

HANDS-ON UNDERGROUND DRILL AND BLAST TRAINING

*Improve your underground
blasting and design skills
through hands-on
experiential learning!*

CLASSROOM TOPICS



- ✓ Underground explosives and performance characteristics
- ✓ Foundational underground blasting concepts
- ✓ Underground blast design calculations
- ✓ Development blasting overview and design methodologies
- ✓ Longhole blasting overview and design methodologies
- ✓ Raise, slot, and ore pass design
- ✓ Underground delay timing and sequencing
- ✓ Geologic considerations
- ✓ Perimeter control
- ✓ Overbreak, underbreak, dilution, and recovery
- ✓ Troubleshooting and continuous improvement

ENROLL TODAY!

Contact Nathan Rouse at:

 +1.859.221.8797

 nathan@tbredblast.com

 www.tbredblast.com/training

HANDS-ON ACTIVITIES



- ✓ Group desktop exercises on multiple classroom topics
- ✓ Hands-on activities in the Rolla underground experimental mine, including:
 - Sympathetic detonation and deadpressing
 - Detonator accuracy and spray pattern
 - Impact of stemming on face movement and optimum timing
 - Full development round design, instrumentation, and data analysis

COURSE INFORMATION



- ✓ Dates: July 15 - 18, 2024
- ✓ Location: Missouri S&T Experimental Mine and Mine Building, 12350 Spencer Rd, Rolla, MO 65401
- ✓ Hotel: Room block TBD



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MEET YOUR INSTRUCTORS



Dr. Paul Worsley
President
Worsley & Associates

Dr. Nathan Rouse
President
Thoroughbred Drill
and Blast Consultants




Dr. Kyle Perry
Associate Professor
Missouri S&T

Rob Bush
Consultant
Thoroughbred Drill
and Blast Consultants



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REGISTRATION INFORMATION

**REGISTER
NOW!**

- ✓ Register at tbredblast.com/training
- ✓ Early Bird Discount: 10%
- ✓ Course Fee: US\$3000
- ✓ Fees include training materials, materials for hands-on activities, lunch each day, a Brazilian-style BBQ dinner, and other activities.

ADDITIONAL INFORMATION



- ✓ The training course will take place over four days. Each day will consist of four hours of classroom training and four hours of hands-on field training. The field training will demonstrate concepts discussed in the classroom. Classroom topics will also be reinforced with group activities in the classroom.