

**FY 2012 Awards**

Author(s)	Gillian Acheson, Department of Geography
Award	\$3,164
Abstract	<p>This proposal seeks support to develop a laboratory manual for GEOG 205: Introduction to Human Geography. GEOG 205 is offered each semester (including summer) with an annual enrollment of approximately 200 students. Students take this course to fulfill a general education, social sciences, international issues distribution course. By incorporating regular labs in the course, GEOG 205 could meet the Lincoln Plan requirements of a lab based course, and offer undergraduates a laboratory experience in the social sciences. I am requesting a half month's support in Summer 2012 to develop and complete the lab manual. A lab manual including the labs would give students the opportunity to "do" geography. The opportunity to apply geographic knowledge and skills is seen as a vital component of geographic literacy, and yet, traditionally students have had limited opportunities in this area. The lab manual would provide a set of applied exercises for use in the course. There are 14 sections to this course; one lab per section would be developed. In short, a lab manual would serve two purposes. First, the lab manual would provide a formalized set of activities, aligned with the subjects taught during the semester for any instructor teaching the course. The labs would give students regular opportunity to apply geographic knowledge and skills, ideally reinforcing lectures and helping them to see geography in action. Second, the lab manual would play an important role in transitioning our existing courses to meet Lincoln Plan guidelines. As noted in the "Recommendations for a New General Education Program", courses that could be designated as a laboratory experience would give students the opportunity to use of 'real world' data and develop an understanding of data collection, methods, and analysis.</p>

Author(s)	Marcus A. Agustin, Department of Mathematics and Statistics
Award	\$2,670
Abstract	<p>In order to support SIUE's New Freshman Seminar (NFS) program, a freshman-level introductory Statistics course, STAT 107, will be redesigned to meet the requirements and goals of an NFS course. STAT 107 is designed to develop "statistically literate" individuals, while an NFS course is designed to develop a set of skills and provide experiences deemed essential for helping incoming freshmen transition successfully to university life. The proposed project will involve the development of course materials as well as in-classroom and out-of-classroom activities/experiences that will integrate the academic content of STAT 107 with the expectations of an NFS course.</p>

Author(s)	Olga Bezhanova, Department of Foreign Languages and Literature
Award	\$3,908
Abstract	<p>I have taught Introduction to Foreign Studies: Spanish at SIUE for three semesters. My experience with this course has made me realize that transforming it into a blended learning opportunity (which will combine elements of traditional 'face-to-face' instruction with intensive on-line learning) will be highly beneficial for the students. Transforming it into a</p>

	<p>blended learning course will achieve several goals:</p> <ol style="list-style-type: none"> <li>1. It will raise enrollment and promote higher graduation rates as a result of a much more flexible attendance policies than those offered by traditional courses. This will be especially useful for students whose family or work obligations make daily presence on campus difficult.</li> <li>2. It will provide students with a wider variety of learning experiences, allowing them to develop strengths and skills traditional teaching formats do not promote. (E.g. participating in, organizing and moderating on-line discussion.)</li> <li>3. A blended course can be offered to more students than are usually accommodated by it. This will raise enrollment in the course significantly and accelerate progress towards graduation.</li> <li>4. This project will allow our department to offer a wider variety of blended and eventually on-line courses.</li> </ol>
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Author(s)	Kristine Hildebrandt, Department of English Jessica DeSpain, Department of English
Award	10,360
Abstract	<p>Recently, digital scholarship, or "informatics," has become an innovative methodology for analyzing and presenting research in the humanities and social sciences. Informatics research is interdisciplinary in nature. It can involve the creation of dynamic scholarly archives or the development of digital tools for analyzing languages, literature, images, spaces, and periods. The Interdisciplinary Research and Informatics Scholarship (IRIS) Center at SIUE is an interdisciplinary facility designed to support individual and collaborative scholarship (at faculty and student levels) that applies digital content as a primary methodology. As part of its services to faculty and students, The IRIS Center will be developing an interdisciplinary minor that will greatly impact students in the humanities and social sciences because it will give them an opportunity to develop hireable, twenty-first century skills in a context that is directly applicable to their majors. We have identified several courses that could be relevant to the minor, but the EUE grant will allow us the time to establish contact and collaborations with the departments that house these courses and the faculty that teach them. In addition, the grant will allow us to design curricula for a freshman seminar that will attract students to the minor and for a core IS course on digital arts and sciences. Finally, hands-on internships with libraries, schools, and local businesses are essential to the minor's success. During the grant period, we will be developing community partnerships that will support this internship program.</p>

