

# University of Pretoria Yearbook 2021

## Molecule to organism 121 (BOK 121)

<b>Qualification</b>	Undergraduate
<b>Faculty</b>	<a href="#">Faculty of Health Sciences</a>
<b>Module credits</b>	40.00
<b>NQF Level</b>	05
<b>Programmes</b>	<a href="#">MBChB</a>
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	7 lectures per week
<b>Language of tuition</b>	Module is presented in English
<b>Department</b>	Anatomy
<b>Period of presentation</b>	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.

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