UNIVERSITY of BRADFORD

Module Descriptor

Module Details	
Module Title	Biometrics and Human Identification
Module Code	ARC5006-B
Academic Year	2024/5
Credits	20
School	School of Archaeological and Forensic Sciences
FHEQ Level	FHEQ Level 5

Contact Hours	
Type	Hours
Lectures	12
Seminars	22
Directed Study	164

Availability	
Occurrence	Location / Period
BDA	University of Bradford / Semester 1

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.

Learning Outcomes	
Outcome Number	Description
01	Discuss biometric features and methods for classifying them and identifying individuals.
02	Give examples of and define the scope and limitations of biometric technologies.
03	Recommend appropriate biometric technologies for individualisation in proactive and reactive situations.
04	Evaluate different biometric & non-biometric approaches to verification and identification of humans for security & forensic applications.
05	Demonstrate an understanding of the physiological & structural interactions between the soft & hard tissues.
06	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).
07	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 a critique/report that explores the significance and wider context of biometrics. The module includes a formal class-based feedback and revision session.
Sessions will be delivered online.

Mode of Assessment			
Type	Method	Description	Weighting
Summative	Coursework - Written	Critique/report (2000 words)	50%
Summative	Coursework - Written	Essay - 2000 words	50%

Reading List

To access the reading list for this module, please visit https://bradford.rl.talis.com/index.html

Please note:
This module descriptor has been published in advance of the academic year to which it applies. Every effort has been made to ensure that the information is accurate at the time of publication, but minor changes may occur given the interval between publishing and commencement of teaching. Upon commencement of the module, students will receive a handbook with further detail about the module and any changes will be discussed and/or communicated at this point.

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