

Biometrics and Human Identification

Module Code:	ARC5006-B
Academic Year:	2018-19
Credit Rating:	20
School:	School of Archaeological and Forensic Sciences
Subject Area:	Archaeology
FHEQ Level:	FHEQ Level 5

Pre-requisites:

Co-requisites:

Contact Hours

Type	Hours
Lectures	24
Tutorials	6
Laboratory	4
Directed Study	166

Availability Periods

Occurrence	Location/Period
BDA	University of Bradford / Semester 1 (Sep - Jan)

Module Aims

To develop an understanding of the use of biometric traits and for forensic identification, law enforcement and security. This module will address a range of biometric parameters of both hard and soft tissues.

Outline Syllabus

Fingerprints, anthropometry, cranio-facial identification, eyes, measurements, certainty, precision, biological variability, calibration, ears, feet and gait, biometric technologies, modification and personal effects, non-biometric technologies for individualisation (DNA, isotopes), current issues in biometrics, ethics, legal issues, privacy, standards, applications and case studies.

Module Learning Outcomes

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

- 1 Discuss biometric features and methods for classifying them and identifying individuals.
- 2 Give examples of and define the scope and limitations of biometric technologies.
- 3 Recommend appropriate biometric technologies for individualisation in proactive and reactive situations.
- 4 Evaluate different biometric & non-biometric approaches to verification and identification of humans for security & forensic applications.
- 5 Demonstrate an understanding of the physiological & structural interactions between the soft & hard tissues.
- 6 Recognise the potential & describe the limitations of established analytical techniques that may be applied to the skeleton to garner further information pertinent to identification in the forensic context (e.g. DNA, stable isotopes, laser scanning, CT).
- 7 Discuss the history of biometric/anthropology overlaps and the ethical aspects of such work, and critically evaluate the application of anthropological methods.

Learning, Teaching and Assessment Strategy

Lectures will be used to deliver contextual information and the foundations of diagnostic and interpretative skills for biometric traits used in human identification, Seminars/tutorials are used to explore contemporary topics in biometrics and laboratory sessions deliver concepts such as methods for measuring traits and evaluating accuracy and precision. Assessment includes an essay allowing in-depth exploration of a topical aspect of biometrics and human identification and an exam that explores the significance and wider context of biometrics. The module includes a formal class-based feedback and revision session.

Mode of Assessment

Type	Method	Description	Length	Weighting	Final Assess'
Summative	Examination - closed book	unseen examination	1.5 hours	50%	Yes
Summative	Coursework	Essay	0-2000 words	50%	No

Legacy Code (if applicable)

AR-3509D

Reading List

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