

University of Pretoria Yearbook 2018

Underground mining methods 701 (PMY 701)

Qualification Postgraduate

Faculty Faculty of Engineering, Built Environment and Information Technology

Module credits 32.00

Programmes BScHons Applied Science Mining

Prerequisites No prerequisites.

Contact time 10 lectures per week

Language of tuition Module is presented in English

Department Mining Engineering

Period of presentation Semester 1 or Semester 2

Module content

PMY 701 provides an overview of mining by covering the following subject matter: history of mining in South Africa, surface-mining methods, underground mining methods, and a brief overview of mine environmental control and mine strata control. Then the module covers general mine layouts, mine plan reading, mine surveying, electricity supply, transport systems, water management systems, and mine fires. Specific mining techniques. Shafts: Types, methods and equipment for sinking; economic considerations. Tunneling: Design, development techniques and equipment. Design and construction of large excavation. Design, construction, reinforcing and repair of ore passes. Fires in gold and coal mines: Causes, prevention, detection, combating and insurance. Flooding: Water sources, results, dangers, sealing and control.

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