

Science Academy

Throughout the three summers of this program, teacher participants will be provided with opportunities to share what they already know about excellent science instruction as well as develop new pedagogical skills.

During the school year the participants will be encouraged to apply what they have learned to their instructional assignment.

The LANL Master Teacher will provide support and encouragement over the course of the school year. The participant teachers will also be able to support one another via online communication mechanisms.



A one of a kind professional development experience.

Classroom, laboratory, and field activities in energy and environmental science subject matter.

All participants who successfully complete the Summer 2011 program will be eligible to receive graduate credit from the New Mexico Institute of Mining and Technology.

Designed for science teachers working at the high school level.

The goal of the program is to boost participant content knowledge by way of genuine research experiences at Los Alamos National Laboratory.

For more information please contact:

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Unclassified LA-UR 10-06617

Los Alamos Energy and Environmental Science Academy



Summer 2011

June 13 – August 5

Los Alamos National Laboratory

Los Alamos Energy and Environmental Science Academy

The LAEESA program is a three-year professional development opportunity that supports participant learning through direct meaningful interaction with scientists working on real-world problems.

Participants will complete all training associated with their assignments and will be expected to attend weekly seminars in special topics related to LANL energy and environmental studies.

Each of the three summers will require participants to make an 8-week commitment to a particular research assignment.

The LAEESA program is funded by the U.S. Department of Energy through the Academies Creating Teacher Scientists (ACTS) program.

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Energy

The energy science component will provide participants with content knowledge and research experience in programs currently being supported at LANL. These programs apply a multidisciplinary approach to solving energy production and delivery problems facing the world. Some of the key research projects in energy science currently underway at Los Alamos address problems such as:

- Improving hydrogen fuel cell efficiency
- Carbon dioxide separation & capture
- Carbon sequestration and monitoring
- Processing unconventional fossil fuels
- Exploring superconductivity
- Infrastructure modeling and analysis
- Design and production of biofuels



Environmental

The environmental science component will consist of lectures, hands-on field and laboratory research assignments in support of studies underway at LANL.

The emphasis of LANL environmental research is upon those points of intersection where LANL operations and environmental integrity interact. Environmental research at LANL includes studies examining:

- Link between Laboratory chemical activities and water quality in surface and underground resources,
- Impact of Laboratory activities upon sensitive wildlife habitat including endangered species,
- Air emissions from routine as well as off-normal Laboratory activities,
- Impact of wildland fire upon the Laboratory and surrounding communities, and
- Characterization, treatment, storage and disposal of hazardous and radioactive waste materials.