



CORPORATE AND ACADEMIC SERVICES

MODULE SPECIFICATION

Part 1: Basic Data					
Module Title	Interpretation of Forensic Evidence				
Module Code	USSKBP-30-3	Level	3	Version	1
Owning Faculty	Health and Applied Sciences	Field	Biological, Biomedical and Analytical Sciences		
Contributes towards	BSc Forensic Science, BSc Forensic Science (Chemistry), BSc Forensic Science (Biology)				
UWE Credit Rating	30	ECTS Credit Rating	15	Module Type	Standard
Pre-requisites	USSKAU-30-2 Forensic Analysis	Co- requisites	None		
Excluded Combinations	None	Module Entry requirements			
Valid From	September 2016	Valid to	September 2022		

CAP Approval Date	28/03/2014
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Part 2: Learning and Teaching	
Learning Outcomes	<p>On successful completion of this module students will be able to:</p> <ul style="list-style-type: none"> • examine a mock crime scene completing appropriate documentation, recover and package physical evidence from it and prepare a statement for court (assessed in component B1); • examine evidence in the laboratory using appropriate methods and techniques, evaluate the significance of results and produce appropriate reports for court (assessed in component B2); • give evidence in a courtroom situation with examination-in-chief and cross-examination (assessed in component B3); • critically evaluate methods and techniques used in forensic science (assessed in component A); • critically discuss issues of interpretation in a range of forensic applications (assessed in component A); • discuss the relevance and importance of current developments in the examination of forensic evidence, including ethical issues and professional standards (assessed in component A).
Syllabus Outline	This is the final year compulsory module on all accredited degrees in Forensic Science. The Forensic Science Society Accreditation standards and QAA Benchmark statement for Forensic Science define three main themes of the subject - Crime Scene

	<p>Investigation, Laboratory Examination and Analysis, and Interpretation, Evaluation and Presentation of Evidence.</p> <p>Crime Scene Investigation</p> <ul style="list-style-type: none"> • Current procedures and documentation for crime scene investigation and production of a statement for court. <p>Laboratory Examination and Analysis</p> <ul style="list-style-type: none"> • Selection of appropriate examinations and analysis and strategy for casework examinations. • Application of the full range of laboratory methods and techniques for the examination and analysis of a wide range of evidence types, as recovered from a mock crime scene. • Theoretical and practical aspects of forensic DNA analysis. • Issues regarding the application of advanced analytical techniques (chromatographic, spectroscopic and mass spectrometric) to the forensic examination of materials, including research topics. Sample preparation and instrumental aspects of forensic analysis. Evidence types typically to include drugs and fire accelerants. • Current procedures and standards for the examination and reporting of mark comparison. <p>Interpretation, Evaluation and Presentation of Evidence</p> <ul style="list-style-type: none"> • Interpretation of results from laboratory examination with consideration of issues of uncertainty. • Evaluation of the strength and significance of evidence in particular circumstances, frequency of occurrence of evidential materials, availability and robustness of databases to support interpretation. Statistical evaluation of forensic results – application to DNA and glass analysis. The Bayesian approach for the evaluation and interpretation of evidence. • Forensic toxicology – appropriate analyses and interpretation issues. Overview of forensic pathology. • Quality assurance and ethics in forensic science – quality standards and regulation including codes of conduct and practice and current legal issues. • Communication and presentation of evidence for court - reports and oral presentation. The need for comprehensive, comprehensible, rational and impartial written reports. Communication of complex scientific information and conclusions regarding forensic evidence to a lay audience such as a jury.
Contact Hours	<p>72 hour contact time as follows:</p> <ul style="list-style-type: none"> • Lectures 24 hours • Tutorials, including courtroom preparation 14 hours • Crime scene house 3 hours • Laboratory practical sessions 26 hours • Synchronous virtual learning environment (VLE) - Second Life 5 hours
Teaching and Learning Methods	<p>The teaching and learning strategy is largely based around each pair of students having a mock case to investigate and report upon, first as a crime scene investigator and then as a laboratory forensic scientist. Students examine the crime scene, documenting and recovering evidence. This evidence, together with additional items from a suspect, is then examined in the laboratory and appropriate reports for court produced. Students then present their findings orally in a mock courtroom, undergoing examination-in-chief and cross-examination.</p> <p>Lectures and tutorials support this activity, aided also by the use of Second Life as a VLE. A crime scene and court rooms have been built in Second Life for use with this degree programme and students will first access these in synchronous sessions with staff, and later be able to use as much as desired to practise and enhance their learning. Students on the Bar Professional Training Course at UWE</p>

