Module Descriptor

Title	Drugs and Human Interactions		
Session	2025/26	**Status**	Published
Code	CHEM10018	**SCQF Level**	10
Credit Points	20	**ECTS (European Credit Transfer Scheme)**	10
School	**Computing, Engineering and Physical Sciences**		
Module Co-ordinator	Ann-Sophie Korb		

Summary of Module

The principles of pharmacodynamics and pharmacokinetics are covered with respect to drug targets, drug-target interactions, drug absorption, drug distribution, drug metabolism, drug excretion and drug delivery.

The application and importance of these principles is demonstrated through study of:

Human Performance and Image Enhancement Drug (PIED) use, including sports doping but with further reference to drug facilitated crimes: effects and reactions, protocols for sample recovery, and analytical methods for detection. Alternative matrices testing, including oral fluid and hair.

This module will work to develop a number of the key 'I am UWS' Graduate Attributes. Those who complete this module will develop professional attributes of being research minded, an effective communicator and inquiring. It will also develop the knowledge, skills and abilities related to high-level academic study in Forensic Science and Chemistry.

Module Delivery Method	**On-Campus[1]** ☒	**Hybrid[2]** ☐	**Online[3]** ☐	**Work -Based Learning[4]** ☐
Campuses for Module Delivery	☐ Ayr ☐ Dumfries	☐ Lanarkshire ☐ London ☒ Paisley	☐ Online / Distance Learning ☐ Other (specify)	

[1] Where contact hours are synchronous/ live and take place fully on campus. Campus-based learning is focused on providing an interactive learning experience supported by a range of digitally-enabled asynchronous learning opportunities including learning materials, resources, and opportunities provided via the virtual learning environment. On-campus contact hours will be clearly articulated to students.

[2] The module includes a combination of synchronous/ live on-campus and online learning events. These will be supported by a range of digitally-enabled asynchronous learning opportunities including learning materials, resources, and opportunities provided via the virtual learning environment. On-campus and online contact hours will be clearly articulated to students.

[3] Where all learning is solely delivered by web-based or internet-based technologies and the participants can engage in all learning activities through these means. All required contact hours will be clearly articulated to students.

[4] Learning activities where the main location for the learning experience is in the workplace. All required contact hours, whether online or on campus, will be clearly articulated to students

Terms for Module Delivery	Term 1	☐	Term 2	☒	Term 3	☐
Long-thin Delivery over more than one Term	Term 1 – Term 2	☐	Term 2 – Term 3	☐	Term 3 – Term 1	☐

Learning Outcomes	
L1	Demonstrate an appreciation and integration of some of the concepts and language employed in pharmacology and toxicology to enable the comprehension of the role of these disciplines in a forensic setting
L2	Demonstrate the ability to interpret, evaluate, and report drug testing appropriately.
L3	Develop ability to interpret and synthesise concepts and information in discussion of case studies
L4	Interpretation of data from pharmacologically important substances.
L5	

Employability Skills and Personal Development Planning (PDP) Skills	
SCQF Headings	**During completion of this module, there will be an opportunity to achieve core skills in:**
Knowledge and Understanding (K and U)	**SCQF 10** Gaining a detailed, integrated knowledge and understanding of pharmacology and toxicology
Practice: Applied Knowledge and Understanding	**SCQF 10** Acquiring detailed knowledge and understanding in laboratory analysis and applying that knowledge to tackle defined pharmacological problems.
Generic Cognitive skills	**SCQF 10** Undertaking a critical evaluation of the toxic properties and social use of selected modern drugs of abuse
Communication, ICT and Numeracy Skills	**SCQF 10** Presenting formal written accounts that clearly illustrate a critical understanding of pharmacology. Bringing information together from a variety of sources, including research literature, using information retrieval systems and appropriate IT skills to produce written reports
Autonomy, Accountability and Working with Others	**SCQF 10** Working effectively with others in group assignments. Identifying and addressing individual learning needs in the subject area associated with the module

Prerequisites	**Module Code** CHEM08002	**Module Title** Organic Chemistry
	Other CHEM09002 Analytical Chemistry	
Co-requisites	**Module Code**	**Module Title**

Learning and Teaching

In line with current learning and teaching principles, a 20-credit module includes 200 learning hours, normally including a minimum of 36 contact hours and maximum of 48 contact hours.

