University of Pretoria Yearbook 2021

Geographic data analysis 220 (GIS 220)

Qualification	Undergraduate
Faculty	Faculty of Natural and Agricultural Sciences
Module credits	14.00
NQF Level	06
Programmes	BIT Information Systems
	BSc Information and Knowledge Systems
	BSc Chemistry
	BSc Engineering and Environmental Geology
	BSc Geography and Environmental Science
	BSc Geoinformatics
	BSc Meteorology
	BSc Physics
Service modules	Faculty of Engineering, Built Environment and Information Technology
Prerequisites	GMC 110 and (STK 110 OR BME 120)
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

The nature of geographical data and measurement.Application of statistics in the geographical domain. Probability, probability distributions and densities, expected values and variances, Central Limit theorem. Sampling techniques. Exploratory data analysis, descriptive statistics, statistical estimation, hypothesis testing, correlation analysis and regression analysis. Examples used throughout the course are drawn from South African and African case studies and taught within the framework of the UN Sustainable Development Goals.