Education to enhance Individual and Corporate performance.
- Creating an Interactive Learning Experience.
- Providing in-company Training & Education as requested.
- Providing stimulation & cross pollination of experiences & ideas with participants on public courses.

**People Are Our Business  
Batho Ke Khwebo Ya Rona  
Uhwebo Lwethu Ngabantu**

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**Further Information is available from: Debbie Clarke OFFICE (011) 963 0110 FAX: (011) 963 1088**

### **Presentation**

T E C will be happy to make a presentation to your management if so required.

### **Venues for Delivery**

Sites of Courses/Modules delivery are established in suitable venues for public courses

## Our Accredited Tutors

Our Tutors/Instructors are accredited and have been running these courses/modules for several years. Each is tried & tested (the tutor & the course). We can assure you that we strive to maintain the highest standard for the benefit of the learner and his/her employer.

<b>MIKE HAMMAN</b>	<b>Experience:</b> Ten years with CEITS as a Regional Training Officer/Regional Training Manager - Civil Engineering Industry Training Scheme/Board – W Cape. Currently a Training Consultant/Skills Development Facilitator with Construction Industry Training & Education Services.
<b>PROFESSOR PHILIP SAVAGE</b>	Professor Emeritus Civil Eng. (Thesis: The behaviour of some South African road aggregates under crushing loads). Professional Tutor & Design Consultant <b>Experience:</b> Testing of road materials, Consulting Engineer (Zambia & Zimbabwe), Roads Engineer (Malawi), Specialist consulting on road compaction & stabilisation of gravels & sub-grade soils in Argentina, Bahamas, Botswana, Burma, Canada, Ethiopia, Indonesia, Kenya, Laos, Lesotho, Mozambique, Paraguay, Swaziland, Tanzania, Thailand, Uganda, Uruguay, and Vietnam. Promoted 21 Doctorates and 18 Masters, University of Pretoria. Philip is known as “Mr. Compaction” - one of the world’s leading authorities
<b>BRYAN MACKRELL</b>	N. Dip; Civil Eng; Professional Tutor/Consultant. <b>Experience:</b> Civil Engineering Design & Construction, Human Resource Development & Industrial Relations.
<b>BILL BRADY</b>	MBA; Dip. Production Management; Owner of Quality Management for Industry & Professional Tutor. <b>Experience:</b> Management, Planning & Control of Production & Industrial Engineering. Management of Human Resources
<b>CORRIE PRETORIUS</b>	B.Sc. Civil Eng; Practicing Civil Engineering Project Manager & partner in a business. <b>Experience:</b> Projects Engineer, Structural Design, Rollcrete & Road Construction
<b>CHARLES BRINK</b>	Registered Assessor with ETDP. Training Certificate in Adult Learning. City & Guilds Part I Concrete Certificate. Accredited Training Certificates in Roadworks Construction with CEITB. <b>Experience:</b> Fifteen years with LTA Construction as Senior Materials Manager. Ten years with Stewart Scott Consulting Engineers as a Technician. Six years training experience with CEITS (CEITB) – Accreditation Officer for CEITS. Eight years Training Facilitator with Construction Industry Training Board in Botswana.
<b>ALFRED TSOAI</b>	Accredited Category “A” Training Instructor - Artisan & Skills. <b>Experience:</b> Construction Industry, 3 years with CEITS as Instructor, Artisan - Shuttering, Drainage & Services, Roadworks, Survey, Construction Site Practice, Water Reticulation, Reinforcing, 10 Years with BITB, Carpentry - Roofing, Ceilings, Doors, Windows, Staircases, On-the-job training, Concrete, Bricklaying, Foundations, Plans Specifications.
<b>ELLIOT KHITSANE</b>	Adv. Dip. I.P.M. Professional Tutor - Supervisory & Safety. <b>Experience:</b> Twelve years with CEITS as an accredited Training Officer. Qualified With NOSA (SAMTRAC) Accredited Category “A” Training Instructor - Artisan & Skills. Qualified Assessor - City & Guilds, NOSA (SAMTRAC).

PETER GCOBO

Accredited Category "A" Training Instructor - Artisan & Skills.  
Qualified Assessor - City & Guilds, NOSA (SAMTRAC).  
Experience: Construction Industry, twelve years with CEITS as Instructor & Training Officer, Shuttering Artisan, Drainage & Services Artisan, Survey, Concrete Works, Reinforcing, Drainage, Pipelaying, Construction Site Practice, Earth Retaining Systems & Supervisory Development.

CHARLES MDEIDE

Accredited Category "B" Training Instructor - Artisan & Skills, NOSA

Experience: Construction Industry, 3 years with CEITS as Instructor, Artisan – Shuttering, Construction Site Practice, Survey, Reinforcing, Concrete works, Drainage, Pipelaying, Earth Retaining Systems & Supervisory Development, Safety Representative, Carpentry - Cabinet Making, Roofing, Ceilings, Doors, Windows, Staircases

NEO MONCHO

BEE partner with Kapele Construction – Head of Construction Division.  
**Experience:** Eighteen years with SGB Scaffolding. Supported in training & mentoring. Worked on various sites such as Eskom Power Station, Mossel Bay Refinery sites, AECl as well as the World Summit for Sustainable Development Projects.

## Administration

**DEBBIE CLARKE**  
Managing Member

**Experience:** Banking Industry, 5 years with CEITS; Course Co-ordination, Accounts, Data Base Control & Administration.

**RAQUEL CERQUEIRA**

**Experience:** Matriculated at Edenglen High School. Worked in Admin Dept of a Security Company and has been with TEC since October 2005 where she has excelled in her dealings with clients, staff and delegates.

# Levels of the National Qualifications Framework (NQF)

8	-	Doctorate/Further Research Degree.
7	-	Higher Degree/Professional Qualification.
6	-	First Degree/Higher Diploma.
5	-	Diploma/Occupational Certificate.
4	-	Previous STD 10 – now grade 12, College or Trade Certificate.
3	-	Previous STD 9 – now grade 11, School, College or Trade Certificate.
2	-	Previous STD 8 – now grade 10, School, College or Trade Certificate.
1	-	Previous <b>ABET 4</b> - Previous STD 7 – now grades 7 to 9
		<b>ABET 3</b> Previous STD 5 – now grades 4 to 6
		<b>ABET 2</b> Previous STD 3 – now grades 1 to 3
		<b>ABET 1</b> now Pre-school

## Terms used:

<b>ABET</b>	-	Adult Basic Education & Training.
<b>(EA)</b>	-	Entry Assumption.
<b>Entry Assumption</b>	-	The level on the NQF required to enter the course.
<b>Generic</b>	-	Non Technical in nature, req. by all Managers & Supervisors.
<b>NQF</b>	-	National Qualifications Framework.
<b>Level</b>	-	Level on the NQF.
<b>Open</b>	-	No entry Requirements

# COURSES & MODULES

## Technical - for Construction Engineers & Technicians

Entry assumption: **NQF Level 4**

Project & Resource Management	(3 days)
Contract Law & GCC (including COLTO & FIDIC) for Eng./Tech.	(3 days)
Contract Negotiating Skills	(3 days)
Compaction & Soil Stabilisation	(3 days)
Formwork & Falsework Design	(3 days)

## Emerging Contractor

Entry assumption: **NQF Level 1- Abet Level 4**

Emerging Contractor Development Programme consisting of 21 modules with a total duration of (±70 days)

Develop & Practice A Calculative Ability in Business	(5 days)
An Introduction to the Treatment of Soil – for Emerging Contractors & Earthworks personnel	(2 days)

## Technical for Construction Foremen/Supervisors

Entry Assumption: **NQF Level 3**

Testing of Soils	(2 days)
Compaction & Soil Stabilisation Techniques for Foremen	(3 days)
Formwork & Falsework Inspection for Foremen	(2 days)
Scaffold Safety Inspection for Supervisors	(2 days)
Contract Management for Construction Foremen	(3 days)

## Generic Management & Supervisory

Entry Assumption: **NQF Level 2/3**

Communication Performance & Employment Law : part 1	(3 days)
Discipline in the Workplace : part 2	(3 days)
Conflict Resolution : part 3	(3 days)
Communication & Interpersonal Skills : part 1	(3 days)
Communication & Interpersonal Skills : part 2	(3 days)
Communication & Interpersonal Skills : part 3	(3 days)
Time Management & Cost Effective Staff Utilisation	(½ to 1 day)
Finance for Non Financial Managers	(2 days)
Management Interaction Program	(3 days)
Business Skills Part 1	(3 days)
Business Skills Part 2	(3 days)
Develop & Practice a Calculative Ability	(5 days)
Instruction Skills & Outcome Based Training Techniques	(4/5 days)
How a Business Works - Basic Business Appreciation	(1 day)

## Safety Representative 1 & 2

Entry assumption: **Open**

Safety Representative Module 1	(1 day)
Safety Representative Module 2	(2 days)

## Construction Clerk

Entry Assumption: **NQF Level 1/Abet 4**

Site Clerk	(5 days)
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## **Construction Supervisory – Foremen M1 to M5**

Entry Assumption: **NQF Level Abet 3/4**

M1 People Management & Job Roles	(3 days)
M2 Site Foremanship	(3 days)
M3 Industrial Relations	(2 days)
M4 Quality Control & Bar Charts	(3 days)
M5 Motivation of People	(3 days)

## **Construction Supervisory – Section Leader M1 to M5**

Entry Assumption: **NQF Level Abet 2/3**

M1 Business Principles & Safety	(3 days)
M2 Basic Man Management	(2 days)
M3 Quality Control & Bar Charts	(2 days)
M4 Site Organisation	(2 days)
M5 Principles of Industrial Relations	(2 days)

## **Labour Based Contract Supervision**

**Team Leader – 5 days on or off site**  
Entry Assumption: **Able to read & write English**

# SKILLS / ARTISAN

## Skills Courses

**DURATION - 5 DAYS**

Concrete Placing & Finishing.  
Construct a Brick Manhole  
Kerblaying  
Pre – Cast Concrete Kerb Inlets  
Concrete `V` Drains  
Stone Pitching (`V` Drains & Slopes).  
Gabions & Reno Mattresses.  
Road Patching.  
Pedestrian Roller & Small Compaction Techniques.  
Interpretation of Drawings – Roadwork's  
Interpretation of Drawings – Structures  
Excavate, Backfill & Compact a Trench  
Stormwater pipelaying.  
Install Leading Connections (uPVC)  
Scaffold assistant

**ENTRY ASSUMPTION**

Open.  
Able to read a tape.  
Able to read a tape.  
As above.  
As above.  
Open.  
Open.  
Open.  
Open.  
NQF Level 1  
NQF Level 1  
Open  
Able to read a tape.  
Open.  
Open.

