

Module Title:	Aseptic Techniques
Language of Instruction:	English
Credits:	5
NFQ Level:	6
Module Delivered In	1 programme(s)
Teaching & Learning Strategies:	<p>This module will be delivered predominately via class room and practical modes when possible. In addition the VLE Blackboard will be used as a platform to support active and independent learning e.g. discussion and reflection; formative and summative assessment and feedback; electronic laboratory notebooks as well as a repository for learning resources. A flipped learning approach can be used where applicable To consolidate learning activities, students will normally be required to carryout assignments, formative quizzes and multiple choice questions. The practical component is essential to allow the students to develop the required technical competencies, attitudes and behaviours in aseptic techniques and to follow a series of SOPs. Digital competencies will be developed for example via the use of electronic submissions and the use of student created video content. This module is assessed via CA and a planned assessment schedule will ensure that the learning outcomes are assessed without over assessment.</p>
Module Aim:	To give learners the fundamental knowledge, skills and competencies in aseptic techniques in accordance with cGMP in an aseptic hospital compounding context.
Learning Outcomes	
<i>On successful completion of this module the learner should be able to:</i>	
LO1	Outline the basis of microbial contamination and infection in a clinical setting and outline how microorganisms may be monitored and controlled.
LO2	Describe the principles underpinning the safe, accurate and aseptic preparation and monitoring of parenteral and other sterile products including cytotoxics.
LO3	Competently demonstrate and validate the correct aseptic techniques, behaviours and monitoring for use in a clean environment/compounding unit including the use of validated SOPs.
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>	
Successful completion of year 1 or equivalent	

Module Content & Assessment

Indicative Content

Microbial contamination, infection and control

Basic microbiology concepts. Microbial growth. Infectious disease transmission; the compromised host, pathogens, reservoirs of infection, and vectors of transmission. Infection control. Contamination. Environmental monitoring. Chemical and physical factors controlling microbial growth. Sterilisation. and disinfection. Filter sterilisation of air and liquids. Method validation.

Principles of sterile preparation

Parenteral and sterile products and their uses. Living and non living contaminants, pyrogens. Sources of animate and inanimate contamination in the preparation or use of sterile products. Clean room design and classification. HEPA filters, unidirectional air flow cabinets, isolators.

Risk Assessment, Quality and cGMP

Identifying hazards and minimising risks to all in aseptic compounding. Quality control and Quality Assurance. Principles of cGMP for aseptic preparation manufacturing. Corrective and Preventative Action. The importance of method validation . Monitoring and checking. Documentation. worksheets and labels

Practical

Practicals will develop the key technical skills necessary to demonstrate the learning outcomes listed above in addition will enhance aspects of theory by providing hands on experience.

Health and Safety

Identifying hazards and minimising risks in the compounding unit, e.g. spills, sharps, biohazards, chemical hazards. The importance of using SOPs.

Behaviour and Gowning

Correct personal behaviour and attitudes in a clean environment including correct hand washing and gowning.

Cleaning , Disinfection and Sterilisation

Underpinning principles of and validation of hand washing, cleaning, disinfection and sterilisation disinfection. Disinfect formats. Effective use of sprays and wipes.

Monitoring and Recording

Personal , environmental, hard surface and air microbial monitoring and recording; broth tests.

Aseptic Manipulations

Tray set ups. Aseptic use of sterile equipment such as syringes, needles, vials, ampoules infusion bags, in the accurate compounding of sterile products. Working in a unidirectional air flow environment. Transfer techniques. Worksheets, labels and and records.

Safe Use of Cytotoxics

Hazards involved in the preparation of cytotoxic drugs. Closed transfer devices, safe packaging and disposal.

Assessment Breakdown

	%
Continuous Assessment	50.00%
Practical	50.00%

Continuous Assessment

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Other	Short assignment/presentation/poster as appropriate.	1	20.00	n/a
Other	Short assignment/presentation/poster as appropriate.	2	20.00	n/a
Examination	MCQ and short answer questions	1,2	10.00	n/a

No Project

Practical

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Practical/Skills Evaluation	Student created video/ poster/ assignment demonstrating reflection on practical competencies learned during the module.	3	10.00	n/a
Practical/Skills Evaluation	Prepractical quizzes; demonstration of competencies, submission of reports ; short questions; reflection		40.00	n/a

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	2.00
Laboratory	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	4	Mandatory