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SPECIALIST EDUCATORS IN
GAMES, ANIMATION & FILM VFX

2021 Subject & Assessment Guide

ICT Fundamentals

ICT30120

Certificate III in Information Technology

Game Development Foundations

academy of interactive entertainment
Sydney Melbourne Canberra Adelaide Lafayette Seattle Online

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ICT Fundamentals

Units of Competency

The units of competency that are covered in this subject are as follows:

ICTICT302 - Install and optimise operating system software
ICTSAS308 - Run standard diagnostic tests

Assessment processes and competency evidence requirements are described in the *Assessment Criteria* section below. If you have prior or other evidence against competency you should discuss this with your trainer.

Subject Overview

Overall Learning Outcomes

- Apply knowledge of common symptoms to design preventative maintenance techniques for ICT software and hardware.
- Demonstrate aptitude in the monitoring and removal of system viruses.
- Install, configure, and optimise operating systems.

Subject Description

Information and Communications Technology (ICT) is a large and varied field that encompasses many aspects of computer use. But no matter what differences there are between these aspects they all have to deal with a few fundamental topics; operating systems, workplace health & safety, and ensuring that ICT processes function correctly and reliably.

This subject addresses these fundamental elements of ICT through exercises, class discussions and consultations and reflecting upon outcomes from the discussions after attempting to put them into practice.

Industry Relevance

Workplace health & safety is important for all workplaces. Understanding operating systems is also an important part in creating successful video games as they rely heavily on the underlying operating system's features and capacity.

Assumed Knowledge

- Knowledge of computer use

Learning Components Guide

Your learning in this subject will be achieved through the following components: The study hours may vary.

Learning Component	Duration	Description
Classroom Activity	30 hours	Presentations, group work and tutorials
Individual Skills/Knowledge Development	5 hours	Self-paced practice exercises on testing and diagnosing ICT problems in the workplace
Project Work	10 hours	Self-paced discussions with peers on workplace health and safety concerns, and successful deployment and testing of operating system software

Assessment Criteria

Assessment Description

Assessment Milestones

Please refer to your Class Schedule for actual dates on your campus

General Description

For this assessment you will use virtual machine software to install an Operating System selected by your instructor and configure it to ensure it runs successfully. One set up, this software will provide you with a virtual environment that is sandboxed and completely isolated from the rest of your PC. This environment will allow you to safely install viruses on your virtual system, study their behaviour and disinfect the system using virus scanning software.

You will also be required to run diagnostic software and identify any issues found, documenting a series of preventative maintenance techniques in the process.

Upon completion of this assessment you will have demonstrated knowledge and aptitude in operating systems, software and preventative maintenance techniques that will supplement and enhance your skills in game development, providing a breadth of experience as a software engineer.

Evidence Specifications

This is the specific evidence you must prepare for and present by your assessment milestone to demonstrate you have competency in the above knowledge and skills. The evidence must conform to all the specific requirements listed in the table below. You may present additional, or other evidence of competency, but this should be as a result of individual negotiation with your trainer.

Your Roles and Responsibilities as a Candidate

- Understand and feel comfortable with the assessment process.
- Know what evidence you must provide to demonstrate competency.
- Take an active part in the assessment process.
- Collect all competency evidence for presentation when required.

This table defines what you need to produce as evidence of competency.

Assessment Tasks & Evidence Descriptions

1. Operating System Diagnostics
Evidence that includes:
• Completion of the *Operating System Diagnostics* assessment item, including:
  ○ Successful installation of an Operating System onto a target platform
  ○ Updating software packages
  ○ Performing disk maintenance, and
  ○ Managing user accounts and permissions

2. Preventative Maintenance
Evidence that includes:
• Creation of 6 separate documents using the *Preventative Maintenance Template*, each containing the following information:
  ○ Identification of an ICT System
  ○ Identification of potential problems
  ▪ Including identification of at least 3 symptoms of the problem
  ○ Development of preventative maintenance procedures
  ○ Testing of the preventative maintenance procedures, including any issues found

3. Monitoring and Removing Viruses
Evidence that includes:
• Completion of the *Virus Scanning and Backups* assessment item, including:
  ○ Effective use of a virus scanner
  ○ Documenting infections and reparative action taken
  ○ Removal of any infections found by the scan
  ○ Creating and restoring system backups to repair system damage

Assessment Instructions for Candidate

METHOD OF ASSESSMENT

Assessment is a cumulative process which takes place throughout a subject. A 'competent' or 'not yet competent' decision is generally made at the end of a subject. Your assessment will be conducted by an official AIE qualified assessor. This may be someone other than your trainer. The evidence you must prepare and present is described

above in this assessment criteria document. This evidence has been mapped to the units of competency listed at the beginning of this document. Assessments will be conducted on a specific milestone recorded above in this assessment guide document.

