

BS. MAJOR IN MICROBIOLOGY

The Department of Biological & Chemical Sciences offers a Single Major in Microbiology. Students wishing to combine a Microbiology Major with a Major of another discipline must seek the approval of the Dean and are advised that timetable clashes of courses may make it impossible to complete such degrees in the minimum 3 year period.

Students will discover:

- that microbial life has an amazing diversity
- the structure and function of microbial cells
- the importance of the roles of microorganisms in ecology, including pathogenesis
- the significance of microorganisms in food, agriculture, pharmaceutical, and diagnostic industries
- explore and practice techniques in Microbiology, e.g., microbiological, biochemical and molecular techniques used for the identification and characterization of microorganisms.

Students will do courses in:

1. Methods in Microbiology
2. Ecology of Microorganisms
3. Microbial Pathogenesis
4. Essential Virology
5. Microbiology of Food

Ninety-three (93) credits must be approved by the Faculty of Science and Technology.

Provided below is a complete list of all the courses offered in the Major in Microbiology:

MAJOR IN MICROBIOLOGY:

LEVEL I

LEVEL I (12 Credits)

BIOC1015 Introduction to Biochemistry
BIOL1020 Diversity of Life I
BIOL1025 Diversity of Life II
BIOL1030 Introduction to Genetics

AND Twelve (12) Credits from the following:

BIOL3025 Molecular Plant Pathology
MICR2900 Microbiology Exchange Elective
MICR3265 Microbiology of Food
MICR3266 Ecology of Microorganisms
MICR3267 Essential Virology
MICR3268 Microbial Pathogenesis
MICR3990 Microbiology Project (6 credits)

LEVEL II and III (30 Credits)

Eighteen (18) Credits

BIOC2365 Primary Metabolism
BIOC2371 Molecular Techniques
BIOL2373 Skills for Biologists¹
MICR2260 Essential Microbiology
MICR2261 Eukaryotic Microbes
MICR2262 Methods in Microbiology

¹This course is offered in both semesters but it is recommended that Microbiology Majors take this course in Semester 1.

Students following this Major who have passed BIOL1010 Basic Skills for Biologists cannot take BIOL2373 Skills for Biologists but must substitute any BIOC/BIOL/ECOL/MICR Level 2 or 3 course for the latter.

MINOR IN MICROBIOLOGY [Fifteen (15) Credits]:

Compulsory:

MICR2260 Essential Microbiology

AND

Twelve (12) Credits from the following:

Level II courses [Currently]:

MICR2261 Eukaryotic Microbes
MICR2262 Methods in Microbiology
MICR2900 Microbiology Exchange Elective

Level III courses [Currently]:

MICR3265 Microbiology of Food
MICR3266 Ecology of Microorganisms
MICR3267 Essential Virology
MICR3268 Microbial Pathogenesis
BIOL3025 Molecular Plant Pathology

If students want to pursue a career as a:

- Microbiologist in Medical and Clinical Labs
- Microbiologist in Food and Water Analysis Labs
- Microbiologist in Bioprocessing and Fermentation Labs
- Bioinformatics Analyst
- Public and Environmental Health Officer
- Quality Assurance Officer
- Or continue on to the postgraduate programme

Then this degree is for you!

For further details about the Microbiology programme, contact Dr. Bidyut Mohapatra (Microbiology Coordinator) via email at bidyut.mohapatra@cavehill.uwi.edu, or via telephone at (246) 417-4859.