Session: 2022/23

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Title of Module: 3D Computer Animation

Code: COMP08059	**SCQF Level: 8** (Scottish Credit and Qualifications Framework)	**Credit Points: 20**	**ECTS: 10** (European Credit Transfer Scheme)
School:	School of Computing, Engineering and Physical Sciences		
Module Co-ordinator:	Peter Satera		

Summary of Module

This module will teach 3D Computer animation. The primary emphasis is on keyframed character animation. Lectures will focus on a break down of character control, strong scrutiny over theory of movement as well as an in-depth look at the principles of animation. Lectures will evaluate a detailed view of the character animation pipeline.

The assessment is continuous and split between anthropomorphic animation and bipedal character animation. Initially students are introduced to rigging techniques required for character development. Practical and theoretical grasp of animation will be expected to be demonstrated through lab exercises and assessment.

The following focus of the module will be on organic modelling techniques. Lectures will cover modelling processes centred on modelling practices and development. Students will undergo an understanding of modelling workflows to produce coherent production meshes. The students will be required to showcase a proficiency in modelling techniques.

- This module embeds the key “I am UWS” graduate attributes and in particular: Academic -Universal -Critical Thinker -Analytical -Work Ready -Knowledgeable -Digitally Literate -Problem-solver -Successful -Autonomous Personal -Universal -Ethically-minded -Work Ready -Motivated -Successful -Creative -Imaginative -Resilient Professional -Universal -Collaborative -Research-minded -Socially responsible -Work Ready -Ambitious

Module Delivery Method

Face-To-Face	Blended	Fully Online	HybridC	HybridO	Work-based Learning
✓	✓				

Face-To-Face
Term used to describe the traditional classroom environment where the students and the lecturer meet synchronously in the same room for the whole provision.

Blended
A mode of delivery of a module or a programme that involves online and face-to-face delivery of learning, teaching and assessment activities, student support and feedback. A programme may be considered “blended” if it includes a combination of face-to-face, online and blended modules. If an online programme has any compulsory face-to-face and campus elements it must be described as blended with clearly articulated delivery information to manage student expectations

Fully Online
Instruction that is solely delivered by web-based or internet-based technologies. This term is used to describe the previously used terms distance learning and e learning.

HybridC
Online with mandatory face-to-face learning on Campus

HybridO
Online with optional face-to-face learning on Campus

Work-based Learning
Learning activities where the main location for the learning experience is in the workplace.

Campus(es) for Module Delivery

The module will **normally** be offered on the following campuses / or by Distance/Online Learning: (Provided viable student numbers permit)						
Paisley:	Ayr:	Dumfries:	Lanarkshire:	London:	Distance/Online Learning:	Other:
✓						

Term(s) for Module Delivery					
(Provided viable student numbers permit).					
Term 1		Term 2	✓	Term 3	

Learning Outcomes: (maximum of 5 statements)
On successful completion of this module the student will be able to: L1. Show a knowledge of animation techniques and comprehension of the principles of animation. L2. Demonstrated ability to portray believable and entertaining motion through the use of effective character animation. L3. Demonstrate professional modelling production practices.

Employability Skills and Personal Development Planning (PDP) Skills	
SCQF Headings	During completion of this module, there will be an opportunity to achieve core skills in:
Knowledge and Understanding (K and U)	SCQF Level 8. Students will develop core skills in rigging and character animation required for employment with the animation industry. Students will develop and understanding of the theory around organic production.
Practice: Applied Knowledge and Understanding	SCQF Level 8. Students will apply the techniques discussed in lectures and lab sessions to their own animation and solve problems within the 3D domain. Students will carry out research for production.
Generic Cognitive skills	SCQF Level 8. Students will identify and solve routine problems in 3D production. Problems will include developing a basic rig, weight painting, fluid character motion and modelling organic meshes.
Communication, ICT and Numeracy Skills	SCQF Level 8. Students will develop the numeric skills necessary to implement animation techniques, and to make a study of the mechanics of movement. Students will develop a critical awareness of a range of complex software used for the character animation.
Autonomy, Accountability and Working with others	SCQF Level 8. Students will engage in individual project work. Manage time and resources to plan and produce character production under a professional studio production process.

Pre-requisites:	Before undertaking this module the student should have undertaken the following:

	Module Code: COMP07011	**Module Title:** 2D Computer Animation
	Other:	

Co-requisites	**Module Code:** COMP08013	**Module Title:** 3D Asset Production 1

* Indicates that module descriptor is not published.

