



THE REPUBLIC OF KENYA
NATIONAL OCCUPATIONAL STANDARDS
FOR
BUILDING TECHNICIAN
LEVEL 6
(DIPLOMA IN BUILDING)
SYLLABUS

Basic units of learning:

Unit of Learning Code	Unit of Learning Title	Duration in Hours	CREDIT FACTOR
CON/CU/BUT/BC/01/6	Communication Skills	40	4
CON/CU/BUT/BC/02/6	Digital Literacy	60	6
CON/CU/BUT/BC/03/6	Entrepreneurial Skills	100	10
CON/CU/BUT/BC/04/6	Employability Skills	80	8
CON/CU/BUT/BC/05/6	Environmental Literacy	40	4
CON/CU/BUT/BC/06/6	Occupational Safety and Health Practices	40	4
Total Number of Hours		360	36

Common Units of Learning

Unit Code	Unit Title	Duration in Hours	Credit factor
ENG/CU/BUT/CC/01/6	Engineering Mathematics	150	15
CON/CU/BUT/CC/02/6	Technical Drawing	150	15
CON/CU/BUT/CC/03/6	Building Materials Science	75	7.5
CON/CU/BUT/CC/04/6	Workshop Technology Practices	75	7.5
CON/CU/BUT/CC/05/6	Building Temporary Works	75	7.5
Total Number of Hours		525	52.5



Core competency units:

Unit of Learning Code	Unit of Learning Title	Duration in Hrs	Credit factor
CON/CU/BUT/CR/01/6	Building Drawings	90	9
CON/CU/BUT/CR/02/6	Site Preliminary Works	80	8
CON/CU/BUT/CR/03/6	Masonry Units	100	10
CON/CU/BUT/CR/04/6	Construction Materials, Plant, Tools and Equipment	70	7
CON/CU/BUT/CR/05/6	Substructure Works	80	8
CON/CU/BUT/CR/06/6	Superstructure Works	120	12
CON/CU/BUT/CR/07/6	Building Finishes	90	9
CON/CU/BUT/CR/08/6	Building External Works	90	9
CON/CU/BUT/CR/09/6	Building Services	100	10
CON/CU/BUT/CR/10/6	Building Doors and Windows Installation	80	8
CON/CU/BUT/CR/11/6	Supervising Construction Project	90	9
	Industrial Attachment	480	48
Total Number of Hours		990	147
GRAND TOTAL		2400	243



**THE REPUBLIC OF KENYA
NATIONAL OCCUPATIONAL STANDARDS**

FOR

CIVIL ENGINEERING TECHNICIAN

LEVEL 6

(DIPLOMA IN CIVIL ENGINEERING TECHNICIAN)

SYLLABUS

BASIC UNITS OF COMPETENCY	
Unit of competency Code	Units of competency
CON/OS/CET/BC/01/6/A	Demonstrate Communication Skills
CON/OS/CET/BC/02/6/A	Demonstrate Digital Literacy
CON/OS/CET/BC/03/6/A	Demonstrate Entrepreneurial Skills
CON/OS/CET/BC/04/6/A	Demonstrate Employability Skills
CON/OS/CET/BC/05/6/A	Demonstrate Environmental Literacy
CON/OS/CET/BC/06/6/A	Demonstrate Occupational Health and Safety
COMMON UNITS OF COMPETENCY	
CON/OS/CET/CC/01/6/A	Apply Mathematical Skills
CON/OS/CET/CC/02/6/A	Prepare And Interpret Technical Drawings
CON/OS/CET/CC/03/6/A	Perform Structural Design and Analysis
CON/OS/CET/CC/04/6/A	Apply Construction Material Science
CON/OS/CET/CC/05/6/A	Apply Workshop Technology Practices
CON/OS/CET/CC/06/6/A	Perform Measurement of Works and Cost Estimation
CON/OS/CET/CC/07/6/A	Apply Water and Wastewater Technology
CON/OS/CET/CC/08/6/A	Apply Water Resource, Water and Sanitation Services Management Principles



