



UNIVERSITI TEKNOLOGI MARA

IDT113: SKETCHING AND RENDERING TECHNIQUES

Course Name (English)	SKETCHING AND RENDERING TECHNIQUES APPROVED
Course Code	IDT113
MQF Credit	2
Course Description	This course introduces students to the basic skills of perspective, shape and composition using 1, 2 and 3 dimensional drawing. Firstly, students will learn how to use construction lines in to draw one, two and three-point perspective. Next, students will also learn shading, hatching and identifying shadows based on simple object shapes. This course will require : 1) The use of all materials and mediums for rendering application. 2) Basic processes of ideation from basic object shapes to selected products. 3) Creation of realistic 3-dimensional forms and rendering through their understanding in order to fulfill the visual knowledge in the industry sector
Transferable Skills	2D & 3D sketching in Industrial Design
Teaching Methodologies	Demonstrations, Tutorial
CLO	<p>CLO1 Explain the basic skill of perspective, shape and composition of product through the different range of material in sketching and rendering technique.</p> <p>CLO2 Practice an industrial design product rendering using an appropriate medium through rendering techniques in work ethics.</p> <p>CLO3 Use the quality of drawing and rendering to the realistic effect for visual presentation in potential industry sector.</p>
Pre-Requisite Courses	No course recommendations
Topics	
<p>1. INTRODUCTION ON SYLLABUS</p> <p>1.1) • Topic Introduction (Sketching & Rendering)</p> <p>1.2) • Explain on project brief , weekly schedule and tools</p> <p>1.3) • Presenting sample of works</p> <p>1.4) • Demonstration on perspective and basic object sketch</p>	
<p>2. DRAWING AND CONSTRUCTION LINE</p> <p>2.1) • Demonstration on basic form (one,two and three point perspective)</p> <p>2.2) Class Exercise:</p> <p>2.3) • Draw a basic form (1 point, 2 point and 3 point perspective)</p> <p>2.4) using construction line</p> <p>2.5) • Practical tests :</p> <p>2.6) students have 15 minutes to draw 3 types of basic form based on</p> <p>2.7) construction line</p>	
<p>3. PERSPECTIVE DRAWING</p> <p>3.1) • Demonstration on basic object sketch (one,two and three point perspective) (Assignment 1)</p> <p>3.2) Class Exercise:</p> <p>3.3) • Draw a basic object sketch (1 point, 2 point and 3 point</p> <p>3.4) perspective) using varies angle of perspective view</p> <p>3.5) • Hatching techniques</p> <p>3.6) • Practical tests :</p> <p>3.7) students have 15 minutes to draw 3 types of basic object using</p> <p>3.8) perspective view</p>	

4. HATCHING ON BASIC OBJECT (Implant)

- 4.1) • Demonstration on IMPLANT and presenting sample artwork (slide presentation)
- 4.2) Class Exercise:
- 4.3) • Consultation and discussion on hatching techniques and product
- 4.4) proportion
- 4.5) • Lighting & shading using ball point pen
- 4.6) • Arrange materials according to composition / measure from
- 4.7) product related

5. HATCHING ON BASIC OBJECT (Functional)

- 5.1) • Demonstration on Functional and presenting sample artwork (slide presentation) (Assignment 2)
- 5.2) Class Exercise:
- 5.3) • Consultation and discussion on hatching techniques and product
- 5.4) proportion
- 5.5) • Lighting & shading using ball point pen
- 5.6) • Extrude object from the basic object by using a construction line

6. IDEATION (basic object)

- 6.1) • Briefing, presenting sample artwork (slide presentation) and demonstration on ideation process (Assignment 3)
- 6.2) Class Exercise:
- 6.3) • Consultation and discussion on ideation :
- 6.4) Brainstorming ideation process (developing basic object
- 6.5) considering :
- 6.6) a) One Two and Three Point Perspective
- 6.7) b) 6-7 step process of ideation
- 6.8) c) Analytical Drawing
- 6.9) d) Intuition and Creative exercises
- 6.10) e) Hatching technique

