INTRODUCTION TO MEASUREMENT

Aim of Course

The main purposes of the “Introduction to Measurement” course are to

1. Provide the knowledge and background required for the various discipline specific metrology courses that the NLA-SA presents.
2. Increase the awareness of measurement and establish a common frame of reference within the Southern Africa context. It is meant to provide users of measurement services with a transparent and handy tool to obtain information.

The content of the course is a description of scientific, industrial and legal metrology in Southern Africa. The South African metrological structure with the 11 subject fields of metrology and metrological units are described, as well as the Southern African and International organisations which form the international metrological infrastructure. A list of metrological terms is collected primarily from internationally recognised standards. References are given to institutions, organizations and laboratories where attendees can obtain further information if required.

The course is also relevant for laboratory personnel in the testing community both Analytical as well as Physical, and provides a useful background for anyone requiring an understanding of measurements including the Scientific, R&D and Process Control communities.

Course Overview

Acronyms, Vocabulary
Introduction to Industrial and scientific metrology
Traceability and calibration
The Metre Convention
International organizations
Legal metrology
National organizations
Metrological units
Choosing an accredited source of traceability
The concept of Uncertainty of measurement
Determining compliance to specification
Calibration certificates and Test reports (ISO/IEC 17025:2017)

Who should attend

Calibration and Physical Testing Technicians, Quality Personnel, Analysts

Course Duration

2 Days

Evaluation

Currently there is no formal evaluation of the Introduction to Measurement course but it is anticipated that this could change in the future. The module regarding Calibration certificates and Test reports is, however, examined in the Method Validation (Calibration) examination.

A Certificate of Attendance is provided.

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