UniSC

COURSE OUTLINE

SGD230 Game Art: Virtual Environments

School: School of Business and Creative Industries

2026 | Trimester 1

UniSC Sunshine Coast UniSC Moreton Bay	BLENDED LEARNING	Most of your course is on campus but you may be able to do some components of this course online.
Online	ONLINE	You can do this course without coming onto campus, unless your program has specified a mandatory onsite requirement.

*Please go to usc.edu.au for up to date information on the
teaching sessions and campuses where this course is usually offered.*

1. What is this course about?

1.1. Description

This course provides a strong foundation in the concepts and practices associated with the creation of immersive 3D worlds for games, virtual production, virtual reality and augmented reality. Creating 3D virtual environments requires an understanding of the skills and knowledge associated with real-time production and asset creation for use in real-time 3D engines. You will design, develop and critique a 3D virtual environment, acquiring both the theoretical and the practical knowledge and skills required.

1.2. How will this course be delivered?

ACTIVITY	HOURS	BEGINNING WEEK	FREQUENCY
BLENDED LEARNING			
Learning materials – Interactive online learning activities.	1hr	Week 1	12 times
Tutorial/Workshop 1 – Scheduled face to face workshops.	2hrs	Week 1	12 times
ONLINE			
Learning materials – Interactive online learning activities.	1hr	Week 1	12 times
Tutorial/Workshop 1 – Scheduled online workshops (Recorded).	2hrs	Week 1	12 times

1.3. Course Topics

- Ideation - Concept Development
- Level Planning and Design
- 3D Modelling for Real-Time
- Texturing for Real-Time
- Terrain Creation
- Environment Detail
- Environment Lighting and Sound
- Particles and Post Processing
- Optimsation and Future Environments

2. What level is this course?

> 200 Level (Developing)

Building on and expanding the scope of introductory knowledge and skills, developing breadth or depth and applying knowledge and skills in a new context. May require pre-requisites where discipline specific introductory knowledge or skills is necessary. Normally, undertaken in the second or third full-time year of an undergraduate programs.

3. What is the unit value of this course?

> 12 units

4. How does this course contribute to my learning?

COURSE LEARNING OUTCOMES	GRADUATE QUALITIES
On successful completion of this course, you should be able to...	Completing these tasks successfully will contribute to you becoming...
1 Describe and explain the technical, creative and aesthetic decision making processes associated with the design process to a technical audience.	Creative and critical thinker
2 Reflect on how an audience would perceive the assets in a real-time application, in terms of ethical issues.	Ethical
3 Critically reflect on practice during the design and creation of an immersive virtual environment	Empowered
4 Apply 2D or 3D design skills to create assets useful in 3D digital environments.	Empowered

5. Am I eligible to enrol in this course?

Refer to the UniSC Glossary of terms for definitions of "pre-requisites, co-requisites and anti-requisites".

5.1. Pre-requisites

> Not applicable

5.2. Co-requisites

> Not applicable

5.3. Anti-requisites

> Not applicable

5.4. Specific assumed prior knowledge and skills (where applicable)

It is assumed that a student will know how to Polygon Model in Blender, Maya, or 3D Studio Max.

6. How am I going to be assessed?

6.1. Grading Scale

> Standard Grading (GRD)

High Distinction (HD), Distinction (DN), Credit (CR), Pass (PS), Fail (FL).

6.2. Details of early feedback on progress

In each workshop, feedback is given to each student when they show their progress of their assessments to the tutor.

6.3. Assessment tasks

DELIVERY MODE	TASK NO.	ASSESSMENT PRODUCT	INDIVIDUAL OR GROUP	WEIGHTING %	WHAT IS THE DURATION / LENGTH?	WHEN SHOULD I SUBMIT?	WHERE SHOULD I SUBMIT IT?
All	1	Artefact - Creative, and Written Piece	Individual	30%	1,000 words	Week 4	Online Submission
All	2	Artefact - Creative, and Written Piece	Individual	30%	1,000 words	Week 9	Online Submission
All	3	Artefact - Creative, and Written Piece	Individual	40%	1,000 words	Week 12	Online Submission

All - Assessment Task 1: Virtual Environment preparation A

GOAL:	This task is designed to model the industry practice of the production of virtual environments and assets. You will produce an environment style guide, design blueprint, and library of assets used within the environment.
PRODUCT:	Artefact - Creative, and Written Piece
FORMAT:	This task has 3 key parts: a) You will create a blueprint and prototype of the "master map" of your entire Virtual Environment. b) You will plan, model (3D) or draw (2D) a Library of Assets used in the Virtual Environment. c) You will write a reflective report that discusses your design and thinking processes. The report template can be found on Canvas. Across all our Creative Industries undergraduate programs, we are collecting data for assurance of learning purposes. This task is being used for measurement. The following program competency will be assessed: Sustainable, future-focussed careers.

