



Course Outline (Higher Education)

School:	School of Engineering, Information Technology and Physical Sciences
Course Title:	COMPUTER GAMES DESIGN
Course ID:	ITECH3222
Credit Points:	15.00
Prerequisite(s):	(ITECH2001)
Co-requisite(s):	Nil
Exclusion(s):	Nil
ASCED:	029999

Description of the Course:

This course extends student knowledge of the technology, design concepts and cultural effects and involved in computer games. The course will focus on putting theory into practice, requiring students to design and develop a sophisticated and functional game environment/level. Technologies such as games engine selection and usage will be explored. Design issues and concepts relating to computer games will be expanded upon and students will be required to develop their skills through exploration and experimentation. The cultural effects and implications of computer games will be explored in detail and students will be shown how to critically evaluate a computer game.

Grade Scheme: Graded (HD, D, C, P, MF, F, XF)

Work Experience:

No work experience: Student is not undertaking work experience in industry.

Placement Component: No

Supplementary Assessment: Yes

Where supplementary assessment is available a student must have failed overall in the course but gained a final mark of 45 per cent or above and submitted all major assessment tasks.

Program Level:

Level of course in Program	AQF Level of Program					
	5	6	7	8	9	10
Introductory						

Level of course in Program	AQF Level of Program					
	5	6	7	8	9	10
Intermediate	■	■	■	■	■	■
Advanced	■	■	✓	■	■	■

Learning Outcomes:

Knowledge:

- K1.** Describe and explain the theory, processes, influencing factors and documentation associated with games design;
- K2.** Explain the elements and dimensions of game and level design;
- K3.** Explain the theory and processes associated with gameplay balancing and game testing;
- K4.** Describe the uses of crowd-orientated game development and online publishing options.

Skills:

- S1.** Prepare game-design documents, incorporating components such as story, character, and gameworld;
- S2.** Create complex assets for an existing computer game using 3D modelling and/or other multimedia software tools;
- S3.** Create a sophisticated environment/level for an existing computer game based on games design documents.

Application of knowledge and skills:

- A1.** Exhibit judgement in tailoring a design for a specific target audience.

Course Content:

This course extends student knowledge of the technology, design concepts and cultural effects and implications involved in computer games as taught in Game Development Fundamentals. The course will focus on putting theory into practice, requiring students to design and develop a sophisticated environment/level within an existing game engine. The cultural effects and implications of computer games will be explored in further detail and students will be shown how to critically evaluate a computer game. The processes and documents involved in game design, and tools used for asset and level creation for an existing computer game will be covered in detail.

Topics may include:

- The process of game design;
- Games design stakeholders, influences and documentation;
- Crowd-sourcing ,crowd-funding and publishing platforms;
- Social media, community building & monetization;
- Designing game worlds;

- Game balance, testing & maintaining player interest;
- Interface design & advanced level design;
- Character development through story design and emotioneering;
- Evaluation of games development software & engines;

Values:

V1. Appreciate the cultural effects and implication of computer games;

V2. Critically evaluate a computer game.

Graduate Attributes

The Federation University FedUni graduate attributes (GA) are entrenched in the [Higher Education Graduate Attributes Policy](#) (LT1228). FedUni graduates develop these graduate attributes through their engagement in explicit learning and teaching and assessment tasks that are embedded in all FedUni programs. Graduate attribute attainment typically follows an incremental development process mapped through program progression. **One or more graduate attributes must be evident in the specified learning outcomes and assessment for each FedUni course, and all attributes must be directly assessed in each program**

Graduate attribute and descriptor		Development and acquisition of GAs in the course	
		Learning Outcomes (KSA)	Assessment task (AT#)
GA 1 Thinkers	Our graduates are curious, reflective and critical. Able to analyse the world in a way that generates valued insights, they are change makers seeking and creating new solutions.	K1, K2, K3	1, 2
GA 2 Innovators	Our graduates have ideas and are able to realise their dreams. They think and act creatively to achieve and inspire positive change.	K1, K3, S1, S2, S3, A1	1, 2
GA 3 Citizens	Our graduates engage in socially and culturally appropriate ways to advance individual, community and global well-being. They are socially and environmentally aware, acting ethically, equitably and compassionately.	K1, A1	2
GA 4 Communicators	Our graduates create, exchange, impart and convey information, ideas, and concepts effectively. They are respectful, inclusive and empathetic towards their audience, and express thoughts, feelings and information in ways that help others to understand.	K1, K2, K3, K4	1, 2
GA 5 Leaders	Our graduates display and promote positive behaviours, and aspire to make a difference. They act with integrity, are receptive to alternatives and foster sustainable and resilient practices.	S2, S3, K4	1, 2

Learning Task and Assessment:

Assessment for this course will be based on a number of tasks including practical assignments, design documentation and an end of semester examination or test covering theoretical aspects of the course.

Learning Outcomes Assessed	Learning Tasks	Assessment Type	Weighting
S1, S2, S3, K2 & K3	Design and implementation of a game level and/or an overall game design, including creation of conceptual/design documentation and implementation of associated multimedia assets and scripts.	Assignments - conceptual/design documents and game design implementations	70%
K1, K2, K3, K4 & A1	Questions covering the theory and principles underlying games design, the documentation associated with games design, the various elements of games design (story, world, characters, gameplay and interface design), the cultural value of games, the use of funding/resourcing models and critiquing of game designs.	Invigilated Examination(s) and non-invigilated Test(s)	30%

Adopted Reference Style:

APA

Refer to the [library website](#) for more information

Fed Cite - [referencing tool](#)