



ANNOUNCEMENT

Date: January 9, 2014

Subject: Appalachian Regional Commission/Oak Ridge National Laboratory 2014 High School Summer Math-Science-Technology Institute for students and teachers

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 Oak Ridge Associated Universities (ORAU) 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 5 to July 18, 2014.



Twenty-six students and twenty-six 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 Participant Selection 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. The ORNL facility is managed by UT-Battelle. ORAU, a consortium of major universities, cultivates collaborative partnerships that enhance the scientific research and education enterprise of our nation.

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 21st 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:



http://www.arc.gov/summerSTEM

The summer 2014 participants will be housed at a hotel in Oak Ridge, Tennessee, near ORNL and ORAU facilities. Student participants will be chaperoned 24 hours a day by experienced teachers. Teachers selected to participate in the program will not be responsible for chaperoning students.



All major expenses, including meals, lodging, transportation to and from the participant's home, and local transportation, will be covered for all participants. Teacher participants will receive a \$1,003 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 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 must be submitted to the ARC State Program Manager of the state in which the participant's school is located on or before March 7, 2014. Please contact your ARC State Program Manager before applying. Individual states may have specific requirements and/or application procedures.

A list of all ARC State Program Mangers, application forms, and further information is available on the ARC Web site at http://www.arc.gov/summerSTEM

Program is dependent upon availability of funding.



**APPALACHIAN REGIONAL COMMISSION/
OAK RIDGE NATIONAL LABORATORY
2014 HIGH SCHOOL SUMMER MATH-SCIENCE-TECHNOLOGY INSTITUTE**

Criteria for Participant Selection

The Appalachian Regional Commission (ARC) and Oak Ridge National Laboratory (ORNL) 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 5, 2014, 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 (<http://www.arc.gov/counties>) and plan to enroll in a public school in a designated Appalachian county for the 2014-2015 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 (<http://www.arc.gov/counties>) for the 2014-2015 school year.
- Immediate family 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 Academy.
- 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 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; e-mail jschwartz@arc.gov

All applications are to be *submitted to the ARC State Program Manager* of the state in which the participant’s school is located on or before **March 7, 2014**. Faxed copies are acceptable if all information is legible. Prior to applying, contact your ARC State Program Manager for the specific application procedures for your state.

A list of all ARC State Program Mangers, application forms, and further information is available on the ARC Web site at <http://www.arc.gov/summerSTEM>

Program is dependent upon availability of funding.



APPALACHIAN REGIONAL COMMISSION/
OAK RIDGE NATIONAL LABORATORY

2014 HIGH SCHOOL SUMMER MATH-SCIENCE-TECHNOLOGY INSTITUTE
July 5-18, 2014, Oak Ridge, Tennessee

PLEASE PRINT ALL INFORMATION USING BLACK OR DARK BLUE INK.
Applications are due on or before March 7, 2014

Name Last First FULL Middle Name Male Female
(or use NMN if no middle name)

Student Teacher U.S. Citizen* Yes No

Social Security Number Date of Birth* Month Day Year

School Name School County

*NOTE: All high school student applicants must be 16 years of age by July 5, 2014, to participate.

*Note: U.S. Citizenship required to enter ORNL facilities.

School Address Street City State Zip Code

School Telephone Number School Fax Number Area Code & Number Area Code & Number

Home Address Street City State Zip Code

Home Telephone Number Applicant's Cell Phone Number Area Code & Number Area Code & Number

Preferred E-Mail Address (please print clearly)

Alternate E-Mail Address (please print clearly)

T-shirt size (circle one): S M L XL XXL XXXL

PARENT OR GUARDIAN OF STUDENT APPLICANTS - PLEASE READ AND SIGN THE FOLLOWING:

has my permission to submit this application and, if selected, to participate in the Appalachian Regional Commission/Oak Ridge National Laboratory 2014 High School Summer Math-Science-Technology Institute to be held from July 5 to July 18, 2014, at the Oak Ridge National Laboratory in Oak Ridge, Tennessee.

Printed Name of Parent/Guardian Signature of Parent/Guardian
Home Phone Number: Work Phone Number:
Parent/Guardian's Cell Phone Number: Date
Parent/Guardian's E-mail Address: (please print clearly)

Signature of Applicant Date

Student applicants: Please complete Page Two of this application and attach a letter of reference from a teacher, school counselor or administrator.

Teacher applicants: Please complete Page Three of this application.

High School Student Applicants Complete This Page

Name _____
Last First FULL Middle Name
(or use NMN if no middle name)

Current School Grade _____

***Note: Planned attendance in a public school in a designated Appalachian county during school-year 2014-2015 required.**

Parent/Guardian 1 Name _____ Address _____
Street City, State Zip Code

Parent/Guardian 2 Name _____ Address _____
Street City, State Zip Code

Have you participated in a hands-on learning institute on a previous occasion? *
Yes No

***Note: Priority is given to applicants who have not previously participated in a math/science institute other than the ARC-ORNL middle school camp.**

If your answer to the above question is *yes*, please complete the following:

- Name of institute you attended: _____
- Where was the institute held? _____
- When did you attend? _____
- Name of organization sponsoring the institute: _____
- Were you nominated to attend? _____; By whom? _____
Yes No

List all math, science, and computer technology courses you will have completed by the end of the 2013-2014 school year: _____

Why are you applying to participate in the ARC/ORNL Summer Math-Science-Technology Institute? (Use a separate sheet, if necessary.)

Are you planning to attend college or other post-secondary school? _____
Yes No Not sure yet

Have you taken any of the college admissions tests yet (e.g., ACT, SAT, PSAT)? _____
Yes No

Have you worked in a team or group setting previously? _____
Yes No

Does your school have Internet access? _____
Yes No

Do you have Internet access at home? _____
Yes No

How do you think your participation in this institute will impact your classroom learning?

Please attach to Page One

Applications are due on or before March 7, 2014

Student applicants must attach a letter of reference from a teacher, school counselor or administrator.

Teacher Applicants Complete This Page

Name _____
Last First Full Middle Name
(or use NMN if no middle name)

School grade(s) you will teach in 2014-2015* _____

Subject(s) you will teach in 2014-2015* _____

***NOTE: Teacher participants must be scheduled to teach math, science or technology in grades 9-12 in public schools in a designated Appalachian county during the 2014-2015 academic year.**

Other grades and subjects you have taught: _____

Highest Degree Earned _____ Major _____ College/University _____ Date _____

- Can you commit to participating for the full two weeks, July 5 – 18, 2014? _____
Yes No
- Have you participated in a similar institute previously? _____
Yes No

If your answer is *Yes*, please complete the following:

- Name of institute attended: _____
- Sponsor: _____ When? _____
- Was the institute one in which you were nominated to participate? _____
Yes No
- If you were nominated, who nominated you? _____
- Purpose of the institute: _____

Does your school have Internet access? _____
Yes No

Does your classroom have Internet access? _____
Yes No

What kinds of technology are you currently using to provide classroom instruction?

What do you hope to gain from attending this institute? _____

Have you participated in any team learning experiences previously? _____
Yes No

Do you have any previous research experience? _____
Yes No

If *yes*, please tell when, where, and how long: _____

Have you participated in a previous ARC/ORNL workshop?* _____
Yes No

If *yes*, please provide the details (use a separate sheet if necessary):

***Note: Applicants who have not previously participated will receive priority.**