Grouting and Ground Improvement is a three-day course that covers engineering, equipment, materials and methods for grouting and ground modification used in civil and geotechnical engineering, underground construction, tunneling and mining.

Don’t miss this opportunity for professional development and high-level networking — all while earning CEUs!

This course combines classroom instruction with hands-on labs and demonstrations, providing participants with the opportunity to see grouting and ground improvement field equipment in action!

WHO SHOULD ATTEND?
This course is intended for industry professionals including owners, planners, designers, contractors, consultants and suppliers involved in the design, planning and construction of civil and geotechnical engineering, underground, tunneling and mining projects.

Don’t miss this opportunity to network, learn and earn CEUs!

CEUs
Colorado School of Mines will award 2.1 CEUs (continuing education units) upon successful completion of this course.

LOCATION
Colorado School of Mines has a long-standing tradition of hosting world-class short courses on our beautiful campus in scenic Golden, Colorado. 40 minutes/36 miles from Denver International Airport.

INFO AND REGISTRATION
Registration is open now! Space is limited! Early-bird and group discounts are available through March 14, 2018.

Course highlights include a field demo day providing participants with the opportunity to see the following grouting techniques in action:
• COMPACTION GROUTING
• CHEMICAL GROUTING
• CELLULAR GROUTING
• PERMEATION GROUTING
GROUTING AND GROUND IMPROVEMENT | TOPICS AND SPEAKERS

MONDAY, MAY 14
Welcome and Introduction, Ray Henn, Colorado School of Mines/RW Henn LLC
Fundamentals of Soil and Rock Mechanics, Reza Hedayat, Colorado School of Mines
Geotechnical Site Investigation, Scott Kibby, Mott MacDonald
Overview of Underground Construction
Grouting, Ray Henn, Colorado School of Mines/RW Henn LLC
Compaction Grouting, Tom Szynekiewicz, GeoStabilization International
Cements and Admixtures, Mark Mudlin, Normet
Drilling and Grouting Equipment, Bill Warfield, Independent Consultant
Permeation and Consolidation Grouting, Brad Crenshaw, GEC Drilling & Grouting
Freezing and Dewatering, Paul Schmail, Moretrench
Jet Grouting, Dennis Boehm, Hayward Baker Inc.
Laboratory Demonstration on Grout Rheology and Cement Testing, Brian Jeppsen, US Grout and Jim Lindsay, BASF
Laboratory Demonstration on Tunnel Backfill, Jeff Williams, KAO Specialties Americas
Reception in the Atrium of Marquez Hall at Colorado School of Mines

TUESDAY, MAY 15
Growing for Drilling and Grouting, Alex Varas, AECOM
Risk Evaluation, Bob Goodfellow, Aldea Services
Soil Freezing for Cross Passage Tunnel Construction, Joe Sopko, Moretrench
Compensation Grouting, Dennis Boehm, Hayward Baker Inc.
Chemical Grouting, Acrylate/Acrylamides, Britt Babcock, Avanti International
Cementitious and Acrylamide Grouting, Timothy Myers, Bencor Global, Inc.
Case Histories of Polyurethane Grouts, Scott Anderson, GCP Applied Technologies
Rondout Bypass Tunnel Project Update, Andy Myers, Kiewit
Laboratory Demonstration on Chemical Grout, Britt Babcock, Avanti International & Scott Anderson, GCP Applied Technologies
Laboratory Demonstration on Bicomponent/Annulus Backfill Grouting, Phil Antunes, Simem Underground Solutions
Underground Construction Association (UCA) Student Chapter/Industry Mixer

WEDNESDAY, MAY 16
Ground Improvement in Mine Construction, Christine Linden, Frontier-Kemper Constructors Inc.
Grouting for Mine Development, Mark Tilley, Sunshine Silver Mining & Refining Corporation
Dewatering System Installation Methods and Temporary Water Treatment System Design, Nathan Anderson, Griffin Dewatering
Cellular Concrete Use and Application, Stan Peters, Flashfill Services
Presentation of Class Completion Certificates and Closing Remarks, Ray Henn, Colorado School of Mines/RW Henn LLC
Field Demo: Compaction grouting, drilling and grouting equipment, packers, permeation grouting (sand columns), cellular concrete, product demonstrations, instrumentation and more, Bill Warfield, Independent Consultant
Labs and demos will cover compaction grouting, chemical grouting, cellular grouting, permeation grouting and much more!

Thank you sponsors and media partners for the 2017 course!