

Forensic Examination and Analysis of Physical Evidence

Module Code:	ARC5020-B
Academic Year:	2018-19
Credit Rating:	20
School:	School of Archaeological and Forensic Sciences
Subject Area:	Forensic Science
FHEQ Level:	FHEQ Level 5
Module Leader:	Mr Robert Janaway

Additional Tutors:
Alan Hague

Pre-requisites:

Co-requisites:

Contact Hours

Type	Hours
Lectures	35
Laboratory	30
Directed Study	135

Availability Periods

Occurrence	Location/Period
BDA	University of Bradford / Academic Year (Sept - May)

Module Aims

To develop skills in the forensic examination of items of physical evidence in the laboratory, in the recovery and comparison or analysis of contact trace material, in the optical, physical and chemical enhancement of scene marks and the presumptive testing of some commonly encountered evidential stains, in the context of forensic standards (ISO 17025).

Outline Syllabus

Lectures: Latent finger marks. Physical & chemical enhancement of latent finger marks. Tool marks & other impression evidence. Glass manufacture, glass & glass evidence. Introduction to the identification of hairs & fibres. Expert witness statements for laboratory examinations. Light Microscopy & Scanning Electron Microscopy. Firearms & ballistics. Analysis of Firearms Discharge Residue. Fire & Fire Investigation. Revision of format and content of Expert Witness statements. Expert Evidence in Court.

Practicals: Physical & chemical development of latent finger marks. Recovery of footwear mark evidence. Physical marks, cut marks on bone & glass evidence. Court procedures & mock court. Light Microscopy. Scanning Electron Microscopy. Firearms and ballistics. Fire Investigation. Court Exercise (formative).

Module Learning Outcomes

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

- 1 Appraise the scope, methodology and limitations of different techniques to examine evidential material in the context of a forensic enquiry.
- 2 Assess the role of different approaches to this physical evidence.
- 3 Examine a variety of physical evidence, interpret results from these and form an expert opinion.
- 4 Understand the application of a range of instrumental techniques to the examination of contact and trace evidence.
- 5 Understand the needs and requirements of quality assurance in the analysis of materials in a forensic context.
- 6 Understand the actions of different firearm types, the role of firearms examiners to a police investigation & the nature of firearms & ballistics evidence.
- 7 Understand the process of writing & expert witness statement for laboratory examinations, & the relationship between this & standard laboratory notes & recording forms.
- 8 Analyse data from an investigation. Write comprehensive, concise notes and an expert report. Communicate both in writing and orally to a variety of audiences at the appropriate level.

Learning, Teaching and Assessment Strategy

Lectures, seminars and practical laboratory classes.

Mode of Assessment

Type	Method	Description	Length	Weighting	Final Assess'
Summative	Examination - closed book	One 1.5 hour exam	1.5 hours	50%	Yes

Summative	Coursework	Selected experimental findings, case notes and expert report	0-2000 words	50%	No
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Legacy Code (if applicable)

Reading List

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