



# Metrology Skill Program

## MSP 2025



Module	MSP Title	Fee/person (RM)	Duration Day(s)	Month											
				Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Quality	Calibration and measurement system	1300	1	13	4	R a m a d h a n	14	5	17	7	4	1	6	3	1
	Introduction to evaluation of measurement uncertainty	2300	2	14	5		15	6	18	8	5	2	7	4	2
				15	6		16	7	19	9	6	3	8	5	3
	Interpretation of calibration certificates	1300	1	16	17		17	8	20	10	7	4	9	6	4
Flow	Petroleum storage tank calibration	1500	1			R a m a d h a n		5					13		
	Liquid flow measurement	3300	3					6					14		
								7					15		
								8					16		
	Prover tank calibration	1500	1					9					17		
	Calibration of volumetric apparatus	1500	1				21				18				
	Measurement uncertainty of volumetric apparatus	1300	1				22				19				
	Calibration of air speed anemometer and Measurement uncertainty of air speed anemometer	1500	1				14				11				
	Micropipette calibration	1500	1				23				20				

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Electrical	Time & frequency measurement	2700	2			R a m a d h a n			11						3
									12						4
	Calibration of multimeter	2700	2		11				24	26				24	
					12				25	27				25	
	RF and microwave power measurement	1500	1	15	17		21	5	13	16	14	4	13	14	2
	Measurement uncertainty evaluation in electrical measurement and calibration	3300	2	13	18		22	13	11	9	5	17	8	18	9
				14	19		23	14	12	10	6	18	9	19	10
	Measurement and calibration of standard resistor/current shunt/current source	2700	2	21	25		28	26	18	16	12	23	15	25	16
				22	26		29	27	19	17	13	24	16	26	17
	Acoustics measurement and calibration	2200	1					13						22	
	Vibration measurement and calibration	2200	1						25					5	
	Magnetics measurement and calibration	RFQ	Content upon request	*	*		*	*	*	*	*	*	*	*	*
	Impedance measurement and calibration	RFQ	Content upon request	*	*		*	*	*	*	*	*	*	*	*
	Competency Program on Multimeter	RFQ	3	*	*		*	*	*	*	*	*	*	*	*
	Competency Program on Power Meter	RFQ	3	*	*		*	*	*	*	*	*	*	*	*
	Competency Program on Calibration of Electrical Data Acquisition	RFQ	2.5	*	*		*	*	*	*	*	*	*	*	*

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Chemistry	Measurement uncertainty for chemical analysis (Basic)	1560	2		18	R a m a d h a n		5		24		2			
	Measurement uncertainty for chemical uncertainty (Advanced)	1080		1			6		25		3				
	Measurement uncertainty for chemical analysis (Basic)-online	980	2				30				11				
	Analytical method validation and verification	1560		2			28				22				
	Analytical method validation and verification -online	980	2				29				23				
	Statistics and data analysis using MS Excel for chemist	1080		1					7			18			
	Statistics and data analysis using MS Excel for chemist -online	980	1						8			19			
	ISO/IEC 17025:2017-General requirements for the competence of testing and calibration laboratories	1560		2			13				8				
	ISO/IEC 17043:2023-General requirements for proficiency testing for chemical	1560	2				14				9				
	ISO 13528:2022-Statistical methods for proficiency testing by interlaboratory comparison	1560		2					11			23			
	Package: Combination of ISO/IEC 17043:2023 and ISO 13528	4180	3						24			8			
									25			9			

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Chemistry	Reference material producer in compliance with ISO 17034 (requirements) and ISO 33405 (statistics)	4180	3									9			
	Risk assessment for compliance with ISO 17025 or ISO 17043 or ISO 17034			1080	1			18				10			
	Calibration and measurement of rice moisture meter by drying oven method (ISO 712)			2300	2							11			
	Calibration and measurement of energy dispersive x-ray fluorescence (EDXRF)	2300	2			4						22		22	
	Calibration and measurement of Inductively Coupled Plasma Mass Spectrometry (ICP-MS)			2300	2			13							
	Calibration and measurement of Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES)	2300	2			14						23			
	Primary method development Isotope Dilution Mass Spectrometry (IDMS) for inorganic analysis			2300	2			24				1	10	12	14
	Primary method development Isotope Dilution Mass Spectrometry (IDMS) for organic analysis	5580	5			25						2	11	13	15
												7	10		7
												8	11		8
												9	17		14
												10	18		15
Ramanathan												11	7		3
												12	8		4
												13	9		5
												14	10		6
												15	11		7
												16	14		10
												17	15		11
												18	16		12
												19	17		13

