

Module Specification

Module Summary Information

1	Module Title	Infectious Disease
2	Module Credits	20
3	Module Level	5
4	Module Code	BMS5002

5	Module Overview
<p>This module will build upon the level 4 Microbiology module, by introducing you to the different types of microorganisms that infect humans and cause disease. One of the critical issues in clinical microbiology is the speed of reporting results of tests as some infections are potentially life-threatening. You therefore review some of the important and time-saving techniques and how they are beginning to replace traditional cultural methods. You will also examine antibiotic-sensitivity testing and different ways this can be accomplished. Treating the human body as a series of systems, you will examine the barriers to prevent infections and how pathogens have evolved ways to circumvent these obstacles. You will learn about the mode and mechanism of infection of a range of pathogenic bacteria, viruses and fungi and how they are able to evade the human immune system. You will be introduced to the subject of Public Health and surveillance. This will lead on to foodborne diseases where you will learn about the diverse range of pathogens, how they cause disease, the risks associated with different foods and how to minimise these risks. You will also apply theoretical knowledge in three practical sessions: 1) different groups of students will be given different foods to test for the presence of pathogens; 2) students will be provided with a range of pathological samples and attempt to diagnose the cause of each infection and analyse the effectiveness of antibiotics on different bacteria and 3) results from previous weeks will be collected and prepared for discussion in a following workshop.</p> <p>Assessment Strategy</p> <p>Goldberg to complete on return from AL</p>	

6	Indicative Content
<p>Lecture. Introduction to module. Overview of the duties of a clinical microbiologist. Rapid methods in microbiology.</p> <p>Lecture. Surveillance of infectious diseases and intro to epidemiology</p> <p>Lecture. Food poisoning 1. Intoxication</p> <p>Lecture. Food poisoning 2. Infection</p> <p>Lecture. Parasitology</p> <p>Workshop. Identifying causes of food poisoning outbreaks (assignment 1)</p> <p>Lab. Analysis of food for presence of foodborne pathogens</p> <p>Lecture. Sepsis - diagnosis and treatment</p> <p>Lab. Diagnosis of infections. Antibiotic sensitivity testing</p> <p>Lecture. Antibiotic sensitivity testing in a clinical lab</p> <p>Lab. Collection & collation of data</p> <p>Lecture. Infections of the genitourinary tract</p> <p>Workshop. Review and consideration of significance of lab results</p> <p>Lecture. Skin and soft tissue infections</p> <p>Lecture. Infections of the respiratory tract</p>	

Lecture. Infections of the central nervous system
Workshop. Support for 2nd Assignment

7	Module Learning Outcomes	
	<p>Learning outcomes are what students can expect to be able to demonstrate by the end of the module i.e. the knowledge, understanding, skills and other aptitudes which you intend students to acquire. This can be through formal teaching methods and through independent study. They should also be specific without being restrictive to allow for potential changes in future iterations of the module's design. They should be linked to the knowledge, understanding, behaviours, skills and capabilities a student can demonstrate on completing the module.</p> <p>For further advice, please consult the University's Education Development Service (EDS).</p> <p>NOTE: The number of learning outcomes can exceed four for modules of 40 or 60 credits.</p> <p>On successful completion of the module, students will be able to:</p>	
	1	Explain how the different systems within the body function to prevent infections occurring and how pathogens have evolved strategies to overcome the body's defences.
	2	Correctly identify the causative agents in a range of food poisoning scenarios.
	3	Summarise the key clinical tests for identifying a range of microbes and the associated therapeutic strategies.
	4	Explain how epidemiology is used to monitor populations for changes in infectious disease trends and trace the source of outbreaks.

8	Module Assessment		
Learning Outcome			
	Coursework	Exam	In-Person
1,2,3,4	X		

9	Breakdown Learning and Teaching Activities	
Learning Activities	Hours	
Scheduled Learning (SL) includes lectures, practical classes and workshops, peer group learning, Graduate+, as specified in timetable	39	
Directed Learning (DL) includes placements, work-based learning, external visits, on-line activity, Graduate+, peer learning, as directed on VLE	61	
Private Study (PS) includes preparation for exams	100	
Total Study Hours:	200	