



University of Pretoria Yearbook 2022

Bioinformatics theory and applications 701 (BIF 701)

Qualification	Postgraduate
Faculty	Faculty of Natural and Agricultural Sciences
Module credits	30.00
NQF Level	08
Programmes	BScHons (Bioinformatics)
Prerequisites	No prerequisites.
Contact time	2 lectures per week, 2 practicals per week
Language of tuition	Module is presented in English
Department	Biochemistry, Genetics and Microbiology
Period of presentation	Year

Module content

General concepts in bioinformatics; sequence motifs and features; sequence databases; common bioinformatics tools; programming in Python; the bioinformatics toolkit for Python; pairwise and multiple sequence alignments; genome analysis; data visualisation; specialised statistics for bioinformatics; specialised algorithms for bioinformatics; nucleic acid modelling; transcription analysis; microarray data analysis; genome annotation; phylogenetics; mapping and markers; structural modelling.

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