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Chemistry	Calibration and measurement of gas analyzer	700	0.5	14	19		16		25		14		15		3
	Calibration and measurement of pH	1080	1	15	20		17		26		15		16		4
	Calibration and measurement of gas chromatography -FID/TCD	2300	2		24		15				13		7		15
					25		16				14		8		16
	Calibration and measurement of Karl Fisher Titrator	1080	1				15				15			19	
Mechanical	Calibration of mass standards (OIML Classes E2 and below)	2000	1	13	25	R a m a d h a n	8	13	24	1	19	8	27	25	2
	Measurement uncertainty evaluation of mass standard calibration - Classes E2 and below)	1700	2	14	26		9	14	25	2	20	9	28	26	3
	Calibration of weighing balances			15	27		10	15	26	3	21	10	29	27	4
	Measurement uncertainty evaluation of weighing balance calibration	1700	1	15	18		15	5	17	9	27	10	8	18	9
	Calibration of weighbridge using substitution method	3000	1	*	*		16	6	18	10	28	11	9	19	10
	Measurement uncertainty evaluation of weighbridge calibration using substitution	2400	1	*	*		*	*	*	*	*	*	*	*	*
	Verification of weighbridge using substitution method (ASEAN Guidelines)	4000	1		18		*	*	*	*	*	*	*	*	*
	Verification of Non-Automatic Weighing Instruments, NAWI (excluding Weighbridge) - ASEAN Guidelines	4000	1		19				3			17		18	
	Determination of pre-packaged products according to ASEAN Common Requirements	5500	3						4			18		19	
									21					5	
									22					6	
	Good measurement practice of weighing balances	2500	1	*	*				23					7	

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Mechanical	Calibration of gauge block using gauge block comparator	2500	1	13	18	R a m a d h a n	29	6	10	1	5	22	8	18	15
	Measurement uncertainty evaluation for calibration of gauge block	1700	1	14	19		30	7	11	2	6	23	9	19	16
	Calibration of micrometer	2000	2	13	4		7	13	3	7	4	1	6	4	1
				14	5		8	14	4	8	5	2	7	5	2
	Calibration of caliper	2000	2	15	12		9	15	10	9	6	3	8	12	3
				16	13		10	16	11	10	7	4	9	13	4
	Calibration of dial gauge	2000	2	20	18		14	26	16	14	11	8	13	18	8
				21	19		15	27	17	15	12	9	14	19	9
	Calibration of height gauge	2000	2	22	25		21	28	18	22	13	10	15	25	15
				23	26		22	29	19	23	14	11	16	26	16
	Measurement uncertainty evaluation for calibration of dimensional small tools	1700	1	24	27		23	30	20	24	15	19	22	27	17
	Calibration of ring gauge/plug gauge (contact method)	2000	1	13	4		21	13	10	1	26	1	13	4	1
	Calibration of threaded ring gauge/plug gauge (contact method)	2000	1	14	5		22	14	11	2	27	2	14	5	2
	Measurement uncertainty evaluation for calibration of ring gauge/threaded ring gauge	1700	1	15	6		23	15	12	3	28	3	15	6	3
	Calibration of surface roughness specimen/portable surface roughness tester	2000	1	21	4		16	21	25	16	5	23	15	4	9
	Measurement uncertainty evaluation for calibration of surface roughness specimen	1700	1	22	5		17	22	26	17	6	24	16	5	10
	Calibration of line scale (measurement of ruler/tape)	2000	1	22	18		16	22	23	16	13	22	27	18	17
	Measurement uncertainty evaluation for calibration of line scale	1700	1	23	19		17	23	24	17	14	23	28	19	18