also assist in tutorials preparing students for courtroom assessment, and the opportunity exists for students to collaborate in their own time either face to face or in Second Life.

Lectures and tutorials also address key aspects of forensic analysis and professional standards as indicated in the syllabus outline. Guest lectures eg on Forensic Pathology are included when possible.

Scheduled learning – contact hours as above – 72 hours

Independent learning – 228 hours apportioned approximately as follows:

Preparation for crime scene investigation assessment, including independent use of VLE Second Life - 20 hours

Preparation for laboratory examination of evidence including independent use of VLE Second Life – 20 hours

Preparation of Crime Scene Investigation statement for assessment – 10 hours

Non-laboratory casework tasks and preparation of court reports on laboratory examinations for assessment – 30 hours

Preparation for courtroom assessment including independent use of VLE Second Life – 20 hours

Essential reading to support acquisition of knowledge relating to lectures – 88 hours

Revision and preparation for exam – 40 hours

Key Information Sets Information

Key Information Sets (KIS) are produced at programme level for all programmes that this module contributes to, which is a requirement set by HESA/HEFCE. KIS are comparable sets of standardised information about undergraduate courses allowing prospective students to compare and contrast between programmes they are interested in applying for.

Key Information Set - Module data				
<i>Number of credits for this module</i>				30
Hours to be allocated	Scheduled learning and teaching study hours	Independent study hours	Placement study hours	Allocated Hours
300	72	228	0	300

The table below indicates as a percentage the total assessment of the module which constitutes a -

Written Exam: Unseen written exam

Coursework: Written reports, casework documentation

Practical Exam: Oral assessment and practical skills assessment,

Please note that this is the total of various types of assessment and will not necessarily reflect the component and module weightings in the Assessment section of this module description:

Total assessment of the module:			
Written exam assessment percentage		60%	
Coursework assessment percentage		20%	
Practical exam assessment percentage		20%	
		100%	

Reading Strategy

All students will be encouraged to make full use of the print and electronic resources available to them through membership of the University. These include a range of electronic journals and a wide variety of resources available through web sites and information gateways. The University Library's web pages provide access to subject relevant resources and services, and to the library catalogue. Many resources can be accessed remotely. Students will be presented with opportunities within the curriculum to develop their information retrieval and evaluation skills in order to identify such resources effectively.

This guidance will be available either in the module handbook, via the module information on Blackboard or through any other vehicle deemed appropriate by the module/programme leaders.

Indicative Reading List

The following list is offered to provide validation panels/accrediting bodies with an indication of the type and level of information students may be expected to consult. As such, its currency may wane during the life span of the module specification. However, as indicated above, CURRENT advice on readings will be available via other more frequently updated mechanisms.

Indicative reading list: (Refer to the most recent edition available)

- Butler, J.M. *Fundamentals of Forensic DNA Typing*. Oxford: Academic Press.
- Jackson, A.R.W. & Jackson, J.M. *Forensic Science*. Harlow: Pearson Education Ltd.
- Payne-James, J, Jones, R, Karch, S and Manlove, J, *Simpson's Forensic Medicine*. London: Hodder Education.
- Roberts P & Willmore C, *The role of Forensic Science Evidence in Criminal Proceedings*. London: HMSO
- Robertson B & Vignaux G A, *Interpreting Evidence - Evaluating Forensic Science in the Courtroom*. Chichester: John Wiley and Sons
- White, P.C. (Ed.) *Crime Scene to Court: The Essentials of Forensic Science*. Cambridge: The Royal Society of Chemistry.