CORE UNITS OF COMPETENCY	
CON/CO/CET/CR/01/6/A	Conduct Material Testing
CON/CO/CET/CR/02/6/A	Perform Highway Survey
CON/CO/CET/CR/03/6/A	Design Basic Pavement Structures
CON/CO/CET/CR/04/6/A	Carry Out Road Construction Works
CON/CO/CET/CR/05/6/A	Design Engineering Structures
CON/CO/CET/CR/06/6/A	Produce Building Drawings
CON/CO/CET/CR/07/6/A	Carry Out Building Works
CON/CO/CET/CR/08/6/A	Manage Water Resources Quality
CON/CO/CET/CR/09/6/A	Design Wastewater Collection and Treatment Infrastructure
CON/CO/CET/CR/10/6/A	Construct Wastewater Infrastructure
CON/CO/CET/CR/11/6/A	Design Onsite Sanitation Facilities
CON/CO/CET/CR/12/6/A	Construct Onsite Sanitation Facilities
CON/CO/CET/CR/13/6/A	Manage Civil Engineering Projects



THE REPUBLIC OF KENYA
COMPETENCY BASED CURRICULUM
FOR
MASONRY
LEVEL 4
ARTISAN

Basic Units of Learning

Unit of Learning Code	Unit of Learning Title	Duration in Hours	Credit Factor
CON/CU/MA/BC/01/3	Communication Skills	15	1.5
CON/CU/MA/BC/02/3	Numeracy skills	15	1.5
CON/CU/MA/BC/03/3	Digital Literacy	20	3
CON/CU/MA/BC/04/3	Entrepreneurial Skills	40	4
CON/CU/MA/BC/05/3	Employability Skills	20	2
CON/CU/MA/BC/06/3	Environmental Literacy	15	1.5
Unit of Learning Code	Unit of Learning Title	Duration in Hours	Credit Factor
CON/CU/MA/BC/07/3	Occupational Safety and Health Practices	15	1.5
Total		140	14

Common Units of Learning

Unit of Learning Code	Unit of Learning Title	Duration in Hours	Credit Factor
CON/CU/MA/CC/01/3	Mensuration and calculation	50	5



CON/CU/MA/CC/02/3	Interpretation of working drawings	50	5
Total		100	10

Core Units of Learning

Unit of Learning Code	Unit of Learning Title	Duration in Hours	Credit Factor
CON/CU/MA/CR/01/3	Construction of Simple 1 Level Masonry Substructures	80	8

Unit of Learning Code	Unit of Learning Title	Duration in Hours	Credit Factor
CON/CU/MA/CR/02/3	Construction of Simple 1 Level Masonry Superstructures	80	8
CON/CU/MA/CR/03/3	Masonry Work Finishing	80	8
CON/CU/MA/CR/04/3	Production of Simple Masonry Products	80	8
CON/CU/MA/CR/05/3	Industrial Attachment	60	6
Total		380	38



THE REPUBLIC OF KENYA
COMPETENCY BASED CURRICULUM
FOR
CARPENTRY AND JOINERY
LEVEL 5

Basic units of learning:

(also known as employability skills or key skills) skills which are not specific to work in a specific occupation or industry, but are important for work, education and life generally, as per the list in the following table:

Unit Code	Unit Title	Duration in Hours	Credit Factor
CON/CU/CAJ/BC/01/5/A	Communication Skills	25	2.5
CON/CU/CAJ/BC/02/5/A	Numeracy skills	40	4.0
CON/CU/CAJ/BC/03/5/A	Digital Literacy	45	4.5
CON/CU/CAJ/BC/04/5/A	Entrepreneurial Skills	70	7.0
CON/CU/CAJ/BC/05/5/A	Employability Skills	50	5.0
CON/CU/CAJ/BC/06/5/A	Environmental literacy	25	2.5
CON/CU/CAJ/BC/07/5/A	Occupational Safety and Health Practices	25	2.5
Total Number Of Hours		280	28.0

Common Units of Learning

Unit Code	Unit Title	Duration in Hours	Credit factor
CON/CU/CAJ/CC/01/5/A	Basic Mathematics	80	8.0



