FY 2004

Hispanic-Serving Institutions
Education Grants Program

Description of Funded Projects

Multicultural Alliances
Science and Education Resources Development
Cooperative State Research, Education, and Extension Service

U.S. Department of Agriculture
Washington, D.C.
Supervisor Training in Integrated Spatially-Distributed Environmental Sensors in Agriculture. Ventura College (VC) cooperatively with Allan Hancock College (AHC), have developing in-the field training opportunities for agricultural applications of Geographic Informations Systems (GIS) and Global Positioning Systems (GPS) for supervisors and consultants who coordinate field technicians in this information-rich area. VC and AHC will work collaboratively to develop training modules specifically designed as flexible, complete, and interchangeable. Current and future agricultural technology supervisors will take a directed studies course using these modules that employ these technologies. Feedback from the students will lead to module revision, as will the comments from a symposium held near the end of this project. California is a state where agriculture is still number one, and there is an identified need for trained supervisors in agri-industries. This project proposes training that will enable and support many underrepresented students who desire to fill those higher paid, higher technology supervisory positions in agriculture.

Aquaculture Education: Creating Career Pathways and Innovative Training for Hispanics. The main objective is to promote and strengthen the ability of this unique institution to carry out a program of higher learning that attracts, retains, graduates, and ultimately employs underrepresented minority students capable of enhancing the Nation’s food supply and agricultural scientific and professional work force. The Valley Campus and its partnering institution, the Colorado Division of Wildlife (DOW) will provide the students of aquaculture with invaluable “hands-on” experience in production aquaculture. The Aquaculture Program specializes in warmwater, coldwater and native fish production through innovative “on-the-job” training at the various aquafarm sites describe within the Project Description. The majority of the requested funding will directly assist and support the Hispanic student of aquaculture in the form of paid internships and work-study experiences, and through scholarships.

Providing Latinos with Agriculture and Nursery Technology Success (PLANTS). This project proposes to offer a program to increase student success and market careers and continued education in agriculture and horticulture with an emphasis on recruiting Latino students. The project will provide equipment that is up to industry standards while providing innovative instruction using computers and a variety of learning tools and options. Most importantly, the project will provide educational and career options for student and ultimately lead them toward transfer to a four-year university. This project will impact five of the six educational need areas. The components of this project are a revised and updated curriculum, faculty development and training using new and innovative technologies, new instructional delivery using upgraded equipment, and recruitment of Latino students. The project proposes to serve over 200 students per year.
New Pedagogies for Teaching Agriculture to retain Hispanic Students. The goal of West Hills College’s (WHC) proposed project is to enroll, retain, and graduate an increased number of Hispanic students by providing increased outreach and opportunities to improve academic skills, thus enhancing their potential success for professional careers in Agriculture. Operational strategies include five key components: (1) Recruitment Expansion: school counselors will assist in the recruitment of high schools a Hispanic students; (2) Basic Skills Enhancement: an experiential learning approach will be applied to the one-year, pre-agriculture courses; (3) Retention Improvement: a Learning Community approach will be utilized in the two-year Agriculture program; (4) Support Services: a matrix of services will be developed supporting the success of Hispanics, and (5) Best Practice Dissemination: the project will sponsor regional workshops to share best learned practices regarding strategies to improve retention, student skill levels, retention and methods to increase viability of Agriculture Programs.

Proposal Number: 2004-03856  Lead Institution: Sul Ross State University
Grant Number: 04-38422-14621  Award Amount: $ 292,160
Lead Project Director: Louis A. Harveson  Project Duration: 3 years

Enhancing Educational Equity for Hispanics in Higher Education. Hispanics are grossly underrepresented in agriculture programs across the country and increasing diversity in university programs and state and federal resource or agriculture agencies is a major challenge. This proposal represents a cooperative effort by Sul Ross State University (SRSU and Texas A&M University (TAMU) to address recruiting Hispanic students into graduate school. Our objectives are to: 1) develop a Cooperative Doctoral Program in Natural Resources between SRSU and TAMU; 2) facilitate educational exchange between SRSU and TAMU using “smart class/conference rooms; 3) initiate a team-taught course to promote cultural exchange and awareness between students and faculty; 4) enhance experiential learning opportunities for minorities through internships; and 5) strengthen linkages with other HSIs with agriculture programs. The results of this project will be increased recruitment and retention of underrepresented populations into agricultural sciences; a cost-effective use of resources to better educate students; a better educated and experienced work force that is better represented by Hispanics; and additional collaborative efforts between SRSU, TAMU, and other institutions.