Learning and Teaching

The module will be delivered by means of lectures, tutorials and practical lab work aimed at developing the core theories required to confidently animate and create character models within a 3D environment.

The lectures will further develop the awareness of the animation and modelling principles and techniques used within character animation. The lab work which follows will enable students to put into practice what they have learned, as well as work on assessment.

Students will create preproduction planning using appropriate research, ultimately creating a range of character animation outcomes to focus on a variety of abilities.

Students are also referred to external written and video tutorial material.

Learning Activities During completion of this module, the learning activities undertaken to achieve the module learning outcomes are stated below:	**Student Learning Hours** (Normally totalling 200 hours): (Note: Learning hours include both contact hours and hours spent on other learning activities)
Lecture/Core Content Delivery	12
Laboratory/Practical Demonstration/Workshop	36
Asynchronous Class Activity	40
Independent Study	112
	200 Hours Total

****Indicative Resources: (eg. Core text, journals, internet access)**

The following materials form essential underpinning for the module content and ultimately for the learning outcomes:

Getting Started with Maya 20XX (XX = current version).
Notes and lecturer produced video material. Students will be made aware of/directed towards other resources in lectures.
3D Animation Software, currently Maya.

VLE and lecturer produced lecture and video material and associated teaching materials.

(**N.B. Although reading lists should include current publications, students are advised (particularly for material marked with an asterisk*) to wait until the start of session for confirmation of the most up-to-date material)

Engagement Requirements

In line with the Academic Engagement Procedure, Students are defined as academically engaged if they are regularly engaged with timetabled teaching sessions, course-related learning resources including those in the Library and on the relevant learning platform, and complete assessments and submit these on time. Please refer to the Academic Engagement Procedure at the following link: Academic engagement procedure

Where a module has Professional, Statutory or Regulatory Body requirements these will be listed here: Students should regularly attend timetabled sessions. They will also be expected to participate in class activities and discussions. Students must also attempt assessment work, though where extenuating circumstances prevent this occurring, demonstrable communication with the teaching team should be evidenced as a marker of suitable engagement.

Supplemental Information

Programme Board	Computing
Assessment Results (Pass/Fail)	No
Subject Panel	Creative Computing
Moderator	John McQuillan
External Examiner	S Kennedy-Parr
Accreditation Details	
Version Number	2.08

Assessment: (also refer to Assessment Outcomes Grids below)
Assessment consists of two assessments, with two subcomponents Assignment 1 Character Animation: Character Animation portfolio and Documentation. Assignment 2 Organic Modelling: Character and asset modelling portfolio.
(N.B. (i) **Assessment Outcomes Grids** for the module (one for each component) can be found below which clearly demonstrate how the learning outcomes of the module will be assessed. (ii) An **indicative schedule** listing approximate times within the academic calendar when assessment is likely to feature will be provided within the Student Handbook.)

Assessment Outcome Grids (Footnote A.)

Component 1

Assessment Type (Footnote B.)	**Learning Outcome (1)**	**Learning Outcome (2)**	**Learning Outcome (3)**	**Weighting (%) of Assessment Element**	**Timetabled Contact Hours**
Portfolio of practical work	✓	✓	✓	100	0
Combined Total For All Components				100%	0 hours

Footnotes
A. Referred to within Assessment Section above
B. Identified in the Learning Outcome Section above

Note(s):
1. More than one assessment method can be used to assess individual learning outcomes.
2. Schools are responsible for determining student contact hours. Please refer to University Policy on contact hours (extract contained within section 10 of the Module Descriptor guidance note).
   This will normally be variable across Schools, dependent on Programmes &/or Professional requirements.

Equality and Diversity
The University policies on equality and diversity will apply to this module: the content and assessment are based on the ability to communicate in English but are otherwise culture-neutral. This module is almost entirely computer based and students must be proficient computer users within a windows, icons and mouse pointer environment with the use of suitable aids where required. It should be noted that this module makes extensive use of video material for teaching, students undertaking the module will need to able to follow, and work with the video tutorials.

When a student discloses additional support requirements an enabling support coordinators will agree the appropriate adjustments to be made, consulting with the module coordinator if necessary. UWS Equality and Diversity Policy UWS Equality and Diversity Policy
(N.B. Every effort will be made by the University to accommodate any equality and diversity issues brought to the attention of the School)