Author(s)	Jingyi Jia, Department of Economics and Finance
Award	4,200
Abstract	<p>Financial Institutions Management (FIN440) is the only course available for undergraduate students in one of the four areas in finance (corporate finance, investment, financial institutions and international finance). However limited class time prevents the instructor from doing justice to the three key components of this subject - the conceptual knowledge, the analytical skills, and the understanding of current market. The purpose of this project is to convert the traditional lecture format of FIN440 to a hybrid course by creating and posting well-designed WIMBA lectures, tutorials, quizzes and assignments in Blackboard. These materials can be</p>

	<p>accessed by students conveniently and repeatedly to go over basic concepts. Not only will this allow students to learn at their own pace, the saved class time will allow for a greater focus on complex analytical skills, problem solving, and discussions of current issues on financial institutions. Financial institutions and their regulatory agencies provide the primary job positions for the graduates from the Department of Economics and Finance and other departments in School of Business. With this conversion, the course will better prepare students for their job search and future finance career.</p>
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Author(s)	Luci Ann P. Kohn, Department of Biological Sciences
Award	\$10,325
Abstract	<p>This project supports the development of a new course in Biological Sciences, Functional Human Anatomy. Functional Human Anatomy will cover the functional anatomy of each of the body's systems, including both an evolutionary perspective through the study of Primate evolution, and a clinical perspectives through the analysis of clinical case studies. This will give students a biological perspective on the human body, and will introduce them to the clinical reasoning skills that will be essential in their professional education. This project will support the acquisition of ape and fossil hominid models to study the evolution of the skull and skeleton through human evolution. In addition, clinically relevant cases will be developed to accompany each body system studied. Application of anatomical knowledge to real, or potentially real, situations improves student understanding of the information learned and improves retention. The critical thinking skills developed through this process will be useful as students learn to diagnose clinical conditions. These critical thinking skills that will be required students continuing to professional medical programs. Students will be evaluated by pre- and post-tests associated with each clinical case as well as traditional tests. The use of clinical case studies will be revised based student performance and feedback on the case studies. I expect that students will find analysis of clinical case studies improves their understanding of the course material, and improves their critical thinking skills.</p>

Author(s)	Jessica Krim, Department of Curriculum and Instruction and Faith Liebl, Department of Biological Sciences
Award	\$5,223
Abstract	<p>This study examines the impact of student learning in BIOL 319 Cell and Molecular Biology. Self-reflective surveys and self-assessment activities will be incorporated in the existing curriculum in an effort to facilitate increased critical thinking and meaningful learning. Surveys and statements of instructor reflection will be qualitatively analyzed and coded for common themes. Demographic information and student grades will be quantitatively assessed in categories according to letter grade. When comparing the common qualitative themes and the quantitative data, researchers will look for positive correlation between the two findings. The results of this study will be shared with the Department of Biological Sciences in an effort to contribute to the development of a collaborative professional community.</p>

Author(s)	Jeff Manuel, Department of Historical Studies and
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	Christienne Hinz, Department of Historical Studies
Award	\$6,540
Abstract	Our proposed project will create a curriculum for introductory history courses that use digital laboratories to foster active student learning and create blended classroom experiences. This project has the potential to transform the introductory history course, traditionally taught in large lectures and evaluated through papers and essays, into collaborative learning environments where students utilize richly interactive technologies in blended courses. Creating laboratory-style learning in introductory history courses through innovative digital technologies will foster active student learning, create blended online/in-person classrooms, improve course completion rates in introductory courses, and foster semester-over-semester retention.

