Higher Graphic Communication 2021-22

	Week No.				Homework
		Final grades are determined by an external exam. The Course Assessment consists of an Assignment (50 marks) and a Question Paper(90 marks)			**Homework**
Jun	1	**Introduction to course** Learning Outcomes – e.g. Impact on Environment	**Manual sketching** Orthographic & Pictorial sketches of Lego block	**CAD Modelling:** Using Inventor to create modelling plans, model and assembly of Lego blocks	Download Inventor at Home. Use 3D Made Easy website
	2	**Desktop Publishing - Festival Ticket:** • DTP Elements & Principles • Produce preliminary layout designs for document with effective use of design elements and principles (thumbnails in line with the specification) • Master page conforming to DTP criteria using grid structure etc. • Multi-page promotional publication in line with the target market and using design elements and principles. Describe and justify the use of promotional graphics used in industry and commerce and their impact on the environment.			**H/W -** Inventor exercises
	3				
Summer Holiday					
Aug	1	**Inventor exercises:** Extrude/Revolve/Loft/Helix/Extrude along a path			**H/W -** Interpenetration drawings

	2	**Standards & Conventions:**
		• Line Types
		• Dimensioning
		• Internal and External screw threads
		• Symbols
		  ○ Knurling
		  ○ Flat Face
		• Manufacturing Tolerances
		• 3rd Angle Projection Symbol
		
		CAD Library
		
		Digital vs Manual
					H/W - 3D Made Easy Online Video Tutorials

Sept	3	**Course Overview:** Breakdown of marks / Topics covered within Course Assessment Specification **Re-cap on Inventor skills**	**Interpenetration:** Inventor models / Boardwork		
	4	**Interpenetration:** Boardwork / Inventor model of Cup & Straw Holder	**CAD Modelling: Past Paper 2015** Q1 – Fire Extinguisher (Create model and answer written questions)	**CAD Modelling: Past Paper 2017** Q1 – Bicycle (Create model and answer written questions)	**H/W –** Revision (CAD Modelling Techniques)
	5	**Tangency:** **HJI** (Complete drawing) **HJ2 / HJ3** (Create Inventor models and complete drawings) **Past Paper – 2018** Q1b (Ellipses) Q1c (CAD Modelling/Tangency) Q4c (PCD) **Past Paper – 2016** Q1g (Tangency)			
	6	**CAD Modelling: Past Paper 2016** Q1 – Guitar (CAD Library, Benefits of CAD Models, Top Down / Bottom Up Modelling, Offset Command, Radial Array, PCD) Model Q1e			**H/W –** DTP Elements and Principles

	7	**DTP - Image Manipulation Task (Kite Image)** **DTP Task – Venue / Event Leaflet** • Research Page • Formatting options • Thumbnail sketches • Presentation Visual • Master Page • Final Promotional Document • Evaluation	
Oct	8	**DTP Task – Venue / Event Leaflet (Cont.)**	**H/W –** Revision for class test
October Week			
	9	**DTP Task – Venue / Event Leaflet (Cont.)** **Class Test Revision** • CAD Modelling • The 3 Ps • Standards and Conventions • Ellipses • Tangency • DTP • CAD Library • Digital vs Manual	

Oct	10	**Class Test**
		
		Class Test Results / Marking Scheme
		• Breakdown of marks using Marking Scheme
		• Model components from CAD question 1 paper Autodesk Inventor
		
		Freehand Sketching / Creating Modelling Plans
		• 2D (Circle, Ellipse etc.)
		• 3D Pictorial (1 Point Perspective, 2 Point Perspective, Isometric, Oblique)
		
		CAD Modelling / Assembly – Door Knocker
		• Modelling component parts of door knocker
		  ○ Extrude with taper
		  ○ Work planes
		  ○ Revolve
		  ○ Tangency
		• Create a complex assembly using 3D Constraints
		• Create Orthographic drawings of components and assembly
		  ○ Ortho views
		  ○ Dimensioning
		  ○ Line Types
		  ○ Section views
		  ○ Detail views
		  ○ Exploded views
			H/W – Revision based on class test results

Nov	11 **Interim Report**	**CAD Modelling / Assembly – Soap Dispenser**
		• Modelling component parts of soap dispenser
		• Create a complex assembly using 3D Constraints
		• Create Orthographic drawings of components and assembly
		  ○ Ortho views
		  ○ Dimensioning
		  ○ Line Types
		  ○ Section views
		  ○ Detail views
		  ○ Exploded views
			H/W – PP Question – Internal and External Screw Threads

	12	**Drawing Standards and Conventions**
		• Sectioning and hatching
		  ○ Through
		  ○ Stepped
		  ○ Part
		  ○ Half
		  ○ Revolved
		  ○ Removed
		• Building Drawings and Symbols	

	13	**DTP – Soap Dispenser** • Research advertisements for cosmetic products • Create a Graphic Specification • Create thumbnail sketches of DTP poster • Create final promotional document to advertise soap dispenser ○ Render and apply light sources, materials and textures	**H/W –** Drawing Standards and Conventions
	14		
Dec	15	**Manual Rendering – Soap Dispenser** • Create a 2D sketch of the soap dispenser • Render using marker pens	**H/W –** Manual Rendering
	16	**Geometric Shapes and Forms / Views and Techniques** • True lengths and shapes • Surface Developments • Auxiliary Views **File Types** • CAD (dxf, 3ds, step/iges) • DTP (raster & vector)	
	17	**Course Assignment Preparation**	**H/W –** File Types
	18		
Christmas			
Jan	19	**Course Assignment Preparation – Lamp Project**	
	20 **Full Report**		**H/W –** Course assignment preparation
	21	**Lamp Project contd.**	

	22 **Parents' Evening**	**Prelim Revision**	**H/W –** Prelim Revision
Feb	23	**Prelim exam**	
	24	**Course Assignment: (8 Hours)**	**H/W –** Course assignment preparation
	25		
	26		
Mar	27	**Exam preparation**	**H/W –** Exam Revision
	28		
	29 **Interim Report**		
	30		
Easter			
Apr	31	**Exam preparation**	**H/W –** Exam Revision
	32		