EDSE12026 *Graphics and 2D Computer Aided Design Technologies*
Term 1 - 2021

Profile information current as at 28/04/2024 10:05 am

General Information

Overview

This unit provides an introduction to graphical and 2-dimensional computer-aided design (CAD). It provides the necessary skills for the demonstration of practical and theoretical knowledge thus enabling you to teach Graphics and 2D CAD in the discipline of Industrial Technology and Design in the middle years of schooling (7-10). You will design, develop, adapt and evaluate projects utilising critical aspects of knowledge about graphics and 2-dimensional drawing. You will develop hands-on drawing skills and the ability to work with 2-dimensional design technologies.

Details

Career Level: *Undergraduate*
Unit Level: *Level 2*
Credit Points: *6*
Student Contribution Band: *8*
Fraction of Full-Time Student Load: *0.125*

Pre-requisites or Co-requisites

There are no requisites for this unit.
Important note: Students enrolled in a subsequent unit who failed their pre-requisite unit, should drop the subsequent unit before the census date or within 10 working days of Fail grade notification. Students who do not drop the unit in this timeframe cannot later drop the unit without academic and financial liability. See details in the Assessment Policy and Procedure (Higher Education Coursework).

Offerings For Term 1 - 2021

- Mixed Mode

Attendance Requirements

All on-campus students are expected to attend scheduled classes – in some units, these classes are identified as a mandatory (pass/fail) component and attendance is compulsory. International students, on a student visa, must maintain a full time study load and meet both attendance and academic progress requirements in each study period (satisfactory attendance for International students is defined as maintaining at least an 80% attendance record).

Residential Schools

This unit has a Compulsory Residential School for distance mode students and the details are:
Click here to see your Residential School Timetable.

Website

This unit has a website, within the Moodle system, which is available two weeks before the start of term. It is important that you visit your Moodle site throughout the term. Please visit Moodle for more information.

Class and Assessment Overview

Recommended Student Time Commitment

Each 6-credit Undergraduate unit at CQUniversity requires an overall time commitment of an average of 12.5 hours of study per week, making a total of 150 hours for the unit.

Class Timetable

Regional Campuses
Bundaberg, Cairns, Emerald, Gladstone, Mackay, Rockhampton, Townsville

Metropolitan Campuses
Adelaide, Brisbane, Melbourne, Perth, Sydney

Assessment Overview

1. **Written Assessment**
Weighting: 15%
2. **Practical Assessment**
Weighting: 20%
3. **Practical Assessment**
Weighting: 15%
4. **Practical Assessment**
Weighting: 15%
5. **Written Assessment**
Weighting: 35%

Assessment Grading

This is a graded unit: your overall grade will be calculated from the marks or grades for each assessment task, based on the relative weightings shown in the table above. You must obtain an overall mark for the unit of at least 50%, or an overall grade of 'pass' in order to pass the unit. If any 'pass/fail' tasks are shown in the table above they must also be completed successfully ('pass' grade). You must also meet any minimum mark requirements specified for a particular assessment task, as detailed in the 'assessment task' section (note that in some instances, the minimum mark for a task may be greater than 50%). Consult the University's Grades and Results Policy for more details of interim results and final grades.

CQUniversity Policies

All University policies are available on the CQUniversity Policy site.
You may wish to view these policies:

- Grades and Results Policy
- Assessment Policy and Procedure (Higher Education Coursework)
- Review of Grade Procedure
- Student Academic Integrity Policy and Procedure
- Monitoring Academic Progress (MAP) Policy and Procedure – Domestic Students
- Monitoring Academic Progress (MAP) Policy and Procedure – International Students
- Student Refund and Credit Balance Policy and Procedure
- Student Feedback – Compliments and Complaints Policy and Procedure
- Information and Communications Technology Acceptable Use Policy and Procedure

This list is not an exhaustive list of all University policies. The full list of University policies are available on the CQUniversity Policy site.

Previous Student Feedback

Feedback, Recommendations and Responses

Every unit is reviewed for enhancement each year. At the most recent review, the following staff and student feedback items were identified and recommendations were made.

Feedback from Students

Feedback
Feedback and results not returned in timely manner

Recommendation
Provision of feedback improved.

Unit Learning Outcomes

On successful completion of this unit, you will be able to:

1. Understand the use, development and impact of design concepts through the use of graphical and 2-dimensional communication
2. Apply graphical and 2-dimensional design concepts and procedures
3. Plan, sequence, implement and assess graphics used in the production of projects
4. Recognise and apply basic skills sequences and procedures using design processes required for teaching Graphics and 2 D CAD technologies
5. Critically evaluate specific applications of tools and equipment used in the production of Graphics and 2 D CAD technologies
6. Apply appropriate workplace health and safety and maintenance practices when engaging in design activities
7. Communicate and work professionally in peer learning teams.

