

## University of Pretoria Yearbook 2020

## Genetics in human health 368 (GTS 368)

| Qualification          | Undergraduate                                      |
|------------------------|--|
| Faculty                | Faculty of Natural and Agricultural Sciences       |
| Module credits         | 18.00  |
| Programmes             | BSc Biochemistry                                   |
|                        | BSc Biotechnology                                  |
|                        | 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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