

# University of Pretoria Yearbook 2022

## Remote sensing 220 (GMA 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 \(Geoinformatics\)](#)

[BSc \(Meteorology\)](#)

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

[BSc \(Geology\)](#)

[BSc \(Physics\)](#)

**Service modules** Faculty of Engineering, Built Environment and Information Technology

**Prerequisites** GMC 110

**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 1

### Module content

This module aims to provide students with a working knowledge and skills to learn methods and techniques for collecting, processing and analysing remotely sensed data. Throughout the module, emphasis will be placed on image processing, image analysis, image classification, remote sensing and applications of remote sensing in geographical analysis and environmental monitoring. The module is composed of lectures, readings, practical exercises research tasks and a project or assignments of at least 64 notional hours. In particular, the practical exercises and research tasks incorporate South African examples using satellite remotely-sensed data, as well as field spectral data measurements, to promote understanding of the state of land cover and land use types (e.g. spanning agricultural resources, water resources, urbanization) and how changes over time could impact on the changing climate in accordance with the United Nation's Sustainable Development Goals.

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