Australian Institute for School Leadership (AITSL, 2013), Professional Standards for Teachers (Graduate Level):
Standard 2: Know the content and how to teach it
2.1 Content and teaching strategies of the teaching area; 2.2 Content selection and organisation
Standard 4: Create and maintain supportive and safe learning environments
4.4 Maintain student safety
Standard 6: Engage in professional learning
6.2 Engage in professional learning and improve practice; 6.3 Engage with colleagues to improve practice.
Standard 7: Engage professionally with colleagues, parents/carers and the community.
7.2 Comply with legislative, administrative and organisational requirements; 7.4 Engage with professional teaching networks and broader communities.

Alignment of Learning Outcomes, Assessment and Graduate Attributes

— N/A Level ◦ Introductory Level • Intermediate Level ● Graduate Level ◦ Professional Level ○ Advanced Level

Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes						
	1	2	3	4	5	6	7
1 - Written Assessment - 15%	•	•	•	•	•	•	
2 - Practical Assessment - 20%	•	•	•	•	•	•	•
3 - Practical Assessment - 15%	•	•	•	•	•	•	•

Assessment Tasks	Learning Outcomes						
	1	2	3	4	5	6	7
4 - Practical Assessment - 15%	•	•	•	•	•	•	•
5 - Written Assessment - 35%	•	•	•	•	•	•	

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes						
	1	2	3	4	5	6	7
1 - Communication	•	•	•	•	•	•	•
2 - Problem Solving	•	•	•	•	•	•	•
3 - Critical Thinking	•	•	•	•	•	•	•
4 - Information Literacy	•	•	•	•	•	•	•
5 - Team Work	•	•	•	•	•	•	•
6 - Information Technology Competence	•	•	•	•	•	•	•
7 - Cross Cultural Competence			•	•	•	•	•
8 - Ethical practice	•	•	•	•	•	•	•
9 - Social Innovation							
10 - Aboriginal and Torres Strait Islander Cultures							

Alignment of Assessment Tasks to Graduate Attributes

Assessment Tasks	Graduate Attributes									
	1	2	3	4	5	6	7	8	9	10
1 - Written Assessment - 15%	•	•	•	•	•	•	•	•		
2 - Practical Assessment - 20%	•	•	•	•	•	•	•	•		
3 - Practical Assessment - 15%	•	•	•	•	•	•	•	•		
4 - Practical Assessment - 15%	•	•	•	•	•	•	•	•		
5 - Written Assessment - 35%	•	•	•	•	•	•	•	•		

Textbooks and Resources

Textbooks

EDSE12026

Prescribed

Graphics Introductory Worksheets
Edition: 1st (1999)
Authors: Baker, S & Schlyder, D
PCS Publications
Toowoomba , Queensland , Australia
Binding: Paperback
EDSE12026

Prescribed

Graphics Stage A Worksheets
Edition: 1st (1999)
Authors: S.D. Baker & D. Schlyder
PCS Publications
Toowoomba , Queensland , Australia
Binding: Paperback
EDSE12026

Prescribed

Graphics - Stage B Worksheets
Edition: 1 (1999)
Authors: Schlyder, D
P.C.S. Publications
Toowoomba , Queensland , Australia
Binding: Paperback

Additional Textbook Information
Students can also purchase textbooks from here: https://peridis.com.au/product-category/graphics/

View textbooks at the CQUniversity Bookshop

IT Resources

You will need access to the following IT resources:

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)
- Software: Autodesk AutoCAD 2020

Referencing Style

All submissions for this unit must use the referencing style: American Psychological Association 7th Edition (APA 7th edition)
For further information, see the Assessment Tasks.

Teaching Contacts

Brad Connolly Unit Coordinator
b.connolly@cqu.edu.au

Schedule

Week 1 - 08 Mar 2021

Module/Topic	Chapter	Events and Submissions/Topic
Oblique & Isometric pictorial views	Tasks to be completed Worksheets: · Introductory Sheet 1 · Introductory Sheet 2 · Introductory Sheet 3 · Introductory Sheet 4 · Introductory Sheet 5 Equipment required Two 0.4mm Artline black markers, two HB Pencils, a set of good quality coloured pencils or generic alcohol markers, an eraser and pencil sharpener	· Assessment 1 - Introduction to Technical sketching (15% weighting) - **Due week 5**, Sunday 4th April 2021, 11.55pm

