PVP and ECUK competency specification

NPL can issue certificates of attendance for its training and consultancy services, which comply with the above competencies as shown below:

Topic	Charged days		Overview	ECUK competency
	Min	Max		
Product Verification Health Check - PVHC	2	9	Full diagnostic of the Product Verification process and application of measurement. Identifies good practice, gaps and recommendations for improvement opportunities.	N/A
PVHC Lite	1	5	Shortened PVHC diagnostic focused on pre-agreed topics.	N/A

Topic	Charged days		Overview	ECUK competency
	Min	Max		
Managing Measurement: Approaches and Decisions for Managers	1	1	An interactive workshop to ensure decision-makers are fully equipped to understand the relevance and potential business performance consequences of their decisions on measurement activities.	C,D,F
Managing Calibration: Approaches and Decisions for Managers	1	1	An interactive workshop to enable managers and their business to be equipped for both compliance and optimal efficiency of the equipment calibration function.	C,D,E

Topic	Charged days		Overview	ECUK competency
	Min	Max		
Managing Variation: Approaches and Decisions for Managers	1	1	An interactive workshop to equip managers with knowledge of their role and responsibilities in the process of data-driven management of variation.	C,D,E
Defining & Planning M&I Skills/System	2	6	Tailored support on defining, developing and demonstrating the measurement competencies required by the business and customers.	C,D,E
Developing QMS	2	8	Tailored support on developing and implementing measurement related process within a QMS.	C,D,E

Topic	Charged days		Overview	ECUK competency
	Min	Max		
Measurement System Analysis (MSA) / Evaluating Measurement Process (EMP) Basic Training – Tools & Techniques	2	4	These modules provide staff with the ability to understand and apply techniques to quantify the capability and understand the behaviour of measurement processes. This is often a customer requirement and the basis for the effective and efficient management of the manufacturing process.	A,B
MSA/EMP Application/Study	4	10		
Shop-Floor Metrology	1	N/A	This is a two-hour session to train shop floor operators in the basic requirements for the use of commonly used measurement equipment.	A,B
Equipment Calibration - Good Practice	2	4	These modules support businesses to adopt good 'Industrial Calibration' practices. They provide the	A,B

Equipment Calibration - Application	2	8	knowledge of what constitutes traceable calibration and support the implementation in practice. E.g. Defining calibration requirements, make versus buy, calibration records and equipment procurement.	
Environmental Considerations for Measurements	1	2	This equips staff with the knowledge and skills to systematically consider and evaluate the potential effects of environmental conditions on the quality of measurement results and potential consequences on decisions based on those results.	A,B
Machine Tool Verification - Ball Bar Test	1	2	These modules equip staff with a technique to evaluate machine capability to aid assignment of jobs to machine tools and TPM activities.	A,B
Machine Tool Verification - SOP Creation	1	4		
Data Design & Problem Solving	2	8	These modules provide the foundations of data-driven manufacturing, providing knowledge of how to determine what data needs to be collected and then how to use that data to improve manufacturing process.	A,B
PV Framework Development	8	12	This provides a systematic, risk-based gated approach to managing the Product Verification process.	A,B

Topic	Charged days		Overview	ECUK competency
	Min	Max		
Application of On-Machine Probes	1	4	This provides an introduction to how the implementation of on-machine probes can be used to reduce the amount of up-stream inspection.	A,B
Operator Led Inspection	2	8	This provides coaching in developing a process and skills that enable Operators to perform inspection activities, reducing the chance of detecting non-conformance later in the process and reducing the burden on final inspection.	A,B
SPC - Statistical Process Control (understanding and managing variation)	2	6	This provides the knowledge and coaching in the implementation of the use of measurement data and Statistical Process Control for both operators and managers to ensure a fully functioning, holistic system is achieved.	A,B
Validation & Inspection prevention	2	8	This provides knowledge and implementation coaching in inspection planning. It provides a structured approach to considering current processes, ensuring that measurement operations and planning are effective/efficient/capable.	B

Topic	Charged days		Overview	ECUK competency
CMM – Good Practice	1	4	This module ensures that the business has the understanding and practices in place to have confidence in CMM operations and associated conformance decisions whilst maximising throughput to reduce inspection bottlenecks.	A,B,C
CMM - Artefact Good Practice & Implementation	2	8	This module ensures that the business fully understands and addresses their CMM performance based on data. It also will assist the business to develop a process to monitor and maintain CMMs between calibrations.	A,B,C
Other Measurement Technologies on request			E.g. Tailored support for Laser Trackers, portable articulated arms.	A,B,C

Topic	Charged days		Overview	ECUK competency
	Min	Max		
Manufacturing Capability/Process Audits	2	10	Tailored review and coaching focussed on improving a specific challenge.	A,B
Quality Costs Analysis – Tools & Techniques	1	2	These modules provide the foundation concepts/knowledge of QCA and coaching in the use of trusted measurement data as an integral part of implementing the techniques in business defined projects.	B,C,D
Quality Costs Analysis – Application	2	6		

Design of Experiment – Tools & Techniques	1	2	These modules provide the foundation concepts/knowledge of DoE and coaching in the use of trusted measurement processes and data as an integral part of implementing the techniques in business defined projects.	A,B,C,D,E
Design of Experiment – Application	4	10		
D/PFMEA – Tools & Techniques	1	2	These modules provide the foundation concepts/knowledge of D/PFMEA and coaching in the use of trusted measurement processes and data as an integral part of implementing the techniques in business defined projects.	B,C,D,E
D/PFMEA – Application	4	10		

Topic	Charged days		Overview	ECUK competency
NADCAP M&I Gap Analysis	3	6	A review of the potential compliance of current practices against the standard and specific process sheets, conducted in collaboration with the business, providing recommendations of how gaps might be closed to increase likelihood/accelerate achievement of certification. Support can also be provided to implement those activities.	A,B,E
ISO17025/ISO10012 Gap Analysis	2	6	A review of current practices against the standard, conducted in collaboration with the business and recommendations of how gaps might be closed to increase likelihood/accelerate achievement of certification. Support can also be provided to implement those activities.	A,B,E

AS9100 2016 Gap Analysis	2	4	A review of the potential compliance of current practices against the standard and specific process sheets, conducted in collaboration with the business, providing recommendations of how gaps might be closed to increase likelihood/accelerate achievement of certification. Support can also be provided to implement those activities.	A,B,E
AS9100 2016 Awareness & Auditor Training	1	4	General standard awareness training. Specific training for auditors to enable internal auditing against the standard and formal audit readiness.	A,B,E