National Measurement Institute



CALIBRATION OF LIQUID HYDROCARBON FLOWMETERS COURSE

This two-day course provides training on the calibration of liquid-hydrocarbon LPG and petroleum flow meters. It is aimed at manufacturers, technicians and laboratory managers involved in the calibration and use of flowmeters. It includes hands-on learning activities on-site at NMI's world-class hydrocarbon flow calibration and training facility at Londonderry (Sydney).¹

Course objectives

The course will provide participants with the knowledge and skills:

- calibrate hydrocarbon flowmeters and calculate the measurement uncertainty
- apply fluid pressure and temperature corrections in accordance with API standards
- identify and minimise sources of error impacting performance of measurement systems

Course Outline

The topics covered include:

- measurement traceability
- flowmeters and their characteristics including turbines, coriolis, pistons, capsule
- ancilliary instrumentation: pressure, temperature, density
- calibration methods: gravimetric, volume proving, in-line comparison
- use of API hydrocarbon tables and algorithms
- common sources of error affecting flow measurements: bubbles and vapour, flow straighteners, strainers
- measurement uncertainty analysis²
- practical demonstrations



¹ Applicable for face-to-face format delivery. Due to the hands-on nature of the course, numbers will be strictly limited, so get in early!

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² Participants with limited experience in estimating measurement uncertainty would benefit from first attending the <u>Introduction to Estimating Measurement Uncertainty</u> course.

Course Details

Delivery options

ONLINE

The course is delivered live by NMI technical experts via Webex Training platform.

Course structure is 4 sessions over 2 days:

Day 1:

Session 1: 09:00 – 12:00 Session 2: 13:00 – 15:30

Day 2:

Session 3: 09:00 – 12:00 Session 4: 13:00 – 15:30

FACE TO FACE

Location: Flow Measurement Facility, 919 Londonderry Road, Londonderry, NSW 2753

The course will start at 9 AM and will finish by 5 PM

Dates

Available dates are on our website

Fees

Price of online delivery option is \$1463.00 (exc. GST)

Price of face-to-face delivery option is \$2663.10 (exc. GST).

Related courses

Course name	Duration	Dates
Introduction to Estimating Measurement Uncertainty	online	See NMI website
Humidity measurement	1-day/ online	See NMI website
Pressure measurement	2-day	See NMI website
Temperature measurement	3-day	See NMI 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







