

CHEM C1101: Pharmaceutical Chemistry

Language of Instruction: English Credits: 5 VFQ Level: 6 Module Delivered In 1 programme(s) Teaching & Learning The module will be delivered as two one-hour theory classes for eleven weeks and one two- hour practical class for nine weeks. Group and peer learning will be facilitated during the preparation of assignments and practicals. Any course-related issue or questions that may arise will be discussed at lectures. Module Aim: The aim of this module is to impart knowledge of fundamental chemistry and to provide practical training in this subject area with due regard to best practice and safety. Learning Outcomes The aim of this module the learner should be able to: Interpret the basic concepts of atomic and molecular structures and bonding of simple chemicals and use the periodic table. LO2 Interpret the basic principles of solution chemistry. LO3 Understand the concepts of acidity and basicity and pH as they apply to biological systems. LO4 Perform the calculations involved in solution preparation. LO5 Perform designated practical skill) that is recommended before enrolment in this module. No recommendations This is prior learning (or a practical skill) that is recommended before enrolment in this module. No recommendations listed Incompatible Modules These are modules which							
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CHEM C1101: Pharmaceutical Chemistry

Module Content & Assessment

Indicative Content

Theory 1

Atoms, atomic structure, elements, compounds and mixtures. The periodic table of the elements, molecules and bonding. The Mole, molar mass and molar volume. Concentration, molarity, normality and standard solutions. Polarity of compounds and solvents. Solutions and solubility. Concentrated, dilute, saturated and supersaturated solutions. Precipitates, suspensions and colloids. Acids, bases, buffers, the pH scale and indicators. Introduction to organic chemistry, homologous series. Structures of common pharmaceuticals, and the relationship between structure and solubility

Practicals

The scheduled practicals will develop the following skills: Accuracy and precision in liquid measurement, standard solution preparation, titration, measurement of pH, effect of buffers, and analyses of common pharmaceutical products

Assessment Breakdown	%
Continuous Assessment	20.00%
Practical	30.00%
End of Module Formal Examination	50.00%

Special Regulation

Students must achieve a minimum grade (35%) in both the practical/CA and final examination.

Continuous Assessment					
Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date	
Examination	two 1 hour CA Tests during the semester	1,2,3,4	20.00	n/a	

No Project

Practical					
Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date	
Practical/Skills Evaluation	Practical lab book	5	30.00	Sem 1 End	

End of Module Formal Examination					
Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date	
Formal Exam	2 hour exam	1,2,3,4	50.00	End-of-Semester	

SETU Carlow Campus reserves the right to alter the nature and timings of assessment



CHEM C1101: Pharmaceutical Chemistry

Module Workload

Workload: Full Time		
Workload Type	Frequency	Average Weekly Learner Workload
Lecture	12 Weeks per Stage	2.00
Practicals	12 Weeks per Stage	1.50
Independent Learning	15 Weeks per Stage	5.53
	Total Hours	125.00

Module Delivered In				
Programme Code	Programme	Semester	Delivery	
CW_SAPHA_C	Higher Certificate in Science in Pharmacy Technician Studies	1	Mandatory	