

Module Details	
Module Title:	Introduction to Digital Visual Effects
Module Code:	GAV4009-B
Academic Year:	2019-20
Credit Rating:	20
School:	Department of Media Design and Technology
Subject Area:	Games, Animation and Visual Effects
FHEQ Level:	FHEQ Level 4
Pre-requisites:	
Co-requisites:	

Contact Hours	
Type	Hours
Lectures	12
Laboratory	24
Directed Study	164

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

Module Aims
The module will explore the core techniques and tools of digital post production and visual effects so that students will start to be able to create realistic images and effects. The module will cover the breadth of the visual effects pipeline. Utilising and evaluating moving image assets, students will create and render both dynamic and fluid simulations. The students will develop the necessary digital compositing techniques to bring all assets together seamlessly.

Outline Syllabus
The Foundry: Nuke X

- Side Effects Software: Houdini
- Photographic capture methods and lighting,
- Chroma Key Footage Acquisition,
- Fluid dynamics,
- Destruction pipelines,
- Volumetric simulations,
- lens effects,
- Rotoscoping,
- On Set data collection,
- Matchmoving and Tracking (2D/3D),
- Multi-pass rendering,
- Software-based chroma keying,
- 3D matte painting

Learning Outcomes

1	1.1 Demonstrate knowledge of the process of creating photorealistic images. 1.2 Understand the range of current post-production and visual effects techniques; 1.3 Deconstruct and choose appropriate tools in the creation of visual effects and post-production sequences.
2	2.1 Create high quality photorealistic computer graphics using industry-standard visual effects software; 2.2 Use industry standard compositing software to combine rendered visual effects with live action footage.
3	3.1 Complete a brief to a deadline; 3.2 Critically evaluate and reflect upon the application of academic studies to working practice;

Learning, Teaching and Assessment Strategy

Delivery will be through a series of lectures and directed reading to provide the theoretical background of visual effects techniques and technologies (LO 1.1, 1.2 1.3), and lab-based tutorials to develop practical skills (LO 1.1, 1.2, 1.3, 2.1, 2.2).

The remainder of the time is spent on coursework (LO 3.1, 3.2). A project (LO 1.1, 1.2, 1.3, 2.1, 2.2) accompanied by a Showreel presentation (LO 3.1, 3.2) tests all learning outcomes.

Supplementary assessment is to repair deficiency in the original submission.

Mode of Assessment

Type	Method	Description	Length	Weighting
Summative	Presentation	Produce and deliver a presentation that clearly outlines the proposed approach and treatment of the brief. Time: 5 minutes in length with 5 minutes question and	10 minutes	10%

		answers.		
Formative	Presentation	Students will present their initial ideas to modules tutors for feedback and guidance	15 minutes	%
Summative	Presentation	An in-class presentation to showcase your work and discuss the production pipeline along with a video breakdown of your shot. Time: 5 minutes in length with 5 minutes questions and answers.	10 minutes	20%
Summative	Coursework	A project to produce a photorealistic set of images incorporating computer generated effects	2 minutes	70%

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.