Week 2 - 15 Mar 2021

Module/Topic	Chapter	Events and Submissions/Topic
· Oblique & Isometric pictorial views · One and Two point perspective views · Graphic Design · Layout development	Tasks to be completed Worksheets: · Introductory Sheet 6 · Introductory Sheet 7 · Introductory Sheet 8 · Introductory Sheet 9 · Introductory Sheet 10 Additional resources: · Read "Pictorial Representation Isometric and Oblique" · Read "Pictorial Representations Planometric and Perspective" AutoCAD: · Download AutoCAD student version Equipment required · Two 0.4mm Artline black markers, two HB Pencils, a set of good quality coloured pencils or generic alcohol markers, an eraser and pencil sharpener. · Software: Autodesk AutoCAD 2020	· Assessment 1 - Introduction to Technical sketching (15% weighting) - **Due week 5**, Sunday 4th April 2021, 11.55pm · Register and book Residential School 2021

Week 3 - 22 Mar 2021

Module/Topic	Chapter	Events and Submissions/Topic

	# Tasks to be completed ## Worksheets: · Introductory Sheet 11 · Introductory Sheet 12 · Introductory Sheet 13 · Introductory Sheet 14 · Introductory Sheet 15 ## Additional resources: · Read “Drawing Standards” · Read “Surface Developments” ## AutoCAD: · Download AutoCAD student version • View AutoCAD lessons 1- 6 and the associated tutorials # Equipment required · Two 0.4mm Artline black markers, two HB Pencils, a set of good quality coloured pencils or generic alcohol markers, an eraser and pencil sharpener. · Software: Autodesk AutoCAD 2020	
· Oblique & Isometric pictorial views · Orthographic projection · Graphic Design · Layout development		· Assessment 1 - Introduction to Technical sketching (15% weighting) - **Due week 5**, Sunday 4th April 2021, 11.55pm

Week 4 - 29 Mar 2021

Module/Topic	Chapter	Events and Submissions/Topic
	# Tasks to be completed ## Worksheets: · Introductory Sheet 16 · Introductory Sheet 17 · Introductory Sheet 18 · Introductory Sheet 19 · Introductory Sheet 20 ## Additional resources: · Read “Orthographic projections” · View “YouTube videos and Weblinks” ## AutoCAD: · View additional associated tutorials and practice skills. # Equipment required · Two 0.4mm Artline black markers, two HB Pencils, a set of good quality coloured pencils or generic alcohol markers, an eraser and pencil sharpener. · Software: Autodesk AutoCAD 2020 · Scanner · PDF file combiner	## Assessment 1 - Introduction to Technical sketching (15% weighting) - Due Sunday 4th April 2021, 11.55pm · Save Assessment 1 as a PDF file ensuring all scans are of high enough quality that they clearly show all details and annotations · Title the pdf file including your full name and assessment task. E.g., MarkWocknerAssessment1.pdf · Submit assessment online via the Moodle site
· Isometric pictorial views · Orthographic projection and dimensioning · Graphic Design Layout development		

Week 5 - 05 Apr 2021

Module/Topic	Chapter	Events and Submissions/Topic

Residential school Preparation	Tasks to be completed AutoCAD: · Complete AutoCAD drawings 1-6 Equipment required · Two 0.4mm Artline black markers, two HB Pencils, a set of good quality coloured pencils or generic alcohol markers, an eraser and pencil sharpener. · Software: Autodesk AutoCAD 2020	Residential School starts Brisbane/Rockhampton venues on Thursday 15th April 2021 to Saturday 17th April 2021 8:30 am. – 4:30 pm Day 1 technical sketching will focus on refining and extending the understanding and skills acquired in Assessment 1. A range of sketching tasks will extend knowledge and understanding as well as refining those skill already acquired. The degree of complexity of each task is extended to reflect the growth in the knowledge and skills of each participant. Day 2 Ideation sketching focuses on ideation sketching. 2D graphic design sketching involves the manipulation of simple shapes using the elements and principles of visual communication to create, unique and visually interesting concepts. 3D sketching examines a range of forms (i.e., 3 dimensional objects). Primitive forms can be grouped into a variety of categories from geometric to organic or free form. Primitive forms can be manipulated to be additive, subtractive, divided, adaptive, intersectional, transitional, merged or distorted to make complex and abstract forms. Combined with technical sketching, participants will develop an extensive range of skills and knowledge that will allow them to be able develop creative concepts which can be realized through a process of technical sketching to producing a CAD drawing. Day 3 AutoCAD focuses on learning the basic skills to be competent at AutoCAD. Participants will learn how to create a custom made template, use a range of tools and refine their understanding of AS1100 standards. The knowledge and skills acquired will be used to complete Assessment 3- Design Task. Completing the AutoCAD learning tasks in the weeks leading up to Residential school is an essential pre-requisite for Day 3. Assessment 2 – Residential School (50% weighting) - Due Saturday 17th April 2021, 4.30pm Assessment 2, 3 & 4 tasks will be collected under the Residential School Tutor’s direction.