Proposal Number: 2004-03791  Lead Institution: California State Univ. - Monterey Bay
Grant Number: 04-38422-14622  Award Amount: $ 298,214
Lead Project Director: Samuel Hale  Project Duration: 2 years

Seamless College-University Agribusiness Management Program. The program will serve the Salinas Valley, CA, one of the nation’s highest-value agricultural regions. Currently, no institution serving this vast agricultural area offers a Bachelor’s degree in any agricultural discipline. The project will expand agricultural education in the region and leverage resources to achieve project objectives. The first two years will be offered at Hartnell College, by articulating an existing Associate of Science Degree in Agribusiness. The final two years will be offered at California State University-Monterey Bay through the new BS program. Both institutions will focus on outreach and student support. Flexible delivery methods will enable adults working full time, including those working out of state during the winter, to obtain their degree. Program graduates will qualify in working production, manufacturing and related agricultural enterprises.

Proposal Number: 2004-03803  Lead Institution: California State Univ. - Monterey Bay
Grant Number: 04-38422-14650  Award Amount: $ 299,993
Lead Project Director: William Head  Project Duration: 2 years
Recruitment, Retention, and Experiential Learning: Partnerships for Expanding Student Opportunities in Agriculture and Watershed Science. The program proposes a collaborative two-year project on behalf of California State University - Monterey Bay’s (CSUMB) Division of Science and Environmental Policy, Hartnell Community College and the Resource Conservation District of Monterey County (RCD). CSUMB, Hartnell Community College, and the RCD will partner with the goals of attracting, retaining, and graduating an increased number of Hispanic students in agriculture and watershed science. Clearly, there is a strong need to provide Hispanic students with more than just curriculum and course options. We propose to achieve these goals through the following objectives: 1) Provide student/parent field-based agriculture and watershed workshops, student/parent University Science Day, and tutoring/mentoring to Hispanic students from local area high schools; 2) Provide retention and recruitment bridge activities between Hartnell Community College and CSUMB that include advising/orientation activities, course articulation agreements, individual transfer agreements, campus exchange activities, peer mentoring, and career counseling; and 3) Provide students from CSUMB, Hartnell and other collaborating community colleges with internship opportunities at local and regional agriculture and watershed agencies and organizations.

Proposal Number: 2004-03811  Lead Institution: Columbia Basin College
Grant Number: 04-38422-14610  Award Amount: $ 149,528
Lead Project Director: John Cochran  Project Duration: 2 years

Bilingual Agri-Science Instruction Project. This project is requesting an HSI Education Grant to improve the success of non-native English language learners enrolled in the agri-science program and to increase access to post-secondary education by non-native English learners. One of the primary reasons that English as a Second Language (ESL) students do not transfer is insufficient English language skills. While many graduate from the ESL Program with basic survival skill English and a substantial day-to-day vocabulary, most students do not learn technical English, as it relates to the agri-science program and have difficulty succeeding in class. This will provide the college with the resources to develop Spanish-language tutorials for each of its first year agri-science courses. When completed, faculty will incorporate these tutorials into the course content and encourage ESL student use of them. In doing so, the college will increase the number of ESL students who successfully complete their first year of study and return for their second year. In achieving these objectives, the college will develop a bridge program from ESL to college level courses that will ensure educational equity and equal access for all.

Proposal Number: 2004-03838  Lead Institution: University of Puerto Rico
Grant Number: 04-38422-14609  Award Amount: $ 200,000
Lead Project Director: Felix R. Roman  Project Duration: 3 years

Liquid Chromatography Mass Spectrometry Laboratory to enhance Education in Food, Soils and Environmental Sciences. This proposal requests funds for acquisition of a Liquid Chromatography tandem Mass Spectrometry (LC/MS/MS) system to be shared by the Departments of food Science and Technology, Agronomy and Soil and Chemistry. The major objectives are: 1) to provide faculty and students accesses to a state-of-the-art LC/MS/MS facility enabling student training, collaboration and service to local industry, especially in the agriculture and food sectors; 2) to build the necessary instrumentation infrastructure to support future Ph.D. programs in Agronomy and Soil and in Applied Chemistry; 3) to increase research productivity of faculty and provide opportunities for collaboration in projects with the industrial sector of the island; 4) to attract high quality minority students to participate in the undergraduate and graduate programs of Food Science, Agronomy and Soil and Chemistry capable of enhancing the Puerto Rico and Nation’s food and agriculture scientific and professional workforce. The proposed instrument is suitable for the analytical requirements of a broad array of academic interests related to agricultural sciences and the industrial community in Puerto Rico. The acquisition of the requested instrument will significantly expand the analytical and educational capabilities of UPRM, providing new opportunities for student training and
research, and enhance the ability of UPRM to serve as a capable partner in multi-institutional research programs and to compete for funds designated for undergraduate and graduate programs.