Author(s)	Susan Morgan, Department of Civil Engineering and Jianpeng Zhou, Department of Civil Engineering
Award	\$19,420
Abstract	The project will create an online format for one of civil engineering's required BS courses (CE207L), an online tutorial for another required course (CE 204), and a new elective. It will offer students an alternative format to the Department's current lecture-based format that may better suit diverse learning styles and students' needs. Because CE 207L is a required course, even of transfer students, the project has the potential to impact all undergraduates in the department. The project has four goals. First, it will result in two faculty members and a staff member learning how to develop and implement online courses. The inclusion of multiple department personnel will help ensure the success of the project and assist with the sustainability of the initiative. The project personnel will share their experiences with the rest of the department faculty to reduce their learning curves for implementing online courses. Second, it will create an online tutorial for CE 204, a required course with a low student success rate. The tutorial is expected to improve student performance and, thus, retention. Third, it will create an online format for one of the department's required courses, CE 207L, which is a prerequisite for all three of the department's required upper-level laboratory courses and is used to meet multiple departmental accreditation requirements. Fourth, the project will create a new elective in storm water management techniques, which is an important topic within civil engineering but one that is lacking in the current curriculum, which puts our graduates behind the current state of practice. These courses lend themselves to an online format due to the nature of the content. In particular, the elective can make use of existing multimedia formats (e.g., videos of devices being installed and operating in the field) that can facilitate learning.

Author(s)	Sorin Nastasia, Department of Speech Communication
Award	\$19,740
Abstract	This EUE grant proposal is a fund request to support the development and standardization of a program designed for communications students at SIUE to acquire knowledge and skills needed to become competitive PR specialists on global markets. In this program, 12 students will take 6 credit hours for the course SPC 419 Special Topics in Speech

	<p>Communication: International Public Relations and will participate in two components: one providing theoretical and professional background and one offering and opportunity for work with practitioners that have distinctive scopes and features, but that converge in including use of new technologies blended with travel study to one Western European country (France) and one Eastern European country (Romania). The International Public Relations Program will be scheduled during a five-week session in summer 2012, with a first week spent on the SIUE campus at the beginning of the session, subsequently followed by two weeks spent in Lyon, France and two weeks spent in Bucharest, Romania. In the first component of the course, students will engage, under the supervision of the faculty member, in conversations with communication and public relations faculty and students from Universite Lumiere Lyon 2 and National University for Political Studies and Public Administration in Bucharest. Students will connect with these people in electronic settings (through Skype, email, and Twitter) during the week spent in the U.S., then in face-to-face settings (lectures, discussions, and group work) and electronic follow-ups during the weeks spent in France and then Romania. In the second component of the course, students will work collaboratively, under the supervision of the faculty member, with French and Romanian public relations practitioners in PR firms in the two countries. This program will contribute to the globalization of the curriculum implementation of blended courses, increased experiential learning, and improved student retention.</p>
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Author(s)	George Pelekanos, Department of Math
Award	\$4,200
Abstract	<p>Since technology is now readily available, the focus of introductory mathematics courses, including Calculus and Differential Equations has shifted from mere number crunching to mathematical thinking and reasoning. This proposal requests funds to help defray the costs involved in developing a computer simulation activities that are meant to reinforce mathematical concepts. Each activity will be accompanied by a detailed tutorial on MATHEMATICA 8.0, the mathematical software that is currently being used for these courses. The tutorials along with the activities will be made available online and hence they will not add extra cost to the students. The author has successfully completed lab manuals for Calculus 1 (through an EUE 2008) and Calculus II and III (through an EUE 2009) using Mathematica 7.0. One of the improvements over the Calculus manuals is that the proposed Differential Equations manual will contain interactive applets that will serve to better enhance student understanding and critical thinking.</p>

