Module specification

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Refer to guidance notes for completion of each section of the specification.

Module code	SCI449
Module title	Preservation and Decay
Level	4
Credit value	20
Faculty	FAST
Module Leader	Amy Rattenbury
HECoS Code	100398
Cost Code	GAFS

Programmes in which module to be offered

Programme title	Is the module core or option for this programme
Stand-alone module aligned to BSc Forensic Science for Q&A only	Option

Pre-requisites

N/A

Breakdown of module hours

Learning and teaching hours	24 hrs
Placement tutor support	0 hrs
Supervised learning e.g. practical classes, workshops	12 hrs
Project supervision (level 6 projects and dissertation modules only)	0 hrs
Total active learning and teaching hours	**36** hrs
Placement / work based learning	0 hrs
Guided independent study	164 hrs
Module duration (total hours)	200 hrs

For office use only	
Initial approval date	26/11/20
With effect from date	01/02/21
Date and details of revision	
Version number	1

Module aims

This module aims to provide a holistic introduction to the science of taphonomy; how organismal remains decay and enter the archaeological and palaeontological record. Participants will be introduced to the core principles of the science, pathways to preservation, destructive processes, investigative approaches and experimental practices all involved in incorporating taphonomic information in forensic, archaeological and palaeontological studies.

Module Learning Outcomes - at the end of this module, students will be able to:

1	Define taphonomy and the core principles relating to the science of preservation and decay.
2	Identify pathways preservation and destructive taphonomic processes
3	Describe organismal remains in a taphonomic context.
4	Collect and review data from practical applications of taphonomic principles.

Assessment

Indicative Assessment Tasks:

This section outlines the type of assessment task the student will be expected to complete as part of the module. More details will be made available in the relevant academic year module handbook.

Students will produce a portfolio of material linked to the aspects of preservation and decay covered throughout the module. This portfolio will include:

- A short written piece (maximum of 1000 words) explaining taphonomic principles
- Records of assessments of biological remains and experimental observations

Other supporting evidence gathered from workshops and practicals undertaken across the module

Assessment number	Learning Outcomes to be met	Type of assessment	Weighting (%)
1	1-4	Portfolio	100

Derogations

N/A

Learning and Teaching Strategies

The module will be delivered through a series lectures, workshops and practicals both in the classroom and out in the field. There will be class discussions and the opportunity to share information, and develop good communication skills. Case studies will be used throughout to illustrate principles and students will be supported in their learning by very experienced professionals working in the subject area. Additional learning materials to complement the face-to-face delivery will also be made available online such as articles and videos.

Indicative Syllabus Outline

- *The principles of taphonomy – decay and pathways to preservation*
- *History and current state of the science*
- *Taphonomy in deep time*
- *Palaeontological considerations*
- *Mineralogical preservation*
- *Destructive processes*
- *Interpreting organismal remains Signals and noise in the fossil record*
- *Taphonomy in archaeology*
- *Perimortem/postmortem processes*
- *Soft vs. Hard part preservation*
- *Experimental taphonomy*
- *Biases*

Indicative Bibliography:

Please note the essential reads and other indicative reading are subject to annual review and update.

Essential Reads

Briggs, D.E.G (1995) Experimental Taphonomy, PALAIOS Vol. 10, No. 6, Tenth Anniversary Theme Issue, pp. 539-550

Denys, C. (2002) Taphonomy and experimentation, Archaeometry, 44: 469-484.

Gifford, D. (1981) Taphonomy and Paleoecology: A Critical Review of Archaeology's Sister Disciplines. In Advances in Archaeological Method and Theory (pp. 365-438) Academic Press..

Other indicative reading

Allison, P.A. & Bottier, D.J. (2010) Taphonomy: Process and Bias Through Time. Springer

Briggs, D.E.G & McMahon, S. (2016) The role of experiments in investigating the taphonomy of exceptional preservation, Palaeontology, 59: 1-11.

Fernandez-Jalvo, Y. & Andrew, P. (2016) Atlas of Taphonomic Identifications: 1001+ Images of Fossil and Recent Mammal Bone Modification. Springer

Schotsmans, E.M.J. Marquez-Grant, N. & Forbes, S.L. (2017) Taphonomy of Human Remains: Forensic Analysis of the Dead and the Depositional Environment. John Wiley & Sons

Employability skills – the Glyndŵr Graduate

Each module and programme is designed to cover core Glyndŵr Graduate Attributes with the aim that each Graduate will leave Glyndŵr having achieved key employability skills as part of their study. The following attributes will be covered within this module either through the content or as part of the assessment. The programme is designed to cover all attributes and each module may cover different areas. Click here to read more about the Glyndwr Graduate attributes

Core Attributes
Engaged
Ethical

Key Attitudes
Commitment
Curiosity
Resilience
Confidence
Adaptability

Practical Skillsets
Digital Fluency
Organisation
Leadership and Team working
Critical Thinking
Communication