

BSC. MAJOR IN BIOCHEMISTRY – LEARN ABOUT THE MOLECULES OF LIFE!

The BSc. Major in Biochemistry, offered through the Department of Biological & Chemical Sciences, provides students with a comprehensive understanding of the principles of Biochemistry, knowledge of metabolism and training in the exciting new areas of Molecular Biology, Genomics and Bioinformatics.

You will discover:

- The biochemistry of molecules
- The beauty of enzymes
- Explore proteins and proteomics
- DNA Science
- Biotechnology
- Some of the mysteries of human and plant diseases
- Techniques in Molecular Biology
- Computer manipulation of biological data
- The wonders of cellular life
- Energy transformation in cells

The Major in Biochemistry includes the following exciting courses:

LEVEL I - (24 Credits)

BIOC1015 Introduction to Biochemistry
BIOL1020 Diversity of Life I
BIOL1025 Diversity of Life II
BIOL1030 Introduction to Genetics
CHEM1110 Introduction to Organic Chemistry
CHEM1120 Introduction to Physical Chemistry
CHEM1125 Introduction to Experimental Chemistry
CHEM1130 Introduction to Inorganic Chemistry

LEVEL II - (15 Credits)

BIOL2373 Skills for Biologists¹
BIOC2371 Molecular Techniques
BIOC2365 Primary Metabolism
BIOC2366 Protein Biochemistry

LEVEL III - (15 Credits)

BIOC3265 Principles of Bioinformatics

AND 12 Credits from among the following:

Current Level II BIOC, Level III BIOC and CHEM elective courses:

BIOC2900 Biochemistry Exchange Elective
BIOC3370 Basis of Human Disease
BIOC3260 Principles of Biotechnology
BIOC3261 Mitochondrial Bioenergetics
BIOC3990 Biochemistry Project
BIOL3025 Molecular Plant Pathology
CHEM3635 Biological Inorganic Chemistry

AND 3 Credits from ONE OF the following:

BIOL2166 Advanced Genetics I

BIOC2370 Cell Signals

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

The Minor in Biochemistry includes the following courses - [Fifteen (15) Credits]:

BIOC2366 Protein Biochemistry

AND ANY TWELVE (12) Credits from:

BIOC2365 Primary Metabolism

BIOC3370 Basis of Human Disease

BIOC3260 Principles of Biotechnology

BIOC3261 Mitochondrial Bioenergetics

BIOC3290 Biochemistry Project for Minors

BIOL3025 Molecular Plant Pathology

CHEM3635 Biological Inorganic Chemistry

Students can also enhance their learning experience by fully utilizing:

- Equipment for DNA Extraction
- Molecular Biology Laboratories – Gel Electrophoresis, Gel Documentation Software and Tools
- Software for Protein Analysis
- Eliza
- Spectrophotometers
- Centrifuges
- Low Temperature Freezers
- Access to DNA Sequencing, among others.

If you want to begin a career as a:

- Laboratory Technologist
- Laboratory Assistant
- Quality Control Officer
- Medical Doctor
- Food Scientist
- Medical Rep
- Teacher
- Pharmacist

- Agriculturist
- Medical Doctor

Then this degree is for you! It can launch you into many science careers.

For further details about the Biochemistry programme, contact Dr. Avril Williams, Head of the Department of Biological and Chemical Sciences via email at avril.williams@cavehill.uwi.edu, or via telephone at (246) 417-4342.