ASSESSMENT CONDITIONS

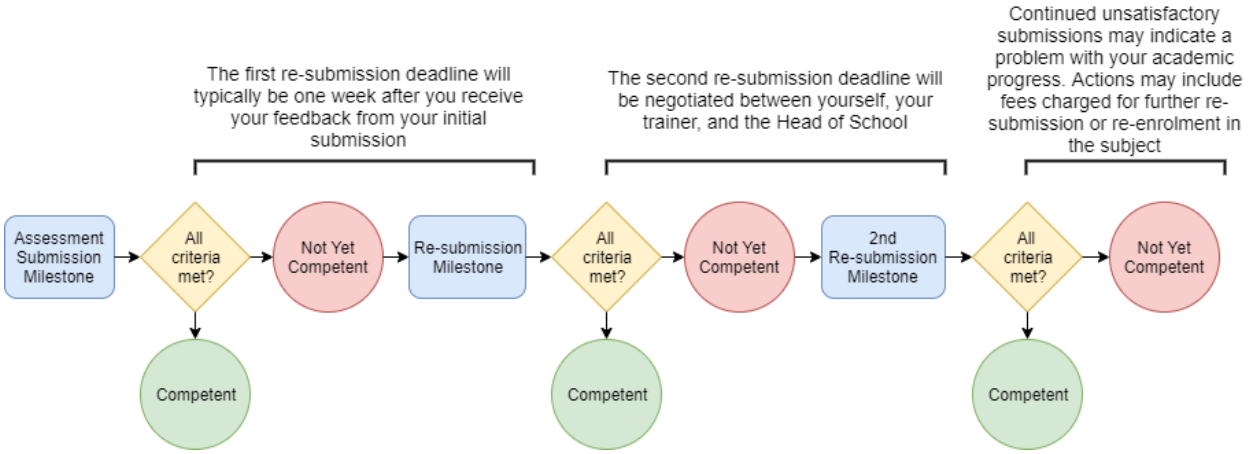
Formative assessment takes place as your trainer observes the development of your work throughout the subject and, although the assessor is likely to be aware of the evidence you are submitting, it is your responsibility to be prepared for the interview where a competency judgement is made (summative assessment). Forgetting something, or making a small mistake at the time of the milestone assessment, can be corrected. 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 summative assessment and acknowledge that you have received the result. If you are absent for the nominated assessment milestone (without prior agreement or a sufficiently documented reason) 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 be given a reassessment milestone no more than one (1) week later to prepare your evidence. If you are unsuccessful after your reassessment, you may be asked to attend a meeting with your Head of School to discuss your progress or any support you may need and further opportunities to gain competency.

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 trainer.

FURTHER INFORMATION

For further information about assessment and support at AIE, please refer to the assessment and course progress sections of your learner handbook.

Software

Core

Virtual Box

VirtualBox is a general-purpose full virtualizer for x86 hardware, targeted at server, desktop and embedded use.

This software gives developers the ability to emulate any operating system, regardless of which operating system is installed on the computer. This is commonly used by software and game developers to test applications and games on a variety of operating systems easily.

- https://www.virtualbox.org/

Linux Mint

Linux Mint is lightweight version of the Linux operating system, that has been customised for performance and ease of use.

Pre-packaged versions of *Linux Mint* are used throughout this module.

- https://linuxmint.com/

Virus Scanning Software

There are many different virus scan software choices which are adequate for the purposes of this course.

Your trainer will advise which option is best for the circumstances at hand.

The *ClamTk* virus scanner is used together with *Linux Mint*

- https://dave-theunsub.github.io/clamtk/

