

## Digital Worlds

Module Code:	ARC7052-B
Academic Year:	2019-20
Credit Rating:	20
School:	School of Archaeological and Forensic Sciences
Subject Area:	Archaeology
FHEQ Level:	FHEQ Level 7 (Masters)

Pre-requisites:

Co-requisites:

### Contact Hours

Type	Hours
Lectures	20
Seminar	10
Practical classes and Directed Study	20 150

### Availability Periods

Occurrence	Location/Period
BDA	University of Bradford / Academic Year (Sept - May)

### Module Aims

This module provides a comprehensive understanding of approaches used in digital documentation - from 3D microscopy through to 3D landscapes. You will appraise the value and potential limitations of these approaches.

### Outline Syllabus

Digital documentation approaches (terrestrial scanning; SFM photogrammetry; structured light scanning; CT imagery; 3D microscopy; use of SUA and other aerial imagery; geospatial information; multispectral imagery)  
Handling digital data (data registration; segmentation; decimation; rendering; data archiving and sharing)

Analysis of digital data (3D volumes and metric information; comparison of datasets; artefacts and errors in data)

Presentation using a range of visualisation tools (3D viewers; AR/ VR; 3D printing)

## Module Learning Outcomes

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

- 1 Demonstrate advanced knowledge in the selection of appropriate digital documentation approaches.
- 2 Demonstrate a theoretical and practical understanding of methods of capture, their potential and limitations.
- 3 Demonstrate capability in data handling - analysis and visualisation.

## Learning, Teaching and Assessment Strategy

Lectures, seminars and workshops. Fundamental principles will be taught in lecture based sessions and through the use of worked examples. Practical classes will be used to develop practical skills and apply them in a wide range of challenging environments. Practical and communication skills will be used in seminars, workshops and practicals which will cover different aspects and which are progressively taught through the course. In-depth knowledge of the topics covered will be assessed by essay and portfolio. There will be written feedback with opportunity for discussion. Directed study will be used by students for reading literature detailed in the module documentation and with data handling.

## Mode of Assessment

Type	Method	Description	Length	Weighting	Final Assess'
Summative	Coursework	Essay on a digitisation topic	0-2000 words	50%	No
Summative	Coursework	Portfolio to demonstrate data capture, processing and visualisation	0-2000 words	50%	Yes

## Legacy Code (if applicable)

## Reading List

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