

MASS METROLOGY



Aim of Course

An introduction to mass metrology, which is the science of measurement of mass utilising various techniques. This course introduces the various mass measuring principles and instruments used in the industry, as well as their calibration against traceable standards.

Attendees must have their own pocket calculator (which must contain trigonometric functions) and must be able to use it.

Pre-Requisites for attending this course

- Introduction to Measurement (strongly recommended)
- Uncertainty of Measurement – GUM (Physical)

Course Overview

- Technical Fundamentals of Mass
- Weights/Mass Standards
- Weighing Techniques
- Digital Electronic Balances
- Measurements of Density of air and Buoyancy
- Calibration of Balances:
 - (preparation of weights, balances and the environment)
 - (digital / electronic balances)
 - Uncertainties
- Calibration of Mass pieces:
 - (preparation of weights, balances and the environment)
 - Uncertainties

Who should attend?

Calibration technicians, metrologists and physical testing laboratory personnel. The course can also be useful for analytical testing personnel who have the need to make mass measurements.

Course Duration

4 Days

Evaluation

Daily tests and the passing of a final examination are required to successfully complete this course.

The examination will be written approximately two weeks after the completion of the course.

National Laboratory Association
South Africa

PO Box 298 • Persequor Park • 0020
1 De Havilland Crescent • Persequor
Technopark • Pretoria • South Africa

Tel: +27(0)12 349 1500 • Fax: +27(0)12 349 1501

www.nla.org.za