



# University of Pretoria Yearbook 2016

## Spatial analysis 320 (GIS 320)

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| <b>Qualification</b>          | Undergraduate  |
| <b>Faculty</b>                | <a href="#">Faculty of Natural and Agricultural Sciences</a>   |
| <b>Module credits</b>         | 24.00  |
| <b>Programmes</b>             | <a href="#">BSc Information Technology Information and Knowledge Systems</a><br><a href="#">BSc Applied Mathematics</a><br><a href="#">BSc Environmental and Engineering Geology</a><br><a href="#">BSc Environmental Sciences</a><br><a href="#">BSc Geography</a><br><a href="#">BSc Geoinformatics</a><br><a href="#">BSc Geology</a><br><a href="#">BSc Mathematical Statistics</a><br><a href="#">BSc Mathematics</a><br><a href="#">BSc Meteorology</a><br><a href="#">BSc Physics</a> |
| <b>Service modules</b>        | Faculty of Engineering, Built Environment and Information Technology   |
| <b>Prerequisites</b>          | GIS 310 or TDH   |
| <b>Contact time</b>           | 2 lectures per week, 1 practical per week  |
| <b>Language of tuition</b>    | English  |
| <b>Academic organisation</b>  | Geography, Geoinf + Meteor   |
| <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.

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