



ELECTRICAL MEASUREMENT

This two-day course covers essential 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.

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 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 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...

“This course has given us the knowledge and skills to improve our capabilities and represent smaller uncertainties”

“We will apply the knowledge gained in the course to improve our measurement processes”

Course Details

Venue

Available dates are on our [website](#) and the venue is NMI Lindfield (Sydney), 36 Bradfield Road, Lindfield, NSW 2070.

Fee / Inclusions

Check the NMI [website](#) for the current price which includes lunch, refreshments and Monograph 6: The Measurement of Electrical Quantities.

Time

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

Related Courses

Course name	Duration	Dates
Introduction to Estimating Measurement Uncertainty	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 NMI and our services, visit our website at www.measurement.gov.au/Services/Training/