

FY 2011 Awards

Author(s)	Linda Perry, Department of Music
Award	\$500
Abstract	<p>The Proposal is to sponsor a piano master class by Haochen Zhang, gold medalist in the 2009 Van Cliburn International Piano Competition while he is on campus in September to perform on the SIUE Arts and Issues series. Nineteen-year-old Zhang is the the youngest pianist ever to win this prestigious competition, which has launched many careers. As a contemporary of our own university students, he will share with them the inspiration and commitment that has led to his amazing success at such an early age.</p> <p>The class will be open for all music students to observe, as well as others from the university who wish to attend. Participants will be SIUE piano students. Since his travel expenses are already covered by Arts and Issues, there will be no additional charges beyond the \$500 fee.</p>

Author(s)	Alicia Alexander, Department of Speech Communication and Jocelyn DeGroot Brown, Department of Speech Communication
Award	\$11,558
Abstract	<p>With the adoption of the new Lincoln Plan, SPC 105 will be a required course for all students at SIUE, affecting an estimated 1100 students in the fall semester and 650 students in the spring semester. Because SPC 105 is the newly identified campus-wide requirement, a standardized curriculum needs to be implemented within the next two years to ensure uniform knowledge dissemination across all sections. The major goals of this project are twofold: to develop a teaching manual and a course packet for SPC 105. This teaching manual will include a description of course goals and objectives, and suggestions for content to be covered. The manual will also include suggestions for dealing with a variety of issues such as structural challenges, student behavior problems, attendance problems, and so forth. The course packet would include a detailed description of the objectives and expectations of each presentation and writing assignment, an instructor's rubric for each presentation and writing assignment, peer evaluation forms for each presentation (students will be expected to provide critiques of other students' presentations) , and exam review sheets. After the project has been completed, electronic copies of the teaching manual and student course packet will continue to be made available on the Department of Speech Communication's Blackboard website.</p>

Author(s)	Mark Grinter, Department of Construction
Award	\$650
Abstract	<p>The Construction Department currently owns a Nikon DTM-352 total station. This instrument is used in several Construction Department Surveying Classes. It is not currently equipped with solar filters or eye piece prisms necessary for direct observation of the sun. Field Astronomy, including solar observations, is an integral component of advanced surveying methods. Purchase of this supplemental equipment will provide</p>

	SIUE surveying students with the opportunity to become proficient with surveying solar astronomy applications.
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Author(s)	Ke Li, Department of Mechanical Engineering and H. Felix Lee, Department of Mechanical Engineering
Award	\$8,566
Abstract	Widely used in nearly every engineering field, finite element analysis (FEA) is a numerical technique for seeking approximate solutions to partial differential equations. It is particularly powerful in stress analysis of designs that involve 1) complicated geometry, 2) nonlinear material behavior, 3) contact interactions, and/or 4) large deformations, where use of the analytical methods learnt by an undergraduate engineering student from the existing SIUE engineering curricula is insufficient. An introductory FEA course is commonly offered at other engineering schools/colleges. Lack of education on this subject adversely affects our engineering graduates' competencies in the job market and in their future engineering practices. In order to fill this competency gap, we propose to develop an interdisciplinary course Solid Modeling and FEA for upper-level undergraduate engineering students. We include solid modeling techniques because modern high-end commercial FEA packages are usually integrated with computer-aided design (CAD) applications, allowing product developers to analyze as they design, thereby expediting design cycles. This proposed course will also benefit students in their capstone designs and Fundamentals of Engineering tests.

Author(s)	Laura Hanson, Department of Theater and Dance
Award	\$6,794
Abstract	The funding from this EUE would bring to campus a multicultural guest costume designer to work on a special anniversary production of The Colored Museum which is being produced by the Department of Theater and Dance during Black History Month, in February 2011. The production is being directed by Assistant Professor Kathryn Bentley, who also supervises the students' Black Theater Workshop and teaches the Multicultural Theater course. Students from throughout the Department of Theater and Dance would benefit from collaborating with a new professional designer from outside the faculty, and the guest designer would add to the multicultural nature of the production.

