Computer Graphics & Design
Course Code: CGD315113

Externally Assessed Folio

This year was the first year we had ‘back to base marking’. Strong folios where presented as folios, meaning all-inclusive with multimedia files all contained in the one presentation. This approach in itself illustrates a strength in Criterion 8. PowerPoint and PDF folios together with web based folios made up the bulk of strong folios. Text files and associated image and video files in a folder do not have that folio feel about them. Paper based sketching and other parts of the design process detract from a pure digital presentation. Strong folios contained digitised sketching etc. and incorporated all parts of the designing process in one digital format.

The writing of a correct Design Brief remains to be a weakness for many folios, a poorly structured design brief lacking context, requirements and limitations does not provide a strong framework for candidates to produce a successful design based project. Well written design briefs mostly paved the way for a strong successful candidate design project. While one criteria (8) reflects the use of digital tools two other criteria are concerned with design process and principles and elements of design. The first research task to be undertaken by a candidate should be ‘What is a design brief’.

Many candidates did not carry out thorough research and or reflect design principles and elements associated to their chosen design field. If a house or similar is the design project, then Architectural processes and principles and elements must be clearly evident. These can be understood by the candidate if adequate research is undertaken. The same goes for many other design contexts/areas, a candidate will develop strong evidence of process and principles and elements if adequate research is undertaken.

TASC 3 is preceded with a foundation course TASC 2, this is done so candidates can study over two years and build their skills and understanding to a high level. Many candidates clearly undertake level 3 with no foundation/experience in the subject. Many folios reflected a standard illustrating this.

Highly successful projects where complete in all aspects in relation to the criteria. Small projects done very well in all aspects are more successful than over ambitious larger projects that are incomplete and underdone in stages of the designing process.

Many candidates included steps in production to authenticate their work using screen grabs. Strong folios included annotations and commentary illustrating terms and vocabulary associated with CGI. Screen grabs and other illustrations with no annotations or commentary are of little to no value in the folio.

Evaluation/reflection is important to complete the design process and TASC requirements. Many projects did not include these elements.

Industry analysis essay must be an analysis of the industry best relating to the candidate’s project and written like an academic essay with correct referencing. Academic Integrity remains a priority with TASC so must be undertaken correctly.

Approximately 3.5% of candidates would be considered exemplars with achieving the highest awards on their folios. In summary candidate projects need to be strong with design process and illustrate a strong understanding of the principles and elements of design associated with the chosen context. Other components of the folio to concentrate on are:

• The Design Brief
• Concept and idea development
• Research
• Industry analysis
• Annotated steps in production
• Complete graphics product
• Evaluation
• Referencing

Written Examination Paper

Question 1
This question was answered by a significant number of candidates and was an excellent question for candidates to demonstrate their understanding of the design process. Although the design process can be expressed in many way successful answers all mentioned the importance of the Design Brief. Some candidates did not fully understand the question and did not highlight four clear steps and some talked about rendering and the use of software which was not what the question asked for.

Question 2
This question bought mixed responses many candidates missed the point about sketching and commented frequently on the pencil and paper no longer needed. The tools are not relevant to the question about sketching and being a designer. Sketching whether with digital tools like tablets and stylus or pen and paper, sketching is used to develop and work through concept and idea development. Sketched ideas and concepts can be imported into most graphics applications to assist in the final phases of production.

Question 3
Candidates who attempted this question generally displayed the ability to accurately draw or sketch an isometric representation of the block to a high standard. In some cases, proportional accuracy and omission of the hole going through the block diminished the quality of the representation. Some candidates clearly did not understand the principles of isometric representation, producing a replication of the orthographic sketch, an oblique representation or a perspective representation.

Question 4
Many of the candidates who attempted this question did not understand it was essentially a question on the key elements of Design and how they impact or deliver a message. High level answers describe in detail each element and how they related to the chair design proposed for the hospital.

Question 5
Many candidates attempted this question. It was clear from many of the responses that they chose this question because they were attracted by the Social Media stimulus sentence, believing that because they were avid users of social media that they would be able to write a worthy answer. This was not necessarily the case.

The crucial words in the question were “how would you utilise……”. Many respondents missed this part of the question.

Key elements sought for a response were things like; naming a range of social media platforms, discussing how such platforms could be used, marketing opportunities, sharing of ideas, working collaboratively and seeking feedback from others.