**DURATION: 10 days.**

Combined Concrete hand  
Basic Construction hand Structures

**ENTRY ASSUMPTION**

Able to read a tape.  
As above.

### Reinforcing

Apply Basic Reinforcing Skills (5 days)  
Reinforcing Grade 2 (15 Days on/off site)  
Reinforcing Grade 1 (20 Days on/off site)

Open.  
Able to read a tape & sketch.  
Completed Grade 2.

# ARTISAN & CONSTRUCTION HAND TRAINING ON & OFF SITE

Entry Assumption – **Artisan - NQF Level 1/Abet 4**

Construction Hand.                      Entry for Grade 3    Able to read a tape

## **Formwork/Shuttering**

## **DURATION**

Shuttering Hand & Artisan Grade 3	15 days.
Shuttering Artisan Core Modules	15 days.
Shuttering Hand & Artisan Grade 2	20 days.
Shuttering Artisan Basic Leadership Competencies	10 days
Shuttering Hand & Artisan Grade 1	20 days.
Shuttering Artisan Trade Theory	20 days.

## **Drainage & Services**

Drainage & Services Construction Hand & Artisan Grade 3.	15 days.
Drainage & Services Artisan Core Modules.	15 days.
Drainage & Services Construction Hand & Artisan Grade 2	20 days.
Drainage & Services Artisan Basic Leadership Competencies	10 days
Drainage & Services Construction Hand & Artisan Grade 1	20 days
Drainage & Services Artisan Trade Theory	20 days.

## **Roadworks**

Roadwork's Construction Hand & Artisan Grade 3	15 days.
Roadwork's Artisan Core Modules	15 days.
Roadwork's Construction Hand & Artisan Grade 2	20 days.
Roadwork's Artisan Basic Leadership Competencies	10 days.
Roadwork's Construction Hand & Artisan Grade 1	20 days.
Roadwork's Artisan Trade Theory	20 days.

## **Setting Out & Survey on/off site.**

### **ENTRY ASSUMPTION.**

### **DURATION**

Basic Setting Out.	Able to read a tape measure & a simple drawing.	4 / 5 days.
Survey Part One.	Setting out                      Able to read a tape.	10 days.
Survey Part Two	Levelling                              Part 1	10 days.
Survey Part Three	Theodolite                              Part 2	10 days.

## **Construction Site Practice**

C.S.P. 1	-	Earthworks or Structures - part 1	50 days.
C.S.P. 2	-	Earthworks or Structures - part 2	45 days.

# COURSE OBJECTIVES

Technical for Construction Engineers & Technicians

Entry assumption: NQF Level 4

## Project & Resource Management

for Engineers & Technicians  
(3 Days)

### Course Objectives:

- ❖ **Project Planning**
  - Stages of the construction process
  - Project management and control systems
  - Work breakdown structures (WBS)
  - Relevant contract law clauses
  - Scheduling with bar charts (Gantt charts)
- ❖ **Project Programming**
  - Critical Path method (CPM)
  - A look at Pert and ADM
  - Arrow Diagram Methods (ADM)
  - Precedence diagrams
- ❖ **Resource Management**
  - Exercises with ADM and Precedence Networks
  - Scheduling
  - Linking bar charts with CPM logic
  - Shortening project duration
  - Resource analysis, planning and scheduling

Credits 2,4

## Contract Negotiating Skills

for Engineers & Technicians  
(3 Days)

“Win work through negotiation”

### Course Objectives:

- ❖ Principles of Negotiation
  - Current strategies, tactics, techniques & behaviour of negotiators
- ❖ Principles of negotiation power
  - Preparation
  - Methods of determining strategies, tactics & mandates
- ❖ Negotiations
  - Stronger sanctions & likely behavior
  - Analysis of negotiation

Credits 2,4

# Contract Law & GCC

for Engineers & Technicians  
(3 Days)

This is an updated course with specific introduction of COLTO & FIDIC general conditions of contract.

## Course Objectives:

### ❖ Law of Contract

The nature of agreements, Agreements enforceable at law  
Formalities  
The interpretation of contracts, Types of contracts  
Remedies for breach of contracts

### ❖ The Construction Contract

Parties connected with the contract  
The applicability of general principles  
Nominated sub-contractors  
Letters of intent

### ❖ Claims & Claim Procedure

### ❖ Record keeping

### ❖ GCC for Works of Civil Engineering Construction 6<sup>th</sup> Edition (1990)

Accessing the GCC, Layout of the document  
Understanding specific clauses, Claims & disputes  
Using the GCC (1990) –Workshop

Credits 2,4

# Contract Law (COLTO & FIDIC)

for Engineers & Technicians  
(2 Days)

This is an updated course with specific introduction of COLTO & FIDIC general conditions of contract.

### ❖ GCC for Works of Civil Engineering Construction 6<sup>th</sup> Edition (1990)

Accessing the GCC, Layout of the document  
Understanding specific clauses, Claims & disputes  
Using the GCC (1990) –Workshop

### ❖ The COLTO GCC for Road & Bridge Works for State Road Authorities (1998)

Comparison with GCC 1990  
Using the COLTO GCC

### ❖ Federation Internationale Des Ingenieurs-Conseils (FIDIC), GCC

Use of FIDIC, Comparison with GCC 1990  
Understanding specific clauses  
Using the FIDIC GCC

Credits 1,6

# Compaction & Soil Stabilisation

for Engineers & Technicians  
(3 Days)

## Course Objectives:

- ❖ **Introduction**
  - Pre-course questionnaire
  - Glossary of terms
- ❖ **Soil Make-Up**
  - Definitions: Gravel, Sand, Silt & Clay
- ❖ **Soil Strength**
  - The Coulomb equation, Effect of particle size-dilation
  - The effect of clay and water
- ❖ **Soil Densification**
  - M/D relationships, Frictional affects
  - Soil suction
- ❖ **Settlement**
  - The affect of load on soil
  - Manifestations
- ❖ **Drainage**
  - Surface drainage, Subsurface drainage
  - Effects of poor drainage
- ❖ **Stabilisation**
  - Cement, Lime, Slagment and Ionic stabilisers
  - Important tests
- ❖ **Field Compaction**
  - Static, Dynamic and Vibratory
  - Rollers and SLL, Output capacity
- ❖ **Associated Problems**
  - Improper specifications
  - Field problems
- ❖ **Case studies, demonstrations and workshop sessions**

Credits 2,4

# Formwork & Falsework Design

for Engineers & Technicians  
(3 Days)

## Course Objectives:

### ❖ Importance of Formwork & Falsework in relation to:

Safety & Performance  
Soundness & simple economics

### ❖ Formwork Design

Loads & pressures on formwork  
Design & strengths of mater for formwork  
Use of commercial equipment, timber etc  
Surface finishes & tolerances  
Use of Commercial support work  
Stability & foundation considerations  
Awareness of risk

### ❖ The course is supported by audio visual aids.

Comprehensive course notes, brochures, handouts & case study settings & model answers. A reference list with codes concerned & recognised publications are also supplied.

**Credits 2,4**

# Compaction & Soil Stabilisation Techniques

for Foremen/Supervisors  
(3 Days)

**“Suitable for Roadworks Foremen/Supervisors and Contractors constructing interlocking brick/block paving parking areas”**

## Course Objectives:

- ❖ Identify Compaction Techniques and Equipment
- ❖ Identify Soil Types, Characteristics and Properties
- ❖ Identify Terminology Used in Design
- ❖ Discuss the factors of Compaction and Soil Stabilisation
- ❖ Consider Equipment Types for Binder Distribution
- ❖ Consider Site Problems, Solutions and Safety

**Credits 2,4**

# Introduction to the Treatment of Soil

for Emerging Contractors & Earthworks Personnel  
(2 Days)

## Course Objectives:

### ❖ Road Pavement make-up

Definitions  
Road Prism  
Drainage

### ❖ What is soil

Soil types  
Recognising soils

### ❖ Improving a Soil

Compaction  
Mechanical stabilisation  
Chemical stabilisation

### ❖ Materials to use

Foundation materials  
Sub-grade to base course

### ❖ Control Measures

Laboratory tests  
Field tests

### ❖ Problems & Solution

Understanding changes  
Action to be taken

### ❖ Assisted with pictures, demonstrations and workshop sessions.

Credits 1,6

# Technical for Construction Foremen & Supervisors. Entry Assumption: NQF Level 2/3Level

## Testing of Soils (2 Days)

Ideally attended before “Compaction & Soil Stabilisation,” also suitable for Contractors constructing concrete brick/block paving parking areas.

