

University of Pretoria Yearbook 2022

Spatial analysis 320 (GIS 320)

Qualification Undergraduate

Faculty [Faculty of Natural and Agricultural Sciences](#)

Module credits 22.00

NQF Level 07

Programmes [BIT \(Information Systems\)](#)

[BSc \(Information and Knowledge Systems\)](#)

[BSc \(Geoinformatics\)](#)

[BSc \(Chemistry\)](#)

[BSc \(Geography and Environmental Science\)](#)

[BSc \(Geology\)](#)

Service modules Faculty of Engineering, Built Environment and Information Technology

Prerequisites GIS 220 and GGY 283

Contact time 1 practical per week, 2 lectures per week

Language of tuition Module is presented in English

Department Geography Geoinformatics and Meteorology

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. Examples using data from South Africa are implemented. A project or assignment of at least 64 notional hours.

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