

# University of Pretoria Yearbook 2021

## Igneous and metamorphic petrology 263 (GLY 263)

**Qualification** Undergraduate

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

**Module credits** 24.00

**NQF Level** 06

**Programmes** [BSc Chemistry](#)

[BSc Engineering and Environmental Geology](#)

[BSc Geology](#)

**Prerequisites** GLY 255

**Contact time** 2 practicals per week, 4 lectures per week

**Language of tuition** Module is presented in English

**Department** Geology

**Period of presentation** Semester 2

### Module content

Classification and nomenclature of igneous rocks. The nature of silicate melts; physical and chemical factors influencing crystallisation and textures of igneous rocks. Phase diagrams, fractional crystallisation and partial melting. Trace elements and isotopes, and their use in petrogenetic studies. Global distribution of magmatism and its origin. Mid-oceanic ridges, active continental margins, intraplate magmatism. Classification of metamorphic rocks. Anatexis, migmatite and granite; eclogite. Metamorphic textures. PT-time loops. Metamorphism in various plate tectonic environments.

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