CON/CU/CAJ/CC/02/5/A	Technical Drawing	60	6.0
CON/CU/CAJ/CC/03/5/A	Science	80	8.0
CON/CU/CAJ/CC/04/5/A	Temporary Works	75	7.5
CON/CU/CAJ/CC/05/5/A	Site and Workshop Management	80	8.0
Total Number Of Hours		375	37.5

Core Competency Units:

Describe the skills, knowledge and attitudes within a competency standard that an industry sector has agreed are essential to be achieved if a person is to be accepted as competent at a particular level. Core competency units are normally those central to work in a particular industry as per the list in the following table:

Unit Code	Unit Title	Duration in Hrs	Credit factor
CON/CU/CAJ/CR/01/5/A	Doors and Door frames	120	12.0
CON/CU/CAJ/CR/02/5/A	Windows and Window frames	100	10.0
CON/CU/CAJ/CR/03/5/A	Furniture items	100	10.0
CON/CU/CAJ/CR/04/5/A	Roof structures	120	12.0
CON/CU/CAJ/CR/05/5/A	Joiners second fixing	100	10.0
CON/CU/CAJ/CR/06/5/A	Timber floors and prefabricated buildings	100	10.0
CON/CU/CAJ/CR/07/5/A	Construction of Timber stairs	100	10.0
	Industrial Attachment	360	36.0
Total Number Of Hours		1100	110.0
GRAND TOTAL		1755	175.5



REPUBLIC OF KENYA

COMPETENCY BASED CURRICULUM
FOR
CERTIFICATE IN PLUMBING

LEVEL 5

Basic Units of Learning

Unit of Learning Code	Unit of Learning Title	Duration in Hours	Credit Factor
CON/CU/PL/BC/01/5/A	Communication skills	25	2.5
CON/CU/PL/BC/02/5/A	Digital literacy	45	4.5
CON/CU/PL/BC/03/5/A	Entrepreneurial skills	70	7.0
CON/CU/PL/BC/04/5/A	Employability skills	50	5.0
CON/CU/PL/BC/05/5/A	Environmental literacy	25	2.5
CON/CU/PL/BC/06/5/A	Occupational safety and health practices	25	2.5
Total		280	28.0

Common Units of Learning

Unit of Learning Code	Unit of Learning Title	Duration in Hours	Credit factor
CON/CU/PL/CC/01/5/A	Basic Mathematics	50	5.0
CON/CU/PL/CC/02/5/A	Technical drawing	50	5.0
CON/CU/PL/CC/02/5/A	Scientific principles	40	4.0
Total		140	14



Core Units of Learning

Unit of Learning Code	Unit of Learning Title	Duration in Hours	Credit Factor
CON/CU/PL/CR/01/5/A	Water Supply Systems Installation	100	10
CON/CU/PL/CR/02/5/A	Rainwater harvest and disposal Installation	180	18
CON/CU/PL/CR/03/5/A	Drainage systems Installation	150	15
CON/CU/PL/CR/04/5/A	Sanitary appliances Installation	100	10
CON/CU/PL/CR/05/5/A	Water Storage systems Installation	110	11
CON/CU/PL/CR/06/5/A	Maintenance of plumbing systems	90	9
CON/CU/PL/CR/07/5/A	Fire control system Installation	80	8
	Industrial Attachment	360	36
Total		1170	117
Grand Total		1590	159



REPUBLIC OF KENYA

COMPETENCY BASED CURRICULUM
FOR
CRAFT IN PLUMBING

LEVEL 4

Basic Units of Competency

- CON/OS/PL/BC/01/4/A Demonstrate communication skills
- CON/OS/PL/BC/02/4/A Demonstrate digital literacy
- CON/OS/PL/BC/03/4/A Demonstrate entrepreneurial skills
- CON/OS/PL/BC/04/4/A Demonstrate employability skills
- CON/OS/PL/BC/05/4/A Demonstrate environmental literacy
- CON/OS/PL/BC/06/4/A Demonstrate occupational safety and health practices

Common Units of Competency

- CON/OS/PL/CM/01/4/A Apply Basic Mathematics
- CON/OS/PL/CM/02/4/A Perform Workshop processes
- CON/OS/PL/CM/03/4/A Apply Technical Drawing
- CON/OS/PL/CM/04/4/A Apply Scientific principles

