



MERU UNIVERSITY OF SCIENCE & TECHNOLOGY

(A World Class University of Excellence in Science and Technology)

MUST-TVTC SHORT COURSES INTRODUCTION

The Meru University of Science and Technology (MUST) Department of Mechanical & Mechatronics Engineering in partnership with Trident Vocational Training Centre (TVTC) has started a Skills Training Centre to offer Level I - Level III courses in mechanical engineering services, plumbing (Craftsmen/Artisans) and other related engineering short courses. The examining body for these approved courses is National Industrial Training Authority (NITA).

This partnership and collaboration will help in reaching out and rolling out skills training to school leaving students ready to start careers in the above skills oriented trainings in line with our department's vision. It will further provide an opportunity for our undergraduate students enrolled in various degree programs and diploma courses to enroll into the various employability skills for three months to make them competitive in the job market.

COURSE DESCRIPTIONS

The courses offered and their details are as below: -

COURSE CODE	COURSE TITLE	COURSE OBJECTIVES	COURSE DURATION	EXAMINING BODY
EGS015	Plumbing & Pipe fitting Level 1	Entry level skills in: -Plumbing and pipe fitting -Piping materials and joining procedures -Sanitary fittings and installation -Drainage systems	-3 months class training -3 months industry attachment	NITA



EGS016	Plumbing & Pipe fitting Level II	<p>Intermediary level skills in:</p> <ul style="list-style-type: none"> -Plumbing and pipe fitting -Piping materials and joining procedures -Sanitary fittings and installation -Drainage systems 	<p>-3 months class training</p> <p>-3 months industry attachment</p>	NITA
EGS017	Plumbing & Pipe fitting Level III	<p>Advanced level skills in:</p> <ul style="list-style-type: none"> -Plumbing and pipe fitting -Piping materials and joining procedures -Sanitary fittings and installation -Drainage systems 	<p>-3 months class training</p> <p>-3 months industry attachment</p>	NITA
EGS023	Gas Installation	<ul style="list-style-type: none"> -Application of LPG gas -Installation procedures and design -Pressure regulators -Safety precautions when installing gas system 	3 months	TVTC/NITA
EGS024	Pipe joining processes	<ul style="list-style-type: none"> -Acquire practical skills on different pipe materials -Different pipe joining processes and their applications in industry 	3 months	TVTC/NITA
EGS025	Solar hot water installation	<ul style="list-style-type: none"> -Working principle of solar water heaters -Types of solar systems and their installation -Application of solar water heating systems 	3 months	TVTC/NITA



EGS026	Project management and costing	<ul style="list-style-type: none"> -Definition of project management -Site management process -Phases of project management -Project management structure - Draw out materials list from a given drawing - Creating a simple quotation for plumbing works - Understand different costing methods 	3 months	TVTC/NITA
EGS027	Heating, Ventilation, Air Condition & Refrigeration	<ul style="list-style-type: none"> -Understand HVAC fundamentals and standards -Skills on classification of HVAC systems & applications - HVAC & R system design calculations and considerations -Maintenance of HVAC and refrigeration systems 	3 months	TVTC/NITA
EGS028	MEP drawings & Interpretation	<ul style="list-style-type: none"> -Understand what MEP drawing is and identify the various plumbing symbols used in drawings -Identify the various professionals in the construction industry -Differentiate different types of construction drawings 	3 months	TVTC/NITA



		-Design and interpret plumbing and drainage for domestic, apartment and commercial buildings		
EGS029	Borehole Installation	-Undertake bore hole geological tests and statutory requirements -Borehole drilling procedures -Borehole equipping and water testing procedures -Borehole pumps, pumping and maintenance	3 months	TVTC/NITA
EGS030	Boiler Installation	-Types of boilers classification -Boiler system major components -Installation procedures of boilers -Boiler controls and maintenance	3 months	TVTC/NITA
EGS031	Firefighting systems	-Types of firefighting sprinkler and suppression systems -Design & installation procedures of sprinkler systems -Other types of firefighting systems	3 months	TVTC/NITA
EGS032	Pumps & Pump Installation	-Different types of pumps and applications -Importance of pumps -Domestic pump selection criteria	3 months	TVTC/NITA