Proposal Number: 2004-03854  
Lead Institution: Coastal Bend College  
Grant Number: 04-38422-12159  
Award Amount: $200,000  
Lead Project Director: Mark L. Secord  
Project Duration: 2 years

Agricultural Program Development and Enhancement Continuation Project. Coastal Bend College (CBC) will improve the educational quality and success of underrepresented students through the improvement of the agriculture program. CBC will increase the enrollment and retention rates of underrepresented students by expanding and strengthening the agricultural curriculum; implementing a learning community; providing scholarship and internship opportunities; offering dual credit courses at rural high schools via videoconferencing, recruiting at high schools and agriculture-related organizations; providing release time for faculty to recruit, mentor, and write curriculum; increasing the number of articulation agreements with area universities; and conducting career workshops. The project directors will oversee the successful implementation and evaluation of all project activities. The college president and vice-president will head the project advisory team. CBC feels that expanding the opportunities offered to under-represented students will have tremendous impact on agricultural needs.

Proposal Number: 2004-03804  
Lead Institution: St. Augustine College  
Grant Number: 04-38422-14599  
Award Amount: $149,333  
Lead Project Director: Gustavo Saberbein  
Project Duration: 2 years

The Chef’s Path To Success. The project propounds four objectives designed to increase the number of qualified Hispanics and other minority individuals that enter careers in the food service industry. First, the College plans to renovate its current laboratory by installing state-of-the-art equipment that provides enhanced technology and teaching space. Second, the Project Director will focus on recruitment and increased retention of students. The availability of scholarships and internships will be promoted at high schools and to St. Augustine College’s predominantly Hispanic and female student base, encouraging students to become Chef’s Path Scholars. Third, the College intends to implement an outcomes-based internship program that will ensure that graduates in this degree are able to demonstrate the knowledge and skills acquired through the academic program. Fourth, the Project will enhance the curriculum of the program through the adaptation of the new cooking laboratory’s equipment into the coursework. An internship feedback mechanism will be used to analyze the program and changes to the curriculum will be made based on the results. Most importantly, high enrollment and retention will lead to an increased number of trained Hispanic and/or female individuals prepared to meet the demand for qualified professionals in the food industry.

Proposal Number: 2004-03810  
Lead Institution: South Mountain Community College  
Grant Number: 04-38422-14611  
Award Amount: $299,930  
Lead Project Director: Marshall Logvin  
Project Duration: 30 months

Expanding Student Opportunities in Bioscience Careers at a Community College. South Mountain Community College (SMCC) proposes a 30-month partnership project with Arizona Agriculture and Equine Center (AAEC), an agricultural charter high school located on its campus, which will include collaboration with Arizona State University west, United States Department of Energy, and
the National Aeronautics and Space Administration. The goals of this project are to: 1) recruit Hispanic and other minority students from AAEC and local high schools to take science courses at SMCC; 2) establish an integrated biological sciences curriculum encompassing biotechnology and biochemistry with an appropriately equipped laboratory to prepare low income Hispanic and other students with skills to succeed in university level courses; and 3) provide internship opportunities to prepare these students for careers in agricultural sciences and research. The project will establish a bioscience program at the community college level giving access to students through 1) a “pipeline” whereby students are recruited directly from high school to pursue studies in the biosciences which, at AAEC, begin with their high school curriculum, and 2) establishment of biosciences coursework and a laboratory at SMCC where students can complete college coursework to gain the skills necessary to either enter a bioscience-related field or transfer to a baccalaureate program.

Proposal Number: 2004-03817  Lead Institution: New Mexico State University
Grant Number: 04-38422-14616  Award Amount: $ 299,980
Lead Project Director: Barbara Chamberlain  Project Duration: 2 years

Strengthening Technology Competency and Instructional Delivery Systems in Institutions Serving Hispanic Agricultural Students. The goal of this proposal is to strengthen instructional delivery and technology capability in the nation’s only Hispanic Serving Land Grant Institutions. We hope to prepare future graduates with digital technology competencies for communications, decision-making, graphical presentations and enhanced quality of life. Also, we will develop faculty and undergraduate technology training and incentive programs to mainstream effective use of technology within all agricultural programs. Key emphasis of this project are development and facilitation of a model for technology use among faculty in agricultural areas, and the development of an environment in which students are enabled and encouraged to use technology as part of their own learning activities. Though technology integration is the focus of this project, the primary goal is to improve teaching and learning. Therefore, specialists in learning theory and styles and instructional technology are crucial team members for the curricula design and materials development.

