

Archived Information

Pennsylvania State System of Higher Education
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Goals of the Pennsylvania Science and Mathematics Project

The goals of the five year National Science Foundation Collaborative For Excellence in Teacher Preparation (CETPPA) project in the Pa. State System of Higher Education are accomplished by transforming the minority of K-16 teachers who implement teaching strategies consistent with current mathematics and science research into the majority. This will impact the educational culture in a positive manner and result in a more favorable learning environment for all of our students. Many K-16 educators in Pennsylvania are unaware of teaching and learning strategies, which are consistent with current research findings. We are building a cadre of K-16 teachers of mathematics and science who can serve as leaders within their own educational setting.

Brief Summary

The ultimate goal of the CETPPA project is to significantly enhance the science and mathematics educational level of public school students in the state of Pennsylvania and to provide the motivation and encouragement for these students to pursue careers in science and mathematics education.

Purpose

To address new state and national standards and to meet the demand for excellence in teaching coupled with strong content background in teacher preparation throughout the K-16 environment.

Accomplishments/ Results

The CETPPA model has a foundation, which includes well-planned, organized, consistent collaboration and professional development activities. This project has been developed as a result of countless meetings involving almost 120 individuals on 13 university campuses, in videoconferences, and in statewide team meetings in Harrisburg. Collaboration among these teams has resulted in six focal points for this project. They are: Integration of Technology, Teaming/Recruitment/Mid-Career Changes, Development and/or Expansion of Professional Development Schools, Implementation of Symposia and Workshops, Establishment of Science/Math Centers, and Course and Curriculum Revision and Expansion. The vehicle for accomplishing the majority of the objectives of this project is a network of Centers for Science and Math Education across the 14 SSHE campuses. Currently 13 universities have active centers.

Plans for Next Twelve Months

Aligning curriculum to best meet the standards will be a key objective, as the impetus, for change in the classrooms of the public schools and for the preparation of future teachers in Pennsylvania.