



DIMENSIONAL MEASUREMENT

This two-day course presents a comprehensive overview of the fundamental principles in dimensional metrology and geometric dimensioning and tolerancing (GD&T). It is suitable for people new to dimensional metrology and those seeking to improve their skills.

Course Objectives

The workshop provides participants with the knowledge and skills to:

- use traditional gauges and dimensional measuring equipment
- understand and apply the fundamental principles of 3D coordinate metrology
- understand and interpret GD&T symbols in order to perform appropriate measurements
- identify and minimise the various sources of error that can arise in dimensional metrology

Course Outline

The topics covered include:

- the use and calibration of gauge blocks, micrometers, digital callipers, dial indicators.
- GD&T concepts, rules and symbols, the interpretation of tolerance frames
- datums, coordinate systems, types of probes, probing strategies, getting the most from a CMM
- the effects of temperature, abbe error, cosine error, aliasing
- surface roughness, filtering
- estimating measurement uncertainty¹



¹Participants with limited experience in estimating measurement uncertainty would benefit from first attending the one-day Introduction to Estimating Measurement Uncertainty course.

Past attendees have said...

"We have acquired the necessary skills and competency for accreditation"

"I can now train my staff to avoid fundamental errors"

Course Details

Dates / Venue

Available dates are on our [website](#) and the venue is NMI Melbourne, 1/153 Bertie Street, Port Melbourne, VIC 3207.

Fee / Inclusions

Check the NMI [website](#) for the current pricing which includes lunch, refreshments and learning materials.

Time

The course will start at 9 am and will finish by 5 pm.

Related Courses

Course name	Duration	Dates
Introduction to Estimating Measurement Uncertainty	1-day	See NMI website
Fundamentals of GD&T	3-day	See NMI website

In-house Options

Training may be carried out at your premises for groups of 6+ on a fee for service basis.

Consultancies provide advice regarding specific measurement issues or training in advanced measurement techniques. More information is available on our [website](#).

Contact Us

Phone (02) 8467 3796, or send an email to training@measurement.gov.au. For more information about NMI and to enrol, visit our website at www.measurement.gov.au