



MAURITIUS QUALIFICATIONS AUTHORITY

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NATIONAL CERTIFICATE

LEVEL 4

IN

**ENGINEERING MACHINING AND TOOL
MAKING**

National Certificate Level 4 in Engineering Machining and Tool Making

1. Level: 4
2. Credits: 120
3. Review Date: June 2021
4. Access to qualification

4.1 Entry Information

National Certificate Level 3 in Mechanical Engineering Craft Practice

4.2 Recognition of Prior Learning [RPL]

Applicant holding a qualification at NQF Level 3 and at least 3 years' experience in the field should apply for RPL on the prescribed Application Form.

5. Award of Qualification Requirements

Compulsory

All the unit standards listed are required:

Unit No	Unit Standard Title	Level	Credit
JOB PLANNING			
me/10/0001/04	Develop a Job Plan	4	1
ENGINEERING METROLOGY			
me/10/0002/04	Select, Use, and Care for Complex Engineering Measuring Instruments for Precision Jobs	4	6
me/10/0003/04	Demonstrate Knowledge of Fits, Limits and Tolerances in Engineering	4	6
HEAT TREATMENT OF METALS			
me/10/0004/04	Perform Heat Treatment of Engineering Metals in a Furnace	4	8

ENGINEERING MACHINING OPERATIONS			
me/10/0005/04	Select and Use Advanced Material Cutting Tools in Engineering Machining	4	4
me/10/0006/04	Produce Components by Performing Advanced Turning Operations	4	18
me/10/0007/04	Produce Components by Performing Milling Operations	4	18
me/10/0008/04	Perform Boring Operations	4	6
me/10/0009/04	Produce Components by Performing Reciprocating Cutting Operations	4	6
me/10/0010/04	Demonstrate Knowledge of Sand Casting Process	4	4
me/10/0011/04	Produce Components by Performing Surface Grinding Operations	4	12
TOOLMAKING			
me/10/0012/04	Demonstrate Knowledge of Toolmaking Principles	4	5
me/10/0013/04	Manufacture Single Stage Tooling for Industry	4	8
ENGINEERING DRAWINGS & CALCULATIONS			
me/10/0014/04	Manually Produce Detailed Engineering Drawings Under Supervision	4	8
me/10/0015/04	Perform Trade Related Calculations	4	5
COMMUNICATION SKILLS			
me/10/0016/04	Write a Simple Report	4	5
TOTAL			120

6. Purpose

This qualification is for people in the engineering industry. It combines a broad, common foundation of mechanical engineering with more specialised skills and knowledge in machining & tool making. It is for those employed in enterprises for manufacturing mechanical parts, making tooling, press tooling, moulds, dies, gauges for industrial processes. The making of these tools requires knowledge of machine tool operations, use of precision measuring instrument and machining techniques. People credited with these unit standards should be able to demonstrate knowledge of safe working systems and procedures and adopt them against risks and hazards.