UNIVERSITI KUALA LUMPUR
MALAYSIAN SPANISH INSTITUTE

(The contents and other related details in this form is used for publication purpose only. Training module will be given to participants upon registration)

Course Title: OPTICAL METROLOGY THROUGH PROFILE PROJECTOR	**Course Code :**	**MET 104**

Course Background/Summary :

In manufacturing industry today, customers require tighter part tolerances to ensure the quality of their products. Many different types of measuring instruments exist to measure the dimensions of a part. Optical Metrology by using Profile Projector could be one of the instruments to be used to ensure that they maintain these tighter part tolerances. Optical systems operate with the assistance of light and magnification to visually inspect the features of a part that are common in today's industry. Therefore, the main intention of this course is to provide the trainees with scientific knowledge and practical skills of measurement using profile projector to quantify the dimensions of given work pieces.

Course Objectives:

- Describe the principles of optical inspection;
- Describe the main components and configuration of a Profile Projector; and
- Measure part features through the use of Profile Projector.

Target Audience:

- Technicians, Supervisors, Quality Practitioners, Quality Inspectors, Metrologists, Technologists, Engineers, Instructors, Trainers and Lecturers.

Course Duration :	**Min : 3 days, Max : 5 days**
Course Contents :	

No	**TOPICS (Lecture)**
1	Definition and Applications of Metrology
2	The Importance of Metrology in Manufacturing Industry
3	Standard System of Measurement
4	Geometric Dimensioning & Tolerancing (GD&T)
5	Classification of Measurement Methods and Measuring Instruments

UniKL MSI can also customize existing short courses and develop new courses to meet your personal training needs and requirements. The course duration serves as a guideline for your reference.

Please forward enquiries to Centre for Advancement & Continuing Education (ACE), University Kuala Lumpur (Malaysian Spanish Institute), Kulim Hi-Tech Park, 09000 Kulim, Kedah or via fax to:04-4032539 or email to ***syazrah@unikl.edu.my*** *or call 04-4035199 / 200 (ext:112 / 185)*

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6	Principles of Optical Inspection
7	Types of Optical Comparator or Profile Projector
8	Main Components of Profile Projector
9	Advantages and Disadvantages of Profile Projector's Applications
No	**TOPICS (Lab Works / Practical Exercises)**
1	Exercise 1: The Concept of Metrology
2	Exercise 2: Measurement Units and Standard System
3	Exercise 3: The Standard Symbols of GD&T System
4	Lab Work 1: Form Measurement through Profile Projector 1
5	Lab Work 2: Form Measurement through Profile Projector 2

COURSE STRUCTURE:	
Practical :	60%
Theory :	40%

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