

**Open University of Mauritius**  
**Foundation Course**  
**Foundation Level Biology-OUfc001**

**1. Introduction**

In line with its philosophy to democratise access to university education, the Open University of Mauritius offers Foundation Courses. These courses aim at better preparing learners for higher education while allowing them to meet the minimum requirements to undertake undergraduate studies. They have been carefully developed by a team of experts to ensure smooth transition to university. They also motivate learners and give them a greater chance of succeeding. They play a pivotal role in helping learners to revisit lost skills, while giving them the necessary confidence and preparatory experience they need for success at university. However, they are not intended to replace secondary school courses. On successfully completing four foundation courses (8 modules) including English through Open Distance Learning (ODL), they can join degree programmes.

The ODL mode of delivery enables convenient self-study within a flexible framework. This mode of delivery allows learners to learn at their own pace, in their own place and time without disrupting their social, professional and domestic commitments hence, allowing them to earn while learning.

**2. Aim**

Biology is the study of life.

Through the understanding and knowledge of the unit of life, the cell, whose structures and processes are shared by all living organisms, biology learners gain an insight into the uniqueness, function and role of organisms.

Even though still at foundation level, this course has been especially designed to inspire learners to develop an interest in and excitement about biology. It would enable them to discuss and make judgments on issues in biology and science that

impact on their daily lives and on society. It would also provide them with the knowledge, skills and understanding in their pursuit of further education.

### **3. Course requirements**

- SC/GCE O-level with 3 credits + 1 A-level  
(Applicants should be less than 25 years of age)
- Mature candidates will be considered on their own merit.

### **4. Course Duration**

Minimum	1	year
Maximum	2	years

### **5. Minimum credits required for the award**

Total: 8 credits

Each credit in the University's system is equivalent to a minimum of 20 hours of study including all learning activities (i.e. reading and comprehending the print material, listening to audio, watching video, attending tutorials/counseling sessions, writing assignment responses and preparation for the examinations). Thus, a 4-credit course involves a minimum of 80 hours of study.

### **6. Assessment**

- Assignments 30%
- Examinations 70%
- Overall pass 40%

Assessments will be based on written examination of 2-hour duration and continuous assessment carrying a maximum of 30% of total marks. Continuous assessment will be based on assignment(s). For a learner to pass a module, an overall total of 40% for combined continuous assessment and written examination components would be required without minimum thresholds within the individual continuous assessment

and written examination. Learners may re-sit up to a maximum of two failed modules for the semester of the programme.

## **7. Course structure**

The syllabus consists of 2 modules of 4 units each.

Each module is designed for approximately 80 hours of study including self-marked assessments. In all, the 2 modules would be equivalent to 160 hours of study time.

## **8. Module Outline**

### **OUfc001111-Biology I**

#### ***Unit 1***

Characteristics and classification of organisms

#### ***Unit 2***

Cell structure and function

#### ***Unit 3***

Nutrition and Transport

#### ***Unit 4***

Breathing and respiration

### **OUfc001121-Biology II**

#### ***Unit 1***

Coordination and response

#### ***Unit 2***

Genes and genetic Engineering

#### ***Unit 3***

Inheritance and selection

#### ***Unit 4***

Relationships of organisms with one another and with the environment

## **9. Content Outline**

### **OUfl001111-Biology I**

## ***Unit 1***

### **Characteristics and classification of organisms**

Biology is the study of living organisms; The variety of life; Bacteria and viruses; Fungi;

Plants; Invertebrate animals; Vertebrate animals

## ***Unit 2***

### **Cell structure and function**

Plant and animal cells; Specialised cells, tissues and organs; Movement in and out of cells; Enzyme action

## ***Unit 3***

### **Nutrition and transport**

Nutrients; Diet; Food from microorganisms; World food supplies; Human digestion; Circulatory system in man; Water and ion uptake in plants; Transpiration and translocation in plants.

## ***Unit 4***

### **Breathing and Respiration**

Aerobic respiration; Aerobic respiration; Human gas exchange

## **OUfl001121-Biology II**

## ***Unit 1***

### **Coordination and response**

Homeostasis; Structure and function of skin; Structure and functions of kidneys; Nervous system; Receptors; Reflex action; Drugs; Hormones .

## ***Unit 2***

### **Genes and Genetic engineering**

Structure of DNA and protein synthesis; Cell division; Reproduction; Gene technology

## ***Unit 3***

### **Inheritance and Selection**

Variation; Inheritance; Selective breeding; Evolution

## ***Unit 4***

### **Relationships of organisms with one another and with the environment**

Energy and ecosystems; Interaction between organisms; Human influences on the ecosystem.

## **10. Learning Outcomes**

At the end of this course, the learner should be able to:

- Use scientific skills to investigate
- Explain diversity of life
- Assess interrelationships between organisms and their environment
- List the benefit of living organism and their product to enhance quality of life
- To evaluate contemporary issues in biology

## **11. Guidelines for self-study**

This manual aims at fulfilling the previously identified learning objectives. Despite the fact that this manual is self-contained, you are expected to do some additional research in books to deepen your understanding.

## **12. How to use the Manual**

- Read the overview and learning objectives of each Unit. This will help you in identifying the knowledge and skills that is required to successfully complete the study of the Unit.
- Use the accompanying video.
- E-mail the tutor in case you don't understand any part of the manual.

## **13. How to study**

- Plan your study time carefully
- Read the Unit thoroughly. Prepare a list of questions that you may ask your tutor. Note that the questions should be relevant to the Unit studied.
- Be a critical thinker
- Work your activities. It is important for you to attempt all activities as this will give you an idea of concepts that you have not understood.
- Re-work your corrected activities later.

- You are expected to study regularly as there is no 'easy' way to pass the examination.

<b>Supporting Materials</b>	
<b>Manual</b>	<b>Open University of Mauritius</b>
<b>Video</b>	
<b>References</b>	<p>Taylor, D. J., Green, N.P.O. and Stout G.W. (2004) <i>Biological Science (Third edition)</i>, Cambridge University Press.</p> <p>Williams G. (2000), <i>Advanced Biology for you</i>, Stanley Thornes (Publishers) Ltd.</p> <p>Mackean, D.G. (2002), <i>GCSE Biology (Third edition)</i>, Hodder Murray.</p>