2017 Course Guide

Online Campus

ICT20115

Certificate II in Information, Digital Media and Technology

Game Programming Foundations

academy of interactive entertainment

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Course Guide

Overview

Welcome to AIE

We welcome you to study at AIE.

The **Game Programming Foundations** is intended to explore and develop a set of core skills used in the games industry. The course is run with a focus on the development of practical programming skills to create a series of game projects, using industry standard software.

What will you learn?

Upon successful completion of this course you will exit with the skills, experience and confidence to demonstrate the following:

- Fundamental skills in game programming
- Problem solving abilities required for real-time interactable software
- Foundation ICT skills

What is the qualification you will receive?

After the successful completion of the full course you will be entitled to a **ICT20115 Certificate II in Information Digital Media and Technology**. Completion of the course also serves as a valuable bridge to further study into higher level qualifications.

This qualification is at Australian Qualification Framework (AQF) Level 2. AQF levels and the AQF levels criteria are an indication of the relative complexity and/or depth of achievement and the autonomy required to demonstrate that achievement. AQF level 1 has the lowest complexity and AQF level 10 has the highest complexity.

You can find more details of AQF levels here

What software will I be using?

Some of the software packages you will be using throughout the course, depending on the programming language being taught, may include:

- Web Browser (Chrome, Firefox, Safari)
- Text Editor (Sublime Text, Notepad++)
- Microsoft's Visual Studio
- Image Editor (Adobe Photoshop, GIMP, Paint)

Access to Important information

Information about competency based training and assessment, support services, harassment, grievances, and your rights and obligations can be found under the "student information" tab on the AIE website. The "policy and procedures" link will direct you to where individual reference documents can be downloaded and read.

We very strongly encourage you to make yourself aware of this information, in particular the information in the "Student handbook".

Handbook Link: http://www.aie.edu.au/StudentInformation/PoliciesProcedures

AIE Staff

Teaching Staff

Please refer to your Admin Manager / Student Liaison Manager for classroom teacher names

Head of School

Lea Michael   leam@aie.edu.au

Head of Faculty

Conan Bourke   conanb@aie.edu.au

Administration Staff

Joshua Skeates   joshs@aie.edu.au

Ashley Harrison   ashleyh@aie.edu.au

Any type of help outside class time

Use helponline@aie.edu.au to communicate with your teachers outside class times and to request assistance for any course work or assessment. The email is set up specifically to support you and is monitored more closely by several people to ensure a faster response. Administration staff will ensure teachers get messages and responses are managed for any questions. Where the teacher for a subject is not available, administration staff will locate an available teacher with equivalent knowledge.

Emails sent directly to staff may not receive a response in a timely manner due to workloads and work hours.

Learning Program – Delivery

The **ICT20115 Certificate II in Information Digital Media and Technology** is a nationally accredited course of study which is subject to a minimum duration and delivery hours. Learning is delivered using 3 methods: Classroom Learning, Individual Skills & Knowledge Development and Project Work.

Classroom Learning

Classroom learning takes place through your online campus using Adobe Connect, or other software, to create a highly connected virtual environment. Your teacher facilitates these classroom sessions. This is the primary source of learning for the course. During this time, you will have access to teachers, course specific software and other resources.

Individual Skills & Knowledge Development

It is expected that you will continue to develop your skills and knowledge beyond the classroom environment. This will include completing online tutorials, further reading and other relevant activities. You will be assigned additional activities and homework by your teacher which will contribute to this course requirement.

Project Work

Throughout the course, you will complete a number of projects. These projects are designed to simulate an industry experience and allow you to develop real world skills in project management and professional team work. The projects also offer the opportunity for you to demonstrate learning achieved throughout the duration of the course.

Minimal Total Course Duration	
240 hours	**6 months**

Learning Component	Minimum Required Hours
Classroom Learning	120
Individual Skills & Knowledge Development	40
Project Work	80 Continually assessed over the duration of the course

Learning Program – Scheduling

Term dates and Public Holidays

TERMS	START DATE	END DATE
TERM 1		
HOLIDAY (1 week)		
TERM 2		
HOLIDAY (2 weeks)		
TERM 3		
HOLIDAY (1 week)		
TERM 4		

PUBLIC HOLIDAY	DATE
Canberra Day	Monday 13th March 2017
Good Friday	Friday 14th April 2017
Easter Monday	Monday 17th April 2017
ANZAC Day	Tuesday 25th April 2017
Queen's Birthday	Monday 12th June 2017
Family and Community Day	Monday 25th September 2017
Labour Day	Monday 2nd October 2017

Learning Program – Subject Descriptions

Listed below are the subjects you will be learning. These details are subject to change at AIE's discretion. For more information on each subject, please refer to your subject and assessment guides. Note that these subjects have been mapped to units of competency which are listed later in this guide.

