

University of Pretoria Yearbook 2022

Genetics in human health 368 (GTS 368)

Qualification Undergraduate

Faculty Faculty of Natural and Agricultural Sciences

Module credits 18.00

NQF Level 07

Programmes BSc (Biochemistry)

BSc (Biotechnology)

BSc (Entomology)

BSc (Genetics)

BSc (Human Genetics)

BSc (Human Physiology)

BSc (Human Physiology, Genetics and Psychology)

BSc (Medical Sciences)

BSc (Microbiology)

BSc (Plant Science)

BSc (Zoology)

Prerequisites GTS 251 and GTS 261 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

Application of modern genetics to human variability, health and disease. Molecular origin of Mendelian and multifactorial diseases. The use of polymorphisms, gene mapping, linkage and association studies in medical genetics. Genetic diagnosis: application of cytogenetic, molecular and genomic techniques. Congenital abnormalities, risk assessment and genetic consultation. Prenatal testing, population screening, treatment of genetic diseases and gene-based therapy. Pharmacogenetics and cancer genetics. Ethical aspects in medical genetics.

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