This question was reasonably well answered.

Question 6
This was a very popular question which yielded very few high quality answers. Many candidates misunderstood the concept of a “design classic” as being any commonly available item. Reference to doors, windows, chairs, tables, cars and pencils were common. The belief that a window of some kind is a design classic simply because there are a lot of them and that they have been available for many years demonstrates a low level of understanding of the term. A true design classic is a product which has iconic status that other designers have
sought to emulate in either an implicit or explicit manner. This might include items such as the Coke bottle, Levi’s jeans, the Swiss Army Knife, Le Corbusier’s chaise lounge, Frank Lloyd Wright’s architectural style, Rayban Aviator sunglasses and so on.

Candidates misunderstood this question to such an extent that it was decided by the marking panel that the question was poorly worded and, to a degree, misleading. It was therefore agreed that a low mark on this question would not negatively influence the candidate’s final rating on assessment criterion 2.

**Question 7**

Many candidates answered this question but with not a lot of detail in their explanation. Strong answers used the technical terms and phrases associated with raster type software like Photoshop – terms like dodging and burning; healing tool; layer and blend modes; use of levels and colour channels. Answers also included use of filters, smoothing and sharpening modes. The question must be read fully. It asked for steps you would take. Basic answers did not reflect that format.

**Question 8**

This question was attempt by a number of candidates. The majority were able to communicate understanding of elements of a successful game targeted at young people such as goals and rewards, increasing difficulty of levels, the opportunity to correct errors and the possibilities for multi-player challenges. In addition higher level responses also discussed the use of characters, use of colour, shape, type and tone and uncluttered interfaces to add engagement to the game play.

**Question 9**

Only a small number of candidates attempted this question, which covered a broad range of issues including data security, office management protocols, manipulation of large file, archiving and backing up. Successful answers talked about the need to have file stored in two different locations and often mentioned additional network storage in the form of servers or hard disk drives and cloud based storage solutions. Some candidates talked about automated systems of naming and backing up. Few candidates dealt with creating easy to follow filing systems, file nomenclature, sequential saving or the role of the designers and administrators in the office.

**Question 10**

This question was selected by a small number of candidates. Many candidates missed the clear link between the stimulus which stated that a large carpet sample was provided and how a digital carpet texture could be produced.

Some responses included ideas about scanning the carpet sample, which would be impractical and ultimately give a poor digital copy.

Most candidates were able to give a reasonable description of a process, although some were quite simplistic. Very poor responses included finding a close sample match on the internet.

Key elements sought for a response were things like; high resolution photography, photo manipulation, seamless tiles, tiling, bump maps, displacement and colour maps.

**Question 11**

A good number of candidates answers this question and mostly produced satisfactory answers. All who attempted this question were able to discuss the legal considerations around copywriting and acknowledging and referencing other people’s content. Very few were able to discuss in detail some of the ethical considerations.

**Question 12**

This question was attempted by a majority of candidates to a varying degree of success. Many candidates misunderstood it as a “Design Process” question that required reference to research, design sketching, modelling in a suitable 3D program and so on. Those answers that gained the higher results made reference to modelling through reference to MRI (Magnetic Resonance Imaging), digital adjustment that corrects the diseased / worn component and then exporting the file to a printable format such as .Stl (Stereo Lithography) to a 3D Printing
device. Higher end answers discussed materials and methods of material deposition. For example, Electron Beam Additive manufacturing (EBM) which is a method on laying down metallic particles in a powder format and then fusing these particles to the previous layer using an electron beam. Weaker answers assumed that extruded plastic such as HDPE (High density Poly ethylene) from re-cycled milk bottles would be a suitable material for constructing a replacement hip.

**Question 13**
The question was open ended which meant there could have been a number of possible responses. Most candidates answered this question well with a variety of methods described. These varied from using a skeletal rig system such as biped or CAT motion, to skin or link with the character’s geometry and use options such as key-framing the movement or applying motion capture data. Other responses indicated how tools such as the puppet tool in After Effects or creating symbols in Flash for body parts could be used and the motion implemented through a pose to pose or straight ahead animation process.

**Question 14**
This question was generally well answered with candidates showing a good understanding of improving render quality by increasing the render file output size. High level answers demonstrated a good understanding of issues such as file compression and the use of high quality images in relation to materials applied to the scene.

