DIMENSIONAL METROLOGY – Part 2

Aim of Course

This course is designed to build on Part 1 and is focused on the calibration of all devices which rely on the Dimensional Calibration laboratory for traceable measurements. A major goal of this course is to provide laboratory staff already employed in a SANAS Accredited laboratory with the necessary background and skills to enable them to gain a wider and more comprehensive background in the calibration and use of dimensional instruments. There is a strong emphasis on how to evaluate Uncertainties of Measurement in the Dimensional field.

Pre-Requisites for attending this course

- Measurement System (Part 1 & 2)
- Uncertainty of Measurement – Physical Measurements
- Dimensional Metrology – Part 1

Course Overview

- Traceability in Dimensional Metrology
- Gauge Blocks
- Uncertainty Estimation
- Roundness
- Surface Texture
- Geometric Dimensions and Tolerances
- Laser Interferometer
- Procedures and Certificates

Practical Examples will cover the following

A: Calibration of a Shadow Graph (profile projector) and Gauge blocks by comparison
B: Calibration of a Micrometer and flatness of a Surface table
C: Calibration of a Screw Plug gauge
D: Calibration of an Angle block with a Sine bar

Who should attend

(Dimensional) Calibration technicians and metrologists

Course Duration

5 Days

Evaluation

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