

Look Development, Lighting and Advanced Rendering

Module Code:	GAV5016-B
Academic Year:	2018-19
Credit Rating:	20
School:	Department of Media Design and Technology
Subject Area:	Games, Animation and Visual Effects
FHEQ Level:	FHEQ Level 5
Module Leader:	Dr Patrick Allen

Additional Tutors:

Pre-requisites:

Co-requisites:

Contact Hours

Type	Hours
Lectures	12
Laboratory	24
Directed Study	164

Availability Periods

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

Module Aims

To attain a broad foundation in all aspects of the field of Look Development, to the level that students can start building informed but simple pipelines. Enable the student to develop skill and confidence with light in order to create a spread of different set-ups. Impress on the student the interrelationship of lighting, shaders, rendering and compositing. Acquire a broad knowledge base in terms of the technologies and processes of look-dev. Give students a blend of maths and art that they can synthesise into good look development work.

Outline Syllabus

Exploring real lighting, Matching light, History of CG light and shaders, Light in CG , Shadows and occlusion, Lighting Environments, Lighting Characters, Optics, Grading in depth, Roles in Look-Dev, Compositing, Shaders, Rendering, Render Layers and Passes, How tracked CGI cameras (often referred to as shot or render cameras) can be used at various stages of the VFX production pipeline. Image formats.

Module Learning Outcomes

On successful completion of this module, students will be able to...

- 1 Identify individual tasks required to produce convincing CG elements
Identify and compare production methodologies to create efficient pipelines;
Utilise appropriate technological solutions to work creatively towards a brief.
- 2 Articulate, analyse and reflect upon work through using both the languages of art/cinema and maths/science;
- 3 Manage both time and resources to an intermediate level in a project based scenario

Learning, Teaching and Assessment Strategy

A series of lectures will explore core skills including concepts, theories and principles which constitute and surround the role of the lighting technical director as well as the fundamental skills required by generalists who cover more than one role when working on smaller projects.

Practical learning is supported by laboratory sessions and directed study which enables the development of essential knowledge into the process of balancing CGI texturing, shader development, lighting and rendering to match a reference image. This module is concerned with providing the mixture of art, science and maths skills needed.

Maths and software may power the technical processes, but art and cinematographic observation and awareness uniquely supply the emotional impact and believability of the world portrayed on screen. As such this module attempts to teach and blend the science and art of light.

Students are expected to build and display specialist skills through utilising research qualities and applying these practically. Assessment is by individual coursework.

Supplementary assessment: repair deficiencies in original submission.

Mode of Assessment

Type	Method	Description	Length	Weighting	Final Assess'
Formative	Coursework	500 Word Report, 1st Formative feedback	-500 words	%	No

Summative	Coursework	Production renders and breakdown reel		70%	Yes
Summative	Coursework	1000 word report: 2nd summative feedback	1000 words	30%	No

Legacy Code (if applicable)

Reading List

To view Reading List, please go to [rebus:list](#).