University of Pretoria Yearbook 2016

Spatial analysis 320 (GIS 320)

Qualification	Undergraduate
Faculty	Faculty of Natural and Agricultural Sciences
Module credits	24.00
Programmes	BSc Information Technology Information and Knowledge Systems
	BSc Applied Mathematics
	BSc Environmental and Engineering Geology
	BSc Environmental Sciences
	BSc Geography
	BSc Geoinformatics
	BSc Geology
	BSc Mathematical Statistics
	BSc Mathematics
	BSc Meteorology
	BSc Physics
Service modules	Faculty of Engineering, Built Environment and Information Technology
Prerequisites	GIS 310 or TDH
Contact time	2 lectures per week, 1 practical per week
Language of tuition	English
Academic organisation	Geography, Geoinf + Meteor
Period of presentation	Semester 2

Module content

Construction of Raster Geovisualisations, spatial model construction and use, multi-criteria decision analysis. Factor analysis: Principle component analysis. Geostatistics: Spatial dependence modelling, ordinary kriging. Markov chains and cellular Automata, combined models.