



Module Specification

Advanced Forensic Analysis

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Part 1: Information

Module title: Advanced Forensic Analysis

Module code: USSKFC-45-M

Level: Level 7

For implementation from: 2023-24

UWE credit rating: 45

ECTS credit rating: 22.5

Faculty: Faculty of Health & Applied Sciences

Department: HAS Dept of Applied Sciences

Partner institutions: None

Field: Applied Sciences

Module type: Module

Pre-requisites: None

Excluded combinations: None

Co-requisites: None

Continuing professional development: No

Professional, statutory or regulatory body requirements: None

Part 2: Description

Overview: Not applicable

Features: Not applicable

Educational aims: In this module the laboratory examination and analysis of biological, chemical, trace and marks and impression evidence will be explored in theory and practice.

Outline syllabus: A broad range of specialist lighting, microscopic and analytical instrumentation will be covered, as is used to locate, recover and extract evidence and to process it in the laboratory with due regard for anti-contamination procedures.

Evidence to be discussed will include bodily fluids and subsequent DNA analysis, trace evidence (e.g. fibres, paint and glass), questioned document analysis, chemical development of fingermarks, recovery of digital evidence, examination of materials relating to gun crime and drug analysis. Analytical strategies will be developed based on e.g. prosecution and defence propositions, evidence preservation considerations and cost. The potential for bias in interpretation e.g. of fingerprint evidence will also be explored.

The module will also cover the Forensic Science Regulator's Codes of Practice and Conduct with respect to the laboratory analysis of evidence and the requirement for ISO 17025 accreditation.

Part 3: Teaching and learning methods

Teaching and learning methods: Throughout the module students will collect a portfolio of evidence of the forensic, analytical and transferable skills that they have gained or developed. This portfolio will form the basis of personal development planning discussions with the academic personal tutor and will be added to in the follow on module, Interpretation, Evaluation and Presentation of Evidence.

The following Generic Graduate Skills will be Introduced (I), Practiced (P), or Evidenced (E):

1. Communication
2. Professionalism (E)
3. Critical Thinking (E)
4. Digital Fluency (E)
5. Innovative and Enterprising (E)
6. Forward Looking (E)

7. Emotional Intelligence

8. Globally Engaged

Module Learning outcomes: On successful completion of this module students will achieve the following learning outcomes.

MO1 Critically evaluate a case study to devise a proportionate analytical strategy, to be reviewed dynamically with changing timescales and contexts.

MO2 Analyse evidence with an awareness of the practice of quality assurance and regulation in Forensic Science in the United Kingdom.

MO3 Critically evaluate the utility, effectiveness and efficiency of analytical methods in terms of time, cost, specificity and sensitivity in a forensic context.

MO4 Demonstrate critical understanding of a range of methods used for the location, recovery and analysis of forensic evidence, including calibration, operation and the use of specialist software.

MO5 Record observations and experimentation, including experimental design, in a logical, comprehensive and contemporaneous manner in keeping with established and accepted codes of good practice.

Hours to be allocated: 450

Contact hours:

Independent study/self-guided study = 342 hours

Face-to-face learning = 108 hours

Total = 450

Reading list: The reading list for this module can be accessed at [readinglists.uwe.ac.uk](https://uwe.rl.talis.com/readinglists.uwe.ac.uk) via the following link <https://uwe.rl.talis.com/>

Part 4: Assessment

Assessment strategy: Students will undertake the assessment in the role of a professional forensic scientist. Students will devise a strategy for the searching, recovery and analysis of evidence pertaining to a previously unseen simulated

serious crime. Students will utilise Standard Operating Procedures and demonstrate an awareness of ISO17025. Students will complete a Streamlined Forensic Report (MG22b).

Students will evidence strategy development, time management and problem solving skills. They will demonstrate understanding of analytical instrumentation and associated specialist software.

Prior to the assessment students will receive continuous formative opportunities.

Assessment tasks:

Practical Skills Assessment (First Sit)

Description: Practical or virtual laboratory examination of forensic evidence

Weighting: 100 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4, MO5

Practical Skills Assessment (Resit)

Description: Practical or virtual laboratory examination of forensic evidence

Weighting: 100 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4, MO5

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Forensic Science [Glenside] MSc 2023-24