Learning Activities During completion of this module, the learning activities undertaken to achieve the module learning outcomes are stated below:	**Student Learning Hours** (Note: Learning hours include both contact hours and hours spent on other learning activities)
Lecture / Core Content Delivery	24
Tutorial / Synchronous Support Activity	12
Laboratory / Practical Demonstration / Workshop	12
Independent Study	152
Please select	
Please select	
TOTAL	

Indicative Resources

The following materials form essential underpinning for the module content and ultimately for the learning outcomes:

Rang, H.P., Dale, M.M. (2012) Rang and Dale's Pharmacology. 7th edn. Edinburgh: Elsevier Churchill Livingstone

Marshall, W.J., Lapsley, M., Day, A., Shipman, K. (2020) Clinical Chemistry, 9th edn., St. Louis Missouri: Elsevier

Moffat, A. C., et al.(2011) Clarke's Analysis of Drugs and Poisons, 4th edn., London: Pharmaceutic

(N.B. Although reading lists should include current publications, students are advised (particularly for material marked with an asterisk*) to wait until the start of session for confirmation of the most up-to-date material)

Attendance and Engagement Requirements

In line with the Student Attendance and Engagement Procedure, Students are academically engaged if they are regularly attending and participating in timetabled on-campus and online teaching sessions, asynchronous online learning activities, course-related learning resources, and complete assessments and submit these on time.

For the purposes of this module, academic engagement equates to the following:

The School of Computing, Engineering and Physical Sciences considers attendance and engagement to mean a commitment to attending, and engaging in, timetabled sessions. You will scan your attendance via the scanners each time you are on-campus and you will login to the VLE several times per week. Where you are unable to attend a timetabled learning session due to illness or other circumstance, you should notify the Programme Leader that you cannot attend. Across the School an 80% attendance threshold is set. If you fall below this, you will be referred to the Student Success Team to see how we can best support your studies.

Equality and Diversity
The University's Equality, Diversity and Human Rights Procedure can be accessed at the following link: UWS Equality, Diversity and Human Rights Code. Aligned with the University's commitment to equality and diversity, this module supports equality of opportunity for students from all backgrounds and learning needs. Using the VLE, material will be presented electronically in formats that allow flexible access and manipulation of content. This module complies with University regulations and guidance on inclusive learning and teaching practice. Specialist assistive equipment, support provision and adjustment to assessment practice in accordance with the University's policies and regulations.
(N.B. Every effort will be made by the University to accommodate any equality and diversity issues brought to the attention of the School)

Supplemental Information

Divisional Programme Board	**Engineering Physical Sciences**
Overall Assessment Results	☐ **Pass / Fail** ☒ **Graded**
Module Eligible for Compensation	☐ **Yes** ☒ **No** **If this module is eligible for compensation, there may be cases where compensation is not permitted due to programme accreditation requirements. Please check the associated programme specification for details.**
School Assessment Board	Physical Sciences
Moderator	Carrie Mullen
External Examiner	Graham Patrick
Accreditation Details	This is a core module in the BSc (Hons) Forensic Science programme which is accredited by the Chartered Society of Forensic Science. This is a core module in the BSc (Hons) Chemistry programme which is accredited by the Royal Society of Chemistry.
Module Appears in CPD catalogue	☐ **Yes** ☒ **No**
Changes / Version Number	Attendance and Engagement statements updated. Equality and Diversity statement updated. Assessment 1 changed from Examination to Unseen, Invigilated Class Test. External Examiner Updated. Updated Accreditation details.

Assessment (also refer to Assessment Outcomes Grids below)
Assessment 1
Unseen, invigilated class test (65%)
Assessment 2
Written assessments (25%(
Assessment 3
Presentation (10%)

(N.B. (i) Assessment Outcomes Grids for the module (one for each component) can be found below which clearly demonstrate how the learning outcomes of the module will be assessed.

(ii) An indicative schedule listing approximate times within the academic calendar when assessment is likely to feature will be provided within the Student Module Handbook.)

Component 1							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
Unseen, invigilated class test	☒	☒	☐	☐	☐	65	2

Component 2							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
Written Assessments Presentation	☒	☒	☒	☒	☐	35	

Component 3							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
	☐	☐	☐	☐	☐		
Combined total for all components						100%	2 hours

Change Control

What	**When**	**Who**