



University of Pretoria Yearbook 2022

Molecular basis of disease 368 (BCM 368)

Qualification Undergraduate

Faculty Faculty of Natural and Agricultural Sciences

Module credits 18.00

NQF Level 07

Programmes BSc (Biochemistry)

BSc (Biotechnology)

BSc (Chemistry)

BSc (Entomology)

BSc (Genetics)

BSc (Human Genetics)

BSc (Human Physiology)

BSc (Microbiology)

BSc (Nutrition)

BSc (Plant Science)

BSc (Zoology)

Prerequisites BCM 251 and BCM 257 and BCM 261 GS BCM 252 GS.

Contact time 1 practical/tutorial per week, 2 lectures per week

Language of tuition Module is presented in English

Department Biochemistry, Genetics and Microbiology

Period of presentation Semester 2

Module content

Molecular mechanisms behind exogenous and endogenous diseases. Foundational knowledge of the immune system, with innate-, adaptive- and auto-immunity (molecular mechanisms of the maintenance and failure of the recognition of foreign in the context of self in the mammalian body) being some of the key concepts. Molecular pathology and immunobiochemistry of exogenous diseases against viral, bacterial and parasitic pathogens with a focus on the human immunodeficiency virus (HIV), tuberculosis (TB) and malaria. Endogenous disease will describe the biochemistry of normal cell cycle proliferation, quiescence, senescence, differentiation and apoptosis, and abnormal events as illustrated by cancer. Tutorials will focus on immunoassays, vaccines, diagnostic tests for diseases and drug discovery towards therapeutics.



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