Vacation Week - 12 Apr 2021

Module/Topic	Chapter	Events and Submissions/Topic

Residential school	Equipment required · Two 0.4mm Artline black markers, two HB Pencils, a set of good quality coloured pencils or generic alcohol markers, an eraser and pencil sharpener. • Software: Autodesk AutoCAD 2020	Residential School starts Brisbane/Rockhampton venues on Thursday 15th April 2021 to Saturday 17th April 2021 8:30 am. – 4:30 pm Day 1 technical sketching will focus on refining and extending the understanding and skills acquired in Assessment 1. A range of sketching tasks will extend knowledge and understanding as well as refining those skill already acquired. The degree of complexity of each task is extended to reflect the growth in the knowledge and skills of each participant. Day 2 Ideation sketching focuses on ideation sketching. 2D graphic design sketching involves the manipulation of simple shapes using the elements and principles of visual communication to create, unique and visually interesting concepts. 3D sketching examines a range of forms (i.e., 3 dimensional objects). Primitive forms can be grouped into a variety of categories from geometric to organic or free form. Primitive forms can be manipulated to be additive, subtractive, divided, adaptive, intersectional, transitional, merged or distorted to make complex and abstract forms. Combined with technical sketching, participants will develop an extensive range of skills and knowledge that will allow them to be able develop creative concepts which can be realized through a process of technical sketching to producing a CAD drawing. Day 3 AutoCAD focuses on learning the basic skills to be competent at AutoCAD. Participants will learn how to create a custom made template, use a range of tools and refine their understanding of AS1100 standards. The knowledge and skills acquired will be used to complete Assessment 3- Design Task. Completing the AutoCAD learning tasks in the weeks leading up to Residential school is an essential pre-requisite for Day 3. **Assessment 2 – Residential School (50% weighting) - Due Saturday 17th April 2021, 4.30pm** Assessment 2, 3 & 4 tasks will be collected under the Residential School Tutor’s direction.

Week 6 - 19 Apr 2021

Module/Topic	Chapter	Events and Submissions/Topic

Topics covered

Assessment 3 is three part task that creates a design project suitable for a yr. 9-10 graphics and design class. It requires all the skills and knowledge acquired in Assessment 1 and 2 to create a design folio that would be suitable for those year levels. The theme is based on product design. The task focuses on designing an innovative prize package for a school/charity event for an identified group of stakeholders.

The assignment uses the 'double diamond' design model which is the preferred model for Senior Design in Queensland schools, and which consists of 3 sections: Explore, Develop and Present.

Task to be commenced

Design Folio:

Part A Explore phase examines primary and secondary data to identify the needs and wants of the stakeholder to help ascertain the requirements for the proposal. Participants will create a multipage folio that provides evidence of this process.

Equipment required

· Two 0.4mm Artline black markers, two HB Pencils, a set of good quality coloured pencils or generic alcohol markers, an eraser and pencil sharpener.

· Software: Autodesk AutoCAD 2020

· Microsoft Word

· Scanner

PDF file combiner

Assessment 3 – Design Folio (35% weighting) - **Due week 12,** Sunday 6th June 2021, 11.55pm

Week 7 - 26 Apr 2021

Module/Topic	Chapter	Events and Submissions/Topic

Topics covered

Assessment 3 is three part task that creates a design project suitable for a yr. 9-10 graphics and design class. It requires all the skills and knowledge acquired in Assessment 1 and 2 to create a design folio that would be suitable for those year levels. The theme is based on product design. The task focuses on designing an innovative prize package for a school/charity event for an identified group of stakeholders.

The assignment uses the 'double diamond' design model which is the preferred model for Senior Design in Queensland schools, and which consists of 3 sections: Explore, Develop and Present.

Task to be commenced

Design Folio:

Part A Explore phase examines primary and secondary data to identify the needs and wants of the stakeholder to help ascertain the requirements for the proposal. Participants will create a multipage folio that provides evidence of this process.

Equipment required

· Two 0.4mm Artline black markers, two HB Pencils, a set of good quality coloured pencils or generic alcohol markers, an eraser and pencil sharpener.

