Module Specification

Forensic Analysis

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Contents

Part 1: Information

Module title: Forensic Analysis

Module code: USSKAU-30-2

Level: Level 5

For implementation from: 2023-24

UWE credit rating: 30

ECTS credit rating: 15

Faculty: Faculty of Health & Applied Sciences

Department: HAS Dept of Applied Sciences

Partner institutions: None

Field: Applied Sciences

Module type: Module

Pre-requisites: Scientific Investigation of Crime 2023-24

Excluded combinations: None

Co-requisites: None

Continuing professional development: No

Professional, statutory or regulatory body requirements: None

Part 2: Description

Overview: Pre-requisites: Students must have taken USSJRV-30-1: Scientific Investigation of Crime, USSJRW-30-1: Scientific Skills

Features: Not applicable

Educational aims: The purpose of this module is to enable students to understand what forensic evidence is, how it can be analysed and examined in the laboratory and how results from analyses can be interpreted and evaluated.

Outline syllabus: Students will learn about the chemical and physical nature of materials of forensic interest e.g. fibres, glass, soil, paint, paper and ink, cartridges, accelerants and their environmental distribution. The potential and realised evidential value of a range of these materials will be explored through reference to and critical evaluation of real forensic casework.

Students will learn about a broad range of forensic technology e.g. specialist microscopic techniques, spectroscopy and chromatography for the analysis/examination of e.g. fibres, glass, paper, ink, cartridges, bullets, paint and pollen. They will develop analytical strategies related to hypotheses, cost of analysis and the potential value of results. Any forensic practical work will be undertaken in line with standard forensic laboratory protocols e.g. contamination avoidance and contemporaneous note taking.

The interpretation of experimental results will be taught using appropriate software for data analysis and with regard to the limitations of forensic databases.

The role of various forensic specialists e.g. Forensic Accident Investigators, Ballistics Experts and Forensic Ecologists in the forensic examination of materials from serious scenes of crime will be discussed and students will undertake virtual or practical examinations, including scene examinations relating to these specialisms.

Generic graduate skills practiced:
Innovative and Enterprising
Forward Looking
Emotional Intelligence
Globally Engaged

Generic graduate skills evidenced:
Communication
Professionalism
Critical Thinking
Digital Fluency

Part 3: Teaching and learning methods

Teaching and learning methods: An integration of theory and practice is reflected in the module delivery.

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

MO1 Demonstrate understanding of the methods used for the location, sampling, extraction and analysis of commonly encountered trace evidence and the importance of contamination avoidance procedures, quality standards and codes of practice in the laboratory.

MO2 Interpret and evaluate results obtained from a range of forensic examinations and analyses, with the use of databases and statistical approaches where appropriate.

MO3 Demonstrate good oral presentation skills which are understandable to the intended recipients.

MO4 Develop and evaluate a forensic analytical strategy for a given criminal case scenario.

MO5 Understand the role of specialists at crime scenes and the steps required for preservation, processing and documentation of complex crime scenes e.g. vehicle and outdoor scenes, demonstrating an awareness of evidential and intelligence value.

Hours to be allocated: 300

Contact hours:

Independent study/self-guided study = 229 hours

Face-to-face learning = 71 hours

Total = 300

Reading list: The reading list for this module can be accessed at readinglists.uwe.ac.uk via the following link https://uwe.rl.talis.com/modules/usskau-30-2.html

Part 4: Assessment

Assessment strategy: Assessment Task 1:
Viva Voce: 10 minutes.

A viva voce based on the analysis of forensic evidence in the laboratory. Students will be questioned to establish their depth of understanding of techniques that are employed in laboratory examinations and subsequent data analysis. Understanding of forensic evidential value will also be explored. This task is designed to feed forward from the oral presentation assessment that students undertake at level 4 in Scientific Investigation of Crime and to underpin the reporting of evidence in court assessment that students undertake in the Forensic Project module at level 6.

Assessment Task 2:
Laboratory Strategy Document (MG22a) (1000 words).

An industry standard document, which is part of the Streamlined Forensic Reporting (SFR) process. Introduction of this document provides scaffolding to level 6 were the other SFR documents are introduced in the Forensic Project. Facilitated data analysis and reflection in the taught classes will underpin this assessment.

Assessment Task 3:
Case Study (1000 words)

This assessment acts as a scaffolding assessment to the level 6 research article and also provides an opportunity to demonstrate learning from the crime scene investigation aspects of the module. Students will be asked to write upon the potential of forensic evidence pertaining to a mock criminal case. Formative

activities underpinning this assessment include the practical or virtual investigation of simulated outdoor and vehicle crime scenes.

Assessment tasks:

Presentation (First Sit)
Description: Viva voce on analysis of forensic evidence in the laboratory (10 minutes)
Weighting: 40 %
Final assessment: No
Group work: No
Learning outcomes tested: MO1, MO2, MO3

Written Assignment (First Sit)
Description: Laboratory strategy document (MG22a) (1000 words).
Weighting: 30 %
Final assessment: No
Group work: No
Learning outcomes tested: MO4

Written Assignment (First Sit)
Description: Unusual crime scenes case study (1000 words)
Weighting: 30 %
Final assessment: Yes
Group work: No
Learning outcomes tested: MO5

Presentation (Resit)
Description: Viva voce on analysis of forensic evidence in the laboratory (10 minutes).
Weighting: 40 %
Final assessment: No
Group work: No
Learning outcomes tested: MO1, MO2, MO3

Written Assignment (Resit)

Description: Laboratory strategy document (MG22a). (1000 words).

Weighting: 30 %

Final assessment: No

Group work: No

Learning outcomes tested: MO4

Written Assignment (Resit)

Description: Unusual crime scenes case study (1000 words)

Weighting: 30 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO5

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Forensic Science [Frenchay] MSci 2022-23

Forensic Science [Frenchay] BSc (Hons) 2022-23

Forensic Science {Foundation} [Sep][SW][Frenchay][5yrs] BSc (Hons) 2021-22

Forensic Science {Foundation} [Sep][FT][Frenchay][5yrs] MSci 2021-22

Forensic Science {Foundation} [Sep][SW][Frenchay][6yrs] MSci 2021-22

Forensic Science {Foundation} [Sep][FT][Frenchay][4yrs] BSc (Hons) 2021-22