

DES308

# Augmented Reality Design

School: School of Business and Creative Industries

2024 | Semester 1

UniSC Sunshine Coast

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.

Please go to [usc.edu.au](https://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

To design and work effectively with Augmented Reality/Virtual Reality/Mixed Reality (AR/VR/MR) interfaces, you will need to understand fundamental principles of the medium and practice applying them to designs. Beginning with a historical overview of augmented reality, you will learn about display technologies, tracking methods, spatial audio, interaction types and design paradigms. You will create your first augmented reality experience on day one and will use the latest technologies to design and develop a series of original experiences throughout the course.

### 1.2. How will this course be delivered?

ACTIVITY	HOURS	BEGINNING WEEK	FREQUENCY
BLENDED LEARNING			
<b>Laboratory 1</b> – On campus laboratory for 12 weeks (or equivalent).	3hrs	Week 1	12 times
ONLINE			
<b>Online</b> – 3 hours online content for 12 weeks (or equivalent).	3hrs	Week 1	12 times

### 1.3. Course Topics

- VR/AR History
- VR/AR Experiences
- VR/AR Technologies
- AR Tracking and Designing for the Real World
- Immersion, Presence and Virtual Narrative
- Content Creation Platforms
- VR/AR Interaction
- Zapworks Studio

## 2. What level is this course?

300 Level (Graduate)

Demonstrating coherence and breadth or depth of knowledge and skills. Independent application of knowledge and skills in unfamiliar contexts. Meeting professional requirements and AQF descriptors for the degree. May require pre-requisites where discipline specific introductory or developing knowledge or skills is necessary. Normally undertaken in the third or fourth full-time study year of an undergraduate program.

## 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	Demonstrate a critical understanding of the history of Mixed Reality AR/VR/MR	Knowledgeable
2	Identify fundamental building blocks of MR applications	Knowledgeable
3	Deconstruct an Augmented Reality application	Knowledgeable
4	Develop a professional specification document to summarise client requirements for an AR/VR/MR project	Empowered
5	Justify estimates of time and material requirements for an AR/VR/MR project	Empowered
6	Demonstrate proficiency Zapworks and web frameworks (A-Frame/AR.js)	Empowered
7	Produce a working prototype AR/VR/MR app	Engaged

## 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)

Not applicable

## 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

Formative Feedback: discussion in tutorial Week1 to Week 3

### 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	Essay	Individual	25%	1000 words	Week 4	Online Submission
All	2	Report	Individual	25%	1000 words	Week 9	Online Submission
All	3	Artefact - Creative, and Written Piece	Group	50%	Project + 1500 words	Week 13	Online Submission

#### All - Assessment Task 1: The History and Future of AR

<b>GOAL:</b>	You will develop an in-depth critical understanding of the historical roots of AR/VR/MR design and where the industry is heading in the future.						
<b>PRODUCT:</b>	Essay						
<b>FORMAT:</b>	This is a short and sharp essay demonstrating your ability to critically evaluate historical trends in AR and the evolution of these trends into modern day applications.						
<b>CRITERIA:</b>	<b>No.</b>						<b>Learning Outcome assessed</b>
	1	Critical understanding of AR/VR/MR.					
	2	Analysis of AR/VR/MR development – historical perspective.					
	3	Identification of AR/VR/MR building blocks.					
	4	Communication.					
	5	Assessment criteria are mapped to the course learning outcomes.					1 2 3 4 5 6 7

#### All - Assessment Task 2: Industry Report

<b>GOAL:</b>	You will learn how to list and evaluate AR/VR display technologies, tracking methodologies and creation tools in order to bring a project to market.						
<b>PRODUCT:</b>	Report						
<b>FORMAT:</b>	<p>1000-word report in two sections.</p> <p>Choose an AR/VR implementation (with instructor approval). The first section is targeted towards developers/engineers to describe the technical requirements to be met. The second section is targeted towards management, listing the software and hardware requirements as well as the benefits to clients.</p> <p>More information on the format of this report is available on Blackboard.</p>						
<b>CRITERIA:</b>	<b>No.</b>						<b>Learning Outcome assessed</b>
	1	Identification of functional requirements.					
	2	Deconstruction – list of AR/VR interactions and benefits.					
	3	Development of specification documents.					
	4	Justify time and material requirements.					
	5	Professional communication.					

### All - Assessment Task 3: Project and Post-Project Evaluation Report

<b>GOAL:</b>	Implement an AR/VR advertising campaign or software product using the technologies learned in class. Choose any of the introduced software suites to produce a useable product. This assessment has two parts, a project proposal to be approved by the instructor, and the actual final assessable project artefact.	
<b>PRODUCT:</b>	Artefact - Creative, and Written Piece	
<b>FORMAT:</b>	2 elements - Project proposal - Software product or advertisement (Choose from Layar, Zapworks or Unity)	
<b>CRITERIA:</b>	<b>No.</b>	<b>Learning Outcome assessed</b>
	1	Professional specification document to summarise client requirements.
	2	Use of appropriate software.
	3	Visual quality.
	4	Creativity.
	5	Detail.
	6	Demonstration of design principles.

## 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

Nil

## 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

Your eligibility for supplementary assessment in a course is dependent of the following conditions applying:

The final mark is in the percentage range 47% to 49.4%

The course is graded using the Standard Grading scale

You have not failed an assessment task in the course due to academic misconduct.

## 10.3. Assessment: Submission penalties

Late submission of assessment tasks may be penalised at the following maximum rate:

- 5% (of the assessment task's identified value) per day for the first two days from the date identified as the due date for the assessment task.

- 10% (of the assessment task's identified value) for the third day - 20% (of the assessment task's identified value) for the fourth day and subsequent days up to and including seven days from the date identified as the due date for the assessment task.

- A result of zero is awarded for an assessment task submitted after seven days from the date identified as the due date for the assessment task. Weekdays and weekends are included in the calculation of days late. To request an extension you must contact your course coordinator to negotiate an outcome.

## 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](tel:0754301168) or using the [SafeZone](#) app. For general enquires contact the SafeUniSC team by phone [07 5456 3864](tel:0754563864) or email [safe@usc.edu.au](mailto: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](tel:0754301226) or email [studentwellbeing@usc.edu.au](mailto: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](mailto: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](mailto: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](mailto: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](mailto:studentcentral@usc.edu.au)