❖ **Course Objectives:**

Pre-course Questionnaire  
Why tests are done  
Strength and durability  
Types of tests – particle – mixture

❖ **Particle Test**

Size and shape, grading analysis and flakiness

❖ **Clay Tests**

Atterberg Limits, clay types and dispersion

❖ **Quality Tests**

ICL, ACV and 10% effect, adhesion and deleterious materials

❖ **Mixture Tests**

Laboratory Compaction methods, modified, proctor etc  
Relative values, density, compaction and density requirements

❖ **Field Tests**

Sand replacement, nuclear, DCP and cores

❖ **Laboratory Strength Tests**

CBR, UCS, ITS, Wet dry brushing, binder content, consolidometer, triaxial and direct shear

❖ **Pictorial representation, demonstrations and workshop sessions are incorporated into this very informative course**

Credits 1,6

## Formwork & Falsework Inspection

for Construction Foremen/Supervisor  
(2 Days)

“Suitable for all Construction Foremen/Supervisors who work with and construct Formwork and Falsework”

**Course Objectives:**

- ❖ Identify Responsibilities of Law & Responsibility
- ❖ Identify Good Practice, Tolerances, Productivity and Quality
- ❖ Discuss Falsework Foundations, Jack Extensions and Loads
- ❖ Discuss Formwork to sides, Pressures, Loads and Leakage
- ❖ Discuss Formwork to Soffits, Strength, Uplift and Stopends

Credits 1,6

# Scaffold Safety Control & Inspection

for Scaffolding Supervisors  
(2 Days)

**“ This Course is registered with the Dept of Labour & used to train their Inspectors”**

## **Course Objectives:**

- ❖ Pre-Course Questionnaire
- ❖ Identify Safe & Unsafe Situations for:
  - Foundations
  - Framework
  - Platforms
  - Access
  - Suspended Scaffolds
  - Common Appendages
- ❖ Identify classifications for Scaffolding
- ❖ Identify Practical Considerations and Safety Measures to Erect and Dismantle Scaffolds
- ❖ Test end of Day 1
- ❖ Test end of Day 2

**Credits 1,6**

# Contract Management

for Construction Foremen

(3 Days)

“ A practical hands-on approach to daily contracting”

## Course Objectives:

### ❖ Introduction

Definition of a contract & development of a Civil Engineering Contract, Types of Civil Engineering Contracts, lump sum, admeasure, cost plus, target, design & construct, fast track.

Contract documents, tender form, letter of acceptance, form of agreement, GCC, Contract drawings, Specifications & Schedule of quantities

### ❖ Tender Phase

Site meeting, tender planning, type of contract, method statement, site layout, logistics & labour

### ❖ Construction Phase

Pre-handover, site conditions, contract conditions, material suppliers, sub-contractors, site handover, planning, programming, organising, controlling, administration, reports & costing

### ❖ Time Management

Personal time management, planning, organising & controlling your time, delegation of work, procrastination, handling large tasks, keeping a diary

### ❖ Introduction to Interpersonal Skills

Understand behavior, define leadership, resistance to change & conflict

### ❖ Introduction to Industrial Relations

Rights & duties, grievances, disciplinary procedure & retrenchments.

**Credits 2,4**

# Generic Management & Supervisory Entry Assumption: NQF Level 2\3

## Communication and Effective Interpersonal Management Skills

(3 days)

### Objectives/Outcomes:

On completion of this course participants will have the knowledge and skills to effectively interact with their team members on a personal basis whilst maintaining a focus on results required.

### Course Objectives:

- ❖ Identify Introduction to the Five Needs of Employees and Management
- ❖ The Art of Assertive Communication in the Workplace
- ❖ The Art of Listening and Giving Instructions
- ❖ The Art of Motivating Employees
- ❖ The Art of Handling Grievances
- ❖ The Art of Conflict Resolution

Credits 2,4

## INDUSTRIAL RELATIONS

### The Art of Conducting Effective and Professional Disciplinary Hearings

### Objectives/Outcomes:

On completion of this course participants will have the backup Material, knowledge and skills to effectively conduct Professional disciplinary hearings that will be fair and Productive whilst complying with Labour legislation

### Course Objectives

- ❖ Industrial Relations, the Law and Industry Collective Agreement
- ❖ Principles of a Fair Disciplinary Hearing, including Counselling and Informal Discipline
- ❖ Preparation and Giving Notice
- ❖ Conducting the Disciplinary Hearing
- ❖ Arriving at a Finding
- ❖ Deciding on the Appropriate Sanction

Credits 2,4

## CONTRACT NEGOTIATING SKILLS

for Engineers & Technicians

(3 Days)

“Win work through negotiation”

### Course Objectives:

- ❖ Principles of Negotiation
  - Current strategies, tactics, techniques & behavior of negotiators
- ❖ Principles of negotiation power
  - Preparation
  - Methods of determining strategies, tactics & mandates
- ❖ Negotiations
  - Stronger sanctions & likely behaviour
  - Analysis of negotiation

Credits 2,4

# Finance for non-Financial Managers

(2 Days)

## Course Objectives:

- ❖ **Introduction**
  - What is accounting?
  - Financial events & transactions
  - Transaction analysis
- ❖ **Discuss the Balance Sheet**
  - Assets, liabilities, working capital & depreciation
- ❖ **Discuss the Final accounts**
  - Sales, Cost of sales, operating expenses & net profit after tax
- ❖ **Analysis of Accounting Records**
  - Interpretation, trends, comparisons & ratios
- ❖ **Discuss Cost, Volume & Profit**
  - Fixed & variable costs, break even analysis & benefits
- ❖ **Budgeting**
  - Planning, budgeting period, setting realistic budget requirements, the cash needs of a business, budgeting & projected cash requirement.

Credits 1,6

# Management Interaction Programme

(3 Days)

## Course Objectives:

- ❖ **Management by Objectives**
  - Benefits of MBO, setting objectives, plan of action & measurement of success
- ❖ **Decision making**
  - Decision making process, barriers, concepts & group decision making
- ❖ **Discuss perceptions**
  - Objectives, self evaluation, perceptions & impressions in business
- ❖ **Discuss Leadership**
  - Accountability, commonalities between leader & employee, power of leadership, analysis of subordinates needs
- ❖ **Discuss the Situational Leader**
  - Supportive behavior, assessing the situation, leadership style, solve performance problems & management flexibility
- ❖ **Discuss Counseling & Feedback**
  - Correcting, coaching & consulting, conflict resolution
- ❖ **Delegating**
  - Barriers, abdication, strategy, execution & monitoring
- ❖ **Management concepts**
  - Motivation, behavior, values, attitudes & job satisfaction
- ❖ **Problem solving**
  - Define the problem, priorities, causes, alternatives & steps in solving
- ❖ **Management of change**
  - Assertiveness, attitude, resistance & transactional analysis

Credits 2,4

# Business Skills part 1

(3 Days)

## Course Objectives:

### ❖ Business Planning

Corporate plans, market share & life cycle, planning-strategic & creative, economy of scale

### ❖ Financial control

Transactions & controls, balance sheet & income statements, cost, volume & profit, ratios & break-even charts

### ❖ Cash Flow

Requirements & budgeting, analysis & control, assets & liabilities, credit control

Credits 2,4

# Business Skills part 2

(3 Days)

## Course Objectives:

### ❖ Discuss Budgets

Expenses-overheads, fixed & variable  
Forecasting  
Costing-standard & marginal  
Budgets-cash, capital & expenses

### ❖ Marketing

Marketing-consumer, industrial & services  
Customers-behaviour & expectations  
Service-model & advantage  
Quality-system & competition

### ❖ Training & Development

Managerial-roles & control systems  
Managerial-transformation & competence  
Specialisation & corporate training  
Career planning

Credits 2,4

# Instructional Skills & Outcome Based Training Techniques

(4/5 Days)  
on & off the job training

## Course Objectives:

### ❖ Consider the needs of the learner

Learning problems, fear of failure, lack of confidence, methods to overcome these problems

### ❖ Interpret the use of a learning package

Consider suitable training aids, keep it simple, the learner is the most important person  
Extract material, tool & aid requirements from the lesson plan/ module

### ❖ Practice giving a lesson plan

Apply Competency Based Outcomes in the plan  
Monitor to success

### ❖ Prove Competence in Instructional Skills with Outcome Based Competencies

Credits 4

## How a Business Works

### Basic Business Appreciation

**Duration:** 1 Day

**Entry Assumption:** Open, ideal for induction.

**Course Content:** Purpose of a business, profit & loss, working capital, banking, borrowing, interest, risk, costs to a business.

Credits 0.8

“On the job Training quite often fails due to the lack of ability of the supervisor in imparting the skills to the worker. Costly mistakes are made in the work process as assumed learning & not proven learning has taken place,”

## Safety Representative - Module 1

**Duration:** 1 Day  
**Entry Assumptions:** Open  
**Course Content:** Given in English/Zulu/Sotho

- ❖ Know the legal responsibilities for health and safety
- ❖ Identify and eliminate unsafe acts and conditions
- ❖ Know the functions, duties & responsibilities of a Safety Representative
- ❖ Do Site Inspection Record and present to Safety Committee
- ❖ Understand the minimum legal requirements & use of Personal Protection Equipment
- ❖ Knowledge of the regulations regarding general safety on site

## Safety Representative - Module 2

**Duration:** 2 Day  
**Entry Assumptions:** Within 6 months of completing Safety Representative Module 1  
**Course Content:** Given in English/Zulu/Sotho

- ❖ The causes and effects of incidents
- ❖ Legislation
- ❖ General Health and safety

# Site Clerk

**Duration:** 5 Days  
**Entry Assumptions:** NQF Level 1 (ABET level 2)  
**Course Content:** Given in English/Zulu/Sotho

- ❖ Identify employment practice and site administration
- ❖ Calculate wages
- ❖ Apply Industrial Relations
- ❖ Identify storekeeping needs
- ❖ Identify costing of materials and equipment

**Credits 4.0**

## Team Leader (Labour Based)

**Duration:** 5 Days  
**Entry Assumptions:** Able to read a tape measure  
**Course Content:**

### CDM 1B1

- ❖ Use and maintain hand tools
- ❖ Identify personal protective equipment
- ❖ Use & maintain basic setting out tools
- ❖ Identify & maintain general site hand tools

### CDM 6T1

- ❖ Supervise Employees
- ❖ Explain what is leadership
- ❖ Discuss the supervisors role in motivation

### CDM 6U1

- ❖ Employ work methods
- ❖ Recognise the importance of method studies
- ❖ Review your own work methods

**Credits 4.0**

**Note :**

<b>CDM 1B1</b>	can be replaced by one of the following:
<b>CDM 6T4</b>	Resolve employee problems
<b>CDM 6V1</b>	Communicate work targets
<b>CDM 6V2</b>	Report on work progress

# Emerging Contractor Development, Entry assumption NQF Level 1/Abet Level 4

## Develop & Practice a Calculative Ability in Business

(5 Days)

“It is the first step in becoming competent in estimating, if you have your own business or are employed to work on or assist in estimating”

### Course Objectives:

- ❖ With the use of a pocket calculator with  $\pi$ , % and  $\sqrt{\quad}$  functions.
  - Review basic mathematical functions, addition, Subtraction, Multiplication & Division
  - Use decimals in calculations
  - Apply linear measurement in meters & kilometers
- ❖ Calculate the Area of Rectangles, Squares, Triangles & Circles, separately and in combination.
  - Determine the sides of a right angled triangle & the relationship of angles in triangles
  - Apply pythagoras theorem to lines on a right angled triangle
  - Apply the 3.4.5 method of setting out a right angled triangle
- ❖ Apply Linear, Volume, Mass & Liquid Calculations
  - Use and apply ratios for practical purposes.
  - Apply measurement in System International (SI) base units.
  - Apply the mid-ordinate rule for irregular objects.
  - Calculate volumes for practical purposes.
  - Apply mass in kilograms & tonne.
  - Apply volume calculations for liquids in liters & kiloliters for practical applications.

