

6.1 Module 2: 3D Animation Studio 1

Module title			
3D Animation Studio 1			
Module NFQ level	Module number / reference	ECTS Value	Duration
Level 6	BAA102	10 ECTS	12 weeks
Parent programme(s)		Stage of parent programme	Semester No.
BA in Animation		1	1
Certificate in Animation		Award	FT: 1 PT: 2
Teaching and Learning modes	Proportion (% of Total Directed Learning)		
Classroom / Face to Face	30%		
Workplace	-		
Online	-		
Other (Identify)	70% (Independent and Assignment)		
Entry requirements (statement of knowledge, skill and competence)			
Learners must have achieved the programme entry requirements.			
Maximum number of learners per instance of the module		50 learners	
Average (over the duration of the module) of the contact hours per week		6 hours	
Pre-requisite module title(s) (if any)		None	
Co-requisite module title(s) (if any)		None	
Is this a capstone module? (Yes or No)		No	
Module-specific physical resources and support required per centre (or instance of the module)			
- Classroom with capacity for 50 learners equipped with a projector and PCs, and a blackboard/ whiteboard - Access to Maya, ZBrush, and 3DS Max.			
Specification of the qualifications (academic, pedagogical and professional/occupational) and experience required of staff working in this module.			
Role e.g. Tutor, Mentor etc	Qualifications & experience required:		# of Staff with this profile (WTEs)
Lecturer	Lecturing staff must be qualified to minimum NFQ Level 8 in animation or games, or related discipline, or hold an equivalent professional qualification. Experience in the games or animation industry would be desirable. Ideally, they would also hold a third level teaching qualification (e.g. the Griffith College Certificate in Education, Learning and Development).		0.6

Analysis of required learning effort		
*Effort while in contact with staff	Minimum ratio teacher / learner	Hours
Classroom and demonstrations	2:50	72
Monitoring and small-group teaching	-	-
Other (specify)	-	-
Independent Learning		
Directed e-learning (hours)		-
Independent learning (hours)		59
Assignment		119
Work-based learning hours of learning effort		-
Total Effort (hours)		250

Allocation of marks (within the module)					
	Continuous assessment	Supervised project	Proctored practical examination	Proctored written examination	Total
Percentage contribution	100%	-	-	-	100%

6.1.1 Module aims and objectives

The primary aim of this module is skills acquisition; it seeks to equip the learner with the necessary skills required for employment in industry. Learners are introduced to the fundamental concepts of 3D modelling. They cultivate skills in character modelling and will develop original designs. Learners are also introduced to environmental modelling principles, texturing, rigging, and animating. Learners will emerge from the module having produced an animated character or sequence, which they may elect to include in their portfolio.

6.1.2 Minimum intended module learning outcomes

On successful completion of this module, the learners are able to:

- (i) create and edit standard primitive shapes;
- (ii) demonstrate skills in creating symmetrical objects using mirror function;
- (iii) design and create a simple biped character for animation;
- (iv) texture, rig, and animate a character to create a ten-second animation in a lit environment.

6.1.3 Rationale for inclusion of the module in the programme and its contribution to the overall MIPLOs

This module introduces the learner to the industry-standard software and practices used in designing and creating 3D characters, texturing 3D objects, and rigging and animating 3D characters.

The module learning outcomes are aligned with programme learning outcome numbers: 1, 3, 4, 6, 7, 11.

6.1.4 Information provided to learners about the module

Learners are provided with number of sources of information about this module, such as the induction session which presents learners with an overview of the modules. The induction session touches upon key areas of study such as the module aims, expectations and supports available. At the commencement of each module, the learner is provided with a detailed overview of the module,

the assessment strategy and schedule. The learner is then issued assignment briefs that fall in line with the deliverables outlined in the module objectives / outcomes.

The Learner Handbook, included with this submission, demonstrates how the learning in this module fits in to the overall structure of the programme. The handbook contains detailed module descriptors including teaching, learning and assessment strategies. Learners are provided with access to a learner Google account and to Google Classroom. Here, information regarding module descriptors, programme timetables and assessment information is uploaded. Google Classroom is for use by both learners and staff for the presentation of class notes and content and acts as a point for assignments to be issued and submitted to.

