1. **Title of the module**

LABS401 Cell Biology

1. **School or partner institution which will be responsible for management of the module**

Centre for Higher and Degree Apprenticeships

1. **The level of the module (Level 4, Level 5, Level 6 or Level 7)**

Level 4

1. **The number of credits and the ECTS value which the module represents**

15 credits (7.5 ECTs)

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

Flexible delivery model

Autumn and/or Spring and/or Summer

1. **Prerequisite and co-requisite modules**

N/A

1. **The programmes of study to which the module contributes**

FdSc and BSc (Hons) in Applied Bioscience

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

8.1 Describe the underlying principles associated with Prokaryotic and Eukaryotic cell classes. Focusing on structural similarities and differences.

8.2 Demonstrate an understanding of the underlying principles associated with cellular organelles and their role within cells.

8.3 Describe the underlying principles associated with cellular transport and communication mechanisms.

8.4 Demonstrate an understanding of the underlying principles associated with processes involved in cell division and specialisation of cells into specific tissues.

8.5 Discuss the use of cell culture in the Biotechnology industry.

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

9.1 Demonstrate the development of practical/technical skills

9.2 Analyse, evaluate and correctly interpret data

9.3 Communicate and present data effectively

9.4 Obtain and use information from a variety of sources as part of self-directed learning.

9.5 Manage their time and use their organisation skills within the context of self-directed learning.

1. **A synopsis of the curriculum**

* Prokaryotic and Eukaryotic cells: a visual comparison.
* Biological macromolecules
* Cellular organelles: structure and function
* Cellular organelles that transfer energy
* Intercellular contacts and communication
* Cells to systems
* Cell division cycle
* Cytoskeleton
* Biotechnology and cell culture - Discussing the different applications of biotechnology

1. **Reading list (Indicative list, current at time of publication. Reading lists will be published annually)**

Albers et al. (2009) Essential Cell Biology. Garland.

Albers et al. (2008) Molecular Biology of the Cell. Garland.

Bolsover et al. (2011) Cell Biology: A Short Course. Wiley-Blackwell.

1. **Learning and teaching methods**

Blended Distance learning:

Contact Hours: 120

Private Study Hours: 30

Total Study Hours: 150

1. **Assessment methods**
   1. Main assessment methods

Portfolio, two coursework assignments and exam

Weighting:

2 Essay assignments 40% (20% each)

Portfolio 30% - composed of 5 individual assignments where topics are applied to the workplace

Exam 30% - composed of MCQs

The weighted average for both the overall coursework and the overall exam component must be of a pass standard.

13.2 Reassessment methods

Like for like

1. ***Map of module learning outcomes (sections 8 & 9) to learning and teaching methods (section12) and methods of assessment (section 13)***

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Module learning outcome** | 8.1 | 8.2 | 8.3 | 8.4 | 8.5 | 9.1 | 9.2 | 9.3 | 9.4 | 9.5 |
| **Learning/ teaching method** |  |  |  |  |  |  |  |  |  |  |
| **Private Study** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |
| Teaching | **x** | **x** | **x** | **x** | **x** |  | **x** | **x** |  |  |
| Work based experience |  |  |  |  |  | **x** | **x** | **x** | **x** | **x** |
| **Assessment method** |  |  |  |  |  |  |  |  |  |  |
| Assignments | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |
| Exam - MCQ | **x** | **x** | **x** | **x** | **x** |  |  |  |  | **x** |
| Portfolio | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |

1. **Inclusive module design**

The School/Collaborative Partner 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

1. **Campus(es) or centre(s) where module will be delivered**

Blended distance learning – delivered from Medway and Canterbury campus

1. **Internationalisation**

International vocation is an important part of Applied Bioscience. The intended learning outcomes 8.1, 8.2, 8.3, and 8.4, for this module cover key universal principles and concepts of cell biology and therefore are core components of Applied Bioscience worldwide. Furthermore, learning outcome 8.5, is a key universal technique used in the pharmaceutical R&D industry worldwide.

**FACULTIES SUPPORT OFFICE USE ONLY**

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date approved | Major/minor revision | Start date of delivery of revised version | Section revised | Impacts PLOs (Q6&7 cover sheet) |
| 05/10/20 | Minor | Sept 2020 | 13 | No |
|  |  |  |  |  |