



(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: APPLIED MATERIALS		Course Code	: MEC 105
<u>Course Background/Summary :</u> This subject provides broad knowledge on thermal and surface treatment of materials in manufacturing processes. It also introduces the basic techniques of analyzing the metal's characteristics by metallographies procedures. This subject covers on the classification, types of steel and cast iron used in the machine tool sector. It will also include very basic knowledge and understanding of mechanical testing in metallurgy.			
<u>Course Objectives:</u> <ul style="list-style-type: none">• Explain metallographies characteristics and properties of the main metals.• Describe the solidification processes and granular structures of metals which may be observed by means of metallographies means.• Explain all mechanical properties (hardness, tensile strength, resilience, elasticity, fatigue) of the material and relate each one to mechanical manufacturing processes.• Explain the main manufacturing properties or technologies (machineability, ductility, malleability, hardenability, castability) of the material and relate each one with the manufacturing processes.• Justify the choice of different material according to their properties and depending on their possible type applications.			
<u>Target Audience:</u> <ul style="list-style-type: none">• Industrial workers from technicians to engineers, etc.• Teaching staffs/instructors			
Course Duration		: Min:3 days, Max:5 days	
Course Contents		:	
No	TOPICS		
1	Mechanical Properties		
2	Failure of Metal		
3	Metal Alloys		

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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4	Ceramic Materials
5	Polymers
6	Composite Materials
7	Metallography
8	Corrosion and Degradation
COURSE STRUCTURE:	
Practical :	40%
Theory :	60%

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