STUDENT AND ACADEMIC SERVICES

MODULE SPECIFICATION

Part 1: Information			
Module Title	3D Technologies for the Web		
Module Code	UFCFS3-30-2	Level	Level 5
For implementation from	2019-20		
UWE Credit Rating	30	ECTS Credit Rating	15
Faculty	Faculty of Environment & Technology	Field	Computer Science and Creative Technologies
Department	FET Dept of Computer Sci & Creative Tech		
Module type:	Standard		
Pre-requisites	Introduction to Creative Coding 2018-19		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	None		

Part 2: Description

Features: Module entry requirements: The student should have some previous programming experience in javascript or a similar computer language.

Educational Aims: On this module, students will be exploring established as well as newly emerging 3D technologies for the web, and will be developing some relevant projects in practice.

Outline Syllabus: The area of web technologies changes so quickly that newly emerging technologies appear constantly and achieve wide adoption promptly. As such the following list should be considered an indicator of suitable areas of engagement rather than specific or limiting:

Current in-browser 3d rendering technologies (such as WebGL, Three.js or similar).

Emerging interfaces and technologies (such as WebVR, WebXR or similar).

Meaning-making through interactive systems and procedural rhetoric.

Teaching and Learning Methods: The module covers three major areas of learning:

Students will research and evaluate technologies from a given list of contemporary and emerging web technologies.

Students will explore procedural rhetoric and meaning-making through the combination of original interaction mechanisms, application of researched technology and discussed themes.

Students will also develop two interactive coursework projects, which are built to a theme and progressed in agreement with the module tutors. To complete these more complex practical outcomes, students will initially work on several smaller programming tasks, which are then to be combined to form the larger projects. These projects - situated within a specified interactive entertainment area (i.e. games or web-based artwork) - need to respond to the details set out in the respective creative brief.

During the two project development phases of their coursework projects (the interactive game and the artwork) students will receive guidance and feedback on their progression. For example, students might be pointed to relevant 3D techniques, tutorials and sources. This is to support students in building their own list of projectspecific reference materials. To help achieve the module learning outcomes, students are generally encouraged to code up any required 3D elements rather than using ready-made objects.

Part 3: Assessment

Students will be assessed on two pieces of coursework and two presentations:

Students are asked to develop and submit an interactive web game along with supporting materials (B1). This needs to have been developed, uploaded to a server and tested on a range of platforms and browsers. Students will also give a presentation (A1), where they demonstrate their game and answer questions about it. They will need to be able to give a rationale for their choice of interactive 3D web technologies and evaluate the quality of their use in the context of this project.

Students are asked to develop and submit an interactive web artwork project along with supporting materials (B2). Students will give a presentation (A2) during which they need to demonstrate their artwork and answer questions about it. They need to be able to formulate a critical evaluation of their choices for soft and hardware, as well as envisage how future interactive 3D technologies might impact on artwork like the one just completed.

For the resit, students are asked to rework/ complete the second coursework element. This is expected to be less directed by the module staff and more by the students' own interest, and therefore potentially more motivating for the student, encouraging deeper learning. Moreover it requires a higher skillset than the first coursework, is more in line with the award studied and will guide student better towards achieving the expected skills standards at Level 2.

First Sit Components	Final Assessment	Element weighting	Description
Practical Skills Assessment - Component B		15 %	Interactive Web Game and Supporting Materials
Practical Skills Assessment - Component B		45 %	Interactive Web Artwork and Supporting Materials
Presentation - Component A		10 %	Game Demonstration Presentation
Presentation - Component A	✓	30 %	Artwork Demonstration Presentation
Resit Components	Final Assessment	Element weighting	Description
Practical Skills Assessment - Component B		60 %	Interactive Web Artwork and Supporting Materials
Presentation - Component A	✓	40 %	Video Walkthrough of Artwork Demonstration Presentation

Part 4: Teaching and Learning Methods		3
Learning Outcomes	On successful completion of this module students will achieve the following learning outcomes:	

Module Learning Outcomes	Reference
Design, implement, test and deploy interactive 3D web technologies to a given specification	MO1
Transfer 3D content to a remote server and test / debug on appropriate end-user devices	MO2
Discuss a range of interactive 3D web technologies in an appropriate practical context	MO3
Present an overview of the creative and technical processes involved in the deployment of 3D web technologies	MO4
Design and develop highly interactive immersive 3D experiences with reference to their meanings as emergent from systems and procedures as well as immersion and visuals	MO5
Compare and critical evaluate software and related hardware associated with 3D web technologies	MO6
Consider the significance and likely impact of new and emerging interactive 3D technologies	MO7

Contact Hours	**Independent Study Hours:**	
	Independent study/self-guided study	228
	Total Independent Study Hours:	228
	Scheduled Learning and Teaching Hours:	
	Face-to-face learning	72
	Total Scheduled Learning and Teaching Hours:	72
	Hours to be allocated	300
	Allocated Hours	300
Reading List	*The reading list for this module can be accessed via the following link:* https://uwe.rl.talis.com/modules/ufcfs3-30-2.html	

Part 5: Contributes Towards
This module contributes towards the following programmes of study: Digital Media [Sep][FT][Frenchay][3yrs] BSc (Hons) 2018-19 Digital Media [Sep][FT][Frenchay][3yrs] BSc (Hons) 2018-19 Digital Media [Sep][SW][Frenchay][4yrs] BSc (Hons) 2018-19 Digital Media [Sep][SW][Frenchay][4yrs] BSc (Hons) 2018-19 Digital Media [Sep][FT][SHAPE][3yrs] BSc (Hons) 2018-19 Digital Media [Sep][FT][SHAPE][3yrs] BSc (Hons) 2018-19