2004-2005 TECH PREP MINI-GRANT ABSTRACTS

Technology Education/Science Education Curriculum Collaboration/Dryden High School/ $3075.00: Sue Gilcher

This award will support the continuation and expansion of the Civil Engineering and Architecture (CEA) Community Collaboration project supported by Tech Prep in 2003-2004. The Dryden School District was awarded a NYSERDA energy grant and has received solar collection equipment along with computer-based data collection and monitoring hardware and software. A collaborative initiative between the Technology Education and Science Departments is proposed which will provide an integrated contextual learning experience for students taking the CEA course. Students in the course are given an alternative energy residential design project and his collaboration will give them the opportunity to understand the physical process of converting sunlight into solar energy through interaction with the collection system and data analysis. Students will learn how to optimize the solar photovoltaic systems for our geographic location.

MOUS Certification Exams/McGraw High School/$1810.00: Pamela Coombs

This project money will be used to fund and implement additional Microsoft Office User Specialist (MOUS) certification exams. McGraw High School received a grant last year to acquire, train, and implement the software to become a certified MOUS testing center. Many students have taken advantage of the program and many more are interested in becoming MOUS certified. Each component of Microsoft Office requires one examination. Students in the Computer Applications Course (CAPS) are currently developing high levels of competency in Microsoft Office. Students apply their knowledge of Word, Access, Excel, and PowerPoint to complete an integrated marketing/management plan for a virtual business. Implementation of the MOUS certifications meet national industry standards and help assist our students in preparing to meet the challenges of post secondary study and the workforce.

MOUS Certification Exams/Ithaca High School/$2025.00: Nancy Herzog

IHS would like to continue to offer their Dual Credit business students the opportunity to successfully take the MOUS (Microsoft Office User Specialist) exams as part of their College Computer Applications course work. This will provide them with internationally recognized technical skills necessary for today's work place. Ithaca was originally awarded a Tech Prep mini grant two years ago, when they implemented the MOUS Certification program.

Amateur Radio Station/Cincinnatus High School/$5134.00: Nicole Rice

The purpose of this project is to setup an amateur radio station broadcasting over networked computers for high school computer students who are enrolled in our Multimedia Presentations course and continue on to Computer Publications that show an interest in pursuing careers in the media arts and communications. Through a rotation

schedule, students will be encouraged to experience all jobs to run the station such as announcer, chief engineer, copywriter, news director, music director, equipment manager/technical support, production director, sports director, and weather director.

Forensic Science/Marathon High School/$3809.00: Jacqueline Baxendell

This grant money will be used to fund the development and implementation of a course in forensic science. This course will help students meet new graduation requirements by offering another option in science. Where appropriate, we will work with the transition team to help special needs students meet their goals. It will teach science concepts by presenting the students with authentic problems that they have to solve. The students will create and present multimedia oral presentations of their findings, developing and refining these important skills while learning to work as productive members of a team. The School Resource Officer will work with the teacher to develop authentic problems for the students to investigate as well as organize field trips to working facilities like the NYS Police Crime Lab, and bring in guest speakers who are experts and practitioners in certain aspects of forensic science. These experiences will also expose students to other possible fields of future employment.

Environmental Issues and Policies Facing the 21st Century/Marathon High School/$6313.00: James Holland

These funds will enable the purchase of several handheld data collection software equipment and probes that will facilitate chemical analysis of localized experiments. The above-mentioned program has been approved as a new physical science credit for students in the Marathon School District. Students enrolled will use conceptual thinking skills to apply computer technology and scientific knowledge to environmental issues. These issues will be investigated in cooperation with local businesses, to enhance career choices as well as a respect for the preservation of nature. The class will develop their own criteria and test comparisons to analyze adverse effects that could result from poor practices in the local businesses. A final presentation from students to the local facilities will describe possible scenarios and give a feel for the importance of using proper testing equipment and methods.

Technology Education/Mathematics Education Curriculum Collaboration/Dryden High School/$2005.00: Sue Gilcher

This award will support a project for students that will integrate across the Technology Education and Mathematics disciplines at the high school level. The students selected for the project will be enrolled in Math A and Design and Drawing For Production (DDP) classes. The inventor software used in DDP will be used to explore mathematical concepts directly related to the competencies contained in the NYS Math A exam.

Success @ CCS/Candor High School/$3760.00: Tom Meiss

This program is geared towards all ninth grade students at Candor High School. Funding for the program is needed in order to cover curriculum development, substitute teachers and transportation. The goal of the program is to offer students a general understanding of career skills based on WORKplus and Tompkins Cortland Community College structure. Students should come out of the program with a framework of the career path

that they want to pursue. They will be completing interest inventories and will be exposed to career programs that are offered currently with in the school. Finally, this class will serve as a springboard to our career programs where students can earn certifications and college credits that make them more marketable to colleges and work forces in the future.

The Floating Classroom/TST BOCES/$7100.00: Thea Martin

The Floating Classroom brings science classes on to Cayuga Lake aboard the M/V Haendel, owned and captained by Dennis Montgomery of Cayuga Wooden Boatworks. Students collect samples and data from lake water, bottom sediments, and plankton tows. The hands-on activities teach students about the lake while they learn the techniques scientists use to study it. This project is a collaboration among TC3, TST BOCES, Environmental Studies and Wells College, the Cayuga Lake Inter-municipal Organization, and Cayuga Wooden Boatworks.

Digital Electronics/Candor High School/$4256.00: Steve Lindridge

In an effort to facilitate the growth and expansion of our IT programs currently implemented at Candor, we are proposing and inception of a Digital Electronics Course II. The curriculum we have chosen for this endeavor will parallel the TC3 digital electronics course offered by William Kleitz. The TC3 course has proven to be an excellent advance course in Digital Electronics that is the basis for all IT devices today.

College Internet Radio Station/TC3/$5894.00: Chris Xaver

This project development money will be used to purchase equipment needed to start a College Internet Radio Station. The station will replicate a traditional broadcast station in terms of content and experiences for the student. The difference is that it will be carried via Internet. The Internet component is an additional teaching benefit as more and more radio stations are streaming content onto their websites. The Communication and Media Arts program strives to work in a “real world” environment, preparing students for what they’ll face in the workplace. This project will give them the skills needed and the on air practice to prepare them for a career in radio. Additionally we would like to share our experiences with area high schools, Cincinnatus being the first interested in this project . Not only will this relationship benefit the high school student who may be interested in going directly into an entry-level radio career, it will also aid the student who’s interested in transferring to a Communication and Media Arts program.