

University of Pretoria Yearbook 2019

Population and evolutionary genetics 367 (GTS 367)

Qualification	Undergraduate
Faculty	Faculty of Natural and Agricultural Sciences
Module credits	18.00
Programmes	BSc Information and Knowledge Systems BSc Biochemistry BSc Biotechnology BSc Genetics BSc Human Genetics BSc Human Physiology BSc Medical Sciences BSc Microbiology BSc Plant Science
Service modules	Faculty of Engineering, Built Environment and Information Technology
Prerequisites	GTS 251 and GTS 261 or permission from HOD.
Contact time	2 lectures per week, 1 practical/tutorial per week
Language of tuition	Module is presented in English
Department	Biochemistry, Genetics and Microbiology
Period of presentation	Semester 2

Module content

Genetic and phenotypic variation. Organisation of genetic variation. Random genetic drift. Mutation and the neutral theory. Darwinian selection. Inbreeding, population subdivision and migration. Evolutionary quantitative genetics. Population genomics. Human population genetics. Levels of selection and individuality. Arms races and irreversibility. Complexity. Applied evolution.

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