Module Title:	Pharmaceutical Calculations and Computing
Language of Instruction:	English

Credits:	5

NFQ Level:	6

Module Delivered In	1 programme(s)

Teaching & Learning Strategies:	This module will be taught in two theory class and two computer lab practicals, each of one hour duration, per week. Relevant examples, notes and problem sheets will be available on Blackboard which students will complete to re-enforce learning. Delivery of the computing module will involve individual and group practical exercises.

Module Aim:	The aim of this module is to give students a thorough grounding in the mathematics required for the successful understanding and solution of pharmaceutical calculation problems and to provide them with the information communications technology skills required for the college and pharmacy environments.

Learning Outcomes	
On successful completion of this module the learner should be able to:	
LO1	Solve numerical problems related to science, health and pharmacy business operations.
LO2	Solve a range of pharmaceutical calculation problems.
LO3	Use information communications technologies.

Pre-requisite learning	
Module 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 have learning outcomes that are too similar to the learning outcomes of this module.*	
No incompatible modules listed	
Co-requisite Modules	
No Co-requisite modules listed	
Requirements *This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.*	
No requirements listed	

Module Content & Assessment

Indicative Content
Numeracy for Healthcare and Pharmacy Operation. Number systems. Quantity calculations in pharmacy. Data, vaccine management and business calculations.
Scientific Calculations Exponents, logarithms and pH calculations. Scientific notation and significant figures. Accuracy and Error.
Measurement in pharmacy Metric, imperial and household measurement systems. Conversions – intersystem, intrasystem and temperature. Ratio and proportion.
Percent Strength Calculations Ratio and Percent Strength, Dilutions and Alligations.
Dosage Calculations Oral, Parenteral, Paediatric and BSA dosage calculations.
Practicals Computer based mathematics support. Information & communications technology: ICT theory, referencing and software applications. Team presentations on a calculation/technology based topic related to pharmacy/healthcare.

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

Special Regulation
Students must achieve a minimum grade (35%) in both the practical and final exam components of the course and a minimum of 60% in the CA component.

Continuous Assessment				
Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Examination	In-class assessments	1,2	30.00	n/a

No Project

Practical				
Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Practical/Skills Evaluation	Practical exercises, team project work and presentations.	1,3	20.00	n/a

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

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

Module Workload

Workload: Full Time		
Workload Type	*Frequency*	*Average Weekly Learner Workload*
Lecture	12 Weeks per Stage	2.00
Practicals	12 Weeks per Stage	2.00
Estimated Learner Hours	15 Weeks per Stage	5.13
	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