· Software: Autodesk AutoCAD 2020

· Microsoft Word

· Scanner

PDF file combiner

Assessment 3 – Design Folio (35% weighting) - **Due week 12,** Sunday 6th June 2021, 11.55pm

Week 8 - 03 May 2021

Module/Topic	Chapter	Events and Submissions/Topic

# Topics covered Assessment 3 is three part task that creates a design project suitable for a yr. 9-10 graphics and design class. It requires all the skills and knowledge acquired in Assessment 1 and 2 to create a design folio that would be suitable for those year levels. The theme is based on product design. The task focuses on designing an innovative prize package for a school/charity event for an identified group of stakeholders. The assignment uses the 'double diamond' design model which is the preferred model for Senior Design in Queensland schools, and which consists of 3 sections: Explore, Develop and Present.	# Task to be commenced ## Design Folio: Week 8 focuses on the Develop phase of the design process by using divergent and convergent thinking strategies to develop of a range of ideas to identify the most suitable concept to present to the stakeholders. Participants will begin to create a range of ideation sketches, technical sketches, and CAD drawings to provide evidence of this process. # Equipment required · Two 0.4mm Artline black markers, two HB Pencils, a set of good quality coloured pencils or generic alcohol markers, an eraser and pencil sharpener. · Software: Autodesk AutoCAD 2020 · Microsoft Word · Scanner • PDF file combiner	Assessment 3 – Design Folio (35% weighting) - **Due week 12,** Sunday 6th June 2021, 11.55pm

Week 9 - 10 May 2021

Module/Topic	Chapter	Events and Submissions/Topic
# Topics covered Assessment 3 is three part task that creates a design project suitable for a yr. 9-10 graphics and design class. It requires all the skills and knowledge acquired in Assessment 1 and 2 to create a design folio that would be suitable for those year levels. The theme is based on product design. The task focuses on designing an innovative prize package for a school/charity event for an identified group of stakeholders. The assignment uses the 'double diamond' design model which is the preferred model for Senior Design in Queensland schools, and which consists of 3 sections: Explore, Develop and Present.	# Task to be commenced ## Design Folio: Week 9 continues the focus on the Develop phase of the design process by using divergent and convergent thinking strategies to develop of a range of ideas to identify the most suitable concept to present to the stakeholders. Participants will begin to create a range of ideation sketches, technical sketches, and CAD drawings to provide evidence of this process. # Equipment required · Two 0.4mm Artline black markers, two HB Pencils, a set of good quality coloured pencils or generic alcohol markers, an eraser and pencil sharpener. · Software: Autodesk AutoCAD 2020 · Microsoft Word · Scanner • PDF file combiner	Assessment 3 – Design Folio (35% weighting) - **Due week 12,** Sunday 6th June 2021, 11.55pm

Week 10 - 17 May 2021

Module/Topic	Chapter	Events and Submissions/Topic

Topics covered

Assessment 3 is three part task that creates a design project suitable for a yr. 9-10 graphics and design class. It requires all the skills and knowledge acquired in Assessment 1 and 2 to create a design folio that would be suitable for those year levels. The theme is based on product design. The task focuses on designing an innovative prize package for a school/charity event for an identified group of stakeholders.

The assignment uses the 'double diamond' design model which is the preferred model for Senior Design in Queensland schools, and which consists of 3 sections: Explore, Develop and Present.

Task to be commenced

Design Folio:

Week 10 is set aside for participants to 'showcase' their final proposal by creating presentation sketches, a low-fidelity prototype and a virtual pitch to the identified stakeholders to promote the strengths of their final concept.

Equipment required

· Two 0.4mm Artline black markers, two HB Pencils, a set of good quality coloured pencils or generic alcohol markers, an eraser and pencil sharpener.

· Software: Autodesk AutoCAD 2020

· Microsoft Word

· Scanner

• PDF file combiner

Assessment 3 – Design Folio (35% weighting) - **Due week 12,** Sunday 6th June 2021, 11.55pm

Week 11 - 24 May 2021

Module/Topic	Chapter	Events and Submissions/Topic

Topics covered

Assessment 3 is three part task that creates a design project suitable for a yr. 9-10 graphics and design class. It requires all the skills and knowledge acquired in Assessment 1 and 2 to create a design folio that would be suitable for those year levels. The theme is based on product design. The task focuses on designing an innovative prize package for a school/charity event for an identified group of stakeholders.

The assignment uses the 'double diamond' design model which is the preferred model for Senior Design in Queensland schools, and which consists of 3 sections: Explore, Develop and Present.

Task to be commenced

Design Folio:

Week 11 is set aside for participants to 'showcase' their final proposal by creating presentation sketches, a low-fidelity prototype and a virtual pitch to the identified stakeholders to promote the strengths of their final concept.

Equipment required

· Two 0.4mm Artline black markers, two HB Pencils, a set of good quality coloured pencils or generic alcohol markers, an eraser and pencil sharpener.

· Software: Autodesk AutoCAD 2020

· Microsoft Word

· Scanner

• PDF file combiner

Assessment 3 – Design Folio (35% weighting) - **Due week 12,** Sunday 6th June 2021, 11.55pm

Week 12 - 31 May 2021

Module/Topic	Chapter	Events and Submissions/Topic

Topics covered

Assessment 3 is three part task that creates a design project suitable for a yr. 9-10 graphics and design class. It requires all the skills and knowledge acquired in Assessment 1 and 2 to create a design folio that would be suitable for those year levels. The theme is based on product design. The task focuses on designing an innovative prize package for a school/charity event for an identified group of stakeholders.

