

## Title: Computer Graphics

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### Assessment Details: (please refer to your Class Schedule for actual date)

**Start Date:** Week 5,  
**Submission Date:** Week 16  
**Assessment Date/s:** Week 17

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### Assessable units of competency

ICAGAM508A – Develop complex 3-D software for games and interactive media

ICAPRG505A – Build advanced user interface

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### General description

You are tasked with creating an application that demonstrates a 3-D procedural environment.

This environment must make use of a suitably complex generation technique other than pure randomness.

The environment must be fully illuminated with 3-D lighting techniques and must be fully textured.

In addition to procedural elements the environment must make use of at least 2 geometric models loaded from a pre-generated file created by an artist and placed within the environment suitably.

The environment must also make use of animated elements. Animated elements may consist of, but are not limited to, skeletal animated models, morph targets, particle effects or procedurally animated systems, such as water or windy trees.

Finally the application must also incorporate a GUI that allows the user to modify elements of the procedural environment. The GUI must allow the user to modify the procedural generation of the environment, as well as 2 other aspects of the environment.

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### Knowledge and skills

Listed here is the knowledge and skills you'll be learning and on which you will be assessed.

- Real-time Computer Graphics
  - Real-time Lighting Equations
  - OpenGL Shader Programming
  - Procedural Techniques
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### Evidence specifications

This is the specific evidence you must prepare for and present on assessment day to demonstrate you have competency in the above knowledge and skills. The evidence must conform to all the specific requirements listed below.

1. Procedural Environment Application
  2. GUI Documentation
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### Your roles and responsibilities as a candidate

- Understand and feel comfortable with the assessment process
- Know what evidence you must provide during your assessment
- Take an active part in the assessment process
- Be ready for the assessment at the nominated time



## Assessment rubric

This table defines exactly what is required to be successfully deemed competent.

Evidence	Definition of Competent for Computer Graphics
1. Procedural Environment Application	<p>Competence in the Procedural Environment Application task is defined as</p> <ul style="list-style-type: none"> <li>Release Application submitted along with required art assets that demonstrates:               <ul style="list-style-type: none"> <li>Procedural generation technique of a moderate to high degree of difficult that isn't pure random</li> <li>Minimum of 2 loaded assets from a pre-built 3-D model format, i.e. OBJ or FBX, placed within the procedural environment</li> <li>An animated element, such as skeletal animated models, morph targets, particles effects or procedurally animated systems</li> <li>All geometry within the environment must be lit and textured</li> </ul> </li> <li>Application must also make use of a GUI that allows the user to:               <ul style="list-style-type: none"> <li>Modify parameters of the procedural technique chosen to generate the environment and regenerate the environment based off the user's choices</li> <li>Modify at minimum 2 other aspects of the environment</li> </ul> </li> </ul> <p>All submissions must be made to the location specified by your instructor.</p>
2. GUI Documentation	<p>Competence in the GUI Documentation task is defined as</p> <ul style="list-style-type: none"> <li>Document submitted in PDF format that specifies how to use the GUI used in Evidence 1</li> <li>Document must detail what each element of the GUI does and include a visual diagram of the GUI</li> </ul>

## Assessment instructions for candidate

### METHOD OF ASSESSMENT

Assessment at AIE is conducted in specific tutorial sessions within each subject of study. This is done in conjunction with your assessor in an interview style meeting. You as a candidate must be present on assessment day to actively present your evidence for assessment. You will be assessed on the evidence you present on that day. You'll receive formal feedback on your progress on assessment day.

Valid reasons to have the assessment moved to another day must be arranged with your assessor at least one day in advance.

Invalid or unexplained absences from assessment day will constitute a failure to actively present evidence of competency and will result in a grade of "not yet competent".

### ASSESSMENT CONDITIONS

It is your responsibility to be prepared. If you have forgotten something or made a small mistake you may correct it, however the assessor may choose to assess other candidates who are better prepared and return to you if time permits. Upon completion of the assessment you will be issued with feedback and a record of the assessment, which you will need to acknowledge that you have accepted the result. If you are absent on the nominated assessment day (without prior agreement or a sufficient documented excuse) you will be assessed as not yet competent.

### GRADING

The assessment you are undertaking will be graded as either *competent* or *not yet competent*.

### REASSESSMENT PROCESS

If you cannot sufficiently demonstrate to your assessor that you are competent on assessment day you will be given a reassessment opportunity no later than 2 weeks following your initial assessment. This reassessment day will be conducted in the same manner as the initial assessment day.

If, after this second attempt you are still unable to demonstrate competence to your assessor, you will need to negotiate an extension beyond the end of the subject with the teacher. From there you will be passed to the student liaison officer to discuss how to submit outstanding assessments and a meeting with an intervention panel will be offered to assist with planning the completion of outstanding work.

If you are not successful in completing the third submission a fee for further assessment will be incurred.

If you are not successful in completing several subjects you will be passed to an intervention panel to address and discuss your progress at AIE.

### REASONABLE ADJUSTMENTS

We recognise the need to make reasonable adjustments within our assessment and learning environments to meet your individual needs. If you need to speak confidentially to someone about your individual needs please contact your teacher.