7. EXISTING PRODUCT SKETCH

- 7.1) Demonstration and presenting sample of works (slide presentation) (Assignment 4)
- 7.2) • Imitation thru Existing Product transforming
- 7.3) into sketching. (product, furniture or
- 7.4) transport)
- 7.5) a) Create an existing product base on
- 7.6) basic object sketch
- 7.7) b) Combination: construction line, lighting,
- 7.8) shadow and hatching

8. RENDERING TECHNIQUES ON MATT SURFACE EFFECT

- 8.1) Introduction to Matt Surface
- 8.2) • Lecture and presenting sample of works
- 8.3) (Slide Presentation)
- 8.4) • Introduction on surface rendering
- 8.5) a) Briefing on material and tool
- 8.6) b) Matt surface effect
- 8.7) Class Exercise:
- 8.8) • Demonstration on SURFACE RENDERING
- 8.9) • Class exercise (matt surface rendering)

9. RENDERING TECHNIQUES ON GLOSS SURFACE EFFECT

- 9.1) Introduction to Gloss Surface
- 9.2) • Lecture and presenting sample of works
- 9.3) (Slide Presentation)
- 9.4) • Introduction on surface rendering
- 9.5) a) Briefing on material and tool
- 9.6) b) Gloss plastic effect
- 9.7) Class Exercise:
- 9.8) • Demonstration on SURFACE RENDERING
- 9.9) • Class exercise (Gloss Surface rendering)

10. RENDERING TECHNIQUES ON CHROME EFFECT

- 10.1) Introduction to Gloss Effect Surface (Assignment 5)
- 10.2) • Lecture and presenting sample of works
- 10.3) (Slide Presentation)
- 10.4) • Introduction on surface rendering
- 10.5) a) Briefing on material and tool
- 10.6) b) Chrome effect
- 10.7) Class Exercise:
- 10.8) • Demonstration on SURFACE RENDERING
- 10.9) • Class exercise (Chrome Effect Surface
- 10.10) rendering)

11. FINAL RENDERING TECHNIQUES

- 11.1) Briefing on Final rendering
- 11.2) • Lecture and presenting sample of works
- 11.3) (Slide Presentation)
- 11.4) Class Exercise:
- 11.5) • Demonstration on Final Rendering
- 11.6) Final Assignment: Final Rendering
- 11.7) • Select one existing product design for final
- 11.8) rendering (product / furniture / transport).

Assessment Breakdown	%
Continuous Assessment	100.00%

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Assignment	Assignment 2 : Hatching on basic object (Functional)	10%	CLO1
	Assignment	Assignment 3 : Ideation	10%	CLO2
	Assignment	Assignment 1 : Perspective drawing (Practical Test)	10%	CLO1
	Assignment	Assignment 4 : Existing product sketch	15%	CLO2
	Assignment	Assignment 5 : Rendering techniques (chrome effect)	15%	CLO2
	Final Project	Final Rendering	40%	CLO3

Reading List	Recommended Text	<ul style="list-style-type: none"> Shariman Zainal Abidin, Hariri Hj. Abdullah, Zaidi Yusoff. 2013, 'Seni Reka Perindustrian : Daripada Idea kepada Lakaran', 1 Ed., 11, Dewan Bahasa dan Pustaka Kuala Lumpur [ISBN: 9789834615659]
	Reference Book Resources	<ul style="list-style-type: none"> Koos Eissen, Roselin Steur 2007, <i>sketching : drawing techniques for product designers</i>, 5 Ed., 12, BIS Publisher Singapore [ISBN: 978-981-245-6] Scott Robertson, Thomas Bertling 2014, <i>How to Render</i>, 1 Ed., 11, Design Studio Press Higuera Street, Culver City, CA [ISBN: 9781933492964] Scott Robertson, Thomas Bertling 2013, <i>How to Draw: Drawing and Sketching Objects and Environments from Your Imagination</i> 1 Ed., 10, Design Studio Press Higuera Street, Culver City, CA [ISBN: 9781933492735] Mercedes Braunstein, Walter Foster Creative Team 2016, <i>Perspective for the Beginning Artist</i>, Walter Foster Publishing USA [ISBN: 9781633220690]
Article/Paper List	This Course does not have any article/paper resources	
Other References	This Course does not have any other resources	