The assignment uses the 'double diamond' design model which is the preferred model for Senior Design in Queensland schools, and which consists of 3 sections: Explore, Develop and Present.

Task to be commenced

Design Folio:

Week 12 is set aside for participants to merge all 3 parts to create a coherent and logical presentation for submission by the due date.

Equipment required

· Two 0.4mm Artline black markers, two HB Pencils, a set of good quality coloured pencils or generic alcohol markers, an eraser and pencil sharpener.

· Software: Autodesk AutoCAD 2020

· Microsoft Word

· Scanner

• PDF file combiner

Assessment 3 – Design Folio (35% weighting) - Due week 12, Sunday 6th June 2021, 11.55pm

· Save Assessment 3 as a PDF file ensuring all scans are of high enough quality that they clearly show all details and annotations

· Title the pdf file including your full name and assessment task. E.g., MarkWocknerAssessment3.pdf

· Submit assessment online via the Moodle site

Review/Exam Week - 07 Jun 2021

Module/Topic	Chapter	Events and Submissions/Topic

Exam Week - 14 Jun 2021

Module/Topic	Chapter	Events and Submissions/Topic

Assessment Tasks

1 Introduction to Technical Sketching

Assessment Type

Written Assessment

Task Description

Computer Aided Design and Drafting (CADD) or commonly known as CAD was introduced into Queensland schools a number of years ago. The software has made the process of manual drafting along with equipment such as T-squares, set squares, french curves, board clips and drawing boards obsolete in many schools. The reason being, CAD allows technical drawings to be more easily created and provide more accuracy, detail and information than manually drafted versions.

Technical sketching is the bridge that connects a CAD drawing with a concept or an idea, a plan or solution, that a person may have envisaged but needs to be realized in a communicable form. In other words, concepts can be sketched first, then converted to a digital format.

Technical sketching requires a thorough understanding and application of the fundamentals of technical drawing. Concepts such as first and third angle orthographic projection, sectional views, isometric views, layout, rollout and radial line development, oblique cabinet and cavalier views, planometric views, one and two point perspective, annotation, scale, proportion, contrast as well as the AS1100 standards are essential for students to understand and apply in a range of popular subjects such as Design, Graphics and Design, Industrial Graphics Skills, Certificate III in Engineering(CAD), and Engineering.

This assessment task provides teachers with the opportunity to learn, understand and apply those skills within the context of a middle school graphics class. They will be assessed based on evidence of their understanding as well as evidence of their sketching skills. The skills and knowledge acquired will provide teachers with the confidence and expertise to teach the essential skills required by students to achieve success in this subject area.

Assessment Due Date

11.55pm Sunday 4th April 2021

Return Date to Students

Review/Exam Week Monday (7 June 2021)

Weighting
15%

Minimum mark or grade
Must achieve 50% of total mark to achieve a Pass.

Assessment Criteria
Comprehension of a range of graphical procedures, principles, and conventions.
· Comprehension of the design process.
· Creation of technical drawings that meet requirements.
· Creation of computer aided designs that meet requirements.
· Appropriate selection and development of learning tasks
· Use of language conventions and technical vocabulary.
· Description of relevant design criteria.
· Interpretation and analysis of graphical and design information.
· Use of a range of graphical skills to produce graphical products responsive to the needs of particular audiences.
· Synthesis of ideas to develop solutions.

Referencing Style

- American Psychological Association 7th Edition (APA 7th edition)

Submission
Online

Learning Outcomes Assessed

- Understand the use, development and impact of design concepts through the use of graphical and 2-dimensional communication
- Apply graphical and 2-dimensional design concepts and procedures
- Plan, sequence, implement and assess graphics used in the production of projects
- Recognise and apply basic skills sequences and procedures using design processes required for teaching Graphics and 2 D CAD technologies
- Critically evaluate specific applications of tools and equipment used in the production of Graphics and 2 D CAD technologies
- Apply appropriate workplace health and safety and maintenance practices when engaging in design activities

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Team Work
- Information Technology Competence
- Cross Cultural Competence
- Ethical practice

2 Residential School Day 1

Assessment Type
Practical Assessment

Task Description
Day 1 will focus on the refining and extending the understanding and skills required in Assessment 1. A range of sketching tasks will extend knowledge and understanding as well as refining those skills already acquired. The degree of complexity of each task is extended to reflect the growth in the knowledge and skills of each participant.

Assessment Due Date

4.30pm Saturday 17th April

Return Date to Students
Review/Exam Week Monday (7 June 2021)

Weighting
20%

Minimum mark or grade
Must achieve 50% of total mark to achieve a Pass.

