



ELECTRICAL MEASUREMENT COURSE

This course provides in-depth knowledge of the theory and practice of electrical measurement using digital multimeters and calibrators; special attention is given to important practical issues such as grounding, interference and thermal effects.

The course is most suitable for those already familiar with electrical measurements using digital multimeters and calibrators, as well as with the estimation of measurement uncertainty, wishing to further advance their knowledge and skills.

Course Objectives

The course provides participants with knowledge and skills to:

- understand the principles of operation of digital multimeters and calibrators
- understand the principles and advanced techniques used in the measurement of electrical quantities
- understand the processes involved in the use and calibration of electrical equipment
- identify various sources of error that affect electrical measurements

Course Outline

The topics covered include:

- overview of primary standards
- measurement of resistance
- principles of operation of digital multimeters and calibrators
- measurement of direct voltage and current
- principles of calibration
- measurement of alternating voltage and current
- measurement of high voltage
- reporting calibration data and uncertainties
- estimating measurement uncertainty



Past attendees have said...

"By applying the knowledge gained in this course, we will greatly improve our measurement processes"

"Increasing our knowledge of measurement uncertainties definitely helps with our NATA accreditation"

Course Details

Dates / Venue

Dates and venues are on our [website](#).

Fee / Inclusions

Check the NMI [website](#) for the current pricing.

All classes include a copy of Monograph 6: The Measurement of Electrical Quantities

Face-to-face classes include lunch and refreshments.

Time

Face-to-face course will start at 9 am and will finish by 5 pm.

Online course delivered in 2 sessions: 9 am – 12:30 am and 1pm – 4:00 pm

Related Courses

Course name	Duration	Dates
Introduction to Estimating Measurement Uncertainty (recommended pre-requisite)	1-day	See NMI website
Time and Frequency Measurement	2-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 found on our [website](#).

Contact Us

Phone (02) 8467 3796, or send an email to training@measurement.gov.au. For more information about the National Measurement Institute, visit our [website](#).