



University of Pretoria Yearbook 2021

Introduction to mining 121 (PMY 121)

Qualification	Undergraduate
Faculty	Faculty of Engineering, Built Environment and Information Technology
Module credits	8.00
NQF Level	05
Programmes	BEng Mining Engineering BEng Mining Engineering ENGAGE
Prerequisites	No prerequisites.
Contact time	2 lectures per week, 2 tutorials per week
Language of tuition	Module is presented in English
Department	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 method, 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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