

Committee on MIT K–12 Educational Outreach Programs

Many of the tasks formerly taken on by the Council on Primary and Secondary Education have now been taken up by the Committee on MIT K–12 Educational Outreach Programs, co-chaired by Kim Vandiver and Eric Klopfer. To initiate a new effort toward outreach, a large organizational meeting (which included about 25 people) and attended by President Hockfield, was held in February 2005. An MIT K–12 midway was held in the Stata Center during the inauguration activities for President Hockfield. This was a huge success and included representatives from some 20 programs. A new website, with current programs listed, is now available at <http://web.mit.edu/outreach/>.

MIT/Wellesley Teacher Education Program

In 2004–2005, MIT's Teacher Education Program (TEP), led by professor Eric Klopfer, again reached a milestone in teacher licensure. Continuing a program that started two years ago, MIT students were provided with a pathway to licensure entirely at MIT. This year, TEP had 13 students licensed for teaching. This successful program continues to attract great interest from students and will continue to contribute to the field of teacher education.

Over the past two years, the TEP has strengthened its relationship with Cambridge Public Schools through new projects. At the same time, it has furthered relationships with Arlington High, Boston Public Schools (included Boston Latin, an exam school) and Boston Community Leadership Academy, as well as Brookline Public Schools. Dr. Klopfer has continued the National Science Foundation—funded project to train teachers using new technologies to improve science learning. TEP has also started an educational technology program in biology education with five Boston metro schools. This was recently spotlighted on Boston's WBZ-TV evening news. We are delighted that Professor Klopfer has become the first holder of the newly created Joseph B. (1954) and Rita P. Scheller career development professorship in teacher education. For more information about TEP, see <http://education.mit.edu/>.

There are more than 50 K–12 educational outreach programs here at the Institute, which are now catalogued on our website <http://web.mit.edu/outreach/>. Those that fell under the Council on Primary and Secondary Education are outlined below.

Teacher Sabbaticals

The Class of 1952 Educational Initiatives Fund launched the MIT Teacher Fellows Program, which brings middle and high school teachers together with MIT faculty. Not only is this program effective in helping teachers develop new and creative ways to teach math and science, it allows MIT faculty to share their expertise in the development of K–12 math and science curricula.

Mr. Kenneth Brody, retired from Boston Technical High School, returned to MIT in AY05. Mr. Brody continues to serve as secretary of the Network of Educators in Science and Technology (NEST). Additionally, he arranges tours of MIT for NEST teachers and students. We are pleased to have precollege educators with us. Their understanding of

the needs of classroom teachers is essential to the development of MIT's agenda in K–12 education.

Center for Materials Science and Engineering

With encouragement from the National Science Foundation, the Center for Materials Science and Engineering is working to make research experience available to in-service teachers on the campuses of all 63 member institutions. During summer 2005, five new participants and five returning teachers and their students will be at MIT in a variety of center and laboratory settings: the Center for Materials Science and Engineering, the Biotechnology Process Engineering Center, and the Center for Environmentally Benign Semiconductor Manufacturing.

Science and Engineering Program for Teachers

Professors Ronald Latanision and Eric Klopfer direct the Science and Engineering Program for Teachers, which shares the Council on Primary and Secondary Education's goal of science literacy for all students. The key to a good education is an enthusiastic, knowledgeable teacher. Since 1989, this program has endeavored to give educators a unique perspective of how the basic sciences, mathematics, and engineering are integrated to meet the technological challenges and needs of commerce and society. This program continues each summer with sustaining support from MIT alumnus H. Johan von der Goltz (MG '60), founder and general partner of Boston Capital Ventures. During the program week, June 26–July 2, 2005, 14 MIT Alumni Clubs and several individual alums (through their business foundations) will sponsor 50 of the 60 teachers participating in the program. The guest speaker at the banquet dinner on July 1st will be Dr. Paul E. Gray, MIT president emeritus.

The alumni of this program, now totaling approximately 1,000, become members of NEST. This summer, NEST members will come to MIT on July 1st for a two-day meeting to participate in a sustainable energy program featuring the Cape Wind Farm Project, Green Fuel Inc., the MIT Laboratory for Energy and the Environment, and the Department of Chemistry.

Once again six Siemens scholars have been identified from among the participants in the Science and Engineering Program for Teachers. These teachers will be supported during their visit to MIT by the Siemens Foundation. In addition, the foundation provides the resources for one MIT Siemens teacher fellow; this individual will spend seven weeks on campus in a research lab identified by the Center for Materials Science and Engineering. The object of this effort is to make research experiences available to in-service teachers.

Eric Klopfer, Associate Professor, Urban Studies and Planning

Kim Vandiver, Professor, Ocean Engineering and Dean for Undergraduate Research

More information about the Science and Engineering Program for Teachers and the Network of Educators in Science and Technology can be found on the web at <http://web.mit.edu/outreach/>.