



UNIVERSITI TEKNOLOGI MARA

EAD435: ART OF LASER CUTTING

Course Name (English)	ART OF LASER CUTTING APPROVED
Course Code	EAD435
MQF Credit	2
Course Description	The course covers laser cutting and engraving for any material surface except metal. By creating graphics artwork using software laser cutting can produce delicate imagery and text cut outs through most material surfaces, for use in altered or sculptural works, fabric, paper structures and overlaying pages of text and image.
Transferable Skills	1. To be able create an artwork from graphics software. 2. Demonstrate the art of laser cutting by cutting and engraving on various materials.
Teaching Methodologies	Lectures, Demonstrations, Workshop
CLO	CLO1 CLO1: Analyze artwork from graphics software into laser cutting machine. (C-4) CLO2 CLO2: Demonstrate the art of laser cutting by cutting, engraving and graphic imaging. (P-4) CLO3 CLO3: Desire the uniqueness of various materials that suitable for laser effect. (A-3)
Pre-Requisite Courses	No course recommendations
Topics	
1. 1. Introduction to the laser machine 1.1) 1.1 Focuses on its role on society 1.2) 1.2 Equipment and tools 1.3) 1.3 Rules and regulations	
2. 2 Introduction to the software involve 2.1) 2.1 Introduction of 2D software design 2.2) 2.2 Creating graphics artwork 2.3) 2.3 Converting file	
3. 3. Design Illustration 3.1) 3.1 Making basic illustration for cutting 3.2) 3.2 Creating illustration for engraving 3.3) 3.3 Creating photo imaging illustration	
4. 4. Output Setting 4.1) 4.1 Introduction of output setting 4.2) 4.2 Types of output 4.3) 4.3 Adjustment and setting for output setting	
5. 5. Colouring Technique 5.1) 5.1 Introduction of colouring technique 5.2) 5.2 Types of colouring 5.3) 5.3 Colouring Process 5.4) 5.4 Colouring finishing	
6. 6. Finishing and Packaging 6.1) 6.1 Display and presentation	

Assessment Breakdown	%
Continuous Assessment	100.00%

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Assignment	Formative Progress Assessment • Exercise 1	30%	CLO1
	Final Project	Visual Presentation	40%	CLO2
	Visual Assessment	Excercise 2	30%	CLO3

Reading List	Reference Book Resources
	<ul style="list-style-type: none"> • 1. Caristan, Charles L. 2004, <i>Laser cutting guide for manufacturing</i>, SME [ISBN: ISBN 978-0-87] • Bromberg, Joan 1991, <i>The Laser in America, 1950-1970</i>, MIT Press [ISBN: ISBN 978-0-26]

Article/Paper List
This Course does not have any article/paper resources

Other References
<ul style="list-style-type: none"> • Website <i>Universal Laser Systems: Laser Cutting, Engraving</i> http://www.ulsinc.com/