SUBJECT	DESCRIPTION
Game Programming Basics	Learn introductory programming skills while recreating a classic video game
ICT Foundations	Learn supporting ICT skills such as health and safety in the office and operating systems
Key Aspects of Game Programming	Learn how to incorporate audio and 2D animations into a platformer video game using intermediate programming skills
Pre-production Basics	Design your own video game idea and learn how to plan its development using various industry tools
Game Production	Develop your own video game based on your own design

Learning Program - Assessment

How will I be assessed?

The **ICT20115 Certificate II in Information Digital Media and Technology** is a nationally accredited course of study. During the course, you will be given clear and specific instructions on what you must learn, how you'll be assessed and what you must do to show you are "competent". You will be advised of specific assessment milestones and, if required, be present on those milestone days to demonstrate your competence.

Your assessment is "un-graded". This means you will only be assessed as "competent" or "not-yet-competent".

To earn your qualification, you must be assessed as competent in all the nationally accredited units required by your qualification. These are listed below.

Details of the assessment process

Each assessment item has units of competency associated with it. In order to pass an assessment item, you must be deemed competent in every associated unit of competency. Where individual units of competency requirements are not met, a reassessment will be organised by AIE course coordinators and teaching staff.

Assessments are often conducted at a presentation/interview at a specific assessment milestone. Assessment results and feedback are given to you promptly.

AIE policy on assessment and reassessment

Assessment milestones

Evidence to establish your competence is produced by you throughout each subject and often presented at an assessment interview on specific days towards the end of the subject. This is done in conjunction with your assessor in an interview style meeting. You as a candidate are expected to be present at this milestone to actively present your evidence for assessment. You can present additional evidence against competency including evidence for Recognition of Prior Learning (RPL). You should discuss any additional evidence you wish to present with your teacher before the assessment milestone. You'll receive oral and written feedback on your competency evidence at, or shortly following, the assessment milestone. Your evidence will be assessed based on the rules of evidence; whether it is sufficient, valid, current and authentic enough to establish competency.

Valid reasons to have the assessment moved to another time must be arranged with your assessor **at least three days in advance.**

Invalid or unexplained absences from an assessment milestone may constitute a failure to actively present evidence of competency and can result in a grade of "not yet competent" at that time.

Reassessment

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

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 support needs, please contact your teacher.

Requests for Extensions

Requests for extensions must be negotiated with your teacher on an official extension application form prior to the assessment date. Valid and relevant evidence should be attached to the form (i.e. doctor's certificates).

Plagiarism

Students have a responsibility to complete all assessment tasks honestly, without any form of cheating, plagiarism or violation of copyright. Failure to uphold this responsibility can lead to suspension or expulsion depending on the severity of the offence. For more information regarding what constitutes as "copyright", please consult your teacher.

Student appeals and grievances

AIE's Student Handbook contains all information about appeals and grievances. Students are required to read and understand these policies. The Handbook can be found on the AIE website. A link from your Canvas course is available as well.

Also, follow this link: http://www.aie.edu.au/StudentInformation/PoliciesProcedures

Grievances and appeals may be directed to your teacher or administration manager, who will contact the appropriate person to assist.

Further information on AIE assessment and reassessment policy

AIE's Student Handbook contains all information about assessment and reassessment policies. Students are required to read and understand these policies.

The Handbook can be found on our website under Student Information.

Link: http://www.aie.edu.au/StudentInformation/PoliciesProcedures

Units of Competency

ICT20115 Certificate II in Information Digital Media and Technology
BSBWHS201 - Contribute to health and safety of self and others
BSBSUS201 - Participate in environmentally sustainable work practices
ICTICT201 - Use computer operating systems and hardware
ICTICT202 - Work and communicate effectively in an ICT environment
ICTICT203 - Operate application software packages
ICTICT204 - Operate a digital media technology package
ICTWEB201 - Use social media tools for collaboration and engagement
CUADIG201 - Maintain interactive content
CUASOU202 - Perform basic sound editing
ICTICT209 - Interact with ICT clients
ICTSAS202 - Apply problem-solving techniques to routine ICT malfunctions
ICTICT211 - Identify and use basic current industry specific technologies
ICTICT206 - Install software applications
ICTICT205 - Design basic organisational documents using computing packages

Learning Program - Classroom

Work Environment

All courses delivered at AIE are designed to simulate "real-world" film and game studio employment conditions. This is achieved through:

- Adhering to industry work specifications, standards and production pipelines.
- Students taking on production roles, as per industry production environments.
- Using identical software and hardware to what is used in the industry.
- Focusing on key project work methodologies as used in industry.
- Researching and practicing key industry roles

Learning Management System

AIE's learning management system can be accessed through a variety of devices including your Smartphone. It allows continual communication between students and teachers and is a repository for all resources, work in progress, presentations and many other rich learning experiences. It can be found at: - http://aie.instructure.com

A login letter with all log in details and links will be provided the week prior to the commencement of your course, sent to your specified email address. Please ensure that your email address is correct and current.