All work is interactive exercise based; each objective has to complete before moving onto the next. All exercises are based on real life situations, not theory. The end result of this course is that delegates go away with a sound working knowledge and ability in practical calculations that can be used at home, work and in business.

**Credits 4.0**

## Foreman M1 People Management

(National Learning Path)

**Duration:** 3 Days  
**Entry Assumptions:** NQF Level Abet 3/4  
**Course Content:** Given in English/Zulu/Sotho

- ❖ Describe the functions of a business
- ❖ Describe the roles and functions of a foreman
- ❖ Practice the planning work and work loads
- ❖ Practice the planning daily resources
- ❖ Describe the Work Organisation
- ❖ Describe the Job Control
- ❖ Problem solve and make decisions
- ❖ Identify motivators
- ❖ Identify grievance & disciplinary procedures
- ❖ Consider health and safety of workers
- ❖ Apply interpersonal skills
- ❖ Identify leadership characteristics
- ❖ Consider the training and performance of workers

**Credits 2.4**

## Foreman M2 Site Foremanship

(National Learning Path)

**Duration:** 3 Days  
**Entry Assumptions:** Foreman M1  
**Course Content:** Given in English/Zulu/Sotho

- ❖ Plan site requirements
- ❖ Locate stores areas
- ❖ Identify temporary service requirements
- ❖ Identify accommodation requirements
- ❖ Identify any transport requirements
- ❖ Consider systems and record keeping
- ❖ Plan plant and machinery requirements
- ❖ Consider plant and machinery maintenance
- ❖ Select suitable plant and machinery
- ❖ Interpret bar charts
- ❖ Plan daily workloads and resources
- ❖ Plan weekly workloads and resources
- ❖ Draw up a daily and weekly program

**Credits 2.4**

## Foreman M3 Industrial Relations

(National Learning Path)

**Duration:** 2 Days  
**Entry Assumptions:** Foreman M2  
**Course Content:** Given in English/Zulu/Sotho

- ❖ Describe the principles of construction discipline
- ❖ Demonstrate the process of construction discipline
- ❖ Define grievance and complaints
- ❖ Identify types and causes of grievance
- ❖ Describe the grievance procedure
- ❖ Discuss unfair dismissals
- ❖ Discuss responsibilities and employers and employees
- ❖ Discuss Unfair Labour Practice

**Credits 1.6**

## Foreman M4 Quality Control & Resource Management

(National Learning Path)

**Duration:** 3 Days  
**Entry Assumptions:** Foreman M3  
**Course Content:** Given in English/Zulu/Sotho

- ❖ Discuss types of construction contracts
- ❖ Discuss conditions, Bills of Quantities and specifications
- ❖ Discuss importance of related drawings
- ❖ Consider resource requirement and ordering
- ❖ Consider storage needs and available space
- ❖ Consider the cost of double/ multiple handling of materials
- ❖ Control wastage of materials for better profits
- ❖ Identify resources utilisation control methods
- ❖ Identify quality control methods
- ❖ Identify labour control & utilisation methods

**Credits 2.4**

## Foreman M5 Motivation of People

(National Learning Path)

**Duration:** 3 Days  
**Entry Assumptions:** Foreman M4  
**Course Content:** Given in English/Zulu/Sotho

- ❖ Identify motivational theories and principles
- ❖ Implement motivational factors
- ❖ Design a motivational environment
- ❖ Setting objectives with agreement
- ❖ Delegate work and responsibilities
- ❖ Identify management control functions
- ❖ Identify how to handle under achievers
- ❖ Identify how to handle human relation problems

**Credits 2.4**

## Section Leader M1 Business Principles

(National Learning Path)

**Duration:** 3 Days  
**Entry Assumptions:** NQF Level Abet 2/3  
**Course Content:** Given in English/Zulu/Sotho

- ❖ Introduction to site safety and OHS Act
- ❖ Duties of a Safety Representative
- ❖ Using a safety checklist and company Safety Plan
- ❖ Identify fire precautions
- ❖ Describe Organisation of a business
- ❖ Describe concepts of competition & pricing
- ❖ Describe company income, profit and loss
- ❖ Identify Employee Efficiency

**Credits 2.4**

## Section Leader M2 Basic Man Management

(National Learning Path)

**Duration:** 2 Days  
**Entry Assumptions:** Section Leader M1  
**Course Content:** Given in English/Zulu/Sotho

- ❖ Practice person to person relationships
- ❖ Describe team spirit / morale
- ❖ Describe planning, organising, delegating activities
- ❖ Describe motivation, discipline and grievances
- ❖ Practice communication, problem solving

**Credits 1.6**

## Section Leader M3 Quality Control & Bar Charts

(National Learning Path)

**Duration:** 2 Days  
**Entry Assumptions:** Section Leader M2  
**Course Content:** Given in English/Zulu/Sotho

- ❖ Describe quality control
- ❖ Describe quality tests
- ❖ Check quality of work in progress
- ❖ Describe benefits from quality control
- ❖ Work from bar charts

**Credits 1.6**

## Section Leader M4 Site Organisation

(National Learning Path)

**Duration:** 2 Days  
**Entry Assumptions:** Section Leader M3  
**Course Content:** Given in English/Zulu/Sotho

- ❖ Organise plant and equipment requirements
- ❖ Develop a site layout plan and stores
- ❖ Explain procedure for ordering materials
- ❖ Explain importance of checking delivered materials and storage
- ❖ Identify reporting, allocating and record procedures resources
- ❖ Reporting and record procedures

**Credits 1.6**

## Section Leader M5 Principles of Industrial Relations

(National Learning Path)

**Duration:** 2 Days  
**Entry Assumptions:** Section Leader M4  
**Course Content:** Given in English/Zulu/Sotho

- ❖ Identify Industrial Relations System in South Africa
- ❖ Explain Procedure for Dismissals
- ❖ Handle grievance procedures
- ❖ Use constructive discipline and deal with conflict
- ❖ Identify dissatisfaction
- ❖ Principles and procedures to be followed

**Credits 1.6**

# Other Services & Skills

## Concrete Placing and Finishing

**Duration:** 5 Days  
**Entry Assumptions:** Open  
**Course Content:**

### CDM 1B3

- Operate a water pump & concrete vibrator
- Check, start & stop engine
- Demonstrate the use of a water pump
- Demonstrate the use of a concrete vibrator

### CDM 3K1

- Apply basic concrete skills
- Mix concrete by hand
- Place and finish concrete by hand

**Credits 2.4**

## Construct a Brick Manhole

**Duration:** 5 Days  
**Entry Assumptions:** Able to read a tape measure  
**Course Content:**

### CDM 1C1

- Construct a brick manhole
- Apply basic bricklaying skills
- Recognise brickwork bonds used in manhole construction
- Construct a brick manhole

**Credits 1.2**

# Combined Concrete Hand

**Duration:** 10 Days  
**Entry Assumptions:** Able to read a tape measure  
**Course Content:**

## **CDM 1B3**

- Operate a water pump & concrete vibrator
- Check, start & stop engine
- Demonstrate the use of a water pump
- Demonstrate the use of a concrete vibrator

## **CDM 3K1**

- Apply basic concrete skills
- Mix concrete by hand
- Place and finish concrete by hand

## **CSM 1E1**

- Apply basic reinforcing skills
- Demonstrate basic tying skills
- Assemble basic column & wall reinforcing
- Manufacture cover blocks

## **CSM 1C1**

- Erect & strip straight wall formwork
- Select components & equipment by name
- Erect & strip formwork as instructed

## **CDM 5Q2**

- Identify practical applications of concrete
- Describe transportation of concrete
- Recognise the considerations of placing & compacting concrete
- Recognise importance of curing concrete

**Credits 14.4**

# Basic Construction Hand – Structures

**Duration:** 10 Days  
**Entry Assumptions:** Able to read a tape measure  
**Course Content:**

## CSM 1B1

- Maintain & use basic hand tools
- Identify personal protective equipment
- Care & use of basic setting out tools
- Care & use of basic cutting tools

## CSM 1B3

- Identify formwork and scaffold components
- Identify various formwork components and arrangements
- Identify the various components of a basic access scaffold

## CSM 1D1

- Erect basic supportwork for decking & beams
- Assemble support framework
- Set up bearers

## CSM 1E1

- Apply basic reinforcing skills
- Demonstrate basic tying skills
- Assemble basic column & wall reinforcing
- Manufacture cover blocks

## CDM 3K1

- Apply Basic Concrete Skills
- Mix concrete by hand
- Place & finish concrete by hand

**Credits 9.2**

## Kerblaying

**Duration:** 5 Days  
**Entry Assumptions:** Able to read a tape measure  
**Course Content:**

## CDM 1C2

- Install mountable & barrier kerb units
- Prepare foundation
- Place kerb units, joint & backfill
- Lay in-site channels/gutters

