



DGTL13009 3D Character Design

Term 2 - 2023

Profile information current as at 30/04/2024 12:57 pm

All details in this unit profile for DGTL13009 have been officially approved by CQUniversity and represent a learning partnership between the University and you (our student). The information will not be changed unless absolutely necessary and any change will be clearly indicated by an approved correction included in the profile.

General Information

Overview

This unit of study will advance your understanding of three-dimensional (3D) computer graphics, particularly in the area of 3D character design. You will learn how to use a variety of tools and techniques to create a 3D character for use in real-time rendering platforms. You will develop the necessary skills to produce 3D characters for animation, visual effects and games using industry-standard software.

Details

Career Level: *Undergraduate*

Unit Level: *Level 3*

Credit Points: 6

Student Contribution Band: 8

Fraction of Full-Time Student Load: 0.125

Pre-requisites or Co-requisites

Prerequisite: MMST12019 3D Computer Graphics Antirequisite: Students who have completed DGTL12011 3D Character Design or DGTL13004 Advanced 3D Animation and Character Development may not enrol in 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 2 - 2023

- Brisbane
- Bundaberg
- Cairns
- Mackay
- Online
- Rockhampton

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).

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. **Practical Assessment**

Weighting: 40%

2. **Practical Assessment**

Weighting: 60%

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 SUTE student comment

Feedback

Some students report that taking this unit has been an enjoyable experience that provided a sense of achievement.

Recommendation

Maintain the positive learning experience of the unit.

Feedback from SUTE student comment

Feedback

Some students have suggested that the video tutorials should be broken into shorter clips and updated with newer content.

Recommendation

Update the content of the video tutorials and break them into shorter clips focusing on specific topics, as time permits.

Feedback from SUTE student comment

Feedback

Some students have expressed the opinion that the tutorial content could be made more practical and better integrated with the assignments. They suggest that by making the content more directly relevant to the assignments, they would be able to better understand and apply the concepts covered in the course.

Recommendation

Tutorial content will be tied more closely to the assignments. Practical examples will be used to help the students understand and apply the concepts covered.

Feedback from SUTE student comment

Feedback

Some students feel that the instructions for the assessment tasks could be more specific in order to provide clear guidance on what is expected and how to approach the task. By making these improvements, students would be better equipped to succeed in the unit and apply their knowledge in practical settings.

Recommendation

Assessment instructions will be reviewed to ensure they are specific and provide clear guidance on what is expected. Additional resources and support will be provided to help the students successfully complete the assessment tasks.

Unit Learning Outcomes

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

1. Apply the principles of design to 3D character creation
2. Apply an understanding of human anatomy to 3D character creation
3. Produce a 3D character model suitable for real-time rendering using industry-standard software
4. Produce character texture maps suitable for real-time rendering using industry-standard software
5. Produce complex materials suitable for real-time rendering using industry-standard software.

Not applicable

Alignment of Learning Outcomes, Assessment and Graduate Attributes

 N/A Level	 Introductory Level	 Intermediate Level	 Graduate Level	 Professional Level	 Advanced Level
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Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes				
	1	2	3	4	5
1 - Practical Assessment - 40%	•	•	•		
2 - Practical Assessment - 60%	•	•	•	•	•

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes				
	1	2	3	4	5
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 - Practical Assessment - 40%	•	•	•	•		•	•	•		
2 - Practical Assessment - 60%	•	•	•	•		•	•	•		

Textbooks and Resources

Textbooks

There are no required textbooks.

IT Resources

You will need access to the following IT resources:

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)
- Adobe Acrobat Reader
- Adobe Photoshop CC
- Google Chrome
- Graphics Tablet (Recommended)
- Microsoft Word
- Autodesk Maya 2020 above

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

Qing Huang Unit Coordinator
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Schedule

Week 1 - 10 Jul 2023

Module/Topic	Chapter	Events and Submissions/Topic
Lecture: Unit Overview, Organic Modelling Workflows, Principles of Character Design, Painting in Photoshop	Tutorial: Character Design (Silhouette and shapes) in Photoshop (with Graphics Tablet)	

Week 2 - 17 Jul 2023

Module/Topic	Chapter	Events and Submissions/Topic
Lecture: Concept Art - Workflows, Terminology, Tools and Techniques, Painting in Photoshop	Tutorial: Character Design and Digital Painting (thumbnailing, value, colour, etc) in Photoshop (with Graphics Tablet)	

Week 3 - 24 Jul 2023

Module/Topic	Chapter	Events and Submissions/Topic
Lecture: Modelling - Workflows, Terminology, Tools and Techniques (Part 1)	Tutorial: Modelling A simple low polygon character	

Week 4 - 31 Jul 2023

Module/Topic	Chapter	Events and Submissions/Topic
Lecture: Modelling - Workflows, Terminology, Tools and Techniques (Part 2)	Tutorial: Modelling A cartoon style character head in details	