Author(s)	Yun Wang, Department of Computer Science
Award	\$3,876
Abstract	A wireless sensor network is an interdisciplinary technology crossing Computer Science, Electrical and Computer Engineering, and Civil Engineering. It is now extensively employed in many military and civilian applications such as battlefield surveillance, industrial process monitoring and control, structural health monitoring, traffic control, environment monitoring, etc. It therefore has significant importance in practice. Given its current unavailability in the School of Engineering curricula at SIUE, the purpose of this EUE project is to develop a new course in wireless sensor networks that is interdisciplinary and introduces the fundamental sensing, communication and networking technologies for various real-life applications to undergraduate students in the school of Engineering and

	then complement its current curricula. This project also aims to introduce the state-of-the-art sensor technologies and develop innovative research projects so as to encourage critical thinking, problem- solving, and effective communication among students. Upon the successful completion of this project, students will be able to understand the major features, current trends, challenges, and solutions in wireless sensor networks. In addition, the innovative and hands-on projects on the real sensor (MicaZ) network will boost our students' understanding in the subject area and their ability to apply this knowledge to their own areas of interest. Finally, the EUE project will lead to more job opportunities in both industrial and academic career fields for our students and result in more publications in academic journals and conferences.
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Author(s)	Faustina H. Blankson, Department of Kinesiology and Health Education Nicole A Klein, Department of Kinesiology and Health Education
Award	\$27,018
Abstract	This proposal request funds to support 12 students and 2 faculty participating in a travel study program in Ghana, West Africa. It offers field study courses from the Department of Kinesiology and Health Education. The program will provide the students with a unique field experience in international health. By assigning students to health related non-profit and public organizations, students will have the opportunity to learn about health issues in developing societies and assist in finding solutions to them. Students will also gain invaluable practical experiences that allow and challenge them to apply their skills and knowledge to the field study, as well as cultivate relationships with international communities and organizations. Skills and interests of students will be matched with the organization that provides the best opportunity for them to effectively contribute to the health of the community.

Author(s)	Sharon James McGee, Department of English
Award	\$2,520
Abstract	Designed primarily for majors and minors across a broad range of scientific disciplines (biology, chemistry, physics, kinesiology, nursing, among others), ENG 334 (Scientific Writing) covers various types of scientific genres (or forms) including grant writing and the research report as well as writing for both specialized and public audiences. The course instructor encourages students to utilize opportunities currently available to them for their writing projects. One of the problems with the course is scheduling. This proposal requests time to reformat an existing course (ENG 334) from a face-to-face to an online delivery format. Making this course available in an online format would remove potential scheduling problems for students, offering them flexibility. To ensure that the course's rigor and content integrity are maintained the instructor needs time to modify the existing course to an online environment.

Author(s)	Ryan Fries, Ph. D., P.E., Department of Civil Engineering Huaguo Zhou, Ph. D., P.E., Department of Civil Engineering and Chiang Lin, Ph.D., Department of Civil Engineering
Award	\$7,475
Abstract	Transportation engineering faculty, within the department of civil

	<p>engineering, have recently acquired a driver simulator for teaching/research purposes. This tool allows researches to evaluate driver's reactions to various conditions and unexpected driving events and its availability provides a timely opportunity to engage undergraduate students as they learn about transportation engineering. This project proposes the development of exercises and labs for use in four different courses, covering topics such as driver reaction time, the role of consistent traffic signs, the influence of roadside obstacles, and modeling the process of following other vehicles. Additionally, this project will introduce students to state-of-the-art transportation research tools, possibly interesting them in graduate study. This project has a potential to influence all civil engineering students because the proposed changes affect required courses. The products of this project align with the ideals of the EUE program and support the teacher-scholar model stressed at SIUE.</p>
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Author(s)	William M. Kolling, Department of Pharmaceutical Sciences and Timothy B. McPherson, Department of Pharmaceutical Sciences
Award	\$3,600
Abstract	<p>This grant proposal is requesting funds for the purchase of five hand-operated capsule-making machines. These machines will be used in the required course, PHPS 707 Pharmaceutical Skills and Techniques. One of the goals of the course is to introduce first-year pharmacy students to the operational and kinesthetic skills expected of a pharmacist during the preparation of common dosage forms. As part of their clinical rotations in the community, students are being asked to prepare extemporaneous capsules with increasing frequency. This unanticipated development places the onus on the School to prepare all students to perform this professional service. The School has only one capsule-making machine. It is not currently feasible to give every one of the 82 students per class the opportunity to operate the machine. While every student is presented with the knowledge of how to use the machine, lectures, videos, and slides are only auxiliary parts in the process of learning how to prepare capsules. Manipulation of the instrument makes the laboratory exercise much more valuable, and the hands-on experience reinforces the didactic exposition of capsule preparation. Providing our students with the opportunity to make capsules will enhance their professional skill set.</p>

