

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, psychometry. Mine strata control: strata control in deep and shallow underground mines, strata control in coal mines.

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