

## University of Pretoria Yearbook 2020

## Introduction to mining 121 (PMY 121)

| Qualification          | Undergraduate  |
|------------------------|--|
| Faculty                | Faculty of Engineering, Built Environment and Information Technology |
| Module credits         | 8.00   |
| 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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