

IMPLEMENTATION STRATEGIES

Site Partnership: [Lehigh Carbon Community College](#)

Updated: [08/03/06](#)

Provide a brief report citing five of the major strategies that you are using in your project. A short paragraph describing how these strategies are being used is also required.

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| STRATEGY: | Aligned County-wide adoption of Career Pathways |
| DESCRIPTION: | The school districts in Lehigh and Carbon Counties and Lehigh Carbon Community College have implemented most of the career pathway strategies recommend by CCTI. The ones that we are most proud of and are using most extensively in our CCTI sponsored project are the following. The school districts in Lehigh County were at the forefront of the development of Career Pathways. Approximately 8 years ago Dr. Clyde Hornberger, Director of Lehigh Career and Technical Institute, and a number of Lehigh County superintendents presented the Lehigh County Career Pathways program to "High Schools that Work." All of our school districts in Lehigh County are "High Schools that Work" schools. Over the years, Dr. David Fallinger and Mr. Allen Fields, our CCTI Program and Project Directors, and others have followed up with additional presentations at "High Schools that Work" programs. An aligned curriculum framework with career awareness beginning in first grade and continuing throughout the educational career is a basic part of the Lehigh county-wide educational system. |
| STRATEGY: | Professional Development in Academic Literacy in the Content Area |
| DESCRIPTION: | Our CCTI project is called "Academic Literacy in the Content Area." As described in our summary this entails providing professional development for high school and community college STEM instructors in the area of academic literacy. These instructors are taught ways of incorporating academic literacy skill strategies into their content teaching area. By design, reading apprenticeship (RA) is a contextually based, learning-centered strategy. RA is designed to be delivered as a student-centered approach to developing reading comprehension. Workshops for high school, middle school and college faculty were held last summer. A workshop is being held at the college this spring as an off-shoot of the CCTI program and the IU will run their training program again this summer. This leads us to another strategy; RA preparation is being introduced at the middle school level by our partners. In some school districts RA instruction begins as early as the fifth grade. |
| STRATEGY: | Dual-enrollment and Middle College Programs, PA Academy for Science and Technology |
| DESCRIPTION: | Lehigh Carbon Community College and several of our school districts as well as Lehigh Career and Technical Institute are involved in dual enrollment programs |

and a Middle College program. These programs are in place in several ways. In some schools, high school teachers teach the college courses, sometimes the students come to campus and take the courses here, and sometimes the students take the course via distance learning. Students must meet the same requirements for admission as regular college students, taking the same admissions tests, etc. The course requirements for dual enrollment students are the same as for those enrolled in the courses at the college. Courses in a number of disciplines currently exist. As part of the CCTI program, the course, Introduction to Biotechnology has been developed with a projected introduction to the high schools for either fall, 2005 or spring, 2006. In addition, the nanotechnology program is undergoing a complete curriculum review during the summer, 2004- spring, 2005 and a new introductory course in nanotechnology has been developed for this curriculum with the prospect of being used as a dual enrollment course. Beginning in the fall of 2007, "high-flyer" Juniors and Seniors will have the opportunity to access extended academic core discipline offerings beyond the school districts' ability or capacity. These courses will be consistent with the STEM Theme and will be offered through the community college at several locations in the county.

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| STRATEGY: | Review and revision of the LCCC Nanotechnology Program with input from industry, secondary and college faculty followed by review and revision of high school and LCCC science curricula for the introduction and infusion of nanotechnology |
| DESCRIPTION: | Due to a change in the employment outlook in the Lehigh Valley, a complete review and revision of the Nanotechnology Program has taken place. The nanotechnology program formerly had a strong electronics, optoelectronics bent to it. However, with the downsizing of several of the electronics firms and an increase in ventures into nanotechnology by some of the local chemical and biochemical firms, it was viewed as prudent to consider re-evaluating the nano program, so that students would have the background needed to compete in the current career market. This process has been accomplished. Following a very successful nanotechnology workshop for high school and college science faculty and high school guidance counselors and administrators, our next objective is the infusion of nanoscience and biotechnology concepts into the regular science curricula. This will support the nanoscience and biotechnology career pathways by creating career awareness as well as work toward an appropriately scientifically informed general population in current cutting-edge technologies. |
| STRATEGY: | Secondary and Post-Secondary instruction in industry recognized skills and knowledge |
| DESCRIPTION: | The County AVTSs run a competency based program where students, select a career pathway and must complete each of the competencies required for that program of study. This is shown in our career pathway and is indicated by the various job titles with the O'Net hyperlinks to the various competency lists. The LCCC program is also based on students developing industry recognized skills and knowledge. The programs are reviewed regularly by industrial site committees. |