



# TEACHERS' WORKSHOPS

## Saturday, February 18

### 8:30 AM-4:30 PM

in conjunction with



At Sinclair Community College, Dayton, OH ~ Ponitz Center (bldg. 12), 4th & Perry  
Free Admission ~ Free Parking in Ponitz Center

#### 8:30-10:00 AM WPAFB Educational Outreach Programs

**Presenter: Kathleen Schweinfurth**, Chief of the WPAFB Educational Outreach Program, Director of STARBASE Wright-Patt, and facilitator for WPAFB involvement in pre K-12 educational outreach activities in the Greater Dayton Area

The Wright-Patterson Air Force Base Educational Outreach Office offers a wide variety of free K-12 programs to local schools. Programs range from classroom speakers and visiting "wizards" to scanning electron microscopes and robotics. Come learn about the ways WPAFB is helping to increase student awareness and excitement in all fields of math, science, aviation, and aerospace and how you can become part of their programs.

#### 10:30 AM-12:00 PM Revved Robots! Curriculum

**Presenter: Seth Ogan**, Robotics & Distance Learning Coordinator, Boonshoft Museum of Discovery

The Boonshoft Museum of Discovery takes the guess work out of using technology in the classroom with our Revved Robots! curriculum guide. The guide includes ten interdisciplinary lesson plans that will lead your class from the initial question, "What Is a Robot?" through to the designing, building, and testing of a real robot. The curriculum is guided by Ohio Academic Content Standards for grades 4-8 in Science, Social Studies, Math, and Language Arts. Participants will be introduced to the Revved Robots! Curriculum and the BOE Bot robotics kit and will receive a voucher to attend a free follow-up workshop. The follow-up workshop will provide in-depth instructions for building a BOE Bot and participants will receive a free curriculum and BOE Bot kit to take back to their classroom. The Revved Robots! curriculum is supported by the Engineering and Science Foundation and the Martha Holden Jennings Foundation.

#### 10:30 AM-12:00 PM Optics Workshop for Science Teachers 7th to 12th grade

**Presenter: Dr. Rex Berney**, Professor of Physics at the University of Dayton. Dr. Berney has taught physics for 26 years and is a well-known presenter in the Chautauqua short course program sponsored by the National Science Foundation Division of Undergraduate Education.

The Optics Workshop is designed for science teachers with the goal of providing them basic teaching materials and ideas as well as some hands-on experiences in basic optics. The workshop will use the Optics Discovery Kit\* prepared by the Education Council of the Optical Society of America (OSA), which the participants may keep.

\*<http://www.osa.org/education/K-12/materials/>

Funding for the Optics Kits is provided by the American Association of Physics Teachers Bauder Fund and the UD Physics Department.

#### 1:00-2:30 PM Waves Science Kits, Affiliate Societies Council

**Presenter: Richard Strode**, Certified Substitute Teacher, Financial Analyst, and a volunteer "Wizard of Wright" who is not an engineer by training - Proving that you too can understand and teach waves

What do microwave ovens, antennas, cell phones, radio, light, TV, sound, and water all have in common?..... WAVES! Discover how to teach waves in a simple way your students can see, feel and remember, using common everyday items. Move beyond formulas and math problems with hands-on applications of spatial-temporal wave theory (how waves travel through space and time). This is practical stuff you can do in your own classroom with your kids! Get them excited about the world around them and how waves work for them.

#### 3:00-4:30 PM NASA Exploration - Back to the Moon and on to Mars and Beyond

**Presenter: Jim Fitzgerald**, NASA Aerospace Education Specialist and NASA Representative to Michigan and Ohio NASA Aerospace Education Services Program

Provides hands-on, minds-on inquiry based activities related to human spaceflight and exploration. NASA materials provided. This presentation addresses NASA's vision for future exploration of our solar system with an emphasis on NASA's efforts to "inspire the Next Generation of Explorers...As Only NASA Can."

Registration Form on Reverse Side

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### Registration Form

Email the following information to: TechFest2006@ameritech.net  
OR Copy and Mail this form to:  
TechFest 2006 ~ 2720 Cedarbrook Way, Beavercreek, OH 45431

Name \_\_\_\_\_

School District \_\_\_\_\_

School Building \_\_\_\_\_ Grade Level \_\_\_\_\_

\_\_\_\_\_ Home or \_\_\_\_\_ School Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Email \_\_\_\_\_

Professional Development Units sponsored by Wright State University  
(May be used for IPDP or Staff Development Hours requirements)

Certificate of Attendance requested? \_\_\_\_\_ Yes \_\_\_\_\_ No

Select as Many as Desired

\_\_\_ 8:30-10:00 AM WPAFB Educational Outreach Programs  
Kathleen Schweinfurth

\_\_\_ 10:30 AM-12:00 PM Revved Robots! Curriculum OR \_\_\_ 10:30 AM-12:00 PM Optics Workshop for Teachers  
Seth Ogan Dr. Rex Berney (Limit 20)

\_\_\_ 1:00 - 2:30 PM WAVES Science Kits  
Richard Strode

\_\_\_ 3:00 - 4:30 PM NASA Exploration  
Jim Fitzgerald

On-site registration available -- space permitted

Sponsored by:

Affiliate Societies Council in partnership with Sinclair Community College

140 East Monument Ave., Dayton, OH 45402-1267 ~ 937-224-8513 (12-4 PM) ~ Fax 937-224-0644 ~ asc@dnaco.net