Week 5 - 07 Aug 2023

Module/Topic	Chapter	Events and Submissions/Topic
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Lecture: Modelling - Workflows, Terminology, Tools and Techniques (Part 3)

Tutorial: Modelling full body, hand, foot, hair

Vacation Week - 14 Aug 2023

Module/Topic	Chapter	Events and Submissions/Topic
Week 6 - 21 Aug 2023		
Module/Topic	Chapter	Events and Submissions/Topic
Lecture: Modelling - Workflows, Terminology, Tools and Techniques (Part 4)	Tutorial: How to create clothes and using sculpting tools	3D Character Model and Self Assessment Due: Week 6 Friday (25 Aug 2023) 11:00 pm AEST

Week 7 - 28 Aug 2023

Module/Topic	Chapter	Events and Submissions/Topic
Lecture: Texturing Character - Uvs, Workflows, Terminology, Tools and Techniques	Tutorial: How to create UVs, and textures	

Week 8 - 04 Sep 2023

Module/Topic	Chapter	Events and Submissions/Topic
Lecture: Introducing Riggings and Some Opensource Character Creation Software	Tutorial: Using the Opensource for Character Creation. Looking into Maya quick rig and templates.	

Week 9 - 11 Sep 2023

Module/Topic	Chapter	Events and Submissions/Topic
None	Developing and Modelling students' own characters	

Week 10 - 18 Sep 2023

Module/Topic	Chapter	Events and Submissions/Topic
None	Developing and Modelling students' own characters	

Week 11 - 25 Sep 2023

Module/Topic	Chapter	Events and Submissions/Topic
None	Developing and Modelling students' own characters	

Week 12 - 02 Oct 2023

Module/Topic	Chapter	Events and Submissions/Topic
None	Developing and Modelling students' own characters	Textured 3D Character and Self Assessment Due: Week 12 Friday (6 Oct 2023) 11:00 pm AEST

Review/Exam Week - 09 Oct 2023

Module/Topic	Chapter	Events and Submissions/Topic
Exam Week - 16 Oct 2023		
Module/Topic	Chapter	Events and Submissions/Topic

Assessment Tasks

1 3D Character Model and Self Assessment

Assessment Type

Practical Assessment

Task Description

This assessment requires you to create a 3D character model, and complete a written review of your work. The 3D character model and the document must adhere to the technical specifications and submission requirements specified in the assessment criteria.

Assessment Due Date

Week 6 Friday (25 Aug 2023) 11:00 pm AEST

Return Date to Students

Week 8 Friday (8 Sept 2023)

Weighting

40%

Assessment Criteria

- Adherence to technical specifications and submission requirements
- Application of principles of design
- Application of an understanding of human anatomy
- Suitability of topology for deformations
- Suitability of model for real-time rendering
- Effort and engagement
- Creativity and innovation
- Communication (written) self-reflection and self-evaluation on the development process.

Referencing Style

- [American Psychological Association 7th Edition \(APA 7th edition\)](#)

Submission

Online

Submission Instructions

You must upload your 3D Character Model (Maya project file) together with a document of your Self Assessment, directly to the unit website (Moodle).

Learning Outcomes Assessed

- Apply the principles of design to 3D character creation
- Apply an understanding of human anatomy to 3D character creation
- Produce a 3D character model suitable for real-time rendering using industry-standard software

Graduate Attributes

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

2 Textured 3D Character and Self Assessment

Assessment Type

Practical Assessment

Task Description

This assessment requires you to publish a textured and posed 3D character to a real-time rendering platform, and complete a written review of your work. The 3D character and the document must adhere to the technical specifications and submission requirements specified in the assessment criteria.

Assessment Due Date

Week 12 Friday (6 Oct 2023) 11:00 pm AEST

Return Date to Students

Exam Week Friday (20 Oct 2023)

Weighting

60%

Assessment Criteria

- Adherence to technical specifications and submission requirements
- Application of principles of design
- Suitability of textures for realtime rendering
- Suitability of materials for real-time rendering
- Suitability of pose and idle animation
- Effort and engagement
- Creativity and innovation
- Communication (written) self-reflection and self-evaluation on the development process.

Referencing Style

- [American Psychological Association 7th Edition \(APA 7th edition\)](#)

Submission

Online

Submission Instructions

You must submit to Moodle a document of your Self Assessment in which it includes a Sketchfab URL for your published full-Textured 3D Character Model.

Learning Outcomes Assessed

- Apply the principles of design to 3D character creation
- Apply an understanding of human anatomy to 3D character creation
- Produce a 3D character model suitable for real-time rendering using industry-standard software
- Produce character texture maps suitable for real-time rendering using industry-standard software
- Produce complex materials suitable for real-time rendering using industry-standard software.

Graduate Attributes

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

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