## CRM 3G1

- Install & transfer peg levels using spirit level / straight edge
- Transfer levels using a straight edge & spirit levels
- Transfer levels using a water level

## CRM 1B1

- Use and maintain hand tools
- Identify personal protective equipment
- Use and maintain basic setting out tools
- Identify and maintain general site hand tools

**Credits 3.6**

## Concrete Kerb Inlets

**Duration:** 5 Days  
**Entry Assumptions:** Open  
**Course Content:**

### CRM 1C5

Install precast concrete kerb and grid inlets  
Install precast kerb inlet covers  
Install grid inlets

**Credits 2.4**

## Construct 'V' Drains

**Duration:** 5 Days  
**Entry Assumptions:** Able to read a tape measure  
**Course Content:**

**CDM 3K4** Construct 'v' drains  
Recognise the purpose of open drain construction  
Prepare ground to given levels  
Place concrete & complete project

**CDM 3K1** Apply basic concrete skills  
Mix concrete by hand  
Place & finish concrete by hand

**Credits 3.2**

## Lay Small Areas of Stone Pitching (‘V’ Drains & Slopes)

**Duration:** 5 Days  
**Entry Assumptions:** Open  
**Course Content:**

**CDM 1F6** Lay small areas of stone pitching  
Prepare ground to given levels  
Lay plain pitching  
Apply grout, clean & cure stone pitching

**Credits 2.8**

## Install Gabions & Reno Mattresses

**Duration:** 5 Days  
**Entry Assumptions:** Open  
**Course Content:**

**CRM 1C7** Install Gabion and Reno mattresses  
Prepare gabions, ground & filter fabric  
Arrange & secure gabions in position  
Construct gabions to completion, backfill if necessary  
Assemble gabion /reno mattress

**Credits 3.2**

# Road Patching

**Duration:** 5 Days  
**Entry Assumptions:** Open  
**Course Content:**

**CRM 1D1** Reinststate base courses/surfaces due to potholes & excavation  
Identify the causes of potholes  
Recall the reasons for patching potholes & how we can prevent it  
Describe & illustrate how to patch potholes  
Theoretical (in class)  
Practical (in the field)

**Credits 2.4**

# Pedestrian Roller & Small Compaction Techniques

**Duration:** 5 Days  
**Entry Assumptions:** Open  
**Course Content:**

**CRM 5P3** Explain compaction  
Explain the principles of compaction  
Select the compactor to suit the project  
Plan the compaction of crusher run for a base course operation

**CRM 1B3** Operate a light weight roller & plate vibrator  
Recognise operating components and safety procedures  
Prepare & start machine  
Operate machine

**CRM 1C1** Excavate backfill & compact a trench  
Apply the practical application of trench excavation  
Demonstrate procedures of backfilling & trench compaction

**Credits 4.0**

# Interpretation of Drawings - Roadwork's

**Duration:** 5 Days  
**Entry Assumptions:** NQF Level 1(ABET level 4)  
**Course Content:**

**CRM 3F2** Read & interpret minor work drawings & material schedules  
Interpret basic drawings  
Interpret basic material schedules

**CRM 5P5** Interpret & describe tolerances & finishes  
Define terms associated with road structures  
Identify layerwork tolerances

**Credits 3.2**

## Interpretation of Drawings - Construction

**Duration:** 5 Days  
**Entry Assumptions:** NQF Level 1 (ABET level 4)  
**Course Content:**

**CSM 3F1** Read & interpret basic drawings  
Interpret basic drawings  
Identify drawing details  
Interpret basic reinforcing drawings and schedules  
Interpret drawings & prepare materials

**Credits 2.6**

## Excavate, Backfill & Compact a Trench

**Duration:** 5 Days  
**Entry Assumptions:** Open  
**Course Content:**

**CRM 1C1** Excavate and backfill a trench  
Apply the practical application of trench excavation  
Demonstrate procedures of backfilling & trench compaction

**CDM 1B2** Operate Light Weight Roller  
Recognise operation components and safety procedures  
Prepare and start machine  
Operate machine

**Credits 2.8**

## Install Leading Connections (uPVC)

**Duration:** 5 Days  
**Entry Assumptions:** Open  
**Course Content:**

**LUWRM2** Install Leading Connections  
Connect into main water supply  
Install meter box  
Install standpipe

**Credits 3.6**

# Stormwater Pipelaying

Ideally run with a Pipelaying module

**Duration:** 5 Days  
**Entry Assumptions:** Able to read a tape measure  
**Course Content:**

- CDM 1B1** Use & maintain hand tools  
Identify personal protective equipment  
Use & maintain basic setting out tools  
Identify & maintain general site hand tools
- CDM 1C3** Excavate, backfill & compact a trench  
Apply the practical application of trench excavation  
Demonstrate procedures of backfilling and trench compaction
- CDM 1D1** Lay & joint precast pipes & manhole units  
Prepare the work area ready for pipelaying  
Install concrete pipes & manhole units

**Credits 3.2**

# Scaffolding Erector

**Duration:** 5 Days  
**Entry Assumptions:** Open  
**Course Content:**

- Interpreting Scaffold Working Drawings  
Erecting & Dismantling a Barrow Ramp  
Erecting & Dismantling an Access Birdcage Scaffold  
Erecting & Dismantling a System Circular Scaffold  
Erecting & Dismantling a Bridge Scaffold  
Erecting & Dismantling a Cantilever System Scaffold Working Platform

**Credits 4.00**

# Basic Reinforcing (Grade 3)

**Duration:** 5 Days  
**Entry Assumptions:** Open  
**Course Content:**

- CSM 1E1**
- Apply basic reinforcing skills  
Demonstrate basic tying skills  
Introduction to basic reinforcing drawings  
Assemble column and wall reinforcing  
Manufacture cover blocks

**Credits 2.4**

## Reinforcing Skills Grade 2 (National Learning Path)

**Duration:** 15 Days  
**Entry Assumptions:** Basic Reinforcing  
**Course Content:** Evaluations may be arranged

Extract information from – Bending Schedules  
Extract information from – Shape Codes  
Extract information from – drawings & sketches with assistance  
Identify and work to allowable tolerances  
Identify and select reinforcing for a single workpiece  
Set out and mark for single workpiece

Make up and Fix: -  
Column cage  
Straight single lift wall  
Apertures and Corners  
Single lift curved wall  
Beams onto formwork  
Slab and mesh reinforcing  
Straight staircase onto soffit

Use spacers, stools and high chairs  
Work to SABS 1200G

**Credits 12.0**

## Reinforcing Skills Grade I (National Learning Path)

**Duration:** 20 Days  
**Entry Assumptions:** Skills Reinforcing Grade II  
**Course Content:** Evaluations may be arranged

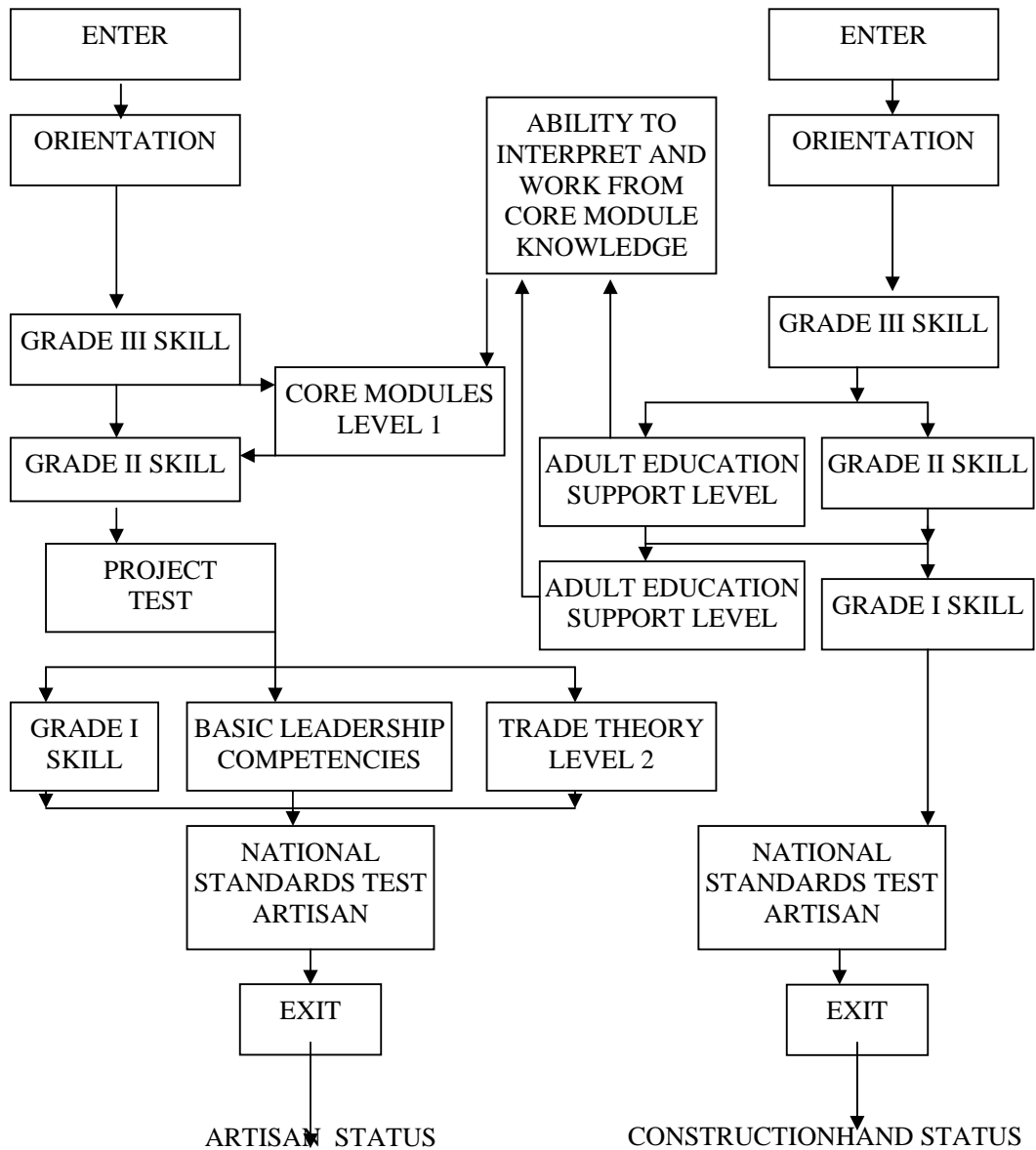
Extract information from: -  
Bending Schedules  
Shape Codes  
drawings & sketches without assistance

