

# ANNOUNCEMENT

## Appalachian Regional Commission/Oak Ridge National Laboratory 2011 Summer Math-Science-Technology Institute for high school students and teachers

**To: Interested Students and Teachers in New York State Appalachian Counties: Allegany, Broome, Chautauqua, Chemung, Cattaraugus, Chenango, Cortland, Delaware, Otsego, Schoharie, Schuyler, Steuben, Tioga and Tompkins**

The Appalachian Regional Commission (ARC) is pleased to announce that it is collaborating with the U.S. Department of Energy's Oak Ridge National Laboratory (ORNL) and the Oak Ridge Institute for Science and Education (ORISE) in Oak Ridge, Tennessee, to provide a two-week residential hands-on learning institute focusing on math, science, and technology for high school students and teachers from **July 9 to 22, 2011**.



Twenty-six (26) students and twenty-six (26) teachers from throughout Appalachia will participate in a hands-on learning program that will focus on the application of math and science principles in the world of work. See attached *Criteria for Selection of Appalachian Participants* for specific eligibility requirements. (Participating Appalachian states may have additional criteria for selection of participants in their state.)

ORNL is one of the largest U.S. Department of Energy research facilities in the United States. It is devoted to multi-purpose research and development and is located approximately 20 miles northwest of Knoxville, Tennessee, near the Great Smoky Mountains National Park. ORNL is a U.S. Department of Energy facility managed by UT-Battelle. ORISE is managed by Oak Ridge Associated Universities (ORAU). ORAU has a diverse array of complementary, and often unique, science education programs.



The ARC/ORNL Institute is a unique opportunity for students and teachers to work with research scientists on relevant math and scientific topics facing the world in the 21<sup>st</sup> century. Students and teachers work in teams on research projects during the two-week institute, with each team comprising three to six students or teachers. The team approach provides an opportunity to conduct research activities and solve problems in a group setting. Examples of the research and other activities engaged in during previous Summer Institutes can be seen at:

<a href="http://www.orau.org/arc-ornl/2010/default.htm">http://www.orau.org/arc-ornl/2010/default.htm</a>	<a href="http://www.orau.org/arc-ornl/2009/default.htm">http://www.orau.org/arc-ornl/2009/default.htm</a>
<a href="http://www.orau.org/arc-ornl/2008/default.htm">http://www.orau.org/arc-ornl/2008/default.htm</a>	<a href="http://www.ornl.gov/~lxi/arc2007/index.shtml">http://www.ornl.gov/~lxi/arc2007/index.shtml</a>
<a href="http://www.orau.gov/arc2006/index.shtml">http://www.orau.gov/arc2006/index.shtml</a>	<a href="http://www.orau.gov/arc2005/">http://www.orau.gov/arc2005/</a>
<a href="http://www.orau.gov/arc2004/index.html">http://www.orau.gov/arc2004/index.html</a>	<a href="http://www.orau.gov/arc2003/index.html">http://www.orau.gov/arc2003/index.html</a>

The summer 2011 participants will be housed at a hotel in Oak Ridge, Tennessee, near ORNL and ORISE facilities. Student participants will be chaperoned 24 hours a day by experienced teachers who have worked with ORNL programs for several years. Participant teachers will not be responsible for chaperoning students.

All major expenses, including meals, lodging, transportation to and from the participant's home base, and local transportation, will be covered for all participants. Teacher participants will receive a stipend.

The participants will spend most days in one of several ORNL research laboratories, but field trips to nearby industries, universities, and museums will illustrate the applications of math and science in the real world and provide participants with opportunities to learn more about Appalachia and some of its unique characteristics.

Applications are submitted through the State Education Department's Summer Institutes Office and must be received no later than **March 11, 2011**.

**APPALACHIAN REGIONAL COMMISSION  
OAK RIDGE NATIONAL LABORATORY**

**2011 HIGH SCHOOL SUMMER MATH-SCIENCE-TECHNOLOGY INSTITUTE**

**Criteria for Selection of Appalachian Participants**

The Appalachian Regional Commission and Oak Ridge National Laboratory have established the following criteria for selecting high school participants for the Summer Math-Science-Technology Institute. Appalachian states have the flexibility to add additional criteria, provided they do not conflict with those given below.

**MANDATORY REQUIREMENTS:**

- High school student participants must be at least 16 years of age by July 9, 2011, the date the program begins.
- All participants must be U.S. citizens. (Required to obtain necessary security clearance to enter ORNL facilities.)
- Student participants must attend public school in a designated Appalachian county and plan to enroll in a public school in a designated Appalachian county for the 2011-2012 school year.
- Student applicants must attach a letter of reference from a teacher, school counselor, or administrator.
- Teacher applicants must plan to teach math, science, and/or technology (e.g., web design, computer programming) in the ninth grade or higher in a public school in a designated Appalachian county for the 2011-2012 school year.
- Children of employees of Oak Ridge National Laboratory and Oak Ridge Associated Universities are not eligible to participate.

**OTHER CONSIDERATIONS:**

- Target Schools/Counties. States are encouraged to target economically distressed counties and economically distressed areas for selection of participants.
- Schools Represented. High school student and teacher participants do not have to be from the same schools.
- Participation in Other Programs. Priority is given to students and teachers who have not had an opportunity to participate in previous high school institutes at Oak Ridge or similar math and science programs other than the ARC-ORNL Middle School Summer Science Camp.
- Family Income. ARC has not established income levels for participation. However, ARC requests that recruitment of participants focus on those students whose families do not have the financial means to send them to such a program.
- Academic Requirements. ARC has not established academic requirements for participation. However, ARC requests that recruitment focus on “middle-tier” students – students who show potential in math and/or science and who may improve their academic standing and consider college with additional encouragement. There is no minimum grade point average required for participation. Priority is given to students who would be first generation college-going.
- Background in Math/Science. Again, ARC encourages states to select “middle-tier” students who show a potential for success in math and/or science and may be encouraged to take higher-level courses and/or to improve their academic standing by participation in the program. For some students, participation in this type of program would greatly enhance their self-esteem and could help them decide on a course of study to pursue after high school.

For further program information, please contact the Summer Institutes Office, New York State Education Department, Room 866 EBA, State Education Department, Albany, NY 12234; phone 518-474-8773 or email: [nyssa@mail.nysed.gov](mailto:nyssa@mail.nysed.gov) Or, you may contact Jeffrey H. Schwartz, Ed. D., Education Program Manager, Appalachian Regional Commission, 1666 Connecticut Avenue, NW, Suite 700, Washington, DC 20009-1068; telephone: 202-884-7721; fax: 202-884-7682; e-mail: [jschwartz@arc.gov](mailto:jschwartz@arc.gov).

**All applications must be received by the Summer Institutes Office by March 11, 2011.**

*Program is dependent upon availability of funding.*