



MODULE SPECIFICATION

Part 1: Information			
Module Title	Drugs and Toxicology		
Module Code	USSKAV-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	Department of Applied Sciences		
Contributes towards	MSci Forensic Science MSci Forensic Science (with Foundation Year) BSc Forensic Science BSc Forensic Science (with Foundation Year)		
Module type:	Standard		
Pre-requisites	USSJRT-30-1 Chemistry in Context		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	N/A		

Part 2: Description	
<p>This module examines the boundary between a therapeutic agent or medicine and a poison. Students will engage in facilitated activities such as lectorials, debates, case studies, problem based learning etc. Practical laboratory sessions will provide experience of techniques relevant to the area and the chemical sciences in general. Practical sessions will provide opportunities for data handling and interpretation, problem solving and discussions with academic staff. Lectorials will provide contexts and overviews of topics to guide student-centred learning. Wherever possible, lectorials are supplemented by audio-visual material (e.g. BoB) showing specific examples relevant to toxicology and its practice based context.</p> <p>Topics covered include:</p> <ul style="list-style-type: none"> • The origins and characteristics of poisons/medicines, including exposure/administration. • The cholinergic system – from weaponised chemicals to medicines. • The principles and practice of pharmacokinetics & pharmacodynamics. Metabolism of drugs and toxins - absorption, distribution, biotransformation and excretion. • The identification and quantification of drugs and poisons in biological fluids. Consideration of interferences and interpretation issues relating to forensic toxicology. 	

- The impact of fundamental molecular biology and genetics upon drug discovery, development and toxicology.
- The concept of selective toxicity and the mechanisms by which drugs achieve selectively toxic effect.
- Genotoxic agents - fundamentals of cell proliferation and the role of normal, disordered and altered gene function in diseases such as leukaemia and solid tumours.
- Synergy and antagonism between chemicals within the body.
- The foundational principles and mechanisms of toxicology in relation to drug safety evaluation.

Generic Graduate Skill	Specific strand (eg presentation) - Optional	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 type="checkbox"/>	<input checked="" type="checkbox"/>

Part 3: Assessment

The Assessment Strategy has been designed to support and enhance the development of both subject-based and employability skills, whilst ensuring that the modules Learning Outcomes are attained, as described below.

The coursework is a practical report which is based on the laboratory practical classes. Successful completion of this component requires the detailed recording of data followed by analysis, interpretation and discussion of these data. The recording and analysis of laboratory data is a vital skill for forensic science students consequently this assessment can be described as an assessment to enhance employability and learning.

The controlled component is two 1.5 hour written exams. These assessments will provide students with an opportunity to demonstrate both their knowledge on a broad range of topics through a series of short answer questions, and more in-depth knowledge through a selection of medium length questions. They will test a range of the learning outcomes and will provide a valuable learning experience through recalling and demonstrating knowledge which will be of benefit when progressing to final year modules.

All work is marked in line with the Faculty of Health and Applied Sciences Generic Assessment Criteria for level 2.

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. Examination – 1.5 hours	50%	

2. Examination – 1.5 hours	50%																																								
Component B Description of each element	Element weighting (as % of component)																																								
1. Practical Laboratory Report (2000 words)	100%																																								
Resit (further attendance at taught classes is not required)																																									
Component A (controlled conditions) Description of each element	Element weighting (as % of component)																																								
1. Written examination (3hr)	100 %																																								
Component B Description of each element	Element weighting (as % of component)																																								
1. Practical Laboratory Report based on provided data (2000 words)	100%																																								
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.																																									
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"> Communicate an appropriate level of understanding of the range and variation of toxic materials, and of their occurrence and possible routes of entry into the body (Component A). Describe the sources, development, formulation, control and administration of drugs, poisons and toxic materials (Components A). Discuss the significance of chemical properties and concentration gradients of potential drugs and poisons, to absorption, distribution, biotransformation and excretion (that is, pharmacokinetics) (assessed in Components A and, B). Undertake practical work to examine the characteristics of medicines/toxins, and present, analyse and interpret these data (Component B). 																																								
Key Information Sets Information (KIS)	<p>Key Information Sets (KIS) are produced at programme level for all programmes that this module contributes to, which a requirement is 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.</p> <table border="1" data-bbox="541 1491 1434 1879"> <thead> <tr> <th colspan="5" data-bbox="541 1491 1002 1529">Key Information Set - Module data</th> </tr> </thead> <tbody> <tr> <td colspan="5" data-bbox="541 1529 1434 1568"></td> </tr> <tr> <td colspan="4" data-bbox="541 1568 1161 1606"><i>Number of credits for this module</i></td> <td data-bbox="1161 1568 1434 1606" style="text-align: center;">30</td> </tr> <tr> <td data-bbox="541 1606 678 1644"></td> <td data-bbox="678 1606 834 1644"></td> <td data-bbox="834 1606 1002 1644"></td> <td data-bbox="1002 1606 1161 1644"></td> <td data-bbox="1161 1606 1434 1644"></td> </tr> <tr> <th data-bbox="541 1644 678 1682">Hours to be allocated</th> <th data-bbox="678 1644 834 1682">Scheduled learning and teaching study hours</th> <th data-bbox="834 1644 1002 1682">Independent study hours</th> <th data-bbox="1002 1644 1161 1682">Placement study hours</th> <th data-bbox="1161 1644 1434 1682">Allocated Hours</th> </tr> <tr> <td data-bbox="541 1682 678 1720" style="text-align: center;">300</td> <td data-bbox="678 1682 834 1720" style="text-align: center;">72</td> <td data-bbox="834 1682 1002 1720" style="text-align: center;">228</td> <td data-bbox="1002 1682 1161 1720"></td> <td data-bbox="1161 1682 1434 1720" style="text-align: center;">300</td> </tr> <tr> <td colspan="5" data-bbox="541 1720 1434 1758"></td> </tr> <tr> <td colspan="5" data-bbox="541 1758 1434 1796" style="text-align: right;">✓</td> </tr> </tbody> </table>	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		300						✓				
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Contact Hours																																									

Total Assessment	The table below indicates as a percentage the total assessment of the module which constitutes a -										
	Written Exam: Unseen written exam,										
	Coursework: Practical Report										
	Total assessment of the module:										
	<table border="1"> <tr> <td>Written exam assessment percentage</td> <td>50%</td> </tr> <tr> <td>Coursework assessment percentage</td> <td>50%</td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td>100%</td> </tr> </table>				Written exam assessment percentage	50%	Coursework assessment percentage	50%			
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Coursework assessment percentage	50%										
	100%										
Reading List	https://rl.talis.com/3/uwe/lists/647D7109-B0BB-9B58-1B16-548181FBB4B2.html?embed=1&lang=en-GB&login=1										

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First CAP Approval Date	28/03/2014			
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Revision CAP Approval Date	29 May 2019	Version	3	RIA 12959