



The Nano Education and Outreach (NEO) Program*

Exploratorium, San Francisco

Program Description

The NEO Program supports graduate students, postdoctoral scientists, and research center education directors engaged in nanoscale science and technology who are working in education and outreach efforts. NEO provides **professional development in inquiry-based education and public communication**. It builds understanding of science **inquiry** teaching and learning, science activity **design, public communication, diversity** issues and strategies, **and learning research and theory**. NEO participants become part of the emerging NISE Network, composed of individuals from science museums, nano-science and technology research centers, libraries, media organizations, and national nano science and technology-related organizations.

Outcomes for program participation include:

- Teaching and learning
 - Increased understanding of how people learn (theory and research findings)
 - Understanding of and experiences with science inquiry learning
 - Ability to design and implement inquiry-based science lessons and activities for outreach programs
- Communicating to the non-science public
 - Increased understanding of the need for public communication
 - Improved presentation skills
 - Knowledge of resources for communicating about nano science and technology
- Increasing diversity in nano science and technology
 - Ability to improve nano science outreach efforts by applying inquiry-based teaching strategies
 - Understanding of what “nontraditional” students need to succeed in science, and explicit strategies for helping to meet those needs
- Networking
 - Participants in NISE network
 - Professional relationships with other graduate student participants and with the informal science education community

The NEO Program for 2007

2007 is the second year of our NEO Program. We are opening the application process to the broad nano research community. We strongly encourage application from those involved in NSF funded nano science and technology research centers.

* A program of the Nanoscale Informal Science Education (NISE) Network

Who Should Participate?

NEO is now registering participants for May 2007. Participants should meet the following criteria:

- Graduate students, postdoctoral scientists, education directors, and others who are or can arrange to be involved in outreach programs in science and technology.
- People who are interested in learning more about inquiry science teaching and learning, learning theory, and communicating about scientific research with the broader public.
- Participants must be able to set aside time to attend the complete **NEO Inquiry Workshop** and the **NISE Conference**, as well as participate in outreach efforts.
- People are strongly encouraged to **register with one or more partners** from their science research center, ideally, someone who is working on the same outreach project.

Note that preference will be given to applicants with:

- One or more partners from their outreach project.
 - A well defined participation in an outreach program
 - Outreach programs that involve some teaching and that serve underrepresented populations
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NEO Program Schedule for 2007

NEO Inquiry Workshop

May 21–25, 2007 (5 days) – Exploratorium, San Francisco

Participants engage in Inquiry-based science learning. The group will be introduced to current theory and research related to science learning with particular attention to issues of diverse student audiences. They will also spend time working on communication skills for non-scientist audiences. Participants will receive training in learning design and, with their partner, will work to design an inquiry-based activity that they can use in their outreach project. Participants will be brought into the NISE Network, learning about the science being done by their peers and connecting with leaders from NISE museum strands, such as the Visualization Lab.

NISE Network Meeting and NEO Extension

November, 2007 (4 days) – Exploratorium, San Francisco

Participants will attend meeting sessions, present posters, and participate in NEO breakout sessions. The NEO group will meet separately for workshop follow-up on one of these four days.

The NISE Network covers all Program Costs

(Commitments for participants are listed below)

All travel, lodging, meals, and program-participation costs will be covered through the NISE Network. Participants will need to:

- Bring poster for presentations as described in the forthcoming registration packet.
- Describe the outreach program in which they will carry out their inquiry designs.
- Commit to the time necessary for the NEO program and outreach activities. A letter of support from your research center education director and/or your faculty advisor may be required.

**For registration information contact Tracy Jarvis
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