

Computer Games Technology MSc

The video games marketplace continues to grow and develop, becoming a core technology of the fast-developing home electronic entertainment media. Computer games are produced in a studio environment, over years of development time, consuming several millions of dollars, and using a team or teams of programmers, artists, musicians, designers, producers and others. The city of Dundee, Scotland, the UK and EU have a significant role in world video games development, and the demand for good 3D games programmers continues to be significant.

During the course you will study aspects of game design technologies and, in a team, design a full game

and produce a working prototype game level as a portfolio piece for a future employer. This course is



designed for graduates who have sound experience in computer programming and a solid grounding in mathematics.

Every year several students also take the opportunity to compete in the Abertay-based international Dare To Be Digital competition (daretobedigital.com) and some go on to establish their own fledgling games companies.

Those exiting the course after successful completion of the taught component (i.e. Postgraduate Diploma)

would be eligible for the award of Postgraduate Diploma (PGDip) Software Engineering (Computer Games Technology).

What you study

You will study game design and development, programming games on the PC and Xbox, the games marketplace, games mathematics, console game development and artificial intelligence for games. The course emphasises the creation of a set of significant portfolio software pieces to show future employers.

How you learn

Most of the teaching is focused around lectures followed by laboratory sessions in a dedicated lab or by tutorial sessions. The game design and development course is taught in small tutorial groups using a problem-based learning approach. You will spend about 12 hours attending classes per week. This must be supported by 30 hours a week of private study.

How you are assessed

The assessment strategy throughout the course is based on 100% coursework in all modules except Mathematics which is examinable. Assessment can be based on a combination of practical work, class tests, reports, essays and presentations.

Career opportunities

Job opportunities exist in the following sectors - computer games development, graphics and visualisation, virtual reality/simulation, multimedia and education. Typical job titles include Games Programmer, Graphics Programmer, AI Specialist Programmer and Console Programmer. Employers range in size from small local companies to large multinational enterprises with offices all over the world. Opportunities exist for promotion through specialist technical routes to Lead Programmer or Project Lead or Director in larger companies. Salaries depend on experience and record of success and can include substantial bonuses for hitting milestones or involvement in a successful game. Limited opportunities exist for new graduates to become self-employed, freelance contractors or to start their own games development business. However, for an experienced Games Developer it is still possible to start a new business.

Graduates from this course can also seek employment in sectors which make use of their general software engineering design, analysis, communication, team working, research and lifelong learning knowledge, skills and attitudes. For example, graduates could seek employment and training opportunities in marketing, management, and sales within and outside the electronic entertainment sector. Alternatively, graduates from this course could also seek employment in mainstream software engineering.

Professional accreditation

The course is accredited by BCS, The Chartered Institute for IT, as meeting the educational requirement for CITP Further Learning and partially meeting the educational requirement for CEng/CSci registration subject to Committee approval in early 2010. Skillset accreditation has also been awarded.



Course Length	Full-time: PGDip (1 year) plus MSc (4 months) Part-time: PGDip (2 years) plus MSc (8 months)
Places Available	Approx 20
SCQF Level	11

Key information

Entrance Requirements

Applicants should have a minimum of a lower second class Honours degree that includes a substantial element of computer programming and have a reasonable background in Mathematics.

Want to know more?

Admissions Tutor:
Dr Kenny McAlpine
Tel: +44 (0) 1382 308600
email: institute@abertay.ac.uk
Text: +44 (0) 7781 472704

Key features

- Highly respected course in Computer Games Technology
- Expand and focus your existing programming skills for the development of computer games
- Designed in close association with Games companies, completion of this course will qualify you to take up employment in a buoyant, multi-million pound, world-wide industry
- Work closely with games companies through project work

**Abertay
University**

www.abertay.ac.uk