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Mechanical	Calibration of angle instruments	2000	1	22	12	R a m a d h a n	9	22	24	16	27	10	14	12	9
	Measurement uncertainty evaluation for calibration of angle instruments	1700	1	23	13		10	23	25	17	28	11	15	13	10
	Measurement uncertainty evaluation for calibration of length & dimensional instruments	2700	1	23	6		17	27	26	28	19	22	23	6	18
	Fundamental of pressure measurement instrument calibration	4600	3	*	*		21	*	*	*	*	*	27	*	15
				*	*		22	*	*	*	*	*	28	*	16
				*	*		23	*	*	*	*	*	29	*	17
	Comprehensive measurement uncertainty evaluation for pressure instrument	2700	1	*	*		24	*	*	*	*	*	30	*	18
	Verification of sphygmomanometer	2700	1	*	*		30	*	*	*	*	*	22	*	4
	Calibration of force measuring devices	2700	2	21	18		8	26	10	1	26	17	6	18	1
				22	19		9	27	11	2	27	18	7	19	2
	Measurement uncertainty evaluation of force calibration	1300	1	23	20		10	28	12	3	28	19	8	20	3
	Competency Program on Weighing Balance Calibration	RFQ	3	*	*		*	*	*	*	*	*	*	*	*
	Competency Program on Caliper Calibration	RFQ	2	*	*		*	*	*	*	*	*	*	*	*
	Competency Program on Calibration of Pressure Measurement Devices	RFQ	3	*	*		*	*	*	*	*	*	*	*	*

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Thermophysical	Measurement and calibration of liquid-in-glass thermometer	1500	1	13			22		3		12		6		1
	Measurement uncertainty evaluation for calibration of liquid-in-glass thermometer	1300	1	14			23		4		13		7		2
	Measurement and calibration of industrial platinum resistance thermometer	1500	1	21			28		18		19		15		3
	Measurement uncertainty evaluation for calibration of industrial platinum resistance thermometer	1300	1	22			29		19		20		16		4
	The understanding of temperature measurement	1450	1		17			13		14		22		3	
	Theory & principle in resistance thermometry	1450	1		18			14		17		23		4	
	Theory & principle in liquid in glass thermometry	1450	1		19			15		22		24		10	
	Calibration of refrigerators and freezers	1500	1		25			28		9		2		17	
	Measurement uncertainty evaluation of calibration of refrigerators and freezers	1300	1		26			29		10		3		18	
	Measurement and calibration of radiation thermometer	1500	1		4			23		24		20		27	
	Measurement uncertainty evaluation for calibration of radiation thermometer	1300	1		5			24		25		21		28	
	Measurement and calibration thermocouple thermometry	1500	1	20	24			15	26	2	28	4	9	15	24
	Measurement uncertainty evaluation of thermocouple thermometry	1300	1	21	25			16	27	3	29	5	10	16	25
	Calibration and testing of heat enclosure	1500	1	13	19			17	28	4	17	28	22	22	5
	Measurement uncertainty evaluation of heat enclosure	1300	1	14	20			18	29	5	18	29	23	23	6

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Thermophysical	Measurement and calibration of humidity	1500	1	14	18	R a m a d h a n	7	13	24	15	26	10	6	11	1
	Uncertainty evaluation of humidity measurement	1300	1	15	19		8	14	25	16	27	11	7	12	2
	Measurement and calibration of hydrometer	1500	1	15	5		15	5	26	7	12	8	14	3	3
	Measurement uncertainty evaluation for calibration of hydrometer	1300	1	16	6		16	6	27	8	13	9	15	4	4
	Measurement and calibration of viscosity	1500	1	22	26		22	14	2	30	19	23	8	24	9
	Measurement uncertainty evaluation of viscosity calibration	1300	1	23	27		23	15	3	31	20	24	9	25	10
	Measurement and calibration of density meter	1500	1	13	4		22	6	17	22	5	9	27	4	16
	Measurement uncertainty evaluation for calibration of density meter	1300	1	14	5		23	7	18	23	6	10	28	5	17
	Measurement and calibration density of coriolis flow meter	1500	1	15	6		24	8	19	24	7	11	29	6	18
	Competency Program on Heat Enclosure	RFQ	3	*	*		*	*	*	*	*	*	*	*	*
	Competency Program on Calibration of Thermocouple	RFQ	3	*	*		*	*	*	*	*	*	*	*	*
	Competency Program on Temperature Indicator by Electrical Simulation	RFQ	2.5	*	*		*	*	*	*	*	*	*	*	*
Proficiency Testing /Measurement Audit (PT/MA)	Workshop on PT Program (specific artefact)	1500	1	*	*		*	*	*	*	*	*	*	*	*
	Theory, Measurement Uncertainty & Practical for Calibration of PT/MA Artefact	1500	1	*	*		*	*	*	*	*	*	*	*	*

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## REGISTRATION FORM

# Metrology Skill Program **MSP 2025**

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Consultant

Metrology Support and Advisory Group

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