

University of Pretoria Yearbook 2023

Molecular and cell biology 111 (MLB 111)

Qualification	Undergraduate
Faculty	Faculty of Natural and Agricultural Sciences
Module credits	16.00
NQF Level	05
Programmes	BEd (Senior Phase and Further Education and Training Teaching) BSc (Computer Science) BSc (Information and Knowledge Systems) Bachelor of Dental Surgery [BChD] Bachelor of Dietetics [BDietetics] Bachelor of Medicine and Surgery [MBChB] BSc (Biochemistry) BSc (Biological Sciences) BSc (Biotechnology) BSc (Chemistry) BSc (Ecology) BSc (Entomology) BSc (Food Management) <i>Culinary Science</i> BSc (Food Management) <i>Nutrition</i> BSc (Food Science) BSc (Genetics) BSc (Geography) <i>Geography and Environmental Science</i> BSc (Human Genetics) BSc (Human Physiology) BSc (Human Physiology, Genetics and Psychology) BSc (Medical Sciences) BSc (Meteorology) BSc (Microbiology) BSc (Physics)



[BSc \(Plant Science\)](#)

[BSc \(Zoology\)](#)

[BScAgric \(Agricultural Economics and Agribusiness Management\)](#)

[BScAgric \(Animal Science\)](#)

[BScAgric \(Applied Plant and Soil Sciences\)](#)

[BScAgric \(Plant Pathology\)](#)

[Bachelor of Veterinary Sciences \[BVSc\]](#)

Service modules

Faculty of Engineering, Built Environment and Information Technology

Faculty of Education

Faculty of Health Sciences

Faculty of Veterinary Science

Prerequisites

A candidate who has passed Mathematics with at least 60% in the Grade 12 examination

Contact time

1 practical/tutorial per week, 4 lectures per week

Language of tuition

Module is presented in English

Department

Biochemistry, Genetics and Microbiology

Period of presentation

Semester 1

Module content

Introduction to the molecular structure and function of the cell. Basic chemistry of the cell. Structure and composition of prokaryotic and eukaryotic cells. Ultrastructure and function of cellular organelles, membranes and the cytoskeleton. General principles of energy, enzymes and cell metabolism. Selected processes, e.g. glycolysis, respiration and/or photosynthesis. Introduction to molecular genetics: DNA structure and replication, transcription, translation. Cell growth and cell division.

Regulations and rules

The regulations and rules for the degrees published here are subject to change and may be amended after the publication of this information.

The [General Academic Regulations \(G Regulations\)](#) and [General Student Rules](#) apply to all faculties and registered students of the University, as well as all prospective students who have accepted an offer of a place at the University of Pretoria. On registering for a programme, the student bears the responsibility of ensuring that they familiarise themselves with the General Academic Regulations applicable to their registration, as well as the relevant faculty-specific and programme-specific regulations and information as stipulated in the relevant yearbook. Ignorance concerning these regulations will not be accepted as an excuse for any transgression, or basis for an exception to any of the aforementioned regulations.

University of Pretoria Programme Qualification Mix (PQM) verification project

The higher education sector has undergone an extensive alignment to the Higher Education Qualification Sub-Framework (HEQF) across all institutions in South Africa. In order to comply with the HEQSF, all institutions are legally required to participate in a national initiative led by regulatory bodies such as the Department of Higher Education and Training (DHET), the Council on Higher Education (CHE), and the South African Qualifications Authority (SAQA). The University of Pretoria is presently engaged in an ongoing effort to align its qualifications and programmes with the HEQSF criteria. Current and prospective students should take note that changes to UP qualification and programme names, may occur as a result of the HEQSF initiative. Students are advised to contact their faculties if they have any questions.