UNIVERSITY of BRADFORD

Module Descriptor

Module Details	
Module Title	Analysis of Controlled Substances
Module Code	ARC6027-B
Academic Year	2021/2
Credits	20
School	School of Archaeological and Forensic Sciences
FHEQ Level	FHEQ Level 6

Contact Hours	
Type	Hours
Tutorials	13
Practical Classes or Workshops	15
Laboratories	16
Directed Study	154

Availability	
Occurrence	Location / Period
BDA	University of Bradford / Academic Year

Module Aims

To introduce classification systems for controlled and dangerous substances (focusing on drugs of abuse) and the process for development and review of law in the UK. To develop skills in the screening and chemical analysis of controlled substances. To provide opportunities for development of group working through a challenging forensic case requiring analysis, data collection and interpretation.

Outline Syllabus

Review of legislation and drug policy. Trends in consumption. Drugs of Abuse, including: cannabis, amphetamines, cocaine, opiate alkaloids and heroin, barbiturates and benzodiazepines, steroids and THG, LSD. Explosives and accelerants. Point-of-collection analysis and sampling, Immunoassays and lateral flow systems. Detection of controlled substances in body fluids, hair and sweaty secretions, windows of detection, advantages and disadvantages. Analytical methods: Presumptive tests: positive, false positive and negative results. IR and Raman, Mapping of tablet surface. Thin Layer Chromatography. Optical microscopy: Introduction to identifying plant morphological features. Gas Chromatography and Mass Spectrometry: identification and quantification. Stable light isotopes. Waste water analysis. ISOIEC 17025 and Review of case studies.

Learning Outcomes	
Outcome Number	Description
01	Explain classification systems for controlled and dangerous substances and discuss the process for development and review of the law in the UK.
02	Examine the chemical or biochemical basis for a range of analytical methods, and propose protocols for analysis of trace deposits in crime scene and laboratory environments.
03	Select and conduct appropriate analytical methods and interpret the analytical results both scientifically and forensically in the context of case circumstances.
04	Employ personal, time management, study and team-working skills, and analytical and problem-solving skills, and communicate through a casework report.

Learning, Teaching and Assessment Strategy
Teaching will take place through lectures, in staff-led seminars with reading material provided in advance of sessions and in supervised, practical laboratory sessions with students working both individually and collectively. The module will be assessed by a two hour examination and a piece of coursework around a forensic case.

Mode of Assessment			
Type	Method	Description	Weighting
Summative	Coursework - Written	Coursework: Case report	50%
Summative	Examination - Closed Book	Closed Book Exam (2 hours)	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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