

BIOCHEMISTRY



SCAN ME

FACULTY OF SCIENCE

Biochemistry is the study of the molecules and chemical processes which occur in all living organisms, including bacteria, plants and animals. Biochemistry is fundamental to understanding mechanisms in molecular and cell biology and straddles the medical, biological, chemical and physical sciences.

The Biochemistry major at UCT includes the study of the structures, physical properties and functions of proteins, carbohydrates, lipids, and nucleic acids; the mechanisms of enzyme action; the chemical regulation of metabolism and energy utilisation; and can include a more in depth study of the molecular basis of cell signalling and gene expression, disease as well as biotechnology.

WHO WOULD BE INTERESTED IN THIS MAJOR?

Students wishing to gain fundamental knowledge and insight into the structure, function and regulation of molecules, in all biological systems and processes.

The major is suitable for students wishing to co-major in Genetics, Biology, Chemistry, Human Anatomy & Physiology or Quantitative Biology.

WHAT COURSES WILL YOU TAKE?

The compulsory courses listed below must be included in your selection of courses for a major in Biochemistry.

1ST YEAR LEVEL COURSES

- Cell Biology
- Biological Diversity
- Chemistry 1000
- Mathematics 1004
- Bionumeracy or Introductory Statistics

2ND YEAR LEVEL COURSES

- Biological Information Transfer
- Molecular Bioscience
- Metabolism and Bioengineering

3RD YEAR LEVEL COURSES

- Protein Structure & Function
- Defence & Disease
- Research Project in Molecular & Cell Biology

CAREER OPPORTUNITIES FOR GRADUATES

A qualification in Biochemistry can lead to career opportunities in academia as researchers, technicians and lecturers in a wide range of scientific fields and applications. It can also open doors to research positions in all fields of medicine, microbiology and animal and plant science. It offers access to managerial, marketing and research positions in all industries related to biological processes and products, for example, the pharmaceutical and biotechnology industries, and food and beverage science.

MINIMUM ADMISSION AND SUBJECT REQUIREMENTS

FPS of 550, (but admission only guaranteed at FPS above 660)

Mathematics 70% & Physical Science 60%. NBT in Mathematics, AL & QL to be written