Erin Darnell attends New Faculty Experience Conference at Delta College in Michigan.

Erin Darnell of Shelton State Community College in Tuscaloosa, AL recently participated in the third cycle of the New Faculty Experience for Two Year College Physics Teachers, held at Delta College in Saginaw, Michigan.

While attending the Conference participants were exposed to various active learning techniques as well as recent technological advances used in Physics Instruction. The following is a description of the 18 month program and the participants future involvement with the group includes implementation of materials into courses, on-line discussion group’s peer and leadership mentoring and a follow up commencement conference to be held in conjunction with the National American Association of Physics Teachers Summer Meeting 2014, to be held in Minneapolis, MN.

Two Year College Physics Professors, Dr. Todd R. Leif, Cloud County Community College, Concordia, KS and Scott F. Schultz, Delta College, University Center, Michigan recently hosted the New Faculty Experience for Two Year College Physics Instructors at Delta College in Saginaw, Michigan. The grant funding is distributed through the American Association of Physics teachers in College Park, Maryland, under the direction of the AAPT’s Chief Executive Officer Dr. Beth Cunningham and was awarded by the National Science Foundation.

“Our grant titled “New Faculty Experience for Two-Year College Physics Instructors”, Dr. Leif explained, is used to train new physics faculty like Erin Darnell, from community colleges across the nation in areas of active engagement instructional techniques, the use of technology for science education, and methods of classroom management. Professor Schultz noted in the grant application that, “The experience will equip participants with techniques that are: engaging, hands-on, recognized as promoting active learning, proven at two-year colleges and ultimately based on physics education research.” The Two-Year College New Faculty Experience is an 18-month experience for new physics instructors.

The principle investigators solicited help from Delta College and physics instructor Aurilean Balan to host the four day spring conference hosted the first week of March during Delta’s spring break. “Balan and his administration team at Delta were happy to assist us” Leif said. “Aurilean was a participant in our last project held nearly three years ago, and has done a great job implementing the curricular strategies into the physics program at Delta.” Saginaw is strategically located close to a regional airport and has excellent hotel facilities to host the anticipated physics instructors attending the conference. Additional instructors and mentors for the program come from Lee College in Texas, Harold Washington College in the Chicago area and Seminole State College in Sanford, FD.

These new Physics Instructors are learning about curricular projects based upon the latest Physics Education Research during their time at Delta College. One exciting technology covered at the conference includes using Computer Based Laboratory Experiences integrated into laboratory curriculum. Computers are just a tool, but coupled with the right curriculum, they can greatly increase the level of understanding students achieve.
Additionally the instructors are experiencing a classroom management model which promotes active learning and engagement activities into the daily lessons. Finally exposure to the Introductory College Physics in the 21st Century curriculum project which was developed by Two-Year College Physics instructors for Two-Year and Technical College Physics instructors was disseminated to the participants.

Besides the Conference, an on-line discussion group and follow up mentoring are planned. Dr. Leif noted, “Research done as part of my dissertation project showed that one shot professional development projects are not successful in maintaining change, so we are adding a strong mentoring and follow-up experience for these new two year college physics teachers.” These follow up activities and a strong set of assessment and evaluation tools are essential for qualifying for National Science Foundation funding of this type.

A commencement conference, the final stage of the project is scheduled during the National Summer Meeting for the American Association of Physics Teachers to be held at the University of Minnesota, St. Paul/Minneapolis, MN in August, 2014. Participants will attend special sessions designed for the New Faculty Experience Commencement Conference. The leadership team will then introduce the participants to the Two-Year College physics teaching community at a breakfast and then over the rest of the National Meeting days the participants will engage in sessions, the demonstration show, and symposiums. The American Association of Physics Teacher Meetings are the premier professional development opportunity for physics instructors and the principle investigators are excited that the New Faculty Experience is able to introduce participants to this valuable resource. For more information about the project you can contact Dr. Todd R. Leif, Physics Department Cloud County Community College (785-243-1435 x 216) or Scott Schultz Delta College Physics Department (989-686-9452).

Professor Darnell’s active participation and the support from the College will have a tremendous impact on the way that physics courses are taught at Shelton State Community College in the future. Interested readers and future physics students should consider visiting with faculty and student service personnel at the college to find out more about participating in courses using these new methods of physics instruction.

*Photo Cutline: Delta College’s Ronald Schlaack and Aurilean Balan, (left) work with Andrew Morrison, Joliet Jr. College (Center) and Erin Darnell, Shelton State Community College, AL (right) at Delta College, Michigan during the New Faculty Experience Conference held at Delta College this past week.*