

MODULE DESCRIPTOR

Module Title

| Biology for Life Sciences | | | |
|---------------------------|-------------|-------------|--------|
| Reference | AS1901 | Version | 3 |
| Created | August 2021 | SCQF Level | SCQF 7 |
| Approved | May 2011 | SCQF Points | 15 |
| Amended | August 2021 | ECTS Points | 7.5 |

Aims of Module

To provide students with knowledge and understanding of cell biology, tissue structure, Mendelian genetics and species evolution.

Learning Outcomes for Module

On completion of this module, students are expected to be able to:

- 1 Demonstrate knowledge of the basic structures, functions and growth characteristics of cells.
- 2 Demonstrate knowledge of the structure and function of the four principal tissue types.
- 3 Demonstrate an understanding of Mendelian genetic inheritance.
- 4 Demonstrate understanding of the role of variation in speciation and evolution.

Indicative Module Content

Evolution of the eukaryotic cell, membrane structure and membrane transport mechanisms, structure and function of the nucleus, ribosomes, endoplasmic reticulum, Golgi Body, lysosomes, mitochondria and chloroplasts. Mitosis and meiosis. Structure and function of epithelial, connective, nervous and muscle tissue. Mendel's Laws, inheritance, genotype, phenotype, dominance, sex determination, sex-linkage, variation, speciation and evolution.

Module Delivery

This is a lecture based module supplemented by tutorials.

| Indicative Student Workload | Full Time | Part Time |
|-----------------------------------------------------------------------|-----------|-----------|
| Contact Hours | 40 | N/A |
| Non-Contact Hours | 110 | N/A |
| Placement/Work-Based Learning Experience [Notional] Hours | N/A | N/A |
| TOTAL | 150 | N/A |
| Actual Placement hours for professional, statutory or regulatory body | | |

Module Ref: AS1901 v3

ASSESSMENT PLAN

If a major/minor model is used and box is ticked, % weightings below are indicative only.

Component 1

| Туре: | Examination | Weighting: | 100% | Outcomes Assessed: | 1, 2, 3, 4 |
|--------------|---------------------------------|------------|------|--------------------|------------|
| Description: | Closed book written examination | | | | |

MODULE PERFORMANCE DESCRIPTOR

Explanatory Text

Component 1 (EX1) comprises 100% of the module grade. A minimum of a Grade D is required to pass the module.

| Module Grade | Minimum Requirements to achieve Module Grade: |
|--------------|--------------------------------------------------------------------------------|
| Α | A: a score of 75% or above is required. |
| В | B: a score of between 60-74% is required. |
| C | C: a score of between 50-59% is required. |
| D | D: a score of between 40-49% is required. |
| E | E: a score of between 35-39% is required. |
| F | F: a score of less than 35% is required. |
| NS | Non-submission of work by published deadline or non-attendance for examination |

| Module Requirements | |
|--------------------------|-------------------------------------------------|
| Prerequisites for Module | None, in addition to course entry requirements. |
| Corequisites for module | None. |
| Precluded Modules | None. |

INDICATIVE BIBLIOGRAPHY

1 REECE J.B., et al. Campbell Biology. Current Edition. Pearson