6.1.5 Module content, organisation and structure

This module covers the following topics:

Software Introduction

- User interface introduction
- Shape creation and editing
- Introduction to more complex modelling functions

Designing and Creating a Character

- Researching character ideas
- Developing the idea through sketches
- Creating reference images for modelling
- Basic character modelling
- Topology best practice
- Finalising and smoothing the character

Texturing and Rigging

- Unwrapping a UV map for the character
- Creating a character rig
- Controllers for skeletal rigs
- Weight painting the character for movement

Animating and Rendering

- Keyframe animation
- Lighting
- Render settings
- Image sequence conversion.

6.1.6 Module teaching and learning (including formative assessment) strategy

The module is taught by way of a combination of lectures and practical demonstrations. Learners are then be tasked with applying the techniques and tools demonstrated by the lecturer in the course of short practical assignments.

Activity	Teaching / Learning Strategy	Learning Environment
Lectures and demonstrations (72 hours)	Formal lectures and demonstrations on the fundamentals of animation and an introduction to the principles of 3D animation software and concepts	College
Independent work (59 hours)	Self-directed work	College / Home
Assignment (119 hours)	Continuous assessment based on the submission of a number of assignments set by the module leader	College /Home

6.1.7 Work-based learning and practice-placement

There is no work-based learning or practice-placement within this module.

6.1.8 E-Learning

Google Classroom acts as a reference point for the learner where all relevant information regarding the module is compiled. It also provides the learner with a messaging service between classmates and staff. Any changes or updates to module content is reflected on the platform along with a notification of change / messaging service. Google Classroom also accommodates for the submission of larger file types, a common feature of this programme.

Learners also have access to additional academic material and supports through the Moodle virtual learning environment (VLE). The Digital Learning Department (DLD) provides dedicated e-learning support to students via both a dedicated email service and weekly drop-in sessions conducted on Zoom. The DLD also has a suite of online training materials for Moodle and Zoom (including wikis and interactive quizzes) which it makes available to learners on Moodle. Other resources include academic writing and referencing guides as well as Microsoft 365 e-tutorials and exam preparation advice.

The Griffith College library website (library.griffith.ie) also provides an extensive range of online resources and remote supports for learners.

6.1.9 Module physical resource requirements

The module requires a computer lab with capacity for 50 learners equipped with a projector and access to Maya, ZBrush, and 3DS Max.

6.1.10 Reading lists and other information resources

Primary reading

3D Total. (2015) *Beginner's Guide to Character Creation in Maya*. 3D Total Publishing.
King, R. (2019) *3D Animation for the Raw Beginner Using Maya*. London: Chapman and Hall.
Williams, R. (2009) *The Animator's Survival Kit*. 1st ed. London: Faber and Faber.
Thomas, F., Johnston, O. and Thomas, F. (1995) *The Illusion of Life*. 1st ed. New York: Hyperion.

Secondary reading

Beimen, N. (2015) *Animated Performance: Bringing Imaginary Animal, Human, and Fantasy Characters to Life*. Bloomsbury Academic.
Hooks, E. (2017) *Acting for Animators*. 4th ed. London: Routledge
Solomon, C. (1994) *Enchanted Drawings*. 1st ed. New York: Avenel

Palamar, T. (2016) *Mastering Autodesk Maya 2016*. Autodesk Official Press.

Online resources

- www.digitaltutors.com
- www.3Dtotal.com
- www.artstation.com
- www.linkedin.com/learning/
- <https://www.academicphoenixplus.com/>
- <https://ilmussi.com/>
- <https://www.youtube.com/c/MyOhMaya>
- <https://www.therookies.co/>

6.1.11 Specifications for module staffing requirements

For each instance of the module, one lecturer must have a Honours Bachelor's degree (NFQ Level 8) in animation or games, or related discipline, or hold an equivalent professional qualification. Experience in the games or animation industry would be desirable.

Ideally, they would also hold a third level teaching qualification (e.g. the Griffith College Certificate in Education, Learning and Development).

6.1.12 Module summative assessment strategy

This module is continuously assessed in two ways. To successfully complete the module, learners must:

- Create a Pixar Parody Sequence, whereby they must model, texture and rig a parody sequence using a character and environment that they have created;
- Submit an animation diary, detailing the learner's animation journey and setting out any research undertaken by them in order to complete the project.

These assessments are designed to familiarise the learner with industry-standard 3D animation software, which they will need to employ to realise the assignment. The assessed work breakdown can be seen in the table below.

No.	Description	MIMLOs	Weighting
1	Pixar Parody Sequence	(i) to (iv)	70%
2	Research Diary	(iii)	30%

6.1.13 Sample assessment materials

Please see sample assessment supplementary document submitted with this proposal.