



**UNIVERSITI TEKNOLOGI MARA**

**IDE411: 3D MODELLING AND TECHNIQUES**

<b>Course Name (English)</b>	3D MODELLING AND TECHNIQUES <b>APPROVED</b>
<b>Course Code</b>	IDE411
<b>MQF Credit</b>	3
<b>Course Description</b>	The course is designed to lead the students through the process of model making techniques. The goal of this course is to prepare them for model making techniques with the knowledge and understanding of basic art and design elements and principles. Emphasis is given to problem solving exercises that allow the students to think creatively and critically. This is done through the learning process that stresses the ability of the students to produce model making that shows their understanding of 2 and 3 Dimensional relationship.
<b>Transferable Skills</b>	Student can improve their skill to creates model by using various of tools and material.
<b>Teaching Methodologies</b>	Lectures, Studio, Tutorial, Workshop
<b>CLO</b>	<p>CLO1 Discovering the good project panning through technique and method in constructing 3D modeling</p> <p>CLO2 Build their experience and understanding in design process simulation of appropriate technique in experimenting on material in constructing 3d modeling</p> <p>CLO3 Demonstrate an initiative in variety of methods and creative process of modeling techniques and materials involved to start and complete in constructing 3d modeling</p>
<b>Pre-Requisite Courses</b>	No course recommendations
<b>Topics</b>	
<b>1. Introduction to 3D Modeling &amp; Techniques</b>	
1.1) soft model and hard model 1.2) Workshop safety management 1.3) Workshop Health management	
<b>2. Marking &amp; Measurement</b>	
2.1) Marking & Measurement tools	
<b>3. Introduction to 3D Shape &amp; Form Using Hard Paper Board</b>	
3.1) soft model modelling techniques	
<b>4. Hard Paper Board Modeling</b>	
4.1) Hard Paper Board Modeling techniques	
<b>5. Introduction to 3D Shape &amp; Form Using Polyurethane Foam</b>	
5.1) Polyurethane Foam	
<b>6. Polyurethane Foam Modeling</b>	
6.1) Polyurethane Foam Modeling technique	
<b>7. Introduction to Hand tools</b>	
7.1) Hand tools for model making process	
<b>8. Wood Modelling</b>	
8.1) Wood Modelling techniques	
<b>9. Metal Modelling</b>	
9.1) Metal Modelling techniques	
<b>10. Final Project</b>	
10.1) Constructing 3d modelling	



Assessment Breakdown	%
Continuous Assessment	100.00%

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Assignment	Assignment 1 : PROGRESSIVE SOFT MODEL 1)Appropriate technique in constructing the 3d model 2) The tidiness in model finishing 3) Practice in constructing form in using appropriate materials 4) Good initiative in conducting the modeling project	20%	CLO1
	Assignment	Assignment 2: PROGRESSIVE HARD MODEL 1)Appropriate technique in constructing the 3d model 2) The tidiness in model finishing 3) Practice in constructing form in using appropriate materials 4) Good initiative in conducting the modeling project	20%	CLO2
	Assignment	Assignment 3: PROGRESSIVE 3D MODELLING & PRESENTATION 1)Appropriate technique in constructing the 3d model 2) The tidiness in model finishing 3) Practice in constructing form in using appropriate materials 4) Good initiative in conducting the modeling project	20%	CLO3
	Final Project	Knowledge & understanding 1) Appropriate technique 2) Exploration of form and materials	10%	CLO1
	Final Project	Design Progress 1) Expression in form and proportion 2) Design features 3) Overall quality	15%	CLO2
	Final Project	Final Design & overall presentation 1) Exploration on shape 2) Finishing techniques 3) Initiative	15%	CLO3

Reading List	Reference Book Resources	<ul style="list-style-type: none"> <li>• Yoshiharu Shimizu 1991, <i>Models &amp; Prototypes</i>, Graphi-sha Publishing Co.,Ltd</li> <li>• Larry Jeffus 2012, <i>Welding and Metal Fabrication</i>, Delmar, Clifton Park</li> <li>• Rob Thompson 2009, <i>Manufacturing Processes For Design Profession</i>, Thames &amp; Hudson Ltd</li> <li>• Albert Jackson, David Day &amp; Simon Jennings 2006, <i>The Complete Manual Of Woodworking</i>, Alfred A. Knopf, Inc</li> <li>• Juli n, F., &amp; Albarrac, J. 2011, <i>Sketching &amp; Rendering: Techniques for Product</i>, Singapore</li> <li>• A.K Chitale and R.C. Gupta 2008, <i>Product Design And Manufacturing</i>, Prentice-Hall of India Private Limited</li> <li>• James Garratt 1995, <i>Design And Technology</i>, Cambridge University Press</li> <li>• Collins, H 2010, <i>Creative Research: The Theory and Practice of</i>, AVA Publishing SA</li> <li>• Hudson, J. 2011, <i>Process: 50 Product Design From Concept to Ma</i> Laurence King Ltd</li> <li>• Jim Lesko 2008, <i>Industrial Design Materials and Manufacturing</i>, John Wiley &amp; Sons, Inc</li> </ul>
Article/Paper List	This Course does not have any article/paper resources	
Other References	This Course does not have any other resources	