Assessment Criteria
·Comprehension of a range of graphical procedures, principles, and conventions.
· Use of a range of graphical skills to produce concept drawings.
· Creation of technical drawings that meet requirements.
· Creation of computer aided designs that meet requirements.
· Ability to work independently and professionally from instruction.

Referencing Style

- American Psychological Association 7th Edition (APA 7th edition)

Submission
Online

Learning Outcomes Assessed

- Understand the use, development and impact of design concepts through the use of graphical and 2-dimensional communication
- Apply graphical and 2-dimensional design concepts and procedures
- Plan, sequence, implement and assess graphics used in the production of projects
- Recognise and apply basic skills sequences and procedures using design processes required for teaching Graphics and 2 D CAD technologies
- Critically evaluate specific applications of tools and equipment used in the production of Graphics and 2 D CAD technologies
- Apply appropriate workplace health and safety and maintenance practices when engaging in design activities
- Communicate and work professionally in peer learning teams.

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Team Work
- Information Technology Competence
- Cross Cultural Competence
- Ethical practice

3 Residential School Day 2

Assessment Type
Practical Assessment

Task Description
Day 2 focuses on ideation sketching. 2D graphic design sketching involves the manipulation of simple shapes using the elements and principles of visual communication to create, unique and visually interesting concepts. 3D sketching examines a range of forms (i.e 3 dimensional objects). Primitive forms can be grouped into a variety of categories from geometric to organic or free form. Primitive forms can be manipulated to be additive, subtractive, divided, adaptive, intersectional, transitional, merged or distorted to make complex and abstract forms. Combined with technical sketching, participants will develop an extensive range of skills and knowledge that allow them to be able to develop creative concepts which can be realised through a process of technical sketching to producing a CAD drawing.

Assessment Due Date

4.30pm Saturday 17th April

Return Date to Students
Review/Exam Week Monday (7 June 2021)

Weighting
15%

Minimum mark or grade
Must achieve 50% of total mark to achieve a Pass.

Assessment Criteria
·Comprehension of a range of graphical procedures, principles, and conventions.
· Use of a range of graphical skills to produce concept drawings.
· Creation of technical drawings that meet requirements.
· Creation of computer aided designs that meet requirements.
· Ability to work independently and professionally from instruction.

Referencing Style

- American Psychological Association 7th Edition (APA 7th edition)

Submission
Online

Learning Outcomes Assessed

- Understand the use, development and impact of design concepts through the use of graphical and 2-dimensional communication
- Apply graphical and 2-dimensional design concepts and procedures
- Plan, sequence, implement and assess graphics used in the production of projects
- Recognise and apply basic skills sequences and procedures using design processes required for teaching Graphics and 2 D CAD technologies
- Critically evaluate specific applications of tools and equipment used in the production of Graphics and 2 D CAD technologies
- Apply appropriate workplace health and safety and maintenance practices when engaging in design activities
- Communicate and work professionally in peer learning teams.

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Team Work
- Information Technology Competence
- Cross Cultural Competence
- Ethical practice

4 Residential School Day 3

Assessment Type
Practical Assessment

Task Description
Day 3 focuses on learning the basic skills to be competent at AutoCAD. Participants will learn how to create a custom template, use a range of tools and refine their understanding of AS1100 standards. The knowledge and skills acquired will be used to complete Assessment 3 - Design Task. Completing the AutoCAD learning tasks in the weeks leading up to the Residential School is an essential pre-requisite for Day 3.

Assessment Due Date

4.30pm Saturday 17th April

Return Date to Students
Review/Exam Week Monday (7 June 2021)

Weighting
15%

Minimum mark or grade
Must achieve 50% of total mark to achieve a Pass.

Assessment Criteria
Comprehension of a range of graphical procedures, principles, and conventions.
· Use of a range of graphical skills to produce concept drawings.
· Creation of technical drawings that meet requirements.
· Creation of computer aided designs that meet requirements.
· Ability to work independently and professionally from instruction.

Referencing Style

- American Psychological Association 7th Edition (APA 7th edition)

Submission
Online

Learning Outcomes Assessed

- Understand the use, development and impact of design concepts through the use of graphical and 2-dimensional communication
- Apply graphical and 2-dimensional design concepts and procedures
- Plan, sequence, implement and assess graphics used in the production of projects
- Recognise and apply basic skills sequences and procedures using design processes required for teaching Graphics and 2 D CAD technologies
- Critically evaluate specific applications of tools and equipment used in the production of Graphics and 2 D CAD technologies
- Apply appropriate workplace health and safety and maintenance practices when engaging in design activities
- Communicate and work professionally in peer learning teams.

