Advanced Higher Graphics Detailed Couse plan

Adv H	Plan							
	Mon 1	Mon 2		Wed 3	Wed 4	Thursday 5	Friday 3	Overall
7/1	Audience Requirements from Past papers	Audience Requirements from Past papers		Project	Project	Bank answers task	Consolidating bank answers task	77 (64 hours)
14/1	3D modelling questions from Past papers	3D modelling questions from Past papers		Project	Project	Animation	Consolidate animation	71
21/1	DTP questions from Past papers	DTP questions from Past papers		Project	Project	Graphics Technologies	Consolidate Graphics Technologies	65
28/1	Built environment task	Notes on Built environment		Project	Project	Topics identified by pupil	Topics identified by pupil	59
4/2	Graphics Prelim 9 to 11	Project		Project	Project	Project	Project	53
11/2	Project	Project		Project	Project	Project		49
18/2				Project	Project	Project	Project	44
25/2	Project	Project		Project	Project	Project	Project	40
4/3	Project	Project		Project	Project	Project	Project	34
11/3	Project	Project		Project	Project	Project	Project	28
18/3	Project	Project		Project	Project	Project	Project	22
25/3	Project	Project		Project	Project	Project	Project Deadline	16
15/4	Revision targeted on Prelim 1	Revision targeted on Prelim 1		Revision targeted on Prelim 1	Revision targeted on Prelim 1	Revision targeted on Prelim 1	Project mark to office to be sent to SQA Revision targeted on Prelim 1	10
22/4	2nd prelim	2nd prelim		Revision targeted from Prelim 2	Revision targeted from Prelim 2	Exam leave starts today		4
			Exam - Tuesday 21st May at 1pm to 3pm					

1	Graphic Types	Knowledge, understanding and skills in interpreting audience requirements and producing effective graphic responses for: ¨ preliminary, production and promotional graphics
2	Techniques	Skills, knowledge and application of: ¨ creative techniques when using graphic instruments or devices, and a range of graphics media
3	Drawing standards, protocols and conventions	Knowledge and skills in applying: ¨ recognised standards, protocols and conventions in engineering and construction drawings, including line types, symbols for sections, including stepped sections ¨ according to context, display variances in use of scale, detail, layout, measurement, layering functions, materials and symbols, tolerances
4	Computer-aided design	Knowledge and skills in applying: ¨ recognised techniques, customs and practices across 3D modelling and 2D CAD software, including drawing and editing commands and terms ¨ standard 2D CAD commands and including import and export ¨ standard 3D modelling techniques and including morphing, extrusion along a path (sweeps), ¨ regular and irregular fillets and chamfers, lofting, blending and surface modelling ¨ techniques in the production of orthographic and pictorial work using computer-aided design
5	Computer-aided illustration	Knowledge and skills in applying: ¨ professional use of rendering technology to create scenes or illustrations with visual impact; including the use of texture mapping, bump-mapping, lighting, reflection, specularity, ambience, depth-of-field, Image Based Lighting/High Dynamic Range Imagery (IBL/HDRI) and volumetrics ¨ the use of polygons in the production of 3D graphics, including Boolean functions of add, subtract and intersect, slice
6	Planning drawing	Knowledge of the use of: ¨ electrical drawings, plumbing drawings, drainage surveys, underground surveys— storm water, foul water, services, gas, electric and telecommunications ¨ feature surveys; paving, seating, lighting ¨ topographical surveys; standards, layout and use
7	Simulation	Knowledge and skills in the use of: ¨ digital testing methods, eg Finite Element Analysis (FEA) or Computational Fluid Dynamics (CFD) to simulate how parts of a 3D model would perform if produced in reality, mechanical animation
8	CAD CAM systems	Knowledge and skills in the use of: ¨ 3D model manipulation to prepare for CAM production ¨ communicating surface finish and datums ¨ gathering model information on volume, centre of mass and mass of the model
9	Technical graphic file formats and their use	Knowledge and skills in the use of: Standard Tessellation Language/stereo lithography file format (STL), Direct Exchange Format (DXF), Drawing Format (DWG), Virtual Reality Modelling Language (VRML) and 3D Studio (3DS) files
10	Issues of ownership	Digital rights management/intellectual property rights
11	Desktop Publishing	Knowledge and skills in the application of: ¨ techniques, customs and practices across a range of packages, generic terms and techniques in supporting context and audience requirements ¨ planning strategies
12	Graphic media file formats and their use	Knowledge and understanding of: Joint Photographic Experts Group (JPG), Portable Network Graphics (PNG), Bitmap Image file (BMP), Portable Document Format (PDF), Adobe Illustrator file (AI), Windows Media Video (WMV), Audio Video Interleave (AVI),Third Generation Partnership (3GP), Apple QuickTime Movie (MOV), Moving Picture Experts Group (MPEG), Encapsulated Postscript (EPS)
13	Design elements and principles	In addition to the design elements and principles from Higher Graphic Communication: ¨ design elements; pace, focal point, silhouettes ¨ design principles; golden ratio, rule of thirds, dynamic effects, radial balance, negative space.
14	Graphic technologies	Knowledge and understanding of: ¨ various printing technologies, including laser, ink-jet, wide-format, screen printing, offset lithography and solid ink systems ¨ quality and standards in print and digital media including: an understanding of RGB colour space, CMYK colour space, and Pantone® ¨ edge-to-edge, bleed, gutter, registration marks, colour calibration, dots-per-inch (DPI), pixels per inch (PPI) ¨ photo-reduction, duplexing, camera-ready copy, paper weight, paper opacity, use of calendaring for glossy print
15	Animation	Knowledge, understanding of, and application as required of: ¨ creation of animated graphics making use of motioncapture, stop-frame, or motion tweening ¨ post-editing of video files and use of video graphic technologies, including blend/fade, zoom, transition and overlays
16	Issues of ownership	Digital rights management/intellectual property rights
17		Practical project planning in terms of use and allocation of time, resources and equipment requirements and when they will be needed, practical use of planning tools, eg Gantt charts, start and finish dates of key activities, review and update