



## E<sup>3</sup> Sponsors

The Dwight Look College of Engineering  
at Texas A&M University

The Texas Engineering Experiment Station

The National Science Foundation

## Contact Us

### *E<sup>3</sup> Program*

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<http://e3.tamu.edu>



# E<sup>3</sup> Enrichment Experiences in Engineering

for secondary  
Math / Science Teachers  
and Preservice Teachers



Summer 2009

June 7 - July 2

Application Deadline  
March 12, 2009

Texas A&M University  
College Station, Texas

TEXAS A&M ENGINEERING

## ***About the E<sup>3</sup> Program***

The Dwight Look College of Engineering and the Texas Engineering Experiment Station (TEES) in partnership with the National Science Foundation are offering 15 secondary school science and math teachers and pre-service teachers (base criteria is algebra or IPC teacher) a 4 week summer residential engineering research experience on the Texas A&M University College Station campus. This integrated math/science program is designed to support student success on the TAKS.

## ***Application Deadline: March 12, 2009***

The goals of the E<sup>3</sup> Teacher Summer Research Program are to:

- offer teachers experiences with the latest in engineering research;
- offer an experience that integrates math and the sciences;
- enhance laboratory skills and techniques;
- reinforce educational research in inquiry, learning styles, and diversity; and
- excite public school teachers about careers in engineering to support the study of math and science.

These goals will be achieved through three major components:

- matching the public school teacher with a faculty/ researcher in engineering;
- a daily discussion time with educational specialists to help in the transfer of engineering research into math/science curriculum; and
- science, technology, engineering, mathematics (STEM) career awareness through field trips and discussions.

## ***Benefits to Participation***

- Continuing Professional Education (CPE) pending
- Summer stipend of \$6,500 for full 4 week participation
- Necessary materials and equipment for classroom implementation
- Build laboratory skills through a research experience in an engineering research laboratory
- Visit engineering companies and visit with engineers to learn about career options for students
- Build lesson plans with engineering applications to take back to the classroom
- Learn real world applications of science and mathematics  
Gifted and Talented credit
- Participate in follow up meetings during the school year and web based conversations



## ***Criteria for Selection***

- Secondary math/science teacher or coordinator
- Participant in the HU-LINC, Corpus Christi Rural Systemic Initiative activities, or other professional development activities
- Personal statement
- Must be U.S. citizen or permanent resident

## ***Academic Year Follow Up and Support***

- Email listserv
- Invitations to bring students back to the Texas A&M
- Evaluation of the success of classroom incorporation of learning objectives

## ***Results from a Survey of Past Program Participants***

- All 47 teachers reported that the program changed their impression of what engineers did.
- Most reported that what engineers did was far more interesting than what they had originally thought.
- 18 out of 33 have continued to interact with the College of Engineering.
- Two teachers had their class of 90 students tour the labs where they did research over the summer.
- Six teachers have developed “awareness of careers in science and engineering” programs for students in their schools.
- Teaching materials for the classroom were provided. Materials include the purchase of material for experiments in the classroom that are similar to what was done at Texas A&M over the summer.
- Immediately after the program, 31 of the teachers believed the program would make a difference in their teaching.

## ***Steps to Apply***

- Complete the E<sup>3</sup> application  
(Application forms are available on the E<sup>3</sup> web site:  
<http://e3.tamu.edu> )
- Select research priorities
- Obtain signature from principal
- Mail, fax, or email to the address below

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