

## Course Outline

**Code: SGD300**

**Title: Advanced Games Programming 2.0**

**School:** Creative Industries  
**Teaching Session:** Semester 2  
**Year:** 2019  
**Course Coordinator:** Dr Ginna Brock, [gbrock@usc.edu.au](mailto:gbrock@usc.edu.au)  
**Course Moderator:** Dr Uwe Terton, [uterton@usc.edu.au](mailto:uterton@usc.edu.au)

Please go to the USC website 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

Continuing from SGD240, this course covers advanced topics that you could choose to specialise in as a programmer within the games industry. You will tackle unfamiliar problems to gain knowledge using the “spike” format (a small activity which addresses knowledge or skill gap, with a report which communicates the knowledge gained). You will combine material across specialities to develop a small technical prototype. By the end, you will be able to confidently solve any type of programming problem using decomposition and communication, and integrate into any modern working environment.

#### 1.2 Field trips, WIL placements or activities required by professional accreditation

Activity	Details
Nil	Nil

### 2. What level is this course?

300 level Graduate - Independent application of graduate knowledge and skills. Meets AQF and professional requirements. May require pre-requisites and developing level knowledge/skills. Normally taken in the 3rd or 4th 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?

Specific Learning Outcomes	Assessment tasks	Graduate Qualities or Professional Standards mapping
On successful completion of this course, you should be able to:	You will be assessed on the learning outcomes in task/s:	Completing these tasks successfully will contribute to:
Design, research, and develop game components for distribution.	1 and 2	Engaged.

<b>Specific Learning Outcomes</b> On successful completion of this course, you should be able to:	<b>Assessment tasks</b> You will be assessed on the learning outcomes in task/s:	<b>Graduate Qualities or Professional Standards mapping</b> Completing these tasks successfully will contribute to:
Apply technical skills and frameworks to contribute to the development of games.	1 and 2	Creative and critical thinkers.
Communicate and implement knowledge of a programming speciality and justify its value and contribution to the game development process.	1 and 2	Knowledgeable.
Reflect, evaluate, and justify your ability to close knowledge, skill and technology gaps in a self-directed manner.	1	Empowered.

## 5. Am I eligible to enrol in this course?

Refer to the [USC Glossary of terms](#) for definitions of “pre-requisites, co-requisites and anti-requisites”.

### 5.1 Enrolment restrictions

Nil

### 5.2 Pre-requisites

SGD240

### 5.3 Co-requisites

Nil

### 5.4 Anti-requisites

Nil

### 5.5 Specific assumed prior knowledge and skills (where applicable)

Nil

## 6. How am I going to be assessed?

### 6.1 Grading scale

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

### 6.2 Details of early feedback on progress

The course material is structured in a way that students are progressively working towards their assessment pieces as part of a programming team. The collaborative nature of this process will ensure consistent facilitation and feedback through the learning process.

### 6.3 Assessment tasks

<b>Task No.</b>	<b>Assessment Product</b>	<b>Individual or Group</b>	<b>Weighting %</b>	<b>What is the duration / length?</b>	<b>When should I submit?</b>	<b>Where should I submit it?</b>
1	Oral, and Written Piece	Individual	30%	5 Work Summary Presentations + Code Documentation	Week 9	In Class

2	Artefact - Technical and Scientific, and Written Piece	Individual	40%	Code Contributions + Critical Self Reflection (2500 word equivalent)	Week 11	Online Assignment Submission with Plagiarism check
3	Artefact - Technical and Scientific, and Written Piece	Individual	30%	Published Portfolio Piece	Week 13	Online Assignment Submission
			100%			

**Assessment 1: Work Summary Presentations and Code Documentation**

<b>Goal:</b>	The goal of this task is to learn and rehearse professional communication skills in a games programming setting through weekly SCRUM meetings undertaken by the team
<b>Product:</b>	Oral and Written Piece
<b>Format:</b>	Professional/Industry format: Rehearse professional games programming communication skills in weekly work summary presentations, where you will communicate with the rest of the team about what, why and how you solved in your programming challenges during the last week. You will be marked on your ability to communicate comprehensively and succinctly. You will also be marked on the quality of your code documentation and your professional programming practices such as task tracking and source control usage. Formative feedback provided weeks 1-4 after each presentation. Feedback provided weeks 5-9 after each presentation.
<b>Criteria:</b>	<ul style="list-style-type: none"> <li>Comprehensive yet succinct verbal communication of work completed</li> <li>Communication of difficulties encountered and subsequent solutions</li> </ul> Comprehensive yet succinct written communication in programming specifications

