

Module Details	
Module Title	Forensic Genetics
Module Code	ARC6036-B
Academic Year	2024/5
Credits	20
School	School of Archaeological and Forensic Sciences
FHEQ Level	FHEQ Level 6

Contact Hours	
Type	Hours
Directed Study	175
Seminars	10
Lectures	15

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

Module Aims
To provide an in-depth understanding of Forensic Genetics

Outline Syllabus
Genetic Variability and Inheritance; Human Population Genetics; DNA Replication, Mutation and Repair; DNA Methods - Sampling, Extraction, Quantitation, Amplification, Capillary Electrophoresis; Genetic Analysers and Electropherograms; Trace and Degraded DNA; Contamination and Integrity of DNA Evidence; Single source versus complex profiles; Advanced Methods - Familial DNA Searching, Y-Chromosome, Mitochondrial DNA, X-Chromosome, Single Nucleotide Polymorphisms, RNA analysis; Next Genome Sequencing; Frameworks for Interpreting DNA evidence; Discussion of DNA and race; Bioinformatics and Statistical evaluation of complex DNA evidence; DNA databases; Ethics and Legal Frameworks; Governance of Transnational Criminality; Disaster Victim Identification; DNA reporting.

Learning Outcomes	
Outcome Number	Description
1	Understand human population genetics.
2	Comprehend the range of types of genetic evidence that can be utilised in Forensic casework.
3	Interpret forensic DNA evidence (eg DNA17 profile).

Learning, Teaching and Assessment Strategy
<p>Concepts will be taught through synchronous lectures; practical skills will be taught through workshops, with use of online materials.</p> <p>Formative assessment will involve online quizzes. Summative assessment will be by extended essay.</p>

Mode of Assessment			
Type	Method	Description	Weighting
Summative	Coursework - Written	Extended Essay (3000 words)	80%
Summative	Coursework - Written	Online worksheet	20%

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.