



Rev. No. Set 008 23-Dec-16

OTTC Technical Diploma - Proposed Training Plan

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Client:						Learner:			
Contact:						Tel. No.:			
Tel. No.:						Fax No.:			
Course	Content / Objective				Your Dates:	Duration	Includes also Unit Standards		Total Cost/R
Math/Phys	Mathematics and Physics applied in Refrigeration and Air-Conditions (optional)					2 weeks (33 Credits)	9009, 7480, 9008, 12444, 9007, 13202, 9010, 14106, 9013, 7455, 9016		
R - 1	Thermodynamic principle of refrigeration, connection of service gauges, main components, compression principles, compressor types, refrigeration cycle and components					1 week (36 Credits)	116236, 116224, 116239, 116699, 116701, 116702		
R - 2	Refrigeration cycle and components, heat exchangers, types of expansion devices, pressure switches and thermostats, reclaiming, recharging, SAFE HANDLING OF REFRIGERANTS					1 week (21 Credits)	116334, 116355, 116700, 116468		
SH-Ref	Authorized Practitioner training includes practical demonstration and hands on, using an reclaim unit and vacuum pump All the Unit Standards to obtain the level 3 for Refrigeration SAQCC Gas After successfully completion thereof they can apply for the SAQCC Gas Registration					1 week	116223, 116334, 116355, 116700, 116704, 116468, 262159		
RPI - 1, 2, 3, 4	Plotting & manufacturing of refrigeration components, soldering, brazing, welding, arc welding, pipe bending with different bending methods, full pipe installation on wall, insulation of pipes, components and ducts					4 weeks (27 Credits)	116230, 116229, 116712, 116707		
MECH	Servicing of compressors, repair & overhaul, fault identification					1 week (18 Credits)	116233, 116713, 116715		
ELC - 1	Physical electricity basics in refrigeration, single and three phase systems, single and three phase motors, starters, pressure and temperature controllers					1 week (25 Credits)	116232, 116243, 116244, 116226		
ELC - 2	Wiring diagrams for electromechanical controlling, plant protection, motor managements, suction control, defrost control					1 week (28 Credits)	116463, 116466, 116464, 116465		
ELC - 3, 4	Electronic motor management, soft starter, frequency converters, electronic cold room controllers, closed loop controllers					2 week (7 Credits)	116460		
R - 3	Advanced study of mechanical refrigeration cycle, heat load calculations, cold room design, capacity calculations, food-load, defrost methods; reversed cycles, pressure regulators, humidity control, frequency inverters, methods of energy saving, pump down					1 week (11 Credits)	116697, 116717		
R - 4	Advanced study of system design, h, lg p- diagram, sizing of main components, sizing of pipe-work, oil-problems, fault finding, refrigeration cycle analysis, refrigerant types					1 week (55 Credits)	116418, 116408, 116461, 116389, 116375, 116415, 116397, 116406		
R - 5	Plant technologies, designing of water-chillers, icemakers, heat pumps, heat recovery systems, efficiency calculations, pump design, pipe work calculations					1 week	116709, 116375, 116406, 116421, 116458, 116403, 116380		
R - 6	Advanced plant technologies, designing of two stage plants, cascades, multiplex systems, special purpose refrigerants (CO ₂ , H ₂ O, C _x H _y , natural refrigerants, etc.)					1 week (24 Credits)			
RPT	Refrigeration plant technical - Final installation, commissioning, charging operating testing of diploma project plant, fault finding					2 weeks			
T - Dip	Technical Diploma Test					1 week (29 Credits)			
Quoted prices includes: Work Sheets, Material, Lunch, Tea, Coffee. Pass mark per course 60%. Pass mark for Diploma test 75% theoretical and practical. --Pre requisites: basic literacy + numeracy. -- Courses are presented in English. All OTTC Courses are Unit Standard aligned. Assessments for NQF Learnership Qualifications and/or Trade Test testing can be arranged. Select your own Course Dates from OTTC Programme. Preferred Duration: spread over 1 ½ to 2 years							Total Credits: 314		
							+ 14% VAT		
							TOTAL		
Full Accreditation by MERSETA for: Trades of Commercial & Industrial Refrigeration Mechanic TA/1647/01 Provider of Education & Training for the Training Of Learners at									Per Person For 21 weeks
NQF Level 2,3,4 Certificate No 17-QA/ACC/0333/08 © OTTC 2017 all rights reserved									