Interpret all documents and work to SABS 1200G  
Identify and select reinforcing for combinations  
Set out and mark for combinations of workpieces

Make up and fix combinations: -  
With Circular Work  
Beam, column, slab  
Staircase/landing/second Lift  
Around Apertures & openings  
Inspect to correct work & hand over for concreting

**Credits 16.0**

## TRAINING MATRIX FOR ARTISAN AND CONSTRUCTION HAND STATUS



# Shutterhand Skills Grade 3

(National Learning Path)

**Duration:** 15 Days  
**Entry Assumptions:** Able to read a tape measure  
**Course Content:**

**CSM 1B1** Use and maintain basic hand tools  
**CSM 1B2** Operate an electric drill & circular saw  
**CSM 1B3** Identify formwork & scaffold components  
**CSM 1C1** Erect & strip straight wall formwork  
**CSM 1C2** Erect & strip column  
**CSM 1C3** Erect & strip foundation formwork  
**CSM 1D1** Erect basic supportwork for decking & beams  
**CSM 1E2** Erect & strip basic access scaffold

**Credits 13.6**

## Shuttering Artisan Core Modules

(National Learning Path)

**Duration:** 15 Days  
**Entry Assumptions:** NQF Level 1/2 & Shuttering  
Artisan Grade 3  
**Course Content:** Evaluations may be arranged

**CSM 2A1** Read & interpret construction drawings and produce free hand sketch  
**CSM 2A2** Calculate and determine construction calculations & quantities  
**CSM 2A3** Setting out structures, curves & excavations  
**CSM 2A4** Install & transfer levels for construction work

**Credits 14.4**

## Shuttering Artisan Trade Theory

(National Learning Path)

**Duration:** 20 Days  
**Entry Assumptions:** Shuttering Artisan Project Test  
**Course Content:** Evaluations may be arranged

**CSM 5P1** Describe the properties of concrete  
**CSM 5P2** Identify practical applications of concrete  
**CSM 5P3** Recognise the basic procedure for repair work  
**CSM 5P4** Define pre-stressed & post tensioned concrete  
**CSM 5P5** Recognise the importance of reinforcing in concrete  
**CSM 5Q1** Describe formwork applications  
**CSM 5Q2** Describe formwork arrangements  
**CSM 5Q3** Recognise the basic principles – sliding formwork  
**CSM 5R1** Define the principles of falsework  
**CSM 5R2** Define the principles of scaffolding

**Credits 15.6**

# Shuttering Artisan      Basic Leadership Competencies

(National Learning Path)

**Duration:** 10 Days  
**Entry Assumptions:** Shuttering Artisan Project Test  
**Course Content:** Evaluations may be arranged

**CRM 6T1** Supervise Employees  
**CRM 6T2** Utilise individual skills  
**CRM 6T3** Resolve Industrial Relation problems  
**CRM 6T4** Resolve employee problems  
**CRM 6U1** Employ work methods  
**CRM 6V1** Communicate work targets  
**CRM 6V2** Report on work progress

**Credits 8.4**

## Shutterhand Skills Grade 2

(National Learning Path)

**Duration:** 20 Days  
**Entry Assumptions:** Shutterhand Skills Grade 3 & ability to read / interpret sketches  
**Course Content:** Evaluations can be arranged

**CSM 3F1** Read & interpret basic drawings  
**CSM 3F2** Transfer levels using spirit level and water level  
**CSM 3F3** Set out elementary works  
**CSM 3G2** Erect & strip "E" wall with opening  
**CSM 3G3** Erect & strip "T" wall with stop end  
**CSM 3G4** Erect & strip slab & beam formwork  
**CSM 3G5** Erect & strip wing wall and soffit  
**CSM 3H1** Fabricate & erect timber column  
**CSM 3H2** Fabricate & erect timber wall shutter  
**CSM 3J1** Set out timber staircase on wall stringer

**Credits 14.4**

## Shutterhand Skills Grade I

(National Learning Path)

**Duration:** 20 Days  
**Entry Assumptions:** Shutterhand Skills Grade 2 & ability to read formwork drawings  
**Course Content:** Evaluations can be arranged

**CSM 4K1** Maintain construction site safety & health procedures  
**CSM 4K2** Check scaffold & supportwork for handover  
**CSM 4K3** Order & receive materials  
**CSM 4L1** Organise supportwork operations  
**CSM 4L2** Organise formwork operations  
**CSM 4M1** Set out & construct circular formwork  
**CSM 4M2** Set out & construct a timber staircase  
**CSM 4M3** Set out & construct a machine base

**Credits 10.8**

## Drainage & Services Grade 3

(National Learning Path)

**Duration:** 15 Days  
**Entry Assumptions:** Able to read a tape measure  
**Course Content:**

<b>CDM 1B1</b>	Use and maintain hand tools
<b>CDM 1B2</b>	Operate a light weight roller and plate vibrator
<b>CDM 1B3</b>	Operate a water pump and concrete vibrator
<b>CDM 1B4</b>	Identify formwork and scaffold components
<b>CDM 1C1</b>	Construct a brick manhole
<b>CDM 1C2</b>	Install mountable and barrier kerb Units
<b>CDM 1C3</b>	Excavate, backfill and compact a trench
<b>CDM 1D1</b>	Lay & joint precast concrete pipes & manhole unit
<b>CDM 1D2</b>	Install subsoil drains including geotextiles
<b>CDM 1E1</b>	Erect and strip straight wall formwork
<b>CDM 1E2</b>	Erect and strip foundation formwork

**Credits 13.6**

## Drainage & Services Artisan Core Modules

(National Learning Path)

**Duration:** 15 Days  
**Entry Assumptions:** NQF Level 1/2 & D & S Artisan Grade 3  
**Course Content:** Evaluations can be arranged

<b>CDM 2A1</b>	Read & interpret construction drawings and produce free hand sketch
<b>CDM 2A2</b>	Calculate and determine construction calculations & quantities
<b>CDM 2A3</b>	Setting out structures, curves & excavations
<b>CDM 2A4</b>	Install & transfer levels for construction work

**Credits 14.4**

## Drainage & Services Grade 2

(National Learning Path)

**Duration:** 20 Days  
**Entry Assumptions:** D & S Grade 3 & ability to read sketches  
**Course content:** Evaluations can be arranged

<b>CDM 3G1</b>	Read & interpret basic drawings & reinforcing schedules
<b>CDM 3G2</b>	Transfer levels using spirit level and water level
<b>CDM 3G3</b>	Set out elementary works
<b>CDM 3H1</b>	Set out elementary works for level & alignment
<b>CDM 3H2</b>	Set out for manhole construction
<b>CDM 3H3</b>	Check levels of inverts of excavation
<b>CDM 3J1</b>	Apply basic reinforcing skills
<b>CDM 3J2</b>	Erect formwork to wing wall
<b>CDM 3J3</b>	Install Gabion and Reno Mattress

**Credits 14.4**

## Drainage & Services Artisans Trade Theory

(National Learning Path)

**Duration:** 20 Days  
**Entry Assumptions:** D & S Artisan Project Test  
**Course Content:** Evaluations may be arranged

**CDM 5Q1** Describe the properties of concrete  
**CDM 5Q2** Identify practical applications of concrete  
**CDM 5Q3** Recognise the importance of reinforcing in concrete  
**CDM 5R1** Explain setting out & control of excavation work  
**CDM 5R2** Describe the handling of pipes  
**CDM 5R3** Describe the laying of pipes  
**CDM 5R4** Describe various tests on pipes  
**CDM 5S1** Describe sub-soil drainage systems  
**CDM 5S2** Explain the application of Gabion & Reno mattresses  
**CDM 5S3** Explain plant management & utilisation

**Credits 15.6**

## Drainage & Services Artisan Basic Leadership Competencies

(National Learning Path)

**Duration:** 10 Days  
**Entry Assumptions:** D & S Artisan Project Test  
**Course Content:** Evaluations may be arranged

**CDM 6T1** Supervise Employees  
**CDM 6T2** Utilise individual skills  
**CDM 6T3** Resolve Industrial Relation problems  
**CDM 6T4** Resolve employee problems  
**CDM 6U1** Employ work methods  
**CDM 6V1** Communicate work targets  
**CDM 6V2** Report on work progress

**Credits 8.4**

## Drainage & Services Grade I

(National Learning Path)

**Duration:** 20 Days  
**Entry Assumptions:** D & S Grade 2 & ability to read basic drawings  
**Course Content:** Evaluations can be arranged

**CDM 4L1** Maintain construction site safety and health procedures  
**CDM 4L2** Order & receive materials  
**CDM 4M1** Set out & install fibre cement pipes  
**CDM 4M2** Set out & construct head & wing walls  
**CDM 4M3** Set out a Roadwork's service operation (chutes & pitching)  
**CDM 4M4** Set out minor pre cast concrete operation (kerbs & drop inlet)  
**CDM 4N1** Organise sub-surface operations  
**CDM 4N2** Organise structural operations

**Credits 10.8**

## Roadworks Grade 3

(National Learning Path)

**Duration:** 15 Days  
**Entry Assumptions:** Able to read a tape measure  
**Course Content:** Evaluations can be arranged