Core Units of Competency Unit

- CON/OS/PL/CR/01/4/A Install Water Pipes and Ancillary Appliances
- CON/OS/PL/CR/02/4/A Install Rainwater Harvesting Systems
- CON/OS/PL/CR/03/4/A Install Drainage System
- CON/OS/PL/CR/04/4/A Install Sanitary Appliances
- CON/OS/PL/CR/05/4/A Install Water Storage Systems and Ancillary Appliances
- CON/OS/PL/CR/06/4/A Maintain Plumbing Systems



REPUBLIC OF KENYA
COMPETENCY BASED CURRICULUM
FOR
ARTISAN IN PLUMBING
LEVEL 3

Basic Units of Learning

Unit of Learning Code	Unit of Learning Title	Duration in Hours	Credit Factor
CON/CU/PL/BC/01/3	Communication Skills	15	1.5
CON/CU/PL/BC/02/3	Numeracy skills	15	1.5
CON/CU/PL/BC/03/3	Digital Literacy	20	2
CON/CU/PL/BC/04/3	Entrepreneurial Skills	40	4
CON/CU/PL/BC/05/3	Employability Skills	20	2
Unit of Learning Code	Unit of Learning Title	Duration in Hours	Credit Factor
CON/CU/PL/BC/06/3	Environmental Literacy	15	1.5
CON/CU/PL/BC/07/3	Occupational Safety and Health Practices	15	1.5
Total		140	14

Common Units of Learning



Unit of Learning Code	Unit of Learning Title	Duration in Hours	Credit Factor
CON/CU/PL/CC/01/3	Mensuration and Calculation	50	5
CON/CU/PL/CC/02/3	Interpretation of Working Drawings	50	5
	Total	100	10

CoreUnits of Learning

Unit of Learning Code	Unit of Learning Title	Duration in Hours	Credit Factor
CON/CU/PL/CR/01/3	Installation of Pipes in Buildings	80	8
CON/CU/PL/CR/02/3	Installation of Sanitary Appliances	80	8
CON/CU/PL/CR/03/3	Installation of Storage and Pumping System	80	8
CON/CU/PL/CR/04/3	Maintenance of Plumbing Systems	80	8
CON/CU/PL/CR/05/3	Industrial Attachment	300	6
	Total	620	38



REPUBLIC OF KENYA
COMPETENCY BASED CURRICULUM
FOR
CRAFT CERTIFICATE IN LAND SURVEYING
LEVEL 5

BASIC UNITS OF LEARNING

UNIT CODE	UNIT OF LEARNING	DURATION IN HRS	CREDIT FACTORS
LSM/CU/LM/BC/01/5/A	Communication skills	25	2.5
LSM/CU/LM/BC/02/5/A	Numeracy	40	4
LSM/CU/LM/BC/03/5/A	Digital literacy	45	4.5
LSM/CU/LM/BC/04/5/A	Entrepreneurship	70	7
LSM/CU/LM/BC/05/5/A	Employability skills	50	5
LSM/CU/LM/BC/06/5/A	Environmental literacy	25	2.5
LSM/CU/LM/BC/07/5/A	Occupational safety and health practices	25	2.5
	TOTAL	280	28

COMMON UNITS OF LEARNING

UNIT CODE	UNIT OF LEARNING	DURATION IN HRS	CREDIT FACTORS
LSM/CU/LM/CC/01/5/A	Applied Mathematics	130	13
LSM/CU/LM/CC/02/5/A	Survey instruments	180	18
LSM/CU/LM/CC/06/5/A	Cartography	120	12
LSM/CU/LM/CC/07/5/A	TOTAL	430	43



CORE UNITS OF LEARNING

UNIT CODE	UNIT OF LEARNING	DURATION IN HRS	CREDIT FACTORS
LSM/CU/LM/CR/01/5/A	Topographic Survey	200	20
LSM/CU/LM/CR/02/5/A	Engineering Survey	210	21
	Industrial attachment	360	48
	TOTAL	770	77
	GRAND TOTAL	1480	148



