



# University of Pretoria Yearbook 2021

## Spatial analysis 320 (GIS 320)

<b>Qualification</b>	Undergraduate
<b>Faculty</b>	<a href="#">Faculty of Natural and Agricultural Sciences</a>
<b>Module credits</b>	22.00
<b>NQF Level</b>	07
<b>Programmes</b>	<a href="#">BIT Information Systems</a> <a href="#">BSc Information and Knowledge Systems</a> <a href="#">BSc Chemistry</a> <a href="#">BSc Geography and Environmental Science</a> <a href="#">BSc Geoinformatics</a> <a href="#">BSc Geology</a> <a href="#">BSc Meteorology</a>
<b>Service modules</b>	Faculty of Engineering, Built Environment and Information Technology
<b>Prerequisites</b>	GIS 220 and GGY 283
<b>Contact time</b>	1 practical per week, 2 lectures per week
<b>Language of tuition</b>	Module is presented in English
<b>Department</b>	Geography Geoinformatics and Meteorology
<b>Period of presentation</b>	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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