

Module Specification

Module Title Module Code
Credit Value Level Mode of Delivery Semester A

| Pre-requisite modules | Co-requisite modules | Overlapping modules |
|---|----------------------|----------------------|
| <input type="text" value="Module restricted to B990 students"/> | <input type="text"/> | <input type="text"/> |

1) Content Description

Provide a description of the module, as it will appear in the Module Directory and on the Student Information System (approx. 70-80 words).

This module provides an introduction to medical microbiology with emphasis on the contribution microorganisms make to human health and welfare. Specifically it will cover:

- Diversity and classification of viruses, archaea, eubacteria, fungi and protists.
- Structure and reproduction of viruses.
- Structure, growth and nutritional diversity of bacteria, including the bacterial cell walls, envelopes and appendages, and the roles of these structures in pathogenicity.
- An introduction to bacterial genetics.
- Structure, growth and general biology of fungi and protists.
- An introduction to the control of microbes through disinfection, sterilisation and antimicrobial agents.

2) Module Aims

Specify the aims of the module, i.e. the broad educational purposes for offering this module.

This module aims to provide an introduction to microbiology relevant to human life and welfare. It will offer a general knowledge of archaea, bacteria, viruses, fungi and protists. There will also be selective discussions in greater detail, for example of motility, adherence and metabolic diversity, and theories underpinning the methodologies for asepsis and infection control. Practicals will allow students to observe living bacteria and to gain experience in the safe handling and culture of microorganisms.

3) Learning Outcomes

Identify the learning outcomes for this module, i.e. knowledge, skills and attributes to be developed through completion of this module. Outcomes should be referenced to the relevant [QAA benchmark statements](#) and the [Framework for Higher Education Qualifications in England, Wales and Northern Ireland \(2008\)](#). The [SEEC Credit Level Descriptors for Further and Higher Education 2003](#) and [Queen Mary Statement of Graduate Attributes](#) should also be used as a guiding framework for curriculum design.

| Academic Content: | |
|-------------------|--|
| A 1 | The characteristics used in the classification of viruses, archaea, bacteria, protists and fungi |
| A 2 | The structure, organisation and nutrition of bacteria, fungi and protists |
| A 3 | The basic principles of viral replication |
| A 4 | The interactions between microorganisms and humans, and their impact on human health |
| A 5 | The mechanism of action of antibiotics and how antibiotic resistance can spread |

| Disciplinary skills - able to: | |
|--------------------------------|---|
| B1 | Devise and interpret simple laboratory procedures commonly used in the handling and culturing of microorganisms, and understand the basic nutrients and physical factors needed for microbial growth. |
| B2 | Devise and interpret simple laboratory procedures for the characterisation of unknown microorganisms, based on selective growth media, cell morphology and staining reactions |
| B3 | Use library and internet resources to obtain background material required for the completion of laboratory write-ups |

| Attributes: | |
|-------------|---|
| C1 | To know the basics of laboratory safety when handling if microorganisms (Good Microbiological Practice) |
| C2 | Gain confidence in the manipulation of microorganisms and sterile technique |
| C3 | Obtaining experience in teamwork by working in small groups on laboratory exercises |

4) Reading List

Provide an indicative reading list for the module. This should include key texts and/or journals but **should not** be an exhaustive list of materials.

Tortora GJ, Funke BR, Case CL. Microbiology, an Introduction (12th ed) Pearson.

5) Teaching and Learning Profile

Provide details of the method of delivery (lectures, seminars, fieldwork, practical classes, etc.) used to enable the achievement of learning outcomes and an indicative number of hours for each activity to give an overall picture of the workload a student taking the module would be expected to undertake. This information will form the Key Information Set for each undergraduate programme and will be used to populate the KIS widget found on the QMUL programme information pages. More information can be found [online](#) about KIS. You may also wish to refer to the [QAA guidance on contact hours](#) when completing this section.

| Activity Type | KIS Category | Time Spent (in hours) |
|---------------|--------------|-----------------------|
| Lecture | Scheduled | 22 |
| Practical | Scheduled | 9 |
| Total | | 31 |

Specify the total module notional study hours. This should be a total of the hours given for each activity. The notional study hours for each academic credit point is 10. A 15 credit point module therefore represents 150 notional study hours.

| Activity Type | Total Time Spent (in hours) | Percentage of Time Spent |
|---------------------------------|-----------------------------|--------------------------|
| Scheduled learning and teaching | 31 | 20.6 |
| Placement | 0 | 0 |
| Independent Study | 119 | 79.3 |
| Total | 150 | 100 |

Use the information provided in the box above to specify the total time spent and the percentage time spent in each category of teaching and learning activity.

6) Assessment Profile

Provide details of the assessment methods used to assess the achievement of learning outcomes.

| Description of Assessment | Assessment Type | KIS Category | Duration/Length | Percentage Weighting | Final element of assessment | Qualifying Mark |
|---------------------------|--------------------|--------------|-----------------|----------------------|-----------------------------|-----------------|
| Examination | Exam | Coursework | 1.5 hours | 75% | Yes | |
| Practical Report 1 | Written Assessment | Coursework | | 8.33% | | |
| Practical Report 2 | Written Assessment | Coursework | | 8.33% | | |
| Practical Report 3 | Written Assessment | Coursework | | 8.33% | | |

Final element of assessment: The assessment that takes place last. **There should normally be only one element of assessment marked as final unless two assessment or submission dates occur on the same day.**

Qualifying mark: A specified minimum mark that must be obtained in one or more elements of assessment in order to pass a module. **This is in addition to, and distinct from, the requirement to achieve a pass in the module mark to pass the module.**

Reassessment

Provide details of the reassessment methods used, specifying whether reassessment is either standard reassessment or synoptic reassessment.

- Standard Reassessment Synoptic Reassessment

Synoptic reassessment details (if you have indicated synoptic reassessment above, please give details)

| Brief Description of Assessment | Assessment Type | Duration/Length of Examination/ Coursework |
|---------------------------------|-----------------|---|
| Examination | Exam | 1 Hours and 30 Minutes |