

Open Awards Qualification Unit



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1 Unit Details

Unit Title:	Microbiology for Pharmacy Technicians
Unit Reference Number:	M/617/8936
Level:	3
Credit Value:	5
Minimum GLH:	30

2 Learning Outcomes and Criteria

Learning Outcome (The Learner will):	Assessment Criterion (The Learner can):
1. Understand the structure, function and classification of microorganisms	1.1 Describe methods used to classify microorganisms
	1.2 Explain how the structure of microorganisms relates to their function
2. Understand factors affecting microbial growth	2.1 Describe growth and reproduction of microorganisms
	2.2 Explain the chemical and physical factors that affect the growth of microorganisms
	2.3 Explain the use of different growth media
3. Understand how the growth of microorganisms is monitored and controlled	3.1 Explain methods of monitoring the growth of microorganisms
	3.2 Explain methods of controlling the growth of microorganisms.
4. Understand transmission of infection	4.1 Identify infections caused by pathogenic microorganisms
	4.2 Explain the process of transmission of infections

Indicative Content	
LO1	<p>Methods: Binomial nomenclature; light and electron micrographs, morphology, Gram staining</p> <p>Microorganisms: Bacteria, viruses, microscopic fungi, protozoa</p> <p>Structure: Size, shape, cell arrangements, cellular structure including genetic material and ability to reproduce without a host</p>
LO2	<p>Growth and reproduction: Binary fission, asexual reproduction, budding, growth curves, nutrition</p> <p>Physical factors affecting growth: pH, temperature, osmotic and atmospheric pressure</p> <p>Chemical factors affecting growth: Water, oxygen, carbon, nitrogen, phosphorous, other elements</p> <p>Growth media: Liquid, semi-solid, selective/differential, enriched</p>
LO3	<p>Monitoring microbial growth: Environmental/People/Product Sampling; swabs, media plates, bacterial counts</p> <p>Control: basic principles of hygiene including hand washing and sanitisation; disinfectants, antiseptics, sterilisation methods, aseptic technique, use of personal protective equipment.</p>
LO4	<p>Infections: Bacteria, viruses, microscopic fungi, protozoa</p> <p>Process of transmission: Transmission cycle; airborne, direct contact, indirect contact</p>