Module Descriptor

Title	Designer Drugs		
Session	2025/26	**Status**	Published
Code	CHEM09023	**SCQF Level**	9
Credit Points	20	**ECTS (European Credit Transfer Scheme)**	10
School	**Computing, Engineering and Physical Sciences**		
Module Co-ordinator	Carrie Mullen		

Summary of Module

This module looks at Designer Drugs and the related New Psychoactive Substances (NPS) to examine their legal status, use in society and the important aspects of chemistry, pharmacology and toxicology. Methods for synthesis of designer drugs, in addition to various chromatographic and spectroscopic methods for analysis and identification, are introduced.

The module is structured with a focus on encouraging the development of professional and research skills, ahead of the individual research projects at level 10. This module will strengthen several of the key 'I am UWS' Graduate Attributes, with students acquiring competencies in working to deadlines, making presentations and working in teams.

The module is continually assessed and involves the production of individual infographics and a group presentation on an NPS.

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	Evaluate the global and national societal impact of an assigned designer drug, integrating pharmacological, toxicological, ethical and legal perspectives
L2	Apply knowledge of pharmacology and chemistry to investigate the synthesis, mechanisms of action, analysis and toxicology of an assigned designer drugs
L3	Utilise suitable software for effective research, data analysis, and communication.
L4	Collaborate effectively in group research, demonstrate professionalism and adherence to ethical standards
L5	Evaluate professional standards in science and prepare targeted job applications, showcasing alignment between personal skills and industry expectations

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 9** Gaining a broad and integrated knowledge and understanding of the purpose and role of medicinal chemistry and toxicology. Acquiring a critical understanding of the methods by which illegal Designer Drugs are produced and discovered. Gaining knowledge of how the toxicology of drugs is studied
Practice: Applied Knowledge and Understanding	**SCQF 9** Acquiring knowledge and understanding in the use of chemical software and applying that knowledge to tackle defined tasks. Gain an understanding of how infographics can be used to disseminate important information in an accessible way and aid education and intervention. Understanding of the best methods to research and present information from the scientific literature Prepare a job application and evaluate a CV
Generic Cognitive skills	**SCQF 9** Undertaking a critical evaluation of the synthesis, analysis and activity of a New Psychoactive Substance. Undertaking a critical analysis of various toxicology issues as applied to a New Psychoactive Substance
Communication, ICT and Numeracy Skills	**SCQF 9** Using molecular software packages to present chemical information and generate calculated data Presenting formal written and oral presentations that clearly illustrate a critical understanding of the topic involved.

	Bringing information together from a variety of sources, using information retrieval systems and appropriate IT skills to produce an infographic and presentation on for a New Psychoactive Substance. Development of skills for job interviews
Autonomy, Accountability and Working with Others	**SCQF 9** Working effectively with others in an active-learning context which focuses on group work. Demonstrating an awareness of others' roles and responsibilities and their own impact on these. Identifying and addressing individual learning needs in the subject area associated with the module

Prerequisites	**Module Code**	**Module Title**
	Other	
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	12
Tutorial / Synchronous Support Activity	18
Personal Development Plan	6
Independent Study	164
Please select	
Please select	
TOTAL	200

Indicative Resources
The following materials form essential underpinning for the module content and ultimately for the learning outcomes: King LA (2003) The misuse of drugs act: a guide for forensic scientists, Royal Society of Chemistry Negrusz A and Cooper GAA (Eds) (2013) Clarke's Analytical Forensic Toxicology (2nd Ed), Pharmaceutical Press Silverman, R.B. (2014) The organic chemistry of drug design and action, 3rd edition, Elsevier

(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	Ciaran T Ewins
External Examiner	Graham L Patrick
Accreditation Details	This module is part of programmes Accredited and Recognised by the Chartered Society of Forensic Sciences

Module Appears in CPD catalogue	☐ **Yes** ☒ **No**
Changes / Version Number	2.21

Assessment (also refer to Assessment Outcomes Grids below)
Assessment 1
Presentation 50 %
Assessment 2
Written Assignments 50%
Assessment 3
(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**
Presentation	☒	☒	☒	☒	☐	50	

Component 2							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
Written Asssignment	☒	☒	☒	☐	☒	50	

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

Change Control

What	**When**	**Who**