Author(s)	Edmund Hershberger, Department of Management & Marketing
Award	\$4,500
Abstract	<p>Spring 2011 semester will be the sixth consecutive year for the SIUE Marketing Association's participation in a marketing case competition sponsored by the American marketing Association, an internationally recognized organization of marketing practitioners, educators and students. The case competition tasks each participating university with the challenge of a Michelin, Kwik Trip, the City of New Orleans, Kodak Gallery, and most recently UNICEF. At the International Collegiate assessed and winners selected. At the 2008 Conference, the student Case Competition team was selected as a top eight finalist. This past success has motivated the students to work even harder in preparation for the 2010 Conference, resulting in a top 16 performance (out of 70+ entries). This performance proves that 2008 was no fluke, and the student believe that we can compete with the top business schools in the country. In addition to the</p>

	case competition, we will also be participating for the third year in the AMA Exhibit Session, a trade show featuring AMA collegiate chapters from around the world. Additionally, for 2011 we plan to enter a team into the SABRE business competition, a full day strategic marketing simulation. This will provide another opportunity for our students to prove their skills on an international stage, but also provide invaluable experience in a high pressure business situation. Our representation at this exhibit session will provide immeasurable exposure for the school and the university.
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Author(s)	Paulette Myers, Department of Art & Design
Award	\$2,194
Abstract	This undergraduate jewelry and metalsmithing project proposal involves a hi-heat kiln that will fire quickly to temperatures needed for kiln use in enameling, casting and perforation. These processes require temperature firings to range from 1200° to 2300° F that will maintain and quickly regain the selected temperature upon opening and closing the kiln door. With a 240 volt kiln and maximum firing of 2300° F, enameling can be controlled for more excellent results avoiding fire-scale development and allowing more transparency in the color of the enamel. In terms of casting, a more efficient kiln with its larger capacity will allow more flask burnouts at one time and improve the efficiency of the classroom time. In relation to perforation of nickel silver, this kiln will be able to fire at 1900° to 2000° F+ to achieve the unique findings that only kiln firing can produce with this perforation of nickel silver process. Since I am the inventor of perforation, I would like to have my SIUE undergraduate students explore this method of perforation that can be unique to our jewelry and metalsmithing program and gain recognition to the students in the field of metalsmithing.

Author(s)	Trish Oberweis, Department of Sociology and Criminal Justice Studies
Award	\$6,599
Abstract	This proposal would allow our Supervised Internship course (CJ 488) to be developed in an online format. This is particular beneficial for two reasons. First, some students gravitate toward online courses to enable flexibility. Second, and in particular, our students are required to take an internship, and encouraged to make every effort to do their internship at the agency in which they want to begin their careers. Having an online option makes these students geographically able to pursue internships in the best places for their own careers. In the past, students have taken less desirable internships or traveled great distances on a weekly basis to be able to pursue the ideal internship, but still attend class. For example, we have students who want to become police officers near their hometowns (Rockford, Chicago suburbs) and so want to do internships in northern areas of the state. We also have students ready to explore the world, who want to pursue internships in Phoenix, Las Vegas and other cities. An online option would support their career plans much more effectively.

Author(s)	Gregory Vogel, Department of Anthropology
Award	\$14,150
Abstract	EUE funds are requested to continue and to improve the Anthropology Department's Archaeology Field School on the SIUE campus. EUE funds would be used to fund 1/3 of instructor's salary; hire a GA (which would

	<p>enable increasing summer enrollments from 10 students to 16); fund a field trip to other regional archaeological sites, and update the available equipment pool with a state-of-the-art proton magnetometer, which allows archaeologists to "see" beneath the ground surface prior to excavation. EUE funds would also allow an external expert to aid in high-end student instruction of geophysical remote sensing technologies.</p>
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