

University of Pretoria Yearbook 2017

Bioinformatics theory and applications 701 (BIF 701)

Qualification	Postgraduate
Faculty	Faculty of Natural and Agricultural Sciences
Module credits	30.00
Programmes	BScHons Bioinformatics
Prerequisites	No prerequisites.
Contact time	2 practicals per week, 2 lectures per week
Language of tuition	Module is presented in English
Academic organisation	Biochemistry
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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