

# University of Pretoria Yearbook 2025

## Molecule to organism 121 (BOK 121)

**Qualification** Undergraduate

**Faculty** [Faculty of Health Sciences](#)

**Module credits** 40.00

**NQF Level** 05

**Programmes** [Bachelor of Medicine and Surgery \[MBChB\]](#)

**Prerequisites** Admission into relevant programme.

**Contact time** 7 lectures per week

**Language of tuition** Module is presented in English

**Department** Anatomy

**Period of presentation** Semester 2

### Module content

(a) Molecule to cell (2 weeks)

The principles of physiology, chemistry and genetics applicable to man. Macro molecules, lipids, carbohydrates and protein. Introductory genetics: molecular evolution, gene structure and transmission, genetic control of the cell cycle and genetic defects. Impulse conduction and muscle contraction. Nerve potentials.

(b) Cell to tissue (4 weeks)

Gametogenesis, embryogenesis, embryopathy, histology and incidence of tissue types. The immune system and its components. Tissue specificity, genetic control of expression and factors influencing gene expressions.

(c) Tissue to organism (2 weeks)

Anatomical terminology and introduction to the systemic and functional organisation of the human body. Arrangement of tissues in organs. Life stages of man.

### General Academic Regulations and Student Rules

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. The G Regulations are updated annually and may be amended after the publication of this information.

### **Regulations, degree requirements and information**

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

### **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 (HEQSF) 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.