1. KentVision Code and title of the module

BIOS5320 - Skills for Bioscientists 2

## 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)

Autumn and Spring

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

None

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

Compulsory for the following courses:

BSc (Hons) Biochemistry and related programmes

BSc (Hons) Biomedical Science and related programmes

BSc (Hons) Biology and related programmes

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 understanding of general techniques in spectroscopy, chromatography, electrophoresis and immunochemistry;

8.2 Demonstrate an understanding and ability to use DNA databases and phylogenetic trees;

8.3 Plan and execute experimental work using a range of experimental techniques;

8.4 Report experimental work both orally and written.

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

9.1 Demonstrate basic computer skills for use in bioinformatics and data retrieval;

9.2 Demonstrate communication skills in scientific reporting (essay writing, oral presentations and laboratory reports) and in working with others (group work).

## A synopsis of the curriculum

**A. Communication Skills in Biosciences:** Essay writing, oral presentations, laboratory reports, the scientific literature and literature reviews. Working in groups.

**B. Techniques in Biomolecular Science:** Electrophoresis, Immunoblotting, Protein Determination, Activity Assays, Purification.

**C. Computing for Biologists:** Bioinformatics, phylogenetic trees, database searches for protein/DNA sequences.

**D. Mini-project – introduction to research skills:** Students will work in groups of eight to undertake directed experimental work (Group Project) before extending the project further through self-directed experiments working as a pair (Mini Project).

**E. Careers:** The programme will be delivered by the Careers Advisory Service and will review the types of careers available for bioscience students. The sessions will incorporate personal skills, careers for bioscience graduates, records of achievement, curriculum vitae preparation, vacation work, postgraduate study, interview skills and action planning.

## 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: 90

Contact Hours: 60

Total: 150

## Assessment methods

13.1 Main assessment methods

* Essay Analysis (Group assignment) – 15%
* Presentation (5 min individual contribution to 20 min group presentation) – 25%
* Mini-project Report (2,500 words) – 55%
* Bioinformatics Assignment – 5%

13.2 Reassessment methods

* 100% Coursework

## Map of module learning outcomes (sections 8 & 9) to learning and teaching methods (section 12) and methods of assessment (section 13)

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

| **Module learning outcome** | 8.1 | 8.2 | 8.3 | 8.4 | 9.1 | 9.2 |
| --- | --- | --- | --- | --- | --- | --- |
| Lectures | **X** | **X** | **X** | **X** | **X** | **X** |
| Practicals | **X** |  | **X** |  |  |  |
| Self-study | **X** | **X** |  |  |  |  |

**Module learning outcomes against assessment methods:**

| **Module learning outcome** | 8.1 | 8.2 | 8.3 | 8.4 | 9.1 | 9.2 |
| --- | --- | --- | --- | --- | --- | --- |
| Essay analysis |  |  |  | **X** |  | **X** |
| Presentation | **X** |  |  | **X** |  | **X** |
| Mini-project report | **X** |  | **X** | **X** |  | **X** |
| Bioinformatics assignment |  | **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) |
| --- | --- | --- | --- | --- |
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| Revised FSO Jan 2018 |