

## Title: Artificial Intelligence

**Start Date:** Tuesday, 8 October 2013

**Assessment Day:** Tuesday, 12 November 2013

### Assessable units of competency

PGDGSP601A – Develop complex systems for real time applications

### General description

Artificial Intelligence is used within games and simulations to control complex agent logic and navigation. Within this module you will learn about modern techniques used by industry professionals to achieve cutting edge AI implementations.

Over the next few sessions you will be able to demonstrate knowledge of artificial intelligence techniques, implementation of artificial agents, communication between agents, and the use of navigational techniques for artificial agents.

### Knowledge and skills

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

- Design and implementation of artificial agent behaviours
- Design and implementation of artificial agent communication techniques
- Implementation of advanced agent navigation
- Structure of advanced artificial intelligence simulations

### 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. Completed Behaviour Trees lab exercises
2. Completed Navigation Meshes lab exercises
3. Completed Group Behaviours lab exercises

### 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 instructions for candidate

### METHOD OF ASSESSMENT

Assessment will be conducted by you personally presenting evidence that demonstrates your competence in a short interview with your assessor. The evidence you must prepare and present is described above in this assessment criteria document. Assessments will be conducted on a specific day recorded above in this assessment criteria document.

### ASSESSMENT CONDITIONS

You will have approximately 10 mins to present your evidence that demonstrates your competence. 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 are assessed as being not yet competent you will receive clear, written and oral feedback on what you will need to do to achieve competence. You will have two (2) weeks to prepare your evidence for a reassessment. You will be given only one

## Assessment Criteria

### Full Time Courses – 2<sup>nd</sup> Year Games Programming

10343NAT Advanced Diploma of Professional Game Development

reassessment opportunity. If you are unsuccessful after your reassessment you will be required to attend an intervention meeting with your Head of School to discuss your progress.

#### 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.

## Assessment rubric

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

Evidence	Definition of Competent
1. Completed Behaviour Trees lab exercises	Lab exercises for the “Behaviour Trees” session completed and submitted, with all agent behaviours working correctly to the specification, demonstrating an understanding of the topic. Documentation for the agent behaviour design completed and submitted.
2. Completed Navigation Meshes lab exercises	Lab exercises for the “Navigation Meshes” session completed and submitted, with all agent navigation working correctly to the specification, demonstrating an understanding of the topic.
3. Completed Group Behaviours lab exercises	Lab exercises for the “Group Behaviours” session completed and submitted, with all communication between the agents behaving as per the specification, demonstrating an understanding of group communication and behaviours. Documentation for communication behaviours between agents completed and submitted.

