1. KentVision Code and title of the module

BIOS5480 – The Microbial World

## Division and School/Department or partner institution which will be responsible for management of the module

Division of Natural Sciences (Biosciences)

## The level of the module (Level 4, Level 5, Level 6 or Level 7)

Level 5

## The number of credits and the ECTS value which the module represents

15 Credits (7.5 ECTS)

## Which term(s) the module is to be taught in (or other teaching pattern)

Spring

## Prerequisite and co-requisite modules and/or any module restrictions

Prerequisite: BIOS3240 (Genetics and Evolution)

## The course(s) of study to which the module contributes

Compulsory for the following courses:

BSc (Hons) Biology

BSc (Hons) Biomedical Science

Optional for the following courses:

BSc (Hons) Biochemistry

Not available as an elective module

## The intended subject specific learning outcomes.On successfully completing the module students will be able to:

8.1 Demonstrate knowledge and critical understanding of the ecological, economic and scientific importance of microorganisms.

8.2 Demonstrate knowledge and critical understanding of the evolution, taxonomy and biodiversity of microorganisms.

8.3 Demonstrate knowledge and critical understanding of the structural and metabolic diversity of microorganisms.

8.4 Demonstrate knowledge and critical understanding of the synthesis and assembly of macromolecular structures of microorganisms.

## The intended generic learning outcomes.On successfully completing the module students will be able to:

9.1 Demonstrate communication skills in a variety of forms and receiving critique.

9.2 Generate, analyse and report experimental data at an intermediate level.

9.3 Solve scientific logic and mathematical problems at an intermediate level.

## A synopsis of the curriculum

The module deals with the molecular mechanisms underlying the ecological, medical, scientific and commercial importance of microorganisms (including prokaryotic and eukaryotic microorganisms). This involves descriptions of how microbial genetic information is stored in DNA, how that information is decoded by the cell and how this flow of information is controlled in response to changes in environment. The Module also discusses microbial interaction with humans and the environment. Throughout the module, the mechanisms in prokaryotes and eukaryotes will be compared and contrasted and will touch on the latest tool development in microbiology.

## Reading list

## The University is committed to ensuring that core reading materials are in accessible electronic format in line with the Kent Inclusive Practices.

## The most up to date reading list for each module can be found on the university's [reading list pages](https://kent.rl.talis.com/index.html).

## Contact Hours

Private Study: 28

Contact Hours: 122

Total: 150

## Assessment methods

13.1 Main assessment methods

* Assessed Practical – Data Analysis and Write-up (2,000 words) – 40%
* Examination (2 hours) – 60%

13.2 Reassessment methods

* Like-for-like

## Map of module learning outcomes (sections 9 & 10) to learning and teaching methods (section 13) and methods of assessment (section 14)

**Module learning outcomes against learning and teaching methods:**

| **Module learning outcome** | 8.1 | 8.2 | 8.3 | 8.4 | 9.1 | 9.2 | 9.3 |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Private Study | **x** | **x** | **x** | **x** | **x** | **x** | **x** |
| Laboratory |  |  | **x** |  |  | **x** | **x** |
| Lectures | **x** | **x** | **x** | **x** |  |  |  |

**Module learning outcomes against assessment methods:**

| **Module learning outcome** | 8.1 | 8.2 | 8.3 | 8.4 | 9.1 | 9.2 | 9.3 |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Assess Practical | **x** | **x** | **x** | **x** | **x** | **x** | **x** |
| Examination | **x** | **x** | **x** | **x** | **x** | **x** | **x** |

## Inclusive module design

The Division recognises and has embedded the expectations of current equality legislation, by ensuring that the module is as accessible as possible by design. Additional alternative arrangements for students with Inclusive Learning Plans (ILPs)/declared disabilities will be made on an individual basis, in consultation with the relevant policies and support services.

The inclusive practices in the guidance (see Annex B Appendix A) have been considered in order to support all students in the following areas:

a) Accessible resources and curriculum

b) Learning, teaching and assessment methods

## Campus(es) or centre(s) where module will be delivered

Canterbury

## Internationalisation

Science is an international discipline with widely applicable international resonance. This module presents subject-specific knowledge generated, developed, and refined by scientists around the world. Mastery of the learning outcomes will equip students to apply the knowledge in a wide range of international contexts and these will be addressed in making the content relevant to current global issues. The Division of Natural Sciences is an international community of students and staff and group activities and teaching will provide a platform for internationally-focussed discussion.

**DIVISIONAL USE ONLY**

**Module record – all revisions must be recorded in the grid and full details of the change retained in the appropriate committee records.**

| Date approved | New/Major/minor revision | Start date of delivery of (revised) version | Section revised(if applicable) | Impacts PLOs (Q6&7 cover sheet) |
| --- | --- | --- | --- | --- |
| 24 Jan 2020 | Major | Sept 2020 | 10, 13-14 | No |
| 16 Dec 2021 | Minor | Sept 2022 | 1 | No |