**CRM 1B1** Use and maintain hand tools  
**CRM 1B2** Use pneumatic excavation and compaction tools  
**CRM 1B3** Operate a light weight roller and plate vibrator  
**CRM 1B4** Operate a hand operated binder sprayer  
**CRM 1C1** Excavate, backfill and compact a trench  
**CRM 1C3** Install subsoil drains including geotextile fabrics  
**CRM 1D1** Reinstate base course/surfacing due to Potholes and excavations  
**CRM 1D2** Undertake minor chip/spray and pre-mix surfacing operations

**Credits 13.6**

## Roadwork's Artisan Core Modules

(National Learning Path)

**Duration:** 15 Days  
**Entry Assumptions:** NQF Level 1/2 & Roadwork's Artisan Grade 3  
**Course Content:** Evaluations may be arranged

**CRM 2A1** Read & interpret construction drawings and produce free hand sketch  
**CRM 2A2** Calculate and determine construction calculations & quantities  
**CRM 2A3** Setting out structures, curves & excavations  
**CRM 2A4** Install & transfer levels for construction work

**Credits 14.4**

## Roadwork's Construction hand Grade 2

(National Learning Path)

**Duration:** 20 Days  
**Entry Assumptions:** Roadwork's Grade 3 & ability to read sketches  
**Course Content:** Evaluations can be arranged

**CRM 3F1** Read and interpret written instructions  
**CRM 3F2** Read & interpret minor work drawings & material schedules  
**CRM 3G1** Install & transfer peg levels using spirit level/straight edge  
**CRM 3G2** Set out elementary works for level & alignment  
**CRM 3G3** Check levels of inverts of excavation  
**CRM 3H1** Set out a subsoil drain from a drawing  
**CRM 3H2** Set out a 'v' drain from a drawing

**Credits 14.4**

## Roadwork's Artisan Trade Theory

(National Learning Path)

**Duration:** 20 Days  
**Entry Assumptions:** Roadwork's Artisan Project Test  
**Course Content:** Evaluations may be arranged

<b>CRM 5P1</b>	Explain bulk earthworks
<b>CRM 5P2</b>	Describe formation & layerwork
<b>CRM 5P3</b>	Explain compaction
<b>CRM 5P4</b>	Explain stabilisation
<b>CRM 5P5</b>	Interpret & describe tolerances and finishes
<b>CRM 5Q1</b>	Describe procedure of a gravel road surface operation
<b>CRM 5Q2</b>	Plan a prime & tack coat for a road surface
<b>CRM 5Q3</b>	Explain surfacing methods
<b>CRM 5Q4</b>	Describe & explain – maintenance & repair of existing roads
<b>CRM 5Q5</b>	Describe the procedure for traffic management
<b>CRM 5R1</b>	Describe & explain – excavation & construction of subsoil drains
<b>CRM 5R2</b>	Describe kerbing & channelling
<b>CRM 5R3</b>	Describe the construction of sidewalks & medians
<b>CRM 5S1</b>	Interpret & explain plant maintenance & utilisation

**Credits 15.6**

## Roadwork's Artisan Basic Leadership Competencies

(National Learning Path)

**Duration:** 10 Days  
**Entry Assumptions:** Roadwork's Artisan Project Test  
**Course Content:** Evaluations may be arranged

<b>CRM 6T1</b>	Supervise Employees
<b>CRM 6T2</b>	Utilise individual skills
<b>CRM 6T3</b>	Resolve Industrial Relation problems
<b>CRM 6T4</b>	Resolve employee problems
<b>CRM 6U1</b>	Employ work methods
<b>CRM 6V1</b>	Communicate work targets
<b>CRM 6V2</b>	Report on work progress

**Credits 8.4**

## Roadwork's Grade I

(National Learning Path)

**Duration:** 20 Days  
**Entry Assumptions:** Roadwork's Grade 2 & ability to read Construction Drawings  
**Course Content:** Evaluations can be arranged

<b>CRM 4K1</b>	Maintain construction site safety & health procedures
<b>CRM 4K2</b>	Order and receive materials
<b>CRM 4K3</b>	Determine function & application of earthmoving plant
<b>CRM 4M1</b>	Organise surfacing operations
<b>CRM 4M2</b>	Organise minor excavating/ backfilling operations
<b>CRM 4M3</b>	Organise compaction operations
<b>CRM 4M4</b>	Organise minor construction, roadwork's, precast concrete operation

**Credits 10.8**

## Basic Setting Out

**Duration:** 5 Days  
**Entry Assumptions:** Able to read a tape & a simple drawing  
**Course Content:**

- CRM 3G1** Install & transfer peg levels using spirit level / straight edge  
Transfer levels using a straight edge & spirit level  
Transfer levels using a water level
- CRM 3G2** Set out elementary works for level & alignment  
Set out profiles for basic road construction  
Set out open drainage systems
- CRM 3G3** Check levels of inverts to excavation  
Erect sight rail profiles  
Demonstrate control of excavation levels

**Credits 4.8**

## Survey Part One - Setting Out

**Duration:** 10 Days  
**Entry Assumptions:** Able to read a tape measure  
**Course Content:**

- SRV 1A1** Use & maintain a metric tape  
Identify and read metric tapes  
Clean a tape  
Measure the distance between two points  
Set out a pin at a stated distance
- SRV 1A2** Use and maintain survey accessory equipment  
Unpack and pack a levelling staff  
Hold a levelling staff  
Use and understand survey hand signals  
Use and care for a tripod
- SRV 1A3** Preserve survey points  
Concrete in a survey beacon. Mark and place reference tags on pegs  
Erect guard posts and rails
- SRV 1B1** Use ranging rods  
Range a straight line with ranging rods  
Range a line over a hill  
Step chaining up/down a hill
- SRV 1B2** Set out right angles  
Use an optical square to set out right angles  
Construct a right angle with a tape – 3:4:5 method  
Construct a right angle onto a line from an outside point
- SRV 1B3** Install and control levels  
Install and transfer levels using a spirit level and straight edge  
Install and transfer levels using a water level  
Erect sight rail profiles  
Demonstrate control over excavation levels

**Credits 8.0**

## Survey Part 2 – Levelling

**Duration:** 10 Days  
**Entry Assumptions:** Survey Part 1  
**Course Content:** Evaluations may be arranged

**SRV 2C1** Set up a levelling instrument  
Unpack, clean and pack away a level  
Level a levelling instrument  
Eliminate parallax

**SRV 2C2** Transfer levels  
Read a levelling staff  
Transfer levels  
Adjust levels

**SRV 2C3** Book levels  
Reduce levels  
Take levels for sections

**SRV 2D1** Set out excavation profiles  
Erect slope better boards  
Set out pipeline profiles

**Credits 8.0**

## Survey Part 3 – Theodolite

**Duration:** 10 Days  
**Entry Assumptions:** Survey Part 2  
**Course Content:** Evaluations may be arranged

**SRV 3E1** Set up a theodolite  
Understand functions and components of a theodolite  
Plumb and level a theodolite  
Eliminate parallax

**SRV 3E2** Understand and read theodolite circles  
Read theodolite circles  
Understand co-ordinates

**SRV 3F1** Use a theodolite for setting out  
Run a straight line  
Set out a simple curve

**SRV 3F2** Measure distances and angles  
Measure horizontal and vertical angles  
Measure slope distance with a theodolite

**SRV 3F3** Reference survey points  
Reference a point  
Re-establish a point from reference marks

**Credits 8.0**

# Emerging Contractor

## X1 STRUCTURES WITHIN THE CONSTRUCTION INDUSTRY

**Duration:** 2 Days  
**Entry Assumptions:** Abet 4 / Level 1

**Course Content:**

Identify and understand the relevant organisational structures that exist in the Civil Engineering Construction Industry, Apply communication skills with Industry Role players.

**Credits 1.6**

## X2 PRINCIPLES & PROCESSES IN THE CONTRACTING ENVIRONMENT

**Duration:** 2 Days  
**Entry Assumptions:** X1 – Structures within the Construction Industry

**Course Content:**

Identify methods of work procurement in the construction sector.  
Understand the areas of funding for construction projects according to sector norms. Identify all role players in the execution of projects where Emerging Contractors are involved.

**Credits 1.6**

## X3 EDUCATIONAL AND LIFE SKILLS PRINCIPLES

**Duration:** 2 Days  
**Entry Assumptions:** X2 – Principles & Processes in the Contracting Environment.

**Course Content:**

Produce a personal Curriculum Vitae and apply methods of conduct at an interview according to Personnel Industry Standards.  
Understand the role of the NQF & SAQA in the development of personnel in the Construction Industry.  
Understand and apply the mechanisms for access to information in the Construction Industry.

**Credits 1.6**

## A1 BUSINESS PRINCIPLES

**Duration:** 3 Days  
**Entry Assumptions:** Abet 4 / Level 1  
Able to add and multiply simple figures  
Use a simple calculator to establish percentages.

**Course Content:**

Understand and apply the basic principles of business  
Understand how to control and manage a business

**Credits 2.4**

## **A2 START A CONTRACTING BUSINESS**

**Duration:** 3 Days  
**Entry Assumptions:** A1 – Business Principles  
ABET 4 / Level 1

**Course Content:**

Understand the business plan & cash flow  
Registering your business  
Understanding the legal requirements of a business  
Income tax  
Paye / Site  
VAT  
Regional Services council levies  
UIF  
WCA  
Other levies

**Credits 2.4**

## **A3 MARKETING YOUR BUSINESS**

**Duration:** 3 Days  
**Entry Assumptions:** A2 – Starting a Contracting Business  
ABET 4 / Level 1

**Course Content:**

Understand the principles of marketing  
Understand and implement marketing techniques and set up a marketing plan

**Credits 2.4**

## **A4 UNDERSTANDING THE PURPOSE OF INDUSTRIAL RELATIONS**

**Duration:** 2 Days  
**Entry Assumptions:** A3 Marketing your Business  
ABET 4 / Level 1

**Course Content:**

Understand and apply the Labour Relations Act.  
Understand and apply a disciplinary procedure  
Understand and apply a grievance procedure  
Understand and apply a retrenchment procedure

**Credits 1.6**

## **A5 UNDERSTAND ACCOUNTING PRINCIPLES & APPLY BOOKKEEPING PROCEDURES**

**Duration:** 6 Days  
**Entry Assumptions:** A4 – Understanding the purpose of Industrial Relations  
Level 2 – NQF

**Course Content:**

Define and identify the Assets, Liabilities, Expenses, Income, Capital and Drawings in a business.

