



Introduction to Seismic Risk in Underground Mines

In-Person Short Course

September 23 - 25, 2025

Course Overview	
Purpose	This course reviews the problem of seismicity in mines, as found in deep underground, hardrock mines. The course covers the basics of seismicity, seismic data analysis and seismic monitoring in mines. There is a strong focus on case studies, and the latest industry methods to manage seismic risk.
Target Audience	The intended audience includes ground control engineers, engineering interns, mining engineers, technicians, geologists, senior engineers and mine management. The course is specifically intended for individuals with a limited background in seismicity in mines.
Presenter	The presenter will be Dr. Marty Hudyma
Details	<p>Location Workplace Safety North-Ontario Mine Rescue building Training Rooms B and C 235 Cedar Street Sudbury, Ontario P3B 1M8</p> <p>Date and Time September 23-25, 2025, from 8:00 am to 5:00 pm</p>
Cost	<p>Early Bird Special: \$1,500 + HST/participant until August 22, 2025. August 23, 2025: \$1,800 + HST/participant. Lunch and refreshments provided.</p>
Registration	<p>Register through the Workplace Safety North (WSN) website or by phone.</p> <p>Online registration: https://www.workplacesafetynorth.ca/en/training-events/sep-23-25-introduction-seismic-risk-underground-mines</p> <p>Phone: Amanda Caverly, WSN Health and Safety Services Assistance Client Engagement, 1 (705) 474-7233</p>

Cancellation Policy

Registrants who provide a written notice of cancellation at least one week prior to the course start date will not be charged. Less than one week's notice of cancellation or non-attendance will incur the full cost of registration. Participant substitutions may be made at any time prior to the start of the course.

WSN reserves the right to cancel or reschedule a course. Registrants will be informed of any cancellations at least one week prior to the course start date. WSN liability is limited to the registration fee.

Topics

- Seismicity in Mines – The Canadian problem in 2024
- Defining seismic risk management for mine
- Seismic monitoring systems
- Seismic system waveforms and software
- Seismic hazard and seismic source mechanism
- Analysis of seismic data
- Re-entry times and exclusion zone
- Seismic system design
- Seismic data filtering, data quality and auditing
- Large seismic event analysis
- The challenge of rockburst damage
- Managing seismic risk case studies
- Future directions in seismic monitoring

About the Presenter

Dr. Marty Hudyma is a registered professional engineer in the province of Ontario with 30 years of experience at mine sites, consultancies, and universities. In industry, Marty worked for Noranda Technology, Brunswick Mining, Mount Isa Mines, and Itasca Consulting Canada. Most recently, Marty Hudyma was an Associate Professor in Mining Engineering at Laurentian University from 2009 to 2023. He has worked on the topic of seismicity in mines since 1988, working as a consultant or researcher at more than 50 mines around the world. Marty has been the organizer of numerous workshops and conferences related to seismicity in mines and mining in deep and high stress conditions.