An excellent **encyclopaedia** is available online via Science Direct

Siegel, J.A. (ed in chief) 2nd ed. (2013) *Encyclopedia of Forensic Sciences*. Oxford: Academic Press.

In addition **specialist textbooks** are available via FORENSICnetBASE on each evidence type such as in the Taylor and Francis Series eg

- Caddy, B. ed. (2001) *Forensic examination of glass and paint analysis and interpretation*. London: Taylor & Francis.

Journals:
Forensic Science International
Journal of Forensic Sciences
Science and Justice

In addition students will be directed to important web-based resources (eg government information sites) and video documentaries relating to criminal cases and current issues available via Box of Broadcasts.

Part 3: Assessment

Assessment Strategy	<p>There are three elements of coursework to focus on each of the aspects of the subject as identified in the accreditation standards of the Forensic Science Society. Documents for court are in the style of those currently being used in the profession.</p> <p>The summative assessments are therefore of crime scene examination (observations of practical skills at the crime scene house and submission of a Crime Scene Investigation court statement), laboratory examination and analysis of evidence (assessed by casework documentation and report), and interpretation, evaluation and presentation (ultimately assessed in the oral presentation in a mock courtroom).</p> <p>The crime scene examination (practical skills) and casework documentation are undertaken in pairs, and both students are given the same mark for this, unless one student is evidently contributing less than the other. The Crime Scene Investigation court statement, laboratory examination reports and oral presentation are individually assessed.</p> <p>Formative assessment and feedback opportunities exist in laboratory sessions in preparation for the crime scene assessment and via the Second Life crime scene exercises.</p> <p>Second Life is used to provide formative assessment and feedback on the development of a strategy for laboratory examination and analysis of evidence.</p> <p>Practice exercises with Bar Professional Training Course students occur in tutorial sessions with the member of staff giving formative assessment and feedback on performance prior to the courtroom assessment.</p> <p>Tutorials give students the opportunity for formative assessment of learning and feedback in preparation for written exam assessment.</p> <p>The controlled component is a written exam. The exam will be 3 hours duration which is consistent with the Department's assessment strategy for Level 3 modules. This assessment allows students to demonstrate both their ability to research, prioritise information and produce a structured, evidence based answer. A written exam is the appropriate summative assessment of knowledge and understanding and cognitive skills relating to major aspects of the syllabus.</p> <p>All work is marked in line with the Department's Generic Assessment Criteria and conforms with university policies for the setting, collection, marking and return of student work. Assessments are described in the Module handbook that is supplied at the start of module and detailed marking schemes for elements of coursework, where appropriate, are provided in advance.</p>
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Identify final assessment component and element		
% weighting between components A and B (Standard modules only)	A:	B:
	60	40
First Sit		
Component A (controlled conditions) Description of each element	Element weighting (as % of component)	
1. Unseen exam (3 hours)	100%	
Component B Description of each element	Element weighting (as % of component)	

1. Crime Scene Investigation and report	25%
2. Casework file and report for court	50%
3. Oral presentation of results in courtroom situation	25%

Resit (further attendance at taught classes is not required)

Component A (controlled conditions) Description of each element	Element weighting (as % of component)
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1. Unseen exam (3 hours)	100%
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Component B Description of each element	Element weighting (as % of component)
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1. Portfolio of exercises and manipulation and interpretation of scientific data provided	50%
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2. Written scientific report based on forensic evidence and responses to questions on a provided report	50%
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If a student is permitted an **EXCEPTIONAL RETAKE** of the module the assessment will be that indicated by the Module Description at the time that retake commences.