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5 Design Task

Assessment Type
Written Assessment

Task Description
Assessment 5 is a three part task that creates a design project suitable for a yr. 9-10 Graphics and Design class. It requires all the skills and knowledge acquired in Assessment 1 and 2 to create a design folio that would be suitable for those year levels. The theme is based on a product design. The task focuses on designing a innovative prize package for a school/charity event for an identified group of stakeholders.
The Assignment uses the "Double diamond" design model which is the preferred model for Senior Design in Queensland schools and consists of 3 sections:
Part A Explore: (weighting 10%) Weeks 6 to 7 explores primary and secondary data to identify the needs and wants of the stakeholder to help ascertain the requirements for the proposal. Participants will create a multipage folio that provides evidence of this process.
Part B Develop" (weighting 10%) Weeks 8 to 9 focus on the design process using divergent and convergent thinking strategies to develop of a range of ideas to identify the most suitable concept to present to the stakeholders. Participants will create a range of ideation sketches and CAD drawings to provide evidence of this process.
Part C (weighting 15%) Weeks 10 to 11 allow participants to "showcase" their final proposal by creating presentation sketches, a low-fidelity prototype and a virtual pitch to the identified stakeholders to promote the strengths of their final concept.
Week 12 is set aside for participants to merge all 3 parts to create a coherent and logical presentation for submission by the due date.

Assessment Due Date

11.55 pm Sunday 6th June 2021

Return Date to Students
Review/Exam Week Monday (7 June 2021)

Weighting
35%

Minimum mark or grade
Must achieve 50% of total mark to achieve a Pass.

Assessment Criteria
Comprehension of a range of graphical procedures, principles, and conventions.
· Comprehension of the design process.
· Creation of technical drawings that meet requirements.
· Creation of computer aided designs that meet requirements.
· Appropriate selection and development of learning tasks
· Use of language conventions and technical vocabulary.
· Description of relevant design criteria.
· Interpretation and analysis of graphical and design information.
· Use of a range of graphical skills to produce graphical products responsive to the needs of particular audiences.
· Synthesis of ideas to develop solutions.

Referencing Style

- American Psychological Association 7th Edition (APA 7th edition)

Submission
Online

Learning Outcomes Assessed

- Understand the use, development and impact of design concepts through the use of graphical and 2-dimensional communication
- Apply graphical and 2-dimensional design concepts and procedures
- Plan, sequence, implement and assess graphics used in the production of projects
- Recognise and apply basic skills sequences and procedures using design processes required for teaching Graphics and 2 D CAD technologies
- Critically evaluate specific applications of tools and equipment used in the production of Graphics and 2 D CAD technologies
- Apply appropriate workplace health and safety and maintenance practices when engaging in design activities

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Academic Integrity Statement

As a CQUniversity student you are expected to act honestly in all aspects of your academic work.

Any assessable work undertaken or submitted for review or assessment must be your own work. Assessable work is any type of work you do to meet the assessment requirements in the unit, including draft work submitted for review and feedback and final work to be assessed.

When you use the ideas, words or data of others in your assessment, you must thoroughly and clearly acknowledge the source of this information by using the correct referencing style for your unit. Using others' work without proper acknowledgement may be considered a form of intellectual dishonesty.

Participating honestly, respectfully, responsibly, and fairly in your university study ensures the CQUniversity qualification you earn will be valued as a true indication of your individual academic achievement and will continue to receive the respect and recognition it deserves.

As a student, you are responsible for reading and following CQUniversity's policies, including the **Student Academic Integrity Policy and Procedure**. This policy sets out CQUniversity's expectations of you to act with integrity, examples of academic integrity breaches to avoid, the processes used to address alleged breaches of academic integrity, and potential penalties.

What is a breach of academic integrity?
A breach of academic integrity includes but is not limited to plagiarism, self-plagiarism, collusion, cheating, contract cheating, and academic misconduct. The Student Academic Integrity Policy and Procedure defines what these terms mean and gives examples.

Why is academic integrity important?
A breach of academic integrity may result in one or more penalties, including suspension or even expulsion from the University. It can also have negative implications for student visas and future enrolment at CQUniversity or elsewhere. Students who engage in contract cheating also risk being blackmailed by contract cheating services.

Where can I get assistance?
For academic advice and guidance, the Academic Learning Centre (ALC) can support you in becoming confident in completing assessments with integrity and of high standard.

What can you do to act with integrity?

Be Honest
If your assessment task is done by someone else, it would be dishonest of you to claim it as your own

Seek Help
If you are not sure about how to cite or reference in essays, reports etc, then seek help from your lecturer, the library or the Academic Learning Centre (ALC)

Produce Original Work
Originality comes from your ability to read widely, think critically, and apply your gained knowledge to address a question or problem