**Question 15**
This was a popular question, with candidates offering descriptions of all the techniques listed. Answers dealing with Polygon modelling often did not talk about the sub-objects which could be manipulated. Likewise candidates describing spline modelling did not generally talk about control points and handles. The discussion of Boolean modelling was on the whole well done. Candidate describing texture mapping often talked about UVW mapping and unwrapping.

**Question 16**
Many answers where software specific and not written in terms of CG general terms of reference. Basic answers mentioned types of lights like spot and point or omni but very little reference to placement. Strong answers talked about daylight systems and using windows to assist placement. Lights inside models or models in the scene which emitted light where mentioned in strong answers. Area lights and target lights used to accent and highlight daylight systems with ambient lighting where the best answers.

**Question 17**
Two parts to this question asking for detail in one and a choice between two options in the other. Many candidates failed to read the question correctly. Basic answers commented on traditional methods like TV and print media to promote or undertake an advertising program. While the essential messages where illustrated in part (b) of the question not many candidates included them in part (a). Strong answers covered online media highlighting social media, tagging, viral, video sharing, google ads including graphic banners etc. examples used where Facebook, YouTube, Instagram etc. With section (b) essentially it is down to principles of Graphic Design, using text and image hierarchy, typography and whitespace etc. Webpages have different graphic design elements because of the user interaction while print media is different. Many candidates did not show a strong understanding of the associated principles.

**Question 18**
This question was generally well answered by the majority of candidates who attempted it. In thinking of the design considerations, many candidate based their responses around the stimulus of safety, shelter, separation of traffic, vandalism, bus information and elderly access. Higher level responses also discussed form and functional considerations, material choices for both aesthetic and functional requirements and the need to engage in a consultative approach with potential stakeholders. Better design solutions included detailed annotated sketches and drawing using orthographic, isometric and perspective projections with an attention to scale and proportion.
**Question 19**
Very few candidates attempted this question and, of those that did, few created a story board in a standard disciplined way, with a number of cells, complete with dialogue, direction and timing. The general story and message that candidates put forward was good but poor drawing skills let many candidates down. The majority of candidates answered all parts of this question and talked about the difference between television and online versions of the same video but neglected to make comment on the target audience in each case.

**Question 20**
This question produced generally reasonably good responses. In order to gain a higher end result, two alternative or different design solutions were required. Ideally these were presented as a 3D sketch (often backed up with orthographic drawings of the item). Annotation of the drawings was important, as was a written analysis of the key design considerations.

**Question 21**
This was a very popular question that was generally well answered. Discussion of Cloud storage, almost unlimited geographical access to data, ability to work collaboratively across large distances, concerns about data security, ability to work from home, ability to widely research design influences / precedents, ability to promote work and seek review through social media, issues with connectivity reliability and social consequences of working in physical isolation were all commonly mentioned.

**Question 22**
This question was well answered for the greater part by candidates who attempted it. Being an open ended question on presentation processes and techniques there was no limit to the type of answers presented. The majority of candidates discussed things from their own experiences such as PowerPoints, 3D models, walkthroughs 3D printing and data projectors. High level answers included discussion around the use of virtual reality headsets, YouTube and a range input devices.

**Question 23**
This question proved to be reasonably popular with candidates.

Responses included the key ideas about the development of special effects through digital technologies. The prompt in the question asked candidates to consider disadvantages and this was done well by most candidates. Poorer responses focussed only on the stimulus of Mad Max, whereas better responses included a range of film examples and the special effects that were used.

Many answers focussed on special effects only as explosions. Better responses discussed stunts and other technologies such as motion capture.

Key elements sought for a response were things like; CGI effects (fire, explosion, stunts, motion capture etc), production cost comparison, director creativity, use of CGI environments, green screen use and realism. This question was reasonably well answered.

**Question 24**
This question was attempted by only a few candidates and many of those who did attempt the question misinterpreted the intent of the question. ‘Design style’ would have been a more appropriate term to use instead of ‘design period’. Concepts such as social media, 3D printing and the Internet are not considered to be design styles or periods, nor are CEOs of large companies such as Facebook or Apple considered to be designers. The few candidates who were able to correctly interpret the question communicated high level understanding of a design style such as Art Deco, Bauhaus and Pop or a designer working in a design field such as Jonathan Ive, Le Corbusier and Frank Gehry.