		-Pump maintenance and trouble shooting		
EGS033	Water treatment systems	-Waste water treatment system types and applications -Domestic water treatment system types and operation -Design and maintenance of treatment plants	3 months	TVTC/NITA
EGS034	Swimming pool installations	-Definition of a swimming pool -Swimming pool design and setting criteria -Components of the swimming pool system -Swimming pool water circulation -Maintenance and care procedures	3 months	TVTC/NITA
EGS035	HDPE/PE systems	-Types of HDPE pipes and applications -Joining Methods of HDPE -Joining procedures of PE and HDPE Pipes	3 months	TVTC/NITA
EGS036	Sanitary installation	-Identify types of sanitary fittings for commercial building -Definition of sanitary found in commercial buildings -Installation of sanitary fittings in commercial buildings	3 months	TVTC/NITA



		-Plumbing accessories found in commercial buildings -Maintenance of sanitary fittings		
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ADMISSION CRITERIA/REQUIREMENTS & TRAINING FEES

Minimum Entry Criteria	Course	Certification	Licensing	Training Fees
School leavers & Beginners OR 2 Years Prior Learning (PL) Experience	❖ Plumbing and Pipe Fitting Level 1	NITA	NCA COUNTY GOV'T	Training & exam fee: 45,000
LEVEL I	❖ LEVEL II	NITA	NCA COUNTY GOV'T	Training & exam fee: 45,000
LEVEL II	❖ LEVEL III	NITA	NCA COUNTY GOV'T	Training & exam fee: 45,000
Certificate/Diploma/Degree in Mechanical Engineering OR Level III (Plumbing) OR 2 Years Prior Learning (PL) Experience	❖ Solar Hot water systems Installation ❖ Swimming pool design & installation ❖ Firefighting and suppression systems ❖ Pumps and pump installation	NITA	NCA COUNTY GOV'T	Training & exam fee: 45,000 (Each course)
Certificate/Diploma/Degree in Mechanical Engineering OR Level III (Plumbing) OR 2 Years Prior Learning (PL) Experience	❖ HVAC ❖ Gas/Compressed air systems ❖ Boiler installation ❖ Mechanical Drawing design & Interpretation	NITA	NCA COUNTY GOV'T	-Training & exam fee: 45,000 (Each course)

Certificate/Diploma/Degree in any course OR Level III (Plumbing) OR 2 Years Prior Learning (PL) Experience	❖ Project management and costing ❖ Leadership & Management	NITA	Chartered Institute of Management	-Training & exam fee: 45,000 (Each course)
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APPLICATION PROCEDURE

Visit admission.must.ac.ke for the online application process.

FEES PAYMENT

A. HOW TO PAY FEES USING MPESA PAYBILL THROUGH CO-OPERATIVE BANK COLLECTION ACCOUNT

STEPS TO PAY FEES FOR MERU UNIVERSITY OF SCIENCE & TECHNOLOGY

1. GO TO 'LIPA NA MPESA'
2. SELECT 'PAY BILL'
3. ENTER BUSINESS NUMBER '400222 FOR MERU UNIVERSITY OF SCIENCE & TECHNOLOGY
4. ENTER ACCOUNT NUMBER AS BELOW: 2524# (Meru University of Science & Technology Code) FOLLOWED BY YOUR REGISTRATION NUMBER (For example, 2524#REGISTRATION NUMBER)
5. ENTER FEES AMOUNT
6. ENTER YOUR MPESA PIN
7. CONFIRM TRANSACTION
8. RECEIVE SMS CONFIRMING THE PAYMENT IS SUCCESSFUL

NOTE THAT YOU WILL RECEIVE TWO SMSES

1. One from M-PESA indicating that you have sent money to Cooperative Bank collection account for account 2524#
2. The other from Cooperative Bank indicating that you have sent money to Meru University of Science and Technology

B. BANK ACCOUNT PAYMENT

Account name: Meru University of Science & Technology

Bank: Co-operative Bank - Makutano Branch

Account Number: 01129378440000

CONTACTS:

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2. Trident Vocational Training Centre
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