



Workshops will be held in FSU's state-of-the-art Compton Science Center.

## PROGRAM FEATURES

- Hands-On
- Minds-On
- Active Participation
- High Tech Labs
- Low Tech Labs
- Computer Interfacing
- Project Construction
- White-Boarding
- Constructing and Analyzing Graphs
- Mentoring and Fun Evening Activities



### Contact Information:

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[www.frostburg.edu/TOPPS](http://www.frostburg.edu/TOPPS)

FSU is committed to making all of its programs, services and activities accessible to persons with disabilities. You may request accommodations through the ADA Compliance Office, 301.687.4102, TDD 301.687.7955.



**FROSTBURG**  
STATE UNIVERSITY

DEPARTMENT OF PHYSICS AND ENGINEERING

FROSTBURG STATE UNIVERSITY

101 BRADDOCK ROAD

FROSTBURG, MARYLAND 21532-2303

FROSTBURG STATE UNIVERSITY

and the American Association of Physics Teachers



## WORKSHOPS

Designed for High School and Middle School Teachers of Physics and Physical Science



**JUNE 27 - JULY 3**  
**2010**

FUNDED THROUGH A GRANT FROM THE MARYLAND HIGHER EDUCATION COMMISSION

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# THE ITQ/TOPPS PROJECT AT FSU

## ABOUT THE PROGRAM

The ITQ/TOPPS Project at Frostburg State University is designed to provide high quality professional development opportunities for high school and middle school science teachers across Maryland. The program will help teachers to gain physics content area knowledge, develop new teaching strategies, integrate instructional technology and attain "Highly Qualified" status. The ultimate goals are to enhance classroom teaching and learning effectiveness, and improve student achievement in physics and physical science.

For the last three years, TOPPS has been providing professional development to teachers through inquiry-based and activity-oriented instruction. The physics/science content of kinematics, dynamics, Newton's laws, momentum, energy and power, and electricity have been covered using nationally-proven Physics Teacher Resource Agent (PTRA) program curricula developed through the American Association of Physics Teachers (AAPT). This year's TOPPS program is a continuation of the project to complete the required Maryland State Department of Education physics/science content in wave motion, sound, and optics. This is open to new participants, as well as those who have participated in past years.

The TOPPS program for May 2010 through April 2011 has the following components:

- A six-day summer institute held at FSU, which includes intensive workshops, as well as evening educational and mentoring activities.
- Two Saturday follow-up meetings, held in October 2010 and April 2011. These will be scheduled on-site at the participating school districts when possible.
- Four online sessions during which the Teacher Scholars can share their experiences of implementing workshop concepts and pedagogies in their classrooms.

## BENEFITS

- Ideas for and opportunities to do laboratory activities
- Tips on classroom demonstrations and presentations
- Updates and new approaches for standard topics
- Introduction to new topics and teaching strategies
- Colleagues to contact for encouragement and suggestions

## ADDITIONAL SUPPORT

Each participant will receive:

1. Your choice of either a stipend (\$100/day for 1st year participants, \$125/day second year participants and \$150/day third or fourth year participants) OR full tuition paid for up to three graduate physics credits
2. Travel reimbursement at \$.55/mile for summer institute and follow-up workshops
3. Room and board for the summer institute
4. Child care reimbursement at \$40/day
5. Books and materials to take back and use in the classroom



## TEACHING STAFF

**Jane Nelson**

- Lead PTRA

**Katya Denisova**

- Science Coordinator,  
Baltimore City Public Schools

**Jim Nelson**

- Principal Investigator for  
the AAPT/PTRA Program

**Eric Moore**

- Assistant Professor of Physics at FSU

**Francis Tam**

- Professor Emeritus of Physics at FSU



## For more information

For applications and additional information, visit our website at: [www.frostburg.edu/TOPPS](http://www.frostburg.edu/TOPPS)

Teachers are accepted on a first-come basis.

Application deadline: March 15, 2010