CRITERIA:	**No.**		**Learning Outcome assessed**
	1	Quality of design.	① ④
	2	Creative and aesthetic choices.	① ④
	3	Consistency - all assets of equal quality.	④
	4	Description of decision making processes.	① ③
	5	Technical language used and clarity of writing.	① ② ③ ④
	6	Ethical considerations on audience.	②

GENERIC SKILLS:	

All - Assessment Task 2: Virtual Environment preparation B

GOAL:	This task further develops your environment that you designed for preparation A. You will design and develop assets for use within your environment.
PRODUCT:	Artefact - Creative, and Written Piece
FORMAT:	This task has 3 parts: a) You will design create and UV map/texture assets. b) You will prepare and export your Library of Assets for game-engine use. c) You will write a reflective report that discusses your design and thinking processes. The report template can be found on Canvas.

CRITERIA:	No.		Learning Outcome assessed
	1	Creative and aesthetic choices	① ③
	2	Consistency - all assets of equal quality	④
	3	All assets prepared to technical specifications	④
	4	Description of decision making processes	③
	5	Technical language used and clarity of writing.	① ② ③ ④
	6	Ethical considerations on audience	②

GENERIC SKILLS:	Problem solving

All - Assessment Task 3: Virtual Environment Assembly

GOAL:	This is a culminating task. You will bring the learning from Task 1 and 2 and then create a compilation of the library of assets into a virtual environment. This is a professional level project and will allow you to demonstrate both your skills and knowledge of the development of virtual environments.
PRODUCT:	Artefact - Creative, and Written Piece
FORMAT:	This task has 2 parts: a) You will assemble your Library of assets into an approved Real-time Game Engine. b) You will write a reflective report discussing your design and thinking processes. The report template can be found on Canvas.

Across all our Creative Industries undergraduate programs, we are collecting data for assurance of learning purposes. This task is being used for measurement. The following program competency will be assessed: Critical and creative thinkers and practitioners. |

CRITERIA:	No.		Learning Outcome assessed
	1	Creative and aesthetic choices.	① ② ③ ④
	2	Assembly of individual Assets in the Library into a cohesive finished product.	① ④
	3	Adherence to the original Environment map's layout and design.	① ② ③ ④
	4	Description of decision making processes.	① ③
	5	Technical language used and clarity of writing.	① ② ③ ④
	6	Ethical considerations on audience.	②

GENERIC SKILLS:	

7. Directed study hours

A 12-unit course will have total of 150 learning hours which will include directed study hours (including online if required), self-directed learning and completion of assessable tasks. Student workload is calculated at 12.5 learning hours per one unit.

8. What resources do I need to undertake this course?

Please note: Course information, including specific information of recommended readings, learning activities, resources, weekly readings, etc. are available on the course Canvas site– Please log in as soon as possible.

8.1. Prescribed text(s) or course reader

> There are no required/recommended resources for this course.

8.2. Specific requirements

This course requires some commercial software or hardware which is provided at USC campuses for student use. If you elect to do this course online, you may either; attend a campus at which it is available, discuss alternative open source solutions with your course coordinator that would enable you to demonstrate the learning outcomes, or if you prefer you may acquire this software and / or hardware at your own expense. It is highly recommended you have 3D modelling skills.

9. How are risks managed in this course?

Health and safety risks for this course have been assessed as low. It is your responsibility to review course material, search online, discuss with lecturers and peers and understand the health and safety risks associated with your specific course of study and to familiarise yourself with the University's general health and safety principles by reviewing the online induction training for students, and following the instructions of the University staff.

10. What administrative information is relevant to this course?

10.1. Assessment: Academic Integrity

Academic integrity is the ethical standard of university participation. It ensures that students graduate as a result of proving they are competent in their discipline. This is integral in maintaining the value of academic qualifications. Each industry has expectations and standards of the skills and knowledge within that discipline and these are reflected in assessment.

Academic integrity means that you do not engage in any activity that is considered to be academic fraud; including plagiarism, collusion or outsourcing any part of any assessment item to any other person. You are expected to be honest and ethical by completing all work yourself and indicating in your work which ideas and information were developed by you and which were taken from others. You cannot provide your assessment work to others. You are also expected to provide evidence of wide and critical reading, usually by using appropriate academic references.