Proposal Number: 2004-03787  Lead Institution: California State University - Fresno
Grant Number: 04-38422-14614  Award Amount: $ 199,920
Lead Project Director: Gour Choudhury  Project Duration: 2 years

Instructional Capability Improvement for the Interdisciplinary Dairy Science and Technology Program. The San Joaquin Valley residents are unable to take advantage of the employment opportunity created by the growth of the dairy industry due to lack of knowledge and skills. The objective of the proposed project is to improve the instructional capability of the program and to maximize student learning by integrating theory with experimentation and application. This will be achieved by acquisition of the up-to-date dairy processing and testing equipment. The dairy processing facility with the new equipment will be utilized for laboratory exercises, individual student projects, in-plant training, and graduate research. Successful implementation of the project will achieve significant improvement of the instructional capability; enable the faculty to deliver excellent training emphasizing application of scientific and engineering principles to dairy processing; and facilitate small scale in-plant training to students prior to industrial internships. The project’s impact will be measured by the improvement of student learning through laboratory exercises, students projects, and in-plant training and expansion of graduate research through external grants and contracts.

Proposal Number: 2004-03844  Lead Institution: Texas A&M- Kingsville
Teaching and Mentoring South Texas Students for Careers in Agricultural Science and Research. Texas A&M University - Kingsville (TAMUK) is a teaching, research and service institution that provides access to higher education to an ethnically and culturally diverse population of students. The mission of the University is to develop well-rounded leaders and critical thinkers who can solve problems in an increasingly complex, dynamic and global society. The central theme of this proposal will contribute significantly to the desire of the university to provide a learning-centered and caring environment dedicated to the future success of our students. This proposal is intended to reach an underserved minority populous for enhancing their competitiveness to entering graduate school and the job market. The objectives of their proposal are to: 1) provide research assistantship experiences to agriculture science students by hiring 15 undergraduate and 3 graduate students enrolled at TAMUK; 2) educate undergraduate students with “hands-on” training using the latest methodologies for agricultural research by teaching two laboratory-oriented agricultural science courses; and 3) engage these employed student research aides in the professional science arena by giving the students an opportunity to present their own research at a symposia or conference.

Proposal Number: 2004-03835  
Lead Institution: Universidad del Turabo  
Grant Number: 04-38422-14593  
Award Amount: $198,352  
Lead Project Director: Maria Rosa  
Project Duration: 2 years

Recruitment and Retention of Students in a Nutrition/Dietetics RAM. The purpose of this project is to plan, develop and implement pre-entry and retention activities of an individualized program for Hispanic individuals form disadvantaged backgrounds. This will bring students to the reality of the nutrition/dietetics profession and will provide the skills to overcome obstacles for obtaining a college education. Participants will return to their communities to reduce the present nutrition/dietetics shortage and positively impact the health of underserved communities in Puerto Rico. Objectives are: 1) Increase the number of minority/disadvantaged UT nutrition/dietetics program enrollees by 20% over the year 01 baseline through the implementation of culturally relevant and competent pre-entry preparation educational activities; 2) Maintain a retention rate of minority/disadvantaged UT nutrition/dietetics students over 90% through implementation of an individualized pre-nutrition/dietetics retention program. A Saturday Academic Enrichment Program will be implemented to identify participants’ academic and personal needs.

Proposal Number: 2004-03790  
Lead Institution: CSU- San Bernardino  
Grant Number: 04-38422-14943  
Award Amount: $296,354  
Lead Project Director: Lal S. Mian  
Project Duration: 3 years

Recruitment and Retention of Bilingual Pre-Professionals in Environment Health Science Program. This project is a collaborative effort between California State University - San Bernardino (CSUSB) and San Bernardino County Department of Public Health (SBCDPH) to increase bilingual professionals in environmental health careers. The project proposes ways to expand and enhance the recruitment and retention of Hispanic and Hispanic-serving pre-professionals into the field of environmental health science. Retention efforts will include 1) providing tuition assistance and/or stipends to students with demonstrable financial need in the program when they participate in
professional internships in cooperation with SBCDPH Division of Environmental Health Services (DEHS), and 2) providing academic assistance beyond the services already available at the University, e.g. workshops to assist students in the development of problem solving skills. Success of the project will be based on achieving our target numbers of recruited and retained students, numbers of bi-lingual professionals, documented changes in project-related recruitment and retention policies and procedures among the participating institutions, permanent changes in curricular and internship opportunities, and feedback from all participating stakeholders.