



University of Pretoria Yearbook 2024

Geographic data analysis 220 (GIS 220)

Qualification Undergraduate

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

Module credits 14.00

NQF Level 06

Programmes [Bachelor of Information Technology *Information Systems* \[BIT\]](#)

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

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

[BSc *Chemistry*](#)

[BSc *Engineering and Environmental Geology*](#)

[BSc *Geoinformatics*](#)

[BSc *Geology*](#)

[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.

General Academic Regulations and Student Rules

The [General Academic Regulations \(G Regulations\)](#) and [General Student Rules](#) apply to all faculties and



registered students of the University, as well as all prospective students who have accepted an offer of a place at the University of Pretoria. On registering for a programme, the student bears the responsibility of ensuring that they familiarise themselves with the General Academic Regulations applicable to their registration, as well as the relevant faculty-specific and programme-specific regulations and information as stipulated in the relevant yearbook. Ignorance concerning these regulations will not be accepted as an excuse for any transgression, or basis for an exception to any of the aforementioned regulations. The G Regulations are updated annually and may be amended after the publication of this information.

Regulations, degree requirements and information

The faculty regulations, information on and requirements for the degrees published here are subject to change and may be amended after the publication of this information.

University of Pretoria Programme Qualification Mix (PQM) verification project

The higher education sector has undergone an extensive alignment to the Higher Education Qualification Sub-Framework (HEQSF) across all institutions in South Africa. In order to comply with the HEQSF, all institutions are legally required to participate in a national initiative led by regulatory bodies such as the Department of Higher Education and Training (DHET), the Council on Higher Education (CHE), and the South African Qualifications Authority (SAQA). The University of Pretoria is presently engaged in an ongoing effort to align its qualifications and programmes with the HEQSF criteria. Current and prospective students should take note that changes to UP qualification and programme names, may occur as a result of the HEQSF initiative. Students are advised to contact their faculties if they have any questions.