



## **TRAINING STRATEGY FOR MINING ENGINEERS AT THE UNIVERSITY OF PRETORIA**

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Mining engineers have a high potential to reach very senior positions in mining companies. This exposes them to making decisions in risky situations with incomplete information. The whole thrust of training mining engineers for industry begins with recruiting leaders, and then providing them with the foundations to become decision makers. The departmental vision is thus to provide the mining industry with mining engineers who will lead the industry into a new era of safety and prosperity with flair. This vision, together with minimum requirements for engineering curricula outlined by the Engineering Council of South Africa, industry requirements, international developments in engineering education, and emerging engineering disciplines, all combine to shape the mining engineering curriculum and the way that it is taught. The general objective of mining engineering training at the University of Pretoria therefore emphasises understanding rather than memorizing, in order to stimulate creative thinking and the development of innovative skills amongst mining engineering students. Together with good staff-student communication, and student participation in extra-mural activities offered by the university, the correct foundation for leadership and technical excellence has been put in place.

### **Introduction**

Mining is at least as old as agriculture, with the earliest records of gold mining coming from the Middle East and Asia Minor before 3000 BC (Handley, 2000). It never enjoyed much scientific attention until Agricola's (1556) book on the subject. Agricola's text, originally written