Identify what makes up owners equity and the basic accounting equation in a business. Apply the rules of double entry using debits & credits in T-Accounts.

Define Vat output and Vat input; understand its implications for a business and to Calculate Vat.

Understand the flow of financial information in the books of a business (Accounting Process). Apply the accounting process by entering the transactions of a business into the subsidiary journals.

Apply the accounting process by posting from the subsidiary journals to the general ledger, transferring the balances in the general ledger to the trial balance.

Understand what is involved in drawing up & interpreting the yearly Financial Statements, drawing up a bank reconciliation statement

**Credits 4.8**

## **B1 UNDERSTAND CONTRACT DOCUMENTS**

**Duration:** 3 Days  
**Entry Assumptions:** ABET 4 / Level 1  
English Literacy, able to read & understand contract documents.  
Ability to calculate areas & volumes from given formulas.  
Calculate Rand values, with the aid of a non-scientific calculator.

**Course Content:** Evaluations may be arranged for entry into B1

Understand and apply the General Conditions of Contract 1990.

Understand and apply the SABS 2000 series standard specifications.

Understand the tender documents.

Identify tender drawings.

**Credit 2.4**

## **B2 PROCURING AND PREPARING TO TENDER**

**Duration:** 2 Days  
**Entry Assumptions:** B1 – Understand Contract Documents.  
Evaluations may be arranged for entry into B1.

**Course Content:**

Identify aspects of tender collection.

Identify how to gather information at a site inspection & investigation.

**Credits 1.6**

## **B3 ESTIMATING AND TENDERING WORK ITEMS**

**Duration:** 3 Days  
**Entry Assumptions:** B2 – Procuring and Preparing to Tender.  
Evaluations may be arranged for entry into B1.

**Course Content:**

Build up labour and plant actual costs for estimating.  
Estimating P & G and work items.  
Understand and apply the concepts of escalation, profit / mark-up, risk, dayworks, units of measure and takeoff quantities.

**Credits 2.4**

## **B4 SUBMITTING A TENDER**

**Duration:** 2 Days  
**Entry Assumptions:** B3 – Estimating and Tendering Work Items.  
Evaluations may be arranged for entry into B1.

**Course Content:**

Understand and complete Tender forms.  
Prepare a Tender programme and Tender Cash flow.  
Identify how to finalise and submit a Tender and gather information at a public Tender opening.

**Credits 1.6**

## **B5 UNDERSTAND THE LEGAL ASPECTS OF DISPUTES**

**Duration:** 2 Days  
**Entry Assumptions:** B4 – Submitting a Tender.  
Evaluations may be arranged for entry into B1.

**Course Content:**

Identify the concept of claims.  
Identify the concepts of disagreement and dispute settlement.

**Credits 1.6**

## **B6 INTERPRETATION OF DRAWINGS**

**Duration:** 3 Days  
**Entry Assumptions:** B5 – Understand the legal aspects of disputes.  
Evaluations may be arranged for entry into B1

**Course Content:**

Identify general layout and drawing elements.  
Interpret tender and construction drawings.

**Credits 2.4**

## **C1 CONTRACT PREPLANNING**

**Duration:** 2 Days  
**Entry Assumptions:** ABET 4 / Level 1  
English Literacy, able to read & understand contract documents.  
Able to calculate areas & volumes from given formulas.  
Calculate Rand values, with the aid of a non-scientific calculator.  
Evaluations may be arranged for entry into C1

**Course Content:**

Detailed Site Investigations and Programming.  
Establish Management Information Systems.

**Credits 1.6**

## **C2 MANAGE LABOUR**

**Duration:** 2 Days  
**Entry Assumptions:** C1 – Contract Pre-planning.  
Evaluations may be arranged for entry into C1

**Course Content:**

Selection, recruitment and induction of labour according to the Labour Relations Act  
Implementing Labour Intensive Construction Methods  
Manage labour on site

**Credits 1.6**

## **C3 MANAGE PLANT**

**Duration:** 2 Days  
**Entry Assumptions:** C2 – Manage Labour  
Evaluations may be arranged for entry into C1

**Course Content:**

Understand & Apply the concept of Selection, Availability and Utilisation of plant  
Apply the Procedures of Record-keeping and Costing of plant.

**Credits 1.6**

## **C4 MANAGE MATERIALS**

**Duration:** 2 Days  
**Entry Assumptions:** C3 – Manage Plant  
Evaluations may be arranged for entry into C1

**Course Content:**

Understand how to schedule and order materials from suppliers  
Understand how to manage materials on site

**Credits 1.6**

## C5 MANAGE QUALITY

**Duration:** 2 Days  
**Entry Assumptions:** C4 – Manage Materials  
Evaluations may be arranged for entry into C1

**Course Content:**

Understanding the quality system, measurement and performance  
Understanding and implementing the quality improvement process

**Credits 1.6**

## C6 IMPLEMENT SITE ADMIN

**Duration:** 2 Days  
**Entry Assumptions:** C5 – Manage Quality  
Evaluations may be arranged for entry into C1

**Course Content:**

Implement Daily Admin Control Systems  
Implement Monthly Interim Measurement and Payment Certificates  
Implement Personnel Administration Systems

**Credits 1.6**

## C7 IMPLEMENT SITE SAFETY

**Duration:** 2 Days  
**Entry Assumptions:** C6 – Implement Site Admin  
Evaluations may be arranged for entry into C1

**Course Content:**

Understanding safety, accident investigation and the safety policy  
Understanding health care on site  
Understanding the Occupational Health and Safety Act

**Credit 1.6**

## CSP Part 1 Core Modules

(National Learning Path)

**Duration:** 20 Days  
**Entry Assumptions:** NQF level (ABET level 4)  
Evaluations may be arranged

**Course Content:**

**CPC 1A1** Read & interpret construction drawings & produce free hand sketches  
**CPC 1A2** Calculate & determine construction calculations & quantities  
**CPC 1A3** Setting out structures, curves & excavations  
**CPC 1A4** Install & transfer levels for construction work  
**CPC 1B1** Plan & implement traffic man at a roadwork's site

**Credits 18.0**

# Construction Site Practice Part 1

## Core Practicals

(National Learning Path)

**Duration:** 20 Days  
**Entry Assumptions:** CSP Part 1 & Core Modules  
Evaluations may be arranged

**Course Content:**

<b>CPC 2C1</b>	Maintain & use basic hand tools
<b>CPC 2CS</b>	Fabricate & erect timber column
<b>CPC 2C3</b>	Erect & strip straight wall formwork
<b>CPC 2D2</b>	Check levels of inverts of excavation
<b>CPC 2D3</b>	Set out timber shoring, for trench excavation
<b>CPC 2E1</b>	Construct a brick manhole
<b>CPC 2E4</b>	Apply reinforcing skills
<b>CPC 2E5</b>	Install Gabion & Reno Mattresses

**Credits 15.2**

## CSP Part 1 Basic Leadership Competencies

(National Learning Path)

**Duration:** 10 Days  
**Entry Assumptions:** CSP Part 1  
Evaluations may be arranged

**Course Content:**

<b>CPC 3F1</b>	Supervise employees
<b>CPC 3F2</b>	Utilise Individual skills
<b>CPC 3F3</b>	Resolve Industrial Relation problems
<b>CPC 3F4</b>	Resolve employee problems
<b>CPC 3G1</b>	Employ work methods
<b>CPC 3H1</b>	Communicate work targets
<b>CPC 3H2</b>	Report on work progress

**Credits 8.4**

## CSP Part 2 Earthworks Theory

(National Learning Path)

**Duration:** 30 Days  
**Entry Assumptions:** CSP Part 1  
Evaluations may be arranged

**Course Content:**

<b>CPE 1J1</b>	Examine the basic concepts of planning & programming
<b>CPE 1J2</b>	Interpret bulk earthworks – parts 1 & 2
<b>CPE 1J3</b>	Recognise fundamentals of compaction & stab
<b>CPE 1J4</b>	Explain layerworks
<b>CPE 1J5</b>	Explain surfacing
<b>CPE 1J6</b>	Recognise the need for plant economics
<b>CPE 1J7</b>	Describe the fundamentals of concrete – Part 1

**Credits 23.2**

## **CSP Part 2 Earthworks Site Management Duties (National Learning Path)**

**Duration:** 15 Days  
**Entry Assumptions:** Earthworks Theory

### **Course Content:**

**CPC 4L1** Recognise the basic principles of sound management  
**CPC 4L2** Maintain site records  
**CPC 4L3** Order and receive materials  
**CPC 4L4** Interpret site safety regulations  
**CPC 4M1** Organise site establishment  
**CPC 4M2** Assist with on-the-job training

**Credits 13.6**

## **CSP Part 2 Structures Theory (National Learning Path)**

**Duration:** 30 Days  
**Entry Assumptions:** CSP Part 1  
Evaluations may be arranged

### **Course Content:**

**CPS 1K1** Examine the basic concepts of planning & programming  
**CPS 1K2** Describe the fundamentals of concrete – Parts 1 & 2  
**CPS 1K3** Recognise the fundamentals of reinforcing  
**CPS 1K4** Describe the principles of formwork  
**CPS 1K5** Recognise the principles of scaffolding & support work  
**CPS 1K6** Recognise the need for plant economics

**Credits 23.2**

## **CSP Part 2 Structures Site Management Duties (National Learning Path)**

**Duration:** 15 Days  
**Entry Assumptions:** Structures Theory

### **Course Content:**

**CPC 4L1** Recognise the basic principles of sound management  
**CPC 4L2** Maintain site records  
**CPC 4L3** Order and receive materials  
**CPC 4L4** Interpret site safety regulations  
**CPC 4M1** Organise site establishment  
**CPC 4M2** Assist with on-the-job training

**Credits 13.6**