



University of Pretoria Yearbook 2016

Virtual reality introduction to mining 210 (PMY 210)

Qualification Undergraduate

Faculty [Faculty of Engineering, Built Environment and Information Technology](#)

Module credits 8.00

Programmes [BEng Mining Engineering](#)

[BEng Mining Engineering Engage](#)

Contact time 2 lectures per week, 2 tutorials per week

Language of tuition English

Academic organisation Mining Engineering

Period of presentation Semester 2

Module content

Introduction: Mining in South Africa: Overview of mining and history in South Africa, Minerals and mining.
Surface mining: Surface mining methods, Surface mining planning, Rock breaking, Rock loading and transport.
Underground hard rock mining: A mine in outline, explanation of underground mining terms, basic mine layouts, shafts, development, stoping methods, compressed air, water and electrical reticulation. Underground coal mining: planning and development, rock breaking: stoping and tunnelling. Mine environmental engineering: ventilation practice, airflow, fans, gases, heat, psychrometry. Mine strata control: strata control in deep and shallow underground mines, strata control in coal mines.

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