Course content is based on the LOP’s Guidelines for Evaluating Water in Pit Slope Stability text, with additional and updated material for controlling water in mining operations and improving geotechnical slope stability. The course will also include case studies of water management challenges and solutions in open pit and underground mines.

**TOPICS COVERED**

Framework and site characterization • Development of a conceptual hydrogeological model • Numerical model applications • Implementation of mine water control systems • Monitoring and design reconciliation • Open pit and underground water management

**WHO SHOULD ATTEND?**

Engineers, Geologists, Hydrogeologists, Mining Engineers, Managers, other Mining or Geotechnical Professionals interested in gaining a better understanding of the role water plays in mine operations and slope stability.

**Register now!**

**COURSE FEE: $899**

**LIVE & ONLINE**, this 15-week course includes ~30 hours of pre-recorded content with live, virtual Q&A sessions, where students can engage directly with subject matter experts.

*Discounts available for GCE Members, current students, and groups of 6+*

**WHEN?**

COURSE BEGINS JUNE 4TH, 2024

**WHO?**

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**REGISTER TODAY!**

Questions? Contact the Geotechnical Center of Excellence: gce@arizona.edu
Or visit minerals.arizona.edu/innovation/geotechnical-center-excellence
### SECTION 1
- HOW WATER AFFECTS MINING
- GENERAL INTRODUCTION TO MINE HYDROLOGY
- DEWATERING VS. DEPRESSURIZATION
- PLANNING OF MINE HYDROLOGY PROGRAMS
- DATA COLLECTION

### SECTION 2
- POROUS MEDIUM VS. FRACTURE FLOW
- CONCEPTUAL MODEL
- EXCAVATION DAMAGED ZONE (EDZ)
- WATER BALANCE AND WATER QUALITY CONCEPTS
- GLOBAL BENCHMARKING

### SECTION 3
- PLANNING OF NUMERICAL MODELS
- WATER INPUT TO GEOTECHNICAL ANALYSIS
- GROUND WATER AND PORE PRESSURE MODELS
- WATER BALANCE AND WATER QUALITY TOOLS
- WASTE ROCK HYDROLOGY

### SECTION 4
- STRATEGIC PLANNING
- SLOPE DEPRESSURIZATION
- SURFACE WATER MANAGEMENT
- IN-PIT REAL ESTATE AND ACCESS
- SITE-WIDE WATER MANAGEMENT

### SECTION 5
- MONITORING PROGRAMS
- PERFORMANCE ASSESSMENT
- INTERACTIVE PLANNING AND RISK MANAGEMENT
- GEOTECHNICAL AND HYDROGEOLOGICAL GUIDELINES FOR MINE CLOSURE
- NINE KEY INDUSTRY ISSUES

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**END OF COURSE GEOTECHNICAL WATER MONITORING MINI-SYMPOSIUM**

Submit a case study or water-related presentation and receive 50% off your next course!