

University of Pretoria Yearbook 2021

Engineering geology and rock mechanics 369 (GLY 369)

Qualification	Undergraduate
Faculty	Faculty of Natural and Agricultural Sciences
Module credits	36.00
NQF Level	07
Programmes	BSc Engineering and Environmental Geology BSc Geology
Prerequisites	GLY 365
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

Definition and scope of engineering geology; engineering geological properties and problems of rocks and soils within different stratigraphic units and climatic regions in southern Africa. Strength and failure modes of rock material and rock failure criteria. The characteristics of joints in rock. Joint line surveys and interpretation of data. Characteristics of a rock mass, rock mass classification and determination of strength. Slope stability in surface mines. Induced seismicity due to deep mining and rock bursts. This is in support of United Nations Sustainable Development Goals dealing with clean water, sanitation, infrastructure development.

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