

## What Will You Learn?



Loading of C4 for a demolition demonstration -  
2005 Explosives Camp

Ever wonder how dynamite works? How about fireworks? At the 2014 Summer Explosives Camp, you will not only learn how these things work, you will be able to get hands on experience! You will learn:

- 1.Safety precautions when handling explosives.
- 2.How to prime and shoot dynamite.
- 3.Where explosives are used.
- 4.What explosives related careers are available.
- 5.How underground blasts work.
- 6.How pyrotechnics are used in special effects.
- 7.How to make a 3” fireworks shell.
- 8.How to set up and shoot off a fireworks display.
- 9.How to use a fire extinguisher.
- 10.Basics of explosives demolition.

*and much more!*



Getting ready for the firework show at school mine  
2011 Explosives Camp



Opening Night for the 2007 Camp. Close Proximity  
Pyro in front of the Havener Center

## What Will You Do?

At the 2014 Summer Explosives Camp you will have the unique opportunity to have hands-on learning experience with explosives: the first and best camp of its kind! The course will comprise a variety of lectures, demonstrations, handling & shooting of explosives, field trips, projects and culminate in the setup and shooting of a fireworks display. It will encompass detonators, high explosives, blasting agents, rock blasting, display fireworks and demolition. You will have a behind-the-scenes look at how explosives are used in industry and in entertainment. But the number one thing that you will do at the Summer Explosives Camp is have fun!



Demonstrating “The Wall of Fire” at the  
2006 Explosives Camp

## S&T Mining & Explosives Engineering Programs

The Missouri University of Science and Technology was founded in 1870 as the Missouri School of Mines and was the first technological institution west of the Mississippi River. Before 1920, most of the curriculum was centered around the mining industry and although S&T has expanded to include other majors, the mining program is still at the heart of the university. The department has an exceptional reputation and is probably the top program in the United States, is very progressive and has a growing faculty. You will gain hands-on experience at the experimental mine and get to work with world-renowned faculty. The department also offers many scholarships and work opportunities to students. The students take what they learn in the classroom and use it in the real world. Our graduates are highly sought after and receiving job offers as high as \$87,000 per year. Using its reputation in the field of explosives engineering, the department has been aggressively expanding its explosives classes. S&T was the first university to offer an explosives emphasis in 1997, a minor was added in 2005, a Masters in 2010, and we are currently awaiting the approval of a Ph.D. in explosives engineering



Explosives Summer Camp was featured in  
The New York Times in July 2007.

“I just love this job! Where else could you get to blow up such a variety of stuff!” Lead Instructor: Professor Paul Worsey. Co-Host of “The Detonators” on Discovery Channel and seen on TLC (Demolition Day Seattle Kingdom), the Discovery Channel (3 Rivers Stadium), and National Geographic (Demolition Dynasty) and the winner of the 2002 International Society of Explosives Engineers President’s Award and many other awards.

## Other Activities



2010 Camp participant at Capital Quarry programming electronic detonator on a surface shot

You will have the opportunity to go on various field trips, including an underground field trip to view underground blasting operations, a quarry field trip to view surface blasting, and a trip to Premier Pyrotechnics.



2010 Camp participants pose before going 1,000 ft underground at The Doe Run Co.

## Question & Answers

**Who gets to go?** Twenty Junior and Senior high school students per camp who are interested in enrolling at S&T and are at least 16 by the first day of camp.

**How much attention will I get?**

Course staff to student ratio is normally 1 per 4 to 5 students, unprecedented anywhere!

**How do I get selected?** Send the following

- 1) One page resume
- 2) 500 word essay on "Why I am interested in a career focusing on the application of explosives"
- 3) A letter of recommendation from a high school teacher or counselor to:



Mining and Nuclear Engineering  
226 McNutt Hall  
Missouri University of Science and  
Technology  
Rolla, MO 65409

**How much does it cost?**

The cost per student is \$1,350, including room and board.

**How will I know if I get selected?**

We will notify you by email around May 1<sup>st</sup>.

**Who do I contact if I have other questions?**

You can email the following people:

Dr. Paul Worsley

[pworsley@mst.edu](mailto:pworsley@mst.edu)

Barbara Robertson

[barb@mst.edu](mailto:barb@mst.edu)

**Don't waste time!**  
**Application deadline**  
**Is April 15<sup>th</sup>!**

S&T Experimental Mine ranked #1 in  
Popular Science's Awesome College Lab  
Ranking.  
September 2010 and 2011 issues.

# 2014 Summer Explosives Camps



#23

June 8 - June 13

#24

June 15 - June 20

#25

June 22 - June 27

<http://explosives.mst.edu>



Missouri's Technological  
University and #1 ranked  
Public University