

Module Details	
Module Title:	Analysis of Controlled Substances
Module Code:	ARC6027-B
Academic Year:	2019-20
Credit Rating:	20
School:	School of Archaeological and Forensic Sciences
Subject Area:	Forensic Science
FHEQ Level:	FHEQ Level 6
Pre-requisites:	
Co-requisites:	

Contact Hours	
Type	Hours
Lectures	12
Laboratory	36
Directed Study	152

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

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
Development and review of UK Law. Acts and Statutory Instruments of Parliament for controlled substances, dangerous goods and explosives.

Drugs of abuse: classification of Classes and Schedules. Anabolic steroids, depressants, hypnotics, hallucinogens, narcotic analgesics, non-narcotic analgesics, psychedelics, relaxants, sedatives, stimulants, tranquillisers. Chemical composition of drugs of abuse.

Presumptive colorimetric tests, chromatographic, mass spectrometer and isotopic analysis

Immunoassays

Detection of drugs in body fluids, hair, sweaty secretions,

Application of black-box analytical techniques: Chromatographic - GC. HPLC: Spectroscopic - MS, MS-MS. FTIR. Raman. NAA. SEM-EDX.

Forensic Case Studies and other controlled substances.

Learning Outcomes

1	Define classification systems for controlled and dangerous substances and describe the process for development and review of the law in the UK.
2	Choose and explain the chemical or biochemical basis for presumptive and spot tests, and propose protocols for avoidance of contamination in forensic recovery and analysis of trace deposits in crime scene and laboratory environments.
3	Recover trace substances from various substrates whilst avoiding contamination, select and carry out appropriate presumptive and spectroscopic/chromatographic tests, and interpret the analytical results both scientifically and forensically in the context of case circumstances.
4	Employ personal, time management, study and team-working skills and analytical and problem-solving skills, and communicate through a casework report and orally.

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 casework with students working 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	Length	Weighting
Summative	Examination - closed book	Two hour closed book examination	2 hours	50%
Summative	Coursework	Coursework: Case report	-2000 words	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.