

Liverpool John Moores University

Title: TAPHONOMY AND TRAUMA ANALYSIS
Status: Definitive
Code: **7105NATSCI** (123676)
Version Start Date: 01-08-2021

Owning School/Faculty: Biological and Environmental Sciences
Teaching School/Faculty: Biological and Environmental Sciences

Team	Leader
Matteo Borrini	Y
Joel Irish	
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Academic Level: FHEQ7 **Credit Value:** 20 **Total Delivered Hours:** 40
Total Learning Hours: 200 **Private Study:** 160

Delivery Options

Course typically offered: Semester 2

Component	Contact Hours
Lecture	18
Seminar	12
Workshop	10

Grading Basis: 50 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Presentation	Oral 1	Initial series of oral presentations	40	
Presentation	Oral 2	Final series of oral presentations	60	

Aims

The aims of this module are: to provide students with an extensive understanding of the human bones' biomechanics and the bones reaction to forces and different kinds of environments for a taphonomic history of the remains.

It provides the student with a broad appreciation of different types of weapons to reconstruct the dynamic of a traumatic event by the skeletal evidence. In addition the student will learn how to cast bones and evidence of trauma for disposal both in museums and in courtroom.

Learning Outcomes

After completing the module the student should be able to:

- 1 Demonstrate an in-depth understanding of taphonomic syndromes and undertake a critical evaluation of changes to bones as a result of interactions with the environment
- 2 Demonstrate a critical understanding of the role of the grave's structure in the final disposal of the bones after a complete decomposition
- 3 Demonstrate a critical understanding of the biomechanics of the human skeleton and its reaction to forces.
- 4 Demonstrate an ability to recognize different kinds of wounds and critically analyse and interpret the effects of trauma

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Oral presentation 1	1	2
Oral presentation 2	3	4

Outline Syllabus

- *Decomposition*
- *Laws of depositional Taphonomy*
- *Reconstructing the grave shape and post-mortem treatments of the body by the analysis of the bones position.*
- *Laws of Contextual Taphonomy*
- *How the environment affects by macroscopic alterations the surfaces of human skeletal remains.*
- *Blunt force trauma and human bones biomechanics*
- *Sharp force trauma*
- *Gunshot wounds*
- *Child abuse trauma*

Learning Activities

In addition to lectures, the students will be involved in seminars where they will read and discuss recent papers related to the main topics of the programme. Practical sections will be provided to practise and test the skills learned during the module

Notes

The students will deeply analyse trauma and pseudo trauma on human skeletal material.

The course will provide an extensive analysis of the human bones' biomechanics, taphonomic laws, different kind of weapons and wounds.