ROBERT GORDON UNIVERSITY ABERDEEN

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MODULE DESCRIPTOR

Module Title

3D Animation

Reference	CM4109	Version	1
Created	April 2017	SCQF Level	SCQF 10
Approved	August 2017	SCQF Points	15
Amended		ECTS Points	7.5

Aims of Module

To provide the student with the fundamental principles of animation and to develop and implement these principles into 3D animation.

Learning Outcomes for Module

On completion of this module, students are expected to be able to:

1	Demonstrate appropriate research skills in the development of an animation concept.
2	Analyse the underlying concepts of key 3D modelling techniques that can be used in an animation context.
3	Select and implement a range of appropriate fundamental 3D animation techniques.
4	Demonstrate a professional approach to the organisation and management of essential resources in the context of an animation project.
5	Critically evaluate and report on the development of an animated product.

Indicative Module Content

Preparation: Pre-production, concept development, scriptwriting, storyboarding & general workflow. 3D Modelling: Topology for animation, organic modelling, edge loops & geometry flow, poly counts, low poly vs. high poly, UV unwrap & texturing. Animation techniques: Rigging systems, skinning, key-frame, pose to pose, inverse kinematics, forward kinematics, motion capture. 3D modelling & animation tools: Use of 3D modelling software & motion capture suite, post-production export & rendering.

Module Delivery

Key concepts are introduced and illustrated through lectures. In the laboratories the students will progress through a sequence of exercises to develop sufficient knowledge of 3D modelling for animation & animation techniques to enable them to complete the practical design & implementation.

Indicative Student Workload	Full Time	Part Time
Contact Hours	33	N/A
Non-Contact Hours	117	N/A
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	150	N/A
Actual Placement hours for professional, statutory or regulatory body		

ASSESSMENT PLAN

If a major/minor model is used and box is ticked, % weightings below are indicative only.

Component 1

Type:	Coursework	Weighting:	100%	Outcomes Assessed:	1, 2, 3, 4, 5

Description: Component 1 - This is a coursework worth 100% of the total module assessment.

MODULE PERFORMANCE DESCRIPTOR

Explanatory Text

The calculation of the overall grade for this module is based on 100% weighting of C1. An overall minimum grade of D is required to pass the module.

Module Grade	Minimum Requirements to achieve Module Grade:
A	The student needs to achieve an A in C1.
B	The student needs to achieve a B in C1.
C	The student needs to achieve a C in C1.
D	The student needs to achieve a D in C1.
E	The student needs to achieve an E in C1.
F	The student needs to achieve an F in C1.
NS	Non-submission of work by published deadline or non-attendance for examination

Module Requirements

Prerequisites for Module	None.
Corequisites for module	None.
Precluded Modules	None.

INDICATIVE BIBLIOGRAPHY

1	WILLIAMS, R., 2009. The Animator's Survival Kit. Expanded Edition.
2	DERAKHSHANI, R., 2014. Autodesk 3DS Max Essentials.
3	ROBERTS, S., 2011. Character Animation Fundamentals: Developing Skills for 2D and 3D Character Animation.
4	GHERTNER, E., 2012. Layout and Composition for Animation. Focal Press.