

Module Title:	Drugs and How They Work 1
Language of Instruction:	English
Credits:	5
NFQ Level:	6
Module Delivered In	1 programme(s)
Teaching & Learning Strategies:	The material will be delivered in one, one-hour lecture and one, one-hour practical class per week. Pre-reading material and class notes will be on blackboard and students will be required to access the material prior to classes. Theory relating to drug development, pharmacokinetics, pharmacodynamics and antimicrobials will be outlined in lectures. Regular quizzes and MCQs will consolidate lecture material. In practical classes, students will gain hands-on experience of using MPS (McLernons, community pharmacy dispensary software application) by dispensing simple prescription. Students will Case studies (in lectures and practical classes) will allow students to apply what they are learning and explore it's relevance to practice.
Module Aim:	On completion of this modules, students will have gained an understanding of the principles of how drugs work [when administered to human patients], the regulation of medicines [i.e. the role of the HPRA and EMA], drug safety, risk mitigation strategies and sources of information, i.e. SmPCs, drug formularies such as the IMR or BNF and antibioticprescribing.ie. Students with also be introduced to how antimicrobial agents work, anti-microbial stewardship and antimicrobial resistance.
Learning Outcomes	
<i>On successful completion of this module the learner should be able to:</i>	
LO1	Explain key principles of drug development, regulation, generic and interchangeable medicines.
LO2	Describe basic principles of pharmacokinetics and pharmacodynamics and their impact on how drugs work and choice of route of administration.
LO3	Outline how antimicrobial agents work, basic principles of antimicrobial resistance and stewardship.
LO4	Dispense basic prescriptions on MPS (McLernons community pharmacy dispensary software) and locate appropriate information about drugs in SmPCs and IMF or BNF.
Pre-requisite learning	
Module Recommendations <i>This is prior learning (or a practical skill) that is recommended before enrolment in this module.</i>	
No recommendations listed	
Incompatible Modules <i>These are modules which have learning outcomes that are too similar to the learning outcomes of this module.</i>	
No incompatible modules listed	
Co-requisite Modules	
No Co-requisite modules listed	
Requirements <i>This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.</i>	
No requirements listed	

Module Content & Assessment

Indicative Content

Theory

Regulation of licensed medicines/drugs: explain the role and functions of the HPRA and EMA as drug regulators, generic medicines, interchangeable medicines.

Theory

Routes of administration: List routes of administration and their advantages/disadvantages for different patient groups.

Theory

Basic pharmacokinetic processes: absorption, distribution, metabolism & excretion of drugs. Factors which influence these processes in different patient cohorts. Drug half-life.

Theory

Basic pharmacodynamics including: agonists, antagonists, therapeutic index.

Theory

Use of antimicrobials; Principles of antimicrobial therapy. Antimicrobial stewardship and resistance. Overview of antibiotics, antiviral, antifungal and antimalarial and agents.

Practical

Dispense basic prescriptions using MPS.

Practical

Access information regarding drug use and safety, using a range of reference materials.

Assessment Breakdown	%
Continuous Assessment	50.00%
Practical	50.00%

Special Regulation

Students must achieve grade (35%) in both Continuous Assessment and Practical.

Continuous Assessment

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Other	Weekly blackboard quizzes. 5 minutes screen-recording about drugs regulation/safety or other module content.	1,2,3,4	50.00	n/a

No Project

Practical

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Practical/Skills Evaluation	Dispensing basic prescriptions. Locate drug-related information using appropriate sources.	1,2,3,4	50.00	Sem 1 End

No End of Module Formal Examination

Continuous Assessment

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Other	Weekly blackboard quizzes. 5 minutes screen-recording about drugs regulation/safety or other module content.	1,2,3,4	50.00	Ongoing

No Project

Practical

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Practical/Skills Evaluation	Dispensing basic prescriptions. Locate drug-related information using appropriate sources.	1,2,3,4	50.00	End-of-Semester

No End of Module Formal Examination

Module Workload

Workload: Full Time		
<i>Workload Type</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>
Lecture	12 Weeks per Stage	1.00
Laboratory	12 Weeks per Stage	1.00
Estimated Learner Hours	15 Weeks per Stage	6.80
Total Hours		126.00

Workload: Part Time		
<i>Workload Type</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>
Lecture	Per Semester	1.28
Independent Learning Time	Per Semester	8.72
Total Hours		250.00

Module Delivered In

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