Liverpool John Moores University

Title:	DENTAL ANTHROPOLOGY
Status:	Definitive
Code:	**7104NATSCI** (123675)
Version Start Date:	01-08-2021
Owning School/Faculty:	Biological and Environmental Sciences
Teaching School/Faculty:	Biological and Environmental Sciences

Team	Leader
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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
Practical	3
Seminar	4
Workshop	15

Grading Basis: 50 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Test	Tooth Quiz	Tooth identification quiz	40	
Report	Report	Report on dental project and presentation	60	

Aims

The aims of this module are to provide students with the theoretical knowledge and practical experience required by a bioarchaeologist or forensic anthropologist to

identify and examine human teeth, and to use them to characterise and compare both samples and individuals. In addition, the ability to discuss, appraise and assess the results is obtained.

This course deals with a wide range of dental anthropological topics. Students will study actual human teeth and dental casts (of themselves and others), and learn about dental anatomy, metrics, morphology, pathology, forensics, embryology, teeth and behaviour (including use), genetics, evolution, affinity assessment, and a variety of bioarchaeological and quantitative applications.

Learning Outcomes

After completing the module the student should be able to:

1	Fully comprehend and discuss the history and various perspectives of dental anthropological study as a sub-field of biological anthropology and forensic anthropology.
2	Definitively identify deciduous and permanent human teeth (i.e., a forensic and/or bioarchaeological context).
3	Demonstrate a thorough knowledge of various analytical and quantitative methods for assessing individual life history from teeth (e.g., diet, health, cultural factors, ethnic affinity, age, sex, etc.).
4	Demonstrate a thorough knowledge of various analytical and quantitative methods for assessing population history from samples of dentitions (e.g., diet, health, disease, cultural factors, biological affinity).

Learning Outcomes of Assessments

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

Dentition Practical	2	3	4
Project Report	1	3	4

Outline Syllabus

- *Introduction.*
- *Background: Theoretical issues, rationale, goals and objectives, applications.*
- *History of Dental Anthropology: The early researchers. The Human Dentition: Terms of orientation, tooth structure, tooth classes.*
- *The Human Dentition: The masticatory system, occlusion. Identifying Human Teeth: Side, upper/lower, position, landmarks, etc.*
- *Dental Casting of Class.*
- *Dental Metric Variation: Measurements, indices, techniques, univariate statistical.*
- *More Dental Metric Variation: Multivariate methods; Past and recent populations.*
- *Dental Morphological Variation: Traits.;Recording, statistical methods.*
- *More Dental Morphology: Past and recent populations. Growth and Development: Embryology, eruption, fields, drift, symmetry.*

• *Dental Microstructure. Teeth and Behavior: Use, wear, diet, modification, beauty, psychology, folklore.*
• *More Teeth and Behavior. Oral Pathology: Caries, periodontal disease, fluorosis, developmental anomalies (e.g., LEH), and many others.*
• *Forensic Applications: Teeth and Traits in Individuals: sex, age, "race" ID.*
• *Dental Evolution: Origins of teeth, major adaptations, cusp/crown form, palaeontology*

Learning Activities

Material will be delivered through lectures, followed by workshops using actual dentitions and casts, as well as lab practical and seminar presentations of student work.

Notes

This module provides advanced training in the identification of teeth. It will also cover topics that will allow the student to determine origins, phylogenetic affinities, diet, and many other facets of life experience and population structure from human and primate teeth.