

## **BSc (Hons) Biomedical Sciences (Upgrading) - SC302 (Under Review)**

### **1. Context and Objectives**

Biomedical Sciences is a rapidly advancing scientific discipline aiming to improve and understand human health and diseases. With Mauritius positioning itself as a medical hub in the region and with the growing demand of health care services, especially with an increase in the number of private health laboratories, there are opportunities with a range of careers, including Biomedical Scientist, Medical Laboratory Technologist, among others.

The BSc (Hons) Biomedical Sciences upgrading programme is a professional programme designed to meet the multidisciplinary needs of the Biomedical Scientist/Medical Laboratory Technologist who assist the medical profession by providing laboratory-based investigations for diagnosis and management of diseases.

This programme aims at delivering biomedical science skills, appropriate laboratory competence and knowledge. Its applied nature coupled with training in clinical establishments also ensures that highly skilled biomedical scientists are available to meet the growing demands for health care services.

### **2. Learning outcomes**

By the end of this programme, graduates will have developed knowledge, abilities and skills in:

- Integrating knowledge acquired during lectures and practical into biomedical practice.
- Enhancing the knowledge for diagnosis and management of clinical diseases in various specialist discipline.
- Evaluating data gathered from biomedical investigations.
- Understanding the importance of scientific research in the advancement of biomedical sciences.
- Developing analytical and critical thinking skills and good communication skills.

### **3. Teaching and Learning methods**

This programme will be covered by lectures, self-study, tutorials, online activities, student led seminars and other learning activities such as field trips, group work, flipping classroom and active learning.

### **4. Entry Requirement**

#### **- General Entry Requirements**

As per General Entry Requirements for admission to the University for undergraduate degrees.

#### **- Programme Requirements**

Diploma in Medical Laboratory Technology from the University of Mauritius.

At least two years post-diploma relevant recent work experience.

### **5. Programme Duration - Part Time**

	<b>Normal</b>	<b>Maximum</b>
BSc (Hons) Biomedical Sciences (Upgrading)	4 Semesters (2 years)	6 Semesters (3 years)

## 6. Minimum LCCS credits Required

**Minimum LCCS credits required for award of degree: 80**

**For each Academic Year**

Year of Study	Number of LCCS credits (Notional Learning Hours)
1	36 (1080)
2	44 (1320)
Total	80 (2400)

Maximum LCCS credits per year (including Retake Modules, but excluding Exempt Modules) - 96  
Minimum LCCS credits per year - 12

### Breakdown of notional learning hours

The total notional learning hours for the 2 years full time programme will be comprised of the following:

Learning activity	Notional Learning Hours
Contact teaching	300
Self-study	600
Other learning	1500
Total	2400

## 7. Assessment and Deadlines

### Continuous and Written Assessment of Modules

Each module will carry 100 marks and will be assessed yearly as follows (unless otherwise specified):

Continuous assessment will carry 40% of total marks while written examination will account for 60%. Continuous assessment can be based on practical test/case studies/reports/Field visits/assignments/activities and should include at least 1 class test.

An overall of 40% for combined continuous assessment and written examination component would be required to pass a module.

Each module will carry 100 marks and will be assessed yearly as follows (unless otherwise specified):

- **Written Exams**

#### BSc (Hons) Biomedical Sciences (Upgrading)

The following pairs of modules will be assessed jointly by a 3 hr written exam paper:

#### Year 1

BMS 4131 and BMS 4231  
BMS 5131 and BMS 5231  
BMS 2141 and BMS 2231

#### Year 2

The following modules will be assessed singly by a 2 hr written exam paper.

BMS 5111; BMS 5221; BMS 5121 and BMS 3221.

- **Laboratory Work and Continuous Assessment**

- *Modules including a Practical Component*

There will be no practical exams. Laboratory work will be assessed on a continuous assessment basis and will carry a weighting of 30% of the total marks awarded for the respective modules involved.

Continuous assessment for the theory part of modules having a practical component may be in the form of assignments and should include at least one class test and will carry a weighting of 10% of total marks for the module.

- *Modules not including a practical component/Modules including demonstrations*

For the above modules continuous assessment may be in the form of assignments and should include at least one class test and will carry a weighting of up to 40% of total marks for the respective modules.

- **Assessment of Research Projects/Dissertations**

Project/Dissertations will carry a weighting of 20 LCCS credits towards degree award. They will be carried out normally in the area of specialisation. The project will be assessed based on the written Project/Dissertation and a Viva Voce.

The weightage for the research project is as follows:

Written Project/dissertation	-	90% of research project
Viva Voce	-	10% of research project

## 8. List of Modules - BSc (Hons) Biomedical Sciences (Upgrading Programme)

Code	Module Name
BMS 4131	Molecular Cell Biology
BMS 5131	Recent Developments in Biomedical Sciences I
BMS 2141	Biomedical Research Methods and Communications Skills
BMS 2231	Biostatistics and Information Technology for the Biomedical Scientist
BMS 4231	Cellular Pathology
BMS 5231	Recent Developments in Biomedical Sciences II
BMS 5111	Molecular Diagnostics
BMS 5121	Biology of Disease
BMS 5221	Professional Practice for the Biomedical Scientist
BMS 3221	Medical Physiology and Endocrinology
BMS 5000	Research Project

## 9. Programme Plan - BSc (Hons) Biomedical Sciences - Upgrading Programme

Code	Module Name	Contact Teaching (Hours) L/P	Self Study (hours)	Other Learning (Hours)	Total Learning	LCCS credits
<b>YEAR I</b>						
<b>SEMESTER I</b>						
BMS 4131	Molecular Cell Biology	30/0	60	90	180	6
BMS 5131	Recent Developments in Biomedical Sciences I	20/10	60	90*	180	6
BMS 2141	Biomedical Research Methods and Communications Skills	20/10	60	90*	180	6
<b>SEMESTER II</b>						
BMS 2231	Biostatistics and Information Technology for the Biomedical Scientist	20/10	60	90*	180	6
BMS 4231	Cellular Pathology	30	60	90	180	6
BMS 5231	Recent Developments in Biomedical Sciences II	20/10	60	90*	180	6
<b>Subtotal for Year I</b>		<b>180</b>	<b>360</b>	<b>540</b>	<b>1080</b>	<b>36</b>
<b>YEAR II</b>						
<b>SEMESTER I</b>						
BMS 5000	Research Project	-	-	--	-	-
BMS 5111	Molecular Diagnostics	20/10	60	90*	180	6
BMS 5121	Biology of Disease	30	60	90	180	6
<b>SEMESTER II</b>						
BMS 5221	Professional Practice for the Biomedical Scientist	30	60	90	180	6
BMS 3221	Medical Physiology and Endocrinology	30	60	90	180	6
BMS 5000	Research Project	-	-	600	600	20
<b>Subtotal for Year II</b>		<b>120</b>	<b>240</b>	<b>960</b>	<b>1320</b>	<b>44</b>
<b>Grand Total for programme</b>		<b>300</b>	<b>600</b>	<b>1500</b>	<b>2400</b>	<b>80</b>

\*An additional 20 hrs of practicals will be covered as part of other learning hours.