



UNIVERSITI TEKNOLOGI MARA

IDE614: FURNITURE INNOVATION DESIGN I

Course Name (English)	FURNITURE INNOVATION DESIGN I APPROVED
Course Code	IDE614
MQF Credit	3
Course Description	<p>As a final year semester the module will be self-directed. The lecturer appears here as a facilitator. Study groups will be formed to collect and share data and research findings. From the 'chosen self-interest project' on furniture, a broader aspect of creativity and problem solving will be explored through design. The process development will involve both, the theory and practice. The understanding on research technique and related issues become the focal attention in ensuring the student competency in integrating the project intention, problem identification and outcomes expectation. This course aims to prepare students for developing their understanding in Product Research and Development. This course will give students capability to apply their knowledge in Research Methodology to understand the needs of user in terms of product performance, usability, manufacture and aesthetic. Information that gathered from the research have to analyze by the students and develop a product that have the features to solve the problems of current products in the market. This course is designed to educate students about the process of data collection, research method, data analysis and design a product that look at problems differently to provide innovative solutions.</p>
Transferable Skills	Research abilities, analysis skill, creative & innovative thinking
Teaching Methodologies	Lectures, Studio, Demonstrations, Case Study, Tutorial, Discussion, Presentation
CLO	<p>CLO1 Introduce and evaluate the appropriate research methods and communication techniques regarding the generation of ideas, solutions and modification.</p> <p>CLO2 Select and justify the important of in depth research and understanding of the specific issues in the formation of design solution.</p> <p>CLO3 Demonstrate awareness and ability to observe the surrounding identify and establish the problem or weaknesses, and generate the creative thinking competence in integrating theory and design practice.</p>
Pre-Requisite Courses	No course recommendations
Topics	
1. INTRODUCTION 1.1) i. Introduction to course outline and objective. 1.2) ii. Given Project theme and brief for Self directed project & management.	
2. PROJECT RESEARCH/ BACKGROUND & PROBLEM / SCENARIO PROPOSAL 2.1) i. Initial Final Degree Project proposal strategic design planning 2.2) ii. Related Issue, functions & Design Consideration 2.3) iii. Established Project Timeline & Gantt Chart	
3. LITERATURE REVIEW & SEARCH 3.1) References and facts related to proposed design / research topics area of investigation	
4. DESIGN METHOD/ RESEARCH METHODOLOGY 4.1) Research & data Collection 4.2) i. Issue and scenario 4.3) ii. Environment 4.4) iii. Social 4.5) iv. Technology 4.6) v. Current Trends 4.7) Proposed finding from research via presentation	

<p>5. ANALYSIS/ IDENTIFYING USERS' NEEDS & COMMERCIAL VALUES</p> <p>5.1) i. Identification and exploration of the need 5.2) ii. Areas of investigation 5.3) iii. Criteria to evaluate 5.4) iv. Establish design criteria 5.5) Students will also required to:- 5.6) i. Analyse design products 5.7) ii. Compare and contrast the factors to be considered in the design and production of design projects 5.8) iii. Studies on practical and functional qualities of a variety of design products, systems and/or environments</p>
<p>6. CONCEPT SOLUTION & DESIGN CONSIDERATION</p> <p>6.1) i. 3 project concept solution proposal 6.2) ii. Ideation sketches Analysis</p>
<p>7. IDEATION CONCEPT GENERATION</p> <p>7.1) i. Initial idea / sketches & Integration with Design Consideration Analysis 7.2) ii. 3D Form Development & Ergonomics considerations</p>
<p>8. PROPOSE DESIGN & CONCEPT DEVELOPMENT</p> <p>8.1) i. Concept Sketches Development 8.2) ii. Final concept Idea development 8.3) iii. Target User & Design Image Analysis 8.4) MOCK-UP & FORM DEVELOPMENT 8.5) i. Final Form Factors Analysis 8.6) ii. Integration on Function + Material & Production 8.7) iii. 2D, 3D, Parts, 3D Design Studies</p>
<p>9. FINAL DESIGN/ PRODUCT SPECIFICATION STUDIES</p> <p>9.1) Final Design Concept Selection based from potential concept's Evaluation matrix & design criterias 9.2) Technical Specification Consideration 9.3) i. Detailing, system, packaged, production 9.4) ii. Production & Manufacturing Consideration 9.5) iii. Final Design Concept, Technical Specification, Construction of 3D mock-up Studies</p>
<p>10. FINAL DESIGN CONCEPT SELECTION</p> <p>10.1) Propose Image, Function, Material & Production capabilities 10.2) PRE-ASSESSMENT 10.3) i. Peer concept review 10.4) ii. Presentation of progress work</p>
<p>11. PROJECT PRESENTATION (POTENTIAL DESIGN)</p> <p>11.1) i. 2D Works & Presentation panels Concept. 11.2) ii. Mock up/ Prototype Finishing Appearance 11.3) iii. Presentation & Exhibition Concept</p>
<p>12. FINAL ASSESSMENT</p> <p>12.1) Final Design Research & Proposed Project Presentation</p>

Assessment Breakdown	%
Continuous Assessment	40.00%
Final Assessment	60.00%

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Group Project	ASSIGNMENT-1: Literature review on the Design Issue: Search written and digital references related to the Design Issue, that pointed out the significance of the problem.	10%	CLO1
	Individual Project	ASSIGNMENT-2 : Conduct research on product usability and user expectation - Select the proper method for conducting user research to identify the actual need and expectation from the user in using the product. Prepare a set of presentation to elaborate the result of user research.	10%	CLO1 , CLO2
	Individual Project	ASSIGNMENT-3 : Preparing product concept proposal for development - Preparing proposal for development of a new product based on the findings and directions obtained from the conducted research.	10%	CLO1 , CLO2 , CLO3
	Individual Project	ASSIGNMENT-4 : Preparing review of progress on design ideation and development - Preparing presentation on the latest progress of ideation sketches and design development of the proposed product concept.	10%	CLO1 , CLO2 , CLO3

Reading List	Recommended Text	Reference Book Resources
	<ul style="list-style-type: none"> • Gura J 2012, <i>Sourcebook of Scandaninavian Furniture: Desig</i>, W. W. Norton & Company London • Creswell W 2012, <i>Research Design: qualitative, quantitative an</i>, Sage Publication Ltd. London • Thomson R 2011, <i>Product and Furniture Design (The Manufacturi</i>, Thames & Hudson London 	<ul style="list-style-type: none"> • Karl Ochsner J 2012, <i>Furniture Studio: Materials, Craft and Archit</i>, University of Washington
Article/Paper List	This Course does not have any article/paper resources	
Other References	This Course does not have any other resources	