

# **Module Synopses**

## **Semester One**

### 1. CP0807 Microbiology A

This module consists of 15 weeks (30 hours) of lectures and tutorials. It provides an overview of host-parasite relationship and its role both in the practice of diagnostic microbiology and in the management of infectious diseases. Also included are the different immune systems involved in host defense and which lead to damage in response to infection.

### 2. CP0808 Microbiology B

This module consists of 15 weeks (45 hours) of lectures and tutorials and aims to provide a broad understanding of the biology, pathogenesis and diagnosis of infections caused by viral, fungal and parasitic pathogens that are medically relevant or foodborne. The use of therapeutic agents and preventive strategies will be included. Newly emerging illnesses and their suspected etiological agents will also be discussed.

### 3. CP0809 Microbiological Techniques

This module consists of 15 weeks (60 hours) of practicals, allowing students to acquire practical skills in both conventional and rapid methods in diagnostic bacteriology and virology.

## **Semester Two**

### 4. CP0810 Industrial, Applied and Environmental Microbiology

This module consists of 15 weeks (45 hours) of lectures and tutorials, and provides a reinforcement of the students' understanding of the microbial world. The module expands the microbiology issues beyond the medical industry into food, environmental, industrial and pharmaceutical industries. The key concepts of the applications of microbiology germane into the various industries will be covered.

### 5. CP0811 Rapid Methods and Automation in Microbiology

This module consists of 15 weeks (60 hours) of practicals and introduces students to standard and newly introduced rapid, automated methods for the detection of microorganisms, as well as molecular genotyping methods for epidemiological studies. Students will also be introduced to basic bioinformatics tools for genetic and protein analysis.

### 6. CP0304 Laboratory Management and Biosafety

This module consists of 15 weeks (30 hours) of lectures and tutorials. It provides students with an overview of quality management for the laboratory and accreditation. Students will also be taught the practice of safe science in the clinical and life science laboratories.