



MODULE SPECIFICATION

Part 1: Information			
Module Title	Forensic Analysis		
Module Code	USSKAU-30-2	Level	2
For implementation from	September 2019		
UWE Credit Rating	30	ECTS Credit Rating	15
Faculty	Health and Applied Sciences	Field	Applied Sciences
Department	Applied Sciences		
Contributes towards	BSc (Hons.) Forensic Science BSc (Hons.) Forensic Science (with Foundation Year) MSci Forensic Science MSci Forensic Science (with Foundation Year)		
Module type:	Standard		
Pre-requisites	USSJRV-30-1 Scientific Investigation of Crime		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	None		

Part 2: Description
<p>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. An integration of laboratory analysis and data evaluation and theory and practical is reflected in the module delivery, which is approximately 50% in small group work in the laboratory or at simulated crime scenes.</p> <p>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.</p> <p>Students will use 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. Forensic practical work will be undertaken in line with standard forensic laboratory protocols e.g. contamination avoidance and contemporaneous note taking.</p> <p>The interpretation of experimental results: hypothesis testing, normality, analysis of variance, management of uncertainty will be taught using appropriate software for data analysis and with regard to the limitations of forensic databases.</p>

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 practical examinations, including scene examinations relating to these specialisms

Generic Graduate Skill	<i>Specific strand (eg presentation) - Optional</i>	Introduced	Practiced	Evidenced
1. Communication		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Professionalism		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Critical Thinking		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Digital Fluency		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Innovative and Enterprising		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Forward Looking		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. Emotional Intelligence		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. Globally Engaged		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Part 3: Assessment: Strategy and Details

Component A1: Viva Voce: 10 minutes.

A viva voce based on examinations undertaken in the laboratory. Students will be assessed by two members of staff and questioned to establish their depth of understanding on the techniques they have employed in their laboratory examinations and subsequent data analysis. Understanding of forensic evidential value will also be explored. This task is designed to follow on from the oral presentation assessment that students undertake at level 1 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 3.

Component A2: Examination: 2 hours.




An examination based on the entirety of the taught course, but with some flexibility regarding choice of questions answered. A mixture of essay and problem solving question formats will be used to assess depth of knowledge.

Component B:

Students will submit a Laboratory Examination Record- that is a full record of the complete analysis of an item of evidence, which they have examined in the laboratory using multiple specialist forensic instruments. Students must evidence all of their examinations with appropriate documentation and also that they have adhered to anti-contamination protocols. All standard conventions for forensic laboratory documentation must also be followed.

Students will be supported in this task by supportive taught sessions and should also utilise the feedback they received at level 1 on their laboratory record keeping. Students may have as many laboratory examination records as they wish formatively reviewed in any practical classes preceding the coursework hand-in.

Identify final timetabled piece of assessment (component and element)	A2	
% weighting between components A and B (Standard modules only)	A:	B:
	50	50
First Sit		
Component A (controlled conditions) Description of each element	Element weighting (as % of component)	
1. Viva voce on laboratory examination of forensic evidence (10 minutes)	20	

2. Examination (2 hours)	80																														
Component B Description of each element	Element weighting (as % of component)																														
1. Laboratory Examination Record (comprehensive record of the examination of one item of forensic evidence).	100																														
Resit (further attendance at taught classes is not required)																															
Component A (controlled conditions) Description of each element	Element weighting (as % of component)																														
1. Viva voce on laboratory examination of forensic evidence (10 minutes)	20																														
2. Examination (2 hours)	80																														
Component B Description of each element	Element weighting (as % of component)																														
1. Laboratory Examination Record (comprehensive record of the examination of one item of forensic evidence, based on provided data).	100																														
Part 4: Learning Outcomes & KIS Data																															
Learning Outcomes	<p>On successful completion of this module students will be able to:</p> <ul style="list-style-type: none"> • understand the chemical and physical nature of materials of forensic interest, their general distribution and potential evidential value (A1, A2, B1) • design and undertake comprehensive laboratory examination/analysis of a wide variety of materials of forensic interest, with due consideration given to anti-contamination procedures (B1) • understand the relationship between experiment design, forensic context and the methods available for analysing results (A1, A2, B1) • evaluate experimental data and associated uncertainties using computational techniques and appropriate software packages (B1). • understand the special considerations, range and potential usefulness of evidence available from outdoor and vehicle crime scenes (A2) • explain the results of forensic analysis and be able to justify the interpretation of these results in a clear and comprehensive manner (A1, A2) 																														
Key Information Sets Information (KIS)	<table border="1" data-bbox="531 1379 1445 1767"> <thead> <tr> <th data-bbox="531 1379 671 1576">Hours to be allocated</th> <th data-bbox="671 1379 831 1576">Scheduled learning and teaching study hours</th> <th data-bbox="831 1379 1002 1576">Independent study hours</th> <th data-bbox="1002 1379 1166 1576">Placement study hours</th> <th data-bbox="1166 1379 1310 1576">Allocated Hours</th> <th data-bbox="1310 1379 1445 1576"></th> </tr> </thead> <tbody> <tr> <td data-bbox="531 1576 671 1615" style="text-align: center;">300</td> <td data-bbox="671 1576 831 1615" style="text-align: center;">72</td> <td data-bbox="831 1576 1002 1615" style="text-align: center;">228</td> <td data-bbox="1002 1576 1166 1615"></td> <td data-bbox="1166 1576 1310 1615" style="text-align: center;">300</td> <td data-bbox="1310 1576 1445 1615" style="text-align: center;"></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p data-bbox="448 1800 1453 1861">The table below indicates as a percentage the total assessment of the module which constitutes a;</p> <p data-bbox="448 1895 1054 1924">Written Exam: Unseen or open book written exam</p> <p data-bbox="448 1924 1533 1984">Coursework: Written assignment or essay, report, dissertation, portfolio, project or in class test</p> <p data-bbox="448 1984 1437 2045">Practical Exam: Oral Assessment and/or presentation, practical skills assessment, practical exam (i.e. an exam determining mastery of a technique)</p>	Hours to be allocated	Scheduled learning and teaching study hours	Independent study hours	Placement study hours	Allocated Hours		300	72	228		300																			
Hours to be allocated	Scheduled learning and teaching study hours	Independent study hours	Placement study hours	Allocated Hours																											
300	72	228		300																											
Contact Hours																															

Total Assessment	Total assessment of the module:					
	Written exam assessment percentage				40%	
	Coursework assessment percentage				50%	
	Practical exam assessment percentage				10%	
				100%		
Reading List	Forensic Analysis Reading List					

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First CAP Approval Date	28/03/2014			
Revision CAP Approval Date		Version	2	RIA 12193
Revision CAP Approval Date	29/05/2019	Version	3	RIA 12967