REPUBLIC OF KENYA
COMPETENCY BASED CURRICULUM
FOR
DIPLOMA IN LAND SURVEYING
LEVEL 6

BASIC UNITS OF LEARNING

UNIT CODE	UNIT OF LEARNING	DURATION IN HRS	CREDIT FACTORS
LSM/CU/LM/BC/01/6/A	Communication skills	40	4
LSM/CU/LM/BC/02/6/A	Numeracy	60	6
LSM/CU/LM/BC/03/6/A	Digital literacy	60	6
LSM/CU/LM/BC/04/6/A	Entrepreneurship	100	10
LSM/CU/LM/BC/05/6/A	Employability skills	80	8
LSM/CU/LM/BC/06/6/A	Environmental literacy	40	4
LSM/CU/LM/BC/07/6/A	Occupational safety and health practices	40	4
	TOTAL	420	42

COMMON UNITS OF LEARNING

UNIT CODE	UNIT OF LEARNING	DURATION IN HRS	CREDIT FACTORS
LSM/CU/LM/CC/01/6/A	Applied Mathematics	100	10
LSM/CU/LM/CC/02/6/A	Survey instruments	140	14
LSM/CU/LM/CC/03/6/A	Land laws	120	12
LSM/CU/LM/CC/04/6/A	Photogrammetry and Remote Sensing	120	12



LSM/CU/LM/CC/05/6/A	GIS	120	12
LSM/CU/LM/CC/06/6/A	Cartography	120	12
LSM/CU/LM/CC/07/6/A	TOTAL	720	70

CORE UNITS OF LEARNING

UNIT CODE	UNIT OF LEARNING	DURATION IN HRS	CREDIT FACTORS
LSM/CU/LM/CR/01/6/A	Topographic Survey	200	20
LSM/CU/LM/CR/02/6/A	Engineering Survey	200	20
LSM/CU/LM/CR/03/6/A	Cadastral Survey	200	20
LSM/CU/LM/CR/04/6/A	Hydrographic Survey	200	20
LSM/CU/LM/CR/05/6/A	Mining Survey	200	20
	Industrial attachment	480	48
	TOTAL	1480	148
	GRAND TOTAL	2620	262



**REPUBLIC OF KENYA
NATIONAL OCCUPATIONAL STANDARDS
FOR
DIPLOMA IN QUANTITY SURVEYOR
LEVEL 6**

BASIC UNITS OF COMPETENCY

Unit Code	Unit Title
ENG/OS/QS/BC/01/6/A	Demonstrate Communication Skills
ENG/OS/QS/BC/02/6/A	Demonstrate Digital Literacy
ENG/OS/QS/BC/03/6/A	Demonstrate Entrepreneurial Skills
ENG/OS/QS/BC/04/6/A	Demonstrate Employability Skills
ENG/OS/QS/BC/05/6/A	Demonstrate Environmental Literacy
ENG/OS/QS/BC/06/6/A	Demonstrate Occupational Health and Safety Practices

COMMON UNITS OF COMPETENCY

Unit Code	Unit Title
ENG/OS/QS/CC/01/6/A	Apply Engineering Mathematics
ENG/OS/QS/CC/02/6/A	Prepare and Interpret Technical Drawings
ENG/OS/QS/CC/03/6/A	Apply Building Material Science
ENG/OS/QS/CC/04/6/A	Apply Workshop Technology Practices
ENG/OS/QS/CC/05/6/A	Execute Building Temporary Works

CORE UNITS OF COMPETENCY

Unit Code	Unit Title
ENG/OS/QS/CR/01/6/A	Conduct Engineering Survey
ENG/OS/QS/CR/02/6/A	Produce Building Drawings
ENG/OS/QS/CR/03/6/A	Produce Civil Engineering Drawings
ENG/OS/QS/CR/04/6/A	Execute Construction Works
ENG/OS/QS/CR/05/6/A	Prepare Bill of Quantities



ENG/OS/QS/CR/06/6/A	Manage Project Contracts
ENG/OS/QS/CR/07/6/A	Manage Construction Project Finance
ENG/OS/QS/CR/08/6/A	Manage Construction Project