**Assessment Task 2: Code Contributions and Critical Self Reflection**

<b>Goal:</b>	The goal of this task is to rehearse professional games programming practices by developing game components as part of game development team.
<b>Product:</b>	Artefact - Technical and Scientific, and Written Piece
<b>Format:</b>	Professional/Industry format: Working consistently throughout the semester, you should be assigning yourself to and delivering on games programming tasks as outlined in the team backlog. It is expected that you commit to and deliver on a certain number of game components through the semester. Consistently perform critical reflection on your teamwork and programming skills in a written format such as blog, markdown or website. (2500 words) Formative feedback given weekly during weeks 1-9.
<b>Criteria:</b>	<ul style="list-style-type: none"> <li>Game programming skills including naming conventions, syntax, semantics and commenting.</li> <li>Deliver at least 3 hours of work each week.</li> <li>Deliver on all tasks undertaken or seek help to rectify issues.</li> <li>Critical reflection on positives and negatives of your teamwork skills.</li> </ul>

**Assessment Task 3: Published Portfolio Piece**

<b>Goal:</b>	The goal of this task is to have a working portfolio piece ready for when you finish in the program.
<b>Product:</b>	Artefact - Technical and Scientific, and Written Piece

<b>Format:</b>	Professional/Industry format: Complete a game prototype which includes all your contributed game components. Credits to all other contributors must be included. Game prototype must be published to a public location. Associated text with the published prototype must include credits and a description of your contribution to the project.
<b>Criteria:</b>	<ul style="list-style-type: none"> <li>• The application of technical frameworks to communicate a Technical Specification</li> <li>• The utilisation of specialist knowledge to create a combined-speciality project</li> <li>• Communication in associated text is effective and comprehensive</li> </ul>

## 7. Directed study hours

The directed study hours listed here are a portion of the workload for this course. 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. Directed study hours may vary by location. Student workload is calculated at 12.5 learning hours per one unit.

<b>Location:</b>	<b>Directed study hours for location:</b>
Sippy Downs	Computer lab: 3 hours

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

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

### 8.1 Prescribed text(s) or course reader

Nil

### 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 as a student 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. It is also your responsibility to familiarise yourself with the University's general health and safety principles by reviewing the [online Health Safety and Wellbeing training module 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 Blackboard, are electronically checked through SafeAssign. This software allows for text comparisons to be made between your submitted assessment item and all other work that SafeAssign has access to.

## 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%
- b) The course is graded using the Standard Grading scale
- c) You have not failed an assessment task in the course due to academic misconduct

## 10.3 Assessment: Submission penalties

Late submission of assessment tasks will 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 and supply the required documentation to negotiate an outcome.

## 10.4 Study help

In the first instance, you should contact your tutor, then the Course Coordinator. Additional assistance is provided to all students through Academic Skills Advisers. To book an appointment or find a drop-in session go to [Student Hub](#).

Contact Student Central for further assistance: +61 7 5430 2890 or [studentcentral@usc.edu.au](mailto:studentcentral@usc.edu.au)

## 10.5 Wellbeing Services

Student Wellbeing Support Staff are available to assist on a wide range of personal, academic, social and psychological matters to foster positive mental health and wellbeing for your success. Student Wellbeing is comprised of professionally qualified staff in counselling, health and disability Services.

Ability Advisers ensure equal access to all aspects of university life. If your studies are affected by a disability, mental health issue, learning disorder, injury or illness, or you are a primary carer for someone with a disability, [AccessAbility Services](#) can provide assistance, advocacy and reasonable academic adjustments.

To book an appointment with either service go to [Student Hub](#), email [studentwellbeing@usc.edu.au](mailto:studentwellbeing@usc.edu.au) or [accessability@usc.edu.au](mailto:accessability@usc.edu.au) or call 07 5430 1226

## 10.6 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
- Administration of Central Examinations
- Deferred Examinations

- Student Academic Misconduct
- Students with a Disability

Visit the USC website:

<http://www.usc.edu.au/explore/policies-and-procedures#academic-learning-and-teaching>

## 10.7 General Enquiries

In person:

- **USC Sunshine Coast** - Student Central, Ground Floor, Building C, 90 Sippy Downs Drive, Sippy Downs
- **USC SouthBank** - Student Central, Building A4 (SW1), 52 Merivale Street, South Brisbane
- **USC Gympie** - Student Central, 71 Cartwright Road, Gympie
- **USC Fraser Coast** - Student Central, Student Central, Building A, 161 Old Maryborough Rd, Hervey Bay
- **USC 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)