Ensure you have tested that your login works and that you can view information for the course you are enrolled in. Notify AIE immediately if you are having issues logging in, or accessing the correct course information via helponline@aie.edu.au.

Access to subjects you are enrolled in will occur during the days leading up to the start of the subject.

Online learning - Connect

Connect is the web browser based virtual classroom AIE uses to run tutorials, guest speakers and open rooms.

Links to the Connect rooms for tutorial sessions and recordings will be placed into the subject on AIE Canvas or the links can be directly accessed through: http://onlineclasses.aie.edu.au/

Student login details will arrive with the Canvas login details and access to the tutorial rooms will only occur when a teacher is logged in. All recordings can be accessed at any time.

Industry speakers

Guest industry visits and presentations may be organised to assist with study. Please be aware that these presentations may be organised outside of the formal class times based on the industry professional's availability.

Live Lectures and Q and A Sessions

Learning is delivered through a mix of live lectures and questions and answer sessions.

An AIE teacher or guest lecturer introduces you to new learning material, including the required skills and knowledge to demonstrate competency, on a regular basis. Lectures are recorded to give you time to watch them once or twice at your convenience and try some of the practice content prior to the scheduled Q and A session

These lectures are followed by question and answer sessions where you interact with your teacher to gain answers to your questions and feedback from the rest of the group. Help with exercises and assessments are also included in this time.

The intention is that students reserve questions and discussions until the Q and A session to keep the lecture time to a minimum for all present.

All Q and A sessions are also recorded to enable students who cannot attend to watch at a later time and see answers to peers' questions and discussions. Recordings are made available after each session. Students who cannot attend regular tutorials are encouraged to also take advantage of our helponline@aie.edu.au email assistance.

Individual Skills Development and Project Work

A self-directed time where students work through an assortment of skills designed to strengthen and develop further understanding of new key concepts introduced in the lecture. Items such as skills exercises, video tutorials developed at AIE, interactive practice / exploration apps and links to relevant resources for extension may all be explored during this time. You can also use this time to apply your skills to set project work.

Participation

To gain the best outcome from this course of study, we recommend that you participate in all aspects of the course – class activity, skills/knowledge development and project work. If unable to attend a live session it's best to engage with the recorded version as quickly as possible.

Attendance

Attendance is recorded electronically and monitored by administration. AIE encourages students to contact helponline@aie.edu.au if you will be missing class. A medical certificate or appropriate documents should be provided to administration staff if students are unable to attend class for long periods of time. If a medical certificate or appropriate documents are not provided a non-attendance mark will be recorded against the student record.

Our past experience indicates that falling below an 80% attendance rate without maintaining progress through watching recordings is likely to affect the quality of learning and may prevent successful completion of the course.

Staff access

Teaching staff will be in the virtual classroom during the nominated lectures and Q and A times.

Teachers can be contacted outside class times via emailing helponline@aie.edu.au. Please be aware that our industry focused staff at AIE often have other classes, external projects and commitments and this may cause a delay in their response if emailed direct to their personal email address.

Appointments to talk to teachers out of class time can be requested and organised through the administration manager / student liaison officer.

Appointments to talk to the Head of School or Head of Department can be requested and organised through the administration manager / student liaison officer.

Text books

A list of required and suggested texts, if required, will be indicated in subject information provided through the Online Campus Enrolment page in AIE Canvas.

Public holidays and Daylight Saving

No classes will run on Australian national public holidays or Canberra holidays. However, learning content will be available to encourage continued learning.

If daylight saving time changes occur during your studies, you will be informed to the necessary changes to class time. All class start times are based on the Australian Eastern Standard Time zone.

Recommended equipment

You will need a computer that is reasonably new and will support the software indicated in each subject. Most computers less than three years old will be able to run the software required for the course. Each software manufacturer has a minimum specification for their software on their websites. However, administration staff can also be contacted for recommendations and advice.

Internet speeds and usage are paramount to the completion of this course. Live classes, lectures and content all contain streamed data that can be on average 70MB download per week, per subject. A minimum internet speed of ADSL2 is recommended to be able to maintain minimum lag during screen sharing.

Headphones with microphone will be required to listen to any audio in the classroom and interact with the teacher and students effectively. A microphone will not always be used but is particularly useful for getting assistance and will be required for running presentations as part of some assessments. A headset is recommended to block out external noises in the student's environment and allow for better focus during study times.

IT Support

Any questions about course software or logins for AIE resources can be directed to the teacher during a tutorial session or email helponline@aie.edu.au which is monitored frequently during business hours.

General Information

Special requirements

If you have any support requirements that are important for study at AIE be sure to inform teachers and AIE administration so we might provide the best learning experience we can.

Improvements from student and industry feedback

It is important to AIE that we deliver the highest quality courses in the best manner we can. To help us do this we seek comment and feedback from our students. We also seek feedback and advice from industry professionals. Teachers will request feedback through the completion of surveys as well as informal discussions during the course.