

<b>Module Details</b>	
<b>Module Title:</b>	Effects Animation and Dynamics for VFX
<b>Module Code:</b>	GAV6002-B
<b>Academic Year:</b>	2019-20
<b>Credit Rating:</b>	20
<b>School:</b>	Department of Media Design and Technology
<b>Subject Area:</b>	Games, Animation and Visual Effects
<b>FHEQ Level:</b>	FHEQ Level 6
<b>Pre-requisites:</b>	
<b>Co-requisites:</b>	

<b>Contact Hours</b>	
<b>Type</b>	<b>Hours</b>
Lectures	12
Tutorials	24
Laboratory	12
Directed Study	152

<b>Availability</b>	
<b>Occurrence</b>	<b>Location / Period</b>
BDA	University of Bradford / Semester 2 (Feb - May)

<b>Module Aims</b>
<p>To give students a clear understanding of how to combine scientific, logical thinking and observational skill to create effective simulation and effects solutions; instil a work practice around goal orientated iteration and adherence to efficient workflow;</p> <p>To introduce advanced topics and concepts in the field of technical animation and make students aware of the appropriate use of simulation and effects, taking into account complexity, rendering, time, memory and resource overheads;</p> <p>To gain an in-depth understanding of the real-time 3D modelling and animation.</p>

<b>Outline Syllabus</b>

Understanding the advanced Effect Technical Animation topics and concepts for VFX; The theory and practice of Effect Technical Animation, making particle systems, rigid body dynamics, fluid, object move under the forces of physics with using expressions; variables and data, nodes, procedures and functions, and interface development

### Learning Outcomes

1	demonstrate an in-depth understanding of and critically evaluate the process of effects technical animation concepts and implementations with respect to commercial 3D graphics packages, and the knowledge of scripting animations and or the use of effects software in advanced level.
2	demonstrate practical effects solutions to real problems; demonstrate a combination of different kinds of simulation, applied appropriately; demonstrate a library of reference work and observations and how they have informed and progressed their development.
3	demonstrate self-management skills, ability to solve technical problems and to be able to complete their individual project within the prescribed timescale.

### Learning, Teaching and Assessment Strategy

This module covers the advanced topics and concepts of Technical Effects Animation. Lectures and demos introduce the relevant theory and key concepts followed by lab sessions which provide hands-on lab experience and individual effects technical animation project of their own ideas, which reinforce students` learning and develop their practical skills.

An Individual Technical Effects Animation project and lab work assessment accompanied by a report tests the module's learning outcomes. Supplementary assessment is to repair deficiencies in original assessment.

### Mode of Assessment

Type	Method	Description	Length	Weighting
Formative	Coursework	500 word report: 1st Formative feedback	-500 words	%
Summative	Coursework	Technical effects animation coursework project and lab work tasks assessments	0 hours	65%
Summative	Coursework	Final Project report min 1500 words (1500 ~2000 words).	0 hours	35%

### Reading List

To access the reading list for this module, please visit <https://bradford.rl.talis.com/index.html>.

*Please note:*

*This module descriptor has been published in advance of the academic year to which it applies. Every effort has been made to ensure that the information is accurate at the time of publication, but minor changes may occur given the interval between publishing and commencement of teaching. Upon commencement of the module, students will receive a handbook with further detail about the module and any changes will be discussed and/or communicated at this point.*