In order to minimise incidents of academic fraud, this course may require that some of its assessment tasks, when submitted to Canvas, are electronically checked through Turnitin. This software allows for text comparisons to be made between your submitted assessment item and all other work to which Turnitin has access.

10.2. Assessment: Additional Requirements

Eligibility for Supplementary Assessment

Your eligibility for supplementary assessment in a course is dependent of the following conditions applying:
(a) The final mark is in the percentage range 47% to 49.4%; and
(b) The course is graded using the Standard Grading scale

10.3. Assessment: Submission penalties

Late submissions may be penalised up to and including the following maximum percentage of the assessment task's identified value, with weekdays and weekends included in the calculation of days late:
(a) One day: deduct 5%;
(b) Two days: deduct 10%;
(c) Three days: deduct 20%;
(d) Four days: deduct 40%;
(e) Five days: deduct 60%;
(f) Six days: deduct 80%;
(g) Seven days: A result of zero is awarded for the assessment task.

The following penalties will apply for a late submission for an online examination:
Less than 15 minutes: No penalty
From 15 minutes to 30 minutes: 20% penalty
More than 30 minutes: 100% penalty

10.4. SafeUniSC

UniSC is committed to a culture of respect and providing a safe and supportive environment for all members of our community. For immediate assistance on campus contact SafeUniSC by phone: 07 5430 1168 or using the SafeZone app. For general enquires contact the SafeUniSC team by phone 07 5456 3864 or email safe@usc.edu.au.

The SafeUniSC Specialist Service is a Student Wellbeing service that provides free and confidential support to students who may have experienced or observed behaviour that could cause fear, offence or trauma. To contact the service call 07 5430 1226 or email studentwellbeing@usc.edu.au.

10.5. Study help

For help with course-specific advice, for example what information to include in your assessment, you should first contact your tutor, then your course coordinator, if needed.

If you require additional assistance, the Learning Advisers are trained professionals who are ready to help you develop a wide range of academic skills. Visit the Learning Advisers web page for more information, or contact Student Central for further assistance: +61 7 5430 2890 or studentcentral@usc.edu.au.

10.6. Wellbeing Services

Student Wellbeing provide free and confidential counselling on a wide range of personal, academic, social and psychological matters, to foster positive mental health and wellbeing for your academic success.

To book a confidential appointment go to Student Hub, email studentwellbeing@usc.edu.au or call 07 5430 1226.

10.7. AccessAbility Services

Ability Advisers ensure equal access to all aspects of university life. If your studies are affected by a disability, learning disorder mental health issue, injury or illness, or you are a primary carer for someone with a disability or who is considered frail and aged, AccessAbility Services can provide access to appropriate reasonable adjustments and practical advice about the support and facilities available to you throughout the University.

To book a confidential appointment go to Student Hub, email AccessAbility@usc.edu.au or call 07 5430 2890.

10.8. Links to relevant University policy and procedures

For more information on Academic Learning & Teaching categories including:

- Assessment: Courses and Coursework Programs
- Review of Assessment and Final Grades
- Supplementary Assessment
- Central Examinations
- Deferred Examinations
- Student Conduct
- Students with a Disability

For more information, visit https://www.usc.edu.au/explore/policies-and-procedures#academic-learning-and-teaching

10.9. Student Charter

UniSC is committed to excellence in teaching, research and engagement in an environment that is inclusive, inspiring, safe and respectful. The Student Charter sets out what students can expect from the University, and what in turn is expected of students, to achieve these outcomes.

10.10. General Enquiries

In person:

- **UniSC Sunshine Coast** - Student Central, Ground Floor, Building C, 90 Sippy Downs Drive, Sippy Downs
- **UniSC Moreton Bay** - Service Centre, Ground Floor, Foundation Building, Gympie Road, Petrie
- **UniSC SouthBank** - Student Central, Building A4 (SW1), 52 Merivale Street, South Brisbane
- **UniSC Gympie** - Student Central, 71 Cartwright Road, Gympie
- **UniSC Fraser Coast** - Student Central, Student Central, Building A, 161 Old Maryborough Rd, Hervey Bay
- **UniSC Caboolture** - Student Central, Level 1 Building J, Cnr Manley and Tallon Street, Caboolture

Tel: +61 7 5430 2890

Email: studentcentral@usc.edu.au