

# Geotechnical Design for Underground Metalliferous Mines Course

ends 16 March 2025

#### About the course

This ACG course will cover the critical geotechnical aspects of geomechanical mine design, including the geomechanical data required for design of mine drives, stopes and pillars. Although the course has a strong emphasis on open stope mining, the main geotechnical issues relevant to most underground mining methods will be included.

The course will address numerical modelling, where the basics of different modelling approaches will be covered, and important concepts such as calibration and interpretation of the models will be discussed.

The widely used empirical stability graph method for open stope design will be explained in detail and some of the common mistakes associated with the use of this method in the industry described.

The principles of pillar design and several pillar design principles shall be discussed.

Furthermore, new and exciting open stope reconciliation and design approaches currently under development at the ACG will be presented.

### **Topics**

- Data for use in design
- Excavation design
- Numerical modelling of ground support
- Stope design
- Numerical modelling for mine design
- Mining methods and geomechanics consideration
- Stope reconciliation
- Pillar design

#### Who should attend

Geotechnical, mining and rock engineers; geologists; suppliers of ground support, instrumentation and monitoring equipment; and mines inspectors may benefit from attending this course.

#### Facilitator



Associate Professor Johan Wesseloo Australian Centre for Geomechanics



Accessing geomechanical excellence

## Online Repository of Conference Proceedings

Since 2005, the ACG has published highly technical conference papers across the geotechnical mining spectrum, including underground mining.

This repository aims to provide the mining geomechanics fraternity with open access, peer-reviewed conference papers that may assist readers to maintain and develop their skills, knowledge and capabilities. View the Online Repository of Conference Proceedings at papers.acq.uwa.edu.au