ATE Project for Physics Faculty Winter 2008

A Project of Lee College (TX), Estella Mountain Community College (AZ), and the National Science Foundation

The ATE Project for Physics Faculty is pleased to announce a new physics conference for two-year college (TYC) physics faculty who are early in their teaching careers. The activities of this project are supported in part by a grant¹ from the Division of Undergraduate Education through the Advanced Technological Education (ATE) Program of the National Science Foundation.

This new conference is part of a three year, national, ATE-focused, conference/workshop program that is led and administered by Lee College (TX) and Estrella Mountain Community College (AZ). It involves a modification, expansion, and continuation of several previous TYC physics workshop projects, which started in 1991. In its first year, this current project has conducted 4 workshops at 4 different TYCs in 4 states. These workshops have served 88 participants from 62 TYCs and HSs in 27 states and US territories.

The goal of this ATE project is to help two-year college students develop a stronger understanding of science, with an emphasis on physics and its applications in industry. This goal is important because of the large number of students, particularly women and minorities, who are enrolled in technology or transfer programs at two-year colleges who need a stronger science program. The vital task of updating and improving physics programs at two-year colleges is difficult due to the rapidly occurring changes in technology, the distribution of physics teachers, the heavy and complex workload of the faculty, and their lack of knowledge about the needs and applications of physics in the workplace.

This program addresses these issues by providing a series of faculty development workshops and conferences for twoyear college teachers who teach the core physics courses for technology programs. These workshops and conferences are designed to acquaint the participants with the integration and implementation of emerging technology and active learning strategies. These workshops and conferences provide extensive and intensive hands-on, collaborative experiences for participants with materials that make it easy for participants to implement the conference/workshop ideas, adopt or adapt them, and acquire necessary skills to use them effectively in their classroom.

Each conference/workshop will be led by TYC physics teachers and by several other physics educators who are experts in these fields and have played (and continue to play) a major role in the development of these ideas and materials.

This project has scheduled the following conference² for two-year college physics teachers:

ATE Project for Physics Faculty Schedule

March 6 – 8, 2008 New Faculty Training Conference for Two-Year College Physics Faculty at (Thurs.-Sat.) Delta College, University Center, MI

Conference Fees

There are no fees or costs directly associated with participation during this conference due to the support of the National Science Foundation, Lee College, Estrella Mountain Community College, Delta College, and the American Association of Physics Teachers.

Conference Schedule

This conference will consist of over 35 hours of scheduled activities over three days, of which most time will be spent doing hands-on activities in two or three hour work sessions. Conference sessions start on Thursday, Friday and Saturday at 8:30 AM. Conference sessions end each day at approximately 9:30 PM except for Saturday when it is scheduled to end at approximately 4:00 PM.

Conference Objectives

The objectives of this conference are to provide TYC teachers who serve students involved in advanced technology programs with:

¹ NSF Grant # DUE 0603272

² Additional information and updates can be found on the World Wide Web at http://www.physicsworkshops.org.

- knowledge of and solid experience with recent major advances in the applications of microcomputers and curriculum developments in physics;
- a means to identify the appropriateness and role of the conference ideas in meeting the needs of TYCs, and to see models of how it has been done at other TYCs;
- an opportunity to develop, adapt, share, and incorporate suitable materials into TYC physics courses and programs; and
- a chance to enhance their understanding and appreciation of the needs of students, educational programs, and workforce needs in areas dealing with advanced technology.

Conference Materials

Participants will be supplied with the materials needed for the conference. This includes some background materials prior to the conference as well as a substantial amount of materials for use during and after the conference. As a result of being selected for and attending the conference, participants will be supported by a web-based networking system prior to and following the conference. In addition, an electronic newsletter will describe the progress of these and other approaches as well as providing a vehicle for participants to share their work and experiences.

Meals and Lodging

Participants will be provided a room (shared with one other participant) for Wednesday through Saturday evenings at a nearby motel. Individual rooms will be available at an extra cost to the participants. Meals will also be provided during the conference.

Travel to the Conference Site

Travel costs to and from the conference site are expected to be provided by the participants' TYC. The conference host institution will provide scheduled transportation to and from the nearest airport as well as between the motel and the host institution.

Stipends – Follow-Up Meeting

There are no stipends for attending the conference. However, conference participants may receive support of up to \$150 for costs to attend the 2009 Summer AAPT National Meeting scheduled at the University of Michigan in Ann Arbor during July 2009. AAPT has agreed to give a substantially reduced registration fee to NFTC participants to attend this Summer Meeting.

Eligibility and Selection of Participants

All instructors currently teaching full-time at a recognized two-year college in the United States are eligible for this program if part of their teaching load involves physics. Since this conference is for new faculty, applicants should be within their first five years of teaching. This program is open to all qualified individuals regardless of race, color, religion, gender, age, national origin, or educationally unrelated disabilities.

Application and Selection Dates

Selection of participants will be announced starting 45 days prior to the start of the conference. However, early submission is highly recommended since conference participant selections may be made early for well-qualified applicants.

Additional Information and Updates

Please check http://www.physicsworkshops.org or contact the Project Co-Directors Tom O'Kuma (281-425-6522 or tokuma@lee.edu) or Dwain Desbien (623-935-8474 or dwain.desbien@emcmail.maricopa.edu) concerning updates, questions, or more information.