Course Outline

Title: INTERACTIVE 2D ANIMATION

Code: ITECH2109

Formerly: CP691

Faculty / Portfolio: Faculty of Science

Program Level:

	AQF Level of Program					
	5	6	7	8	9	10
Level						
Introductory						
Intermediate			✔			
Advanced						

Pre-requisites: (Any programming / scripting course) (CP585 or CP586 or CP872 or ITECH1004 or ITECH5004)

Co-requisites: Nil

Exclusions: (CP690 and CP691)

Progress Units: 15

ASCED Code: 029999

Learning Outcomes:

Knowledge:

K1. Describe and compare the design principles, processes and techniques of both digital and traditional non-digital 2D animation;
K2. Explain the mathematical underpinnings of 2D digital animation methods, including interpolation, collision detection and simple simulation of forces;
K3. Describe the principles and processes relating to designing and implementing user-centred multimedia interface design, including the principles of asset management.

Skills:

S1. Prepare animation design documents, and implement non-interactive 2D digital animation sequences using appropriate software tools;
S2. Apply user-centred principles to design multimedia interfaces;
S3. Implement multimedia interfaces and interactive digital animations using appropriate software tools and scripting languages.

Application of knowledge and skills:

A1. Apply judgment in designing multimedia interfaces to suit specific target audiences.

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Values and Graduate Attributes:

Values:

V1. Appreciate the importance of user-centred design in improving the accessibility of computer systems.

Graduate Attributes:

Attribute	Brief Description	Focus
Continuous Learning	Students are encouraged to explore beyond the formal class content to develop further skills and knowledge in the software environment used for the practical work. References to further theoretical reading is also provided and encouraged.	Medium
Self Reliance	Students are encouraged to explore beyond the formal class content to develop further skills and knowledge in the software environment used for the practical work. References to further theoretical reading is also provided and encouraged.	Medium
Engaged Citizenship	Confidently employ general skills of animation design and digital implementation in a range of different contexts.	Low
Social Responsibility	Some discussion of issues such as accessible design.	Low

Content:

This course introduces students to design principles and practices for the creation of interactive 2D animation. The course will focus on putting theory into practice, requiring students to undertake a task such as designing and developing a interactive multimedia project incorporating 2D animation. Theoretical aspects will be covered to an extent that is appropriate for the aims of the course.
Design issues and concepts relating to multimedia interfaces and 2D animation will be explored and students will be encouraged to experiment and develop their skills.
The cultural impact of multimedia and 2D animation and its place in society will be highlighted.
The tools used for the creation of interactive 2D animation will be introduced.

Topics may include:

- The advantages and disadvantages of digital animation over traditional hand-drawn animation;
- Design processes for both non-interactive and interactive animation;
- Digital animation techniques including tweening, hierarchical animation, scripted animation, procedural methods, and simple physics simulation;
- User-centred design of multimedia interfaces;
- The multimedia design and development process, including asset management.

Assessment:

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

Learning Outcomes Assessed	Assessment Task	Assessment Type	Weighting

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S1, S2, S3, A1	Students will design and implement both non-interactive and interactive 2D animations, and multimedia interfaces using appropriate design principles.	Design documents, software implementation assignments	30% - 50%
K1, K2, K3, A1	Examination questions covering animation and interface design principles, comparison of digital and non-digital approaches to animation, the techniques of digital animation (including the underlying mathematics and scripting), the principles of user-centred interface design, and the development processes for multimedia systems, including asset management.	Examination(s)	50% - 70%

Adopted Reference Style:

APA

Presentation of Academic Work:

https://federation.edu.au/students/assistance-support-and-services/academic-support/general-guide-for-the-presentation-of-academic-work