

2021 Semester Plan

Sec 3E – Design & Technology

Term 1	Topic	Remarks
Week 1	<ol style="list-style-type: none"> 1. Coursework Essentials & Expectations/ Design Model / Design Process. 2. Basic Sketching: Cube Manipulation 3. Basic Sketching: Cube Manipulation (Emphasis: sketching skills)	
Week 2	<ol style="list-style-type: none"> 1. Basic Sketching; Forms Sketching Techniques 2. Basic Sketching; Forms Sketching Techniques 3. Basic Sketching; Forms Sketching Techniques (Emphasis: sketching skills)	
Week 3	<ol style="list-style-type: none"> 1. Basic Sketching; Forms Sketching Techniques 2. Basic Sketching; Forms Sketching Techniques 3. Basic Sketching; Forms Sketching Techniques (Emphasis: sketching skills)	
Week 4	<ol style="list-style-type: none"> 1. Initial Ideas (Thematic: for defined design opportunity) 2. Ideation – Based on shape borrowing technique 3. GDI, Sketching to Design (Emphasis: sketching skills, presenting ideas, ACT1)	
Week 5	<ol style="list-style-type: none"> 1. Ideation – Based on SCAMPER technique 2. GDI, Sketching to Design 3. GDI, Sketching to Design (Emphasis: sketching skills, presenting ideas, ACT1)	
Week 6 CNY Holidays	<ol style="list-style-type: none"> 1. GDI, Sketching to Design 2. GDI, Sketching to Design 3. GDI, Sketching to Design (Emphasis: sketching skills, presenting ideas, ACT3)	
Week 7 CNY Holidays	<ol style="list-style-type: none"> 1. Design Model, Project Planning 2. Practical Session 3. Structure lesson 1 	
Week 8	<ol style="list-style-type: none"> 1. Need Definition, Situation and Design Opportunity. Initial Ideas/Solutions 2. Practical Session 3. Structure lesson 2 	
Week 9	<ol style="list-style-type: none"> 1. Design Brief. Research techniques on UEF – Research outline, observations, interview, survey. 2. WA1 / Practical Session 3. Structure lesson 3 	
Week 10 WEALTH Wk	<ol style="list-style-type: none"> 1. WEALTH Week Activities 2. Research on UEF 3. Practical Session 	
Term 2	Topic	Remarks
Week 1	<ol style="list-style-type: none"> 1. Research techniques on UEF – Product Analysis, PMI, Suggestions for improvement. 2. Practical Session 3. Structure lesson 4 	
Week 2 Good Friday	<ol style="list-style-type: none"> 1. Research Conclusion, Design Considerations, Specifications 2. Practical Session 3. Structure lesson 5 	

Week 3	<ol style="list-style-type: none"> 1. GDI - Ideation. 2. Practical Session 3. Mechanism lesson 1 	
Week 4	<ol style="list-style-type: none"> 1. GDI – Ideation. 2. WA2 / Practical Session 3. Mechanism lesson 2 	
Week 5	<ol style="list-style-type: none"> 1. GDI – Ideation and Development (wrt UEF). 2. Practical Session 3. Mechanism lesson 3 	
Week 6	<ol style="list-style-type: none"> 1. GDI – Ideation and Development (wrt UEF). 2. Practical Session 3. Mechanism lesson 4 	
Week 7 Labour Day	<ol style="list-style-type: none"> 1. GDI (wrt UEF) – Data collection of important items. 2. Practical Session 3. Mechanism lesson 5 	
Week 8 Hari Raya P	<ol style="list-style-type: none"> 1. GDI (wrt UEF) – Anthropometry and Ergonomics 2. Practical Session 3. Electronics lesson 1 	
Week 9	<ol style="list-style-type: none"> 1. GDI (wrt UEF) – Dimensioning 2. Practical Session 3. Electronics lesson 2 	
Week 10 Vesak	<ol style="list-style-type: none"> 1. Practical Session 2. Practical Session 3. Electronics lesson 3 	
Term 3	Topic	
Week 1	<ol style="list-style-type: none"> 1. GDI (wrt UEF) – Mock-up construction 2. GDI (wrt UEF) – Mock-up construction 3. Electronics lesson 4 	
Week 2 Youth Day	<ol style="list-style-type: none"> 1. GDI (wrt UEF) – Mock-up construction 2. GDI (wrt UEF) – Mock-up construction 3. Electronics lesson 5 	
Week 3	<ol style="list-style-type: none"> 1. GDI (wrt UEF) – Mock-up testing and idea improvement 	
Week 4 Hari Raya	<ol style="list-style-type: none"> 1. GDI (wrt UEF) – Final Idea 2. GDI (wrt UEF) – Fine tuning dimension, drafting material list 3. Drafting material list 	
Week 5	<ol style="list-style-type: none"> 1. Working drawings, Part drawings 2. Working drawings, Part drawings 3. Prototyping 	
Week 6	- Prototyping	
Week 7 National Day	- Prototyping	
Week 8	- Prototyping	
Week 9	<ul style="list-style-type: none"> - WA3 - Prototyping 	

Week 10 Teacher Day	- Prototyping: Electronic circuit construction - Revision: TYS	
Term 4	Topic	
Week 1	- Prototyping: Electronic circuit construction, Assembly - Revision: TYS	
Week 2	- Prototyping: Assembly - Product Evaluation - Revision: TYS	
Week 3	End of Year Examinations	
Week 4	End of Year Examinations	
Week 5	1. Review of EOY exam paper & key points. 2. Presentation Board: Presentation Drawing, Contextual Use Drawing, Product Rendering - Use of Underlays or Google Sketch-up	
Week 6	Head Start Programme (Part 1): Presentation Board: Presentation Drawing, Contextual Use Drawing, Product Rendering - Use of Underlays or Google Sketch-up	
Week 7 (Last day of school 29/10)	Head Start Programme (Part 2): Presentation Board: Presentation Drawing, Contextual Use Drawing, Product Rendering - Use of Underlays or Google Sketch-up	

**Please note that the topics might be subject to minor changes. Students will be updated accordingly.*

Assessment

	Weighting	Components
WA1	15%	*Written Test
WA2	15%	*Written Test
WA3	15%	*Written Test
Final Exam	55%	- End of Year Examinations (Written) - Coursework (Design Journal, Mock Up and Prototype)