Author(s)	Matthew Petrocelli, Department of Sociology and Criminal Justice Studies
Award	\$7,130
Abstract	<p>I am applying for funds for a course release in the Summer of 2012 in order to develop CJ 272, Introduction to Criminology, into an online course format. This new online offering would be only the second distance learning course offered in Criminal Justice. CJ 272 is a required course for our major, so it would be especially beneficial for our non-traditional students working toward a CJ degree, but also helpful to many of our working students who commute to campus. The course would include a lecture series, handouts, worksheets, practical exercises to assist in</p>

	student learning, Blackboard discussion to examine certain topics in greater depth and a series of quizzes and tests to evaluate student learning.
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Author(s)	Alison Reiheld, Department of Philosophy
Award	\$5,400
Abstract	To satisfy distributional and major requirements, undergraduate students in nursing, pre-medical, pre-dental, pre-pharmacy, and other pre-professional programs in medicine often take PHIL 321: Ethics in the Medical Community. However, students who have finished the course or who have never taken it may lack other opportunities to engage in sustained reflection on ethical deliberation skills is the "ethics across the curriculum" approach in which students experience opportunities to reflect on ethical issues in courses, in practical settings, and in special speaker events. This speaker series is intended to give undergraduate students studying for medical professions an opportunity outside of class to delve into ethical issues in medicine via expert speakers, with discussion after each presentation. In addition, other undergraduates will benefit from consideration of major ethical issues in medicine. Publicity costs and speaker transportation and honoraria will be covered by the EUE grant. Similar projects have not been funded by our department in the past. Outcomes will be measured by surveys of attendees at each session. Successful indicators will result in non-EUE-funded speaker series and in submission of an article to Teaching Philosophy or journals with a track record in medical education.

Author(s)	Nahid Shabestary, Department of Chemistry and Leah O'Brien, Department of Chemistry
Award	\$10,840
Abstract	This project offers an enhancement to our existing Chemistry Department curriculum through the introduction of important and innovative experiments in chemistry Laboratories using Flash Photolysis Spectrometry. Despite the fact that theoretical photochemistry is covered quite extensively in various chemistry lecture courses, our present chemistry laboratory courses are unable to demonstrate the application of various crucial aspects of the theory since the department lacks the necessary equipment. Thus, the proposed project will significantly improve our existing laboratory activities and teaching quality. The courses that are involved in this proposal are: Chem 365 Physical Chemistry Laboratory, SRA Chem 499 Senior Assignment, Chem 396 Introduction to Research, and Chem 496 Chemical Problems. The proposed budget is \$12,550.

Author(s)	Ying Shang, Department of Electrical and Computer Engineering
Award	\$8,398
Abstract	In order to complement the traditional laboratory practices associated with electrical and computer engineering education, reduce the cost to students, and recruit and retain more nontraditional students, the project director proposes to develop a web-based virtual control laboratory using MATLAB. This virtual laboratory will use video animations of simulated plants, and provide virtual control of practical systems, so that the students can continuously access and complete laboratory assignments

	<p>through the internet at anytime at anytime and anywhere without actually downloading the expensive MATLAB programs. In this project we will develop graphical user interfaces to provide students easy access to MATLAB-related assignments. When this web-based virtual control laboratory is fully developed, it can be used in several engineering courses such as ECE 365 Control Systems and ECE 465 Control Systems Design. Moreover, it has the potential to benefit all engineering students taking courses that use MATLAB, not only in the School of Engineering but also in the Department of Mathematics at SIUE.</p>
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Author(s)	Anne Werner, Department of Construction Management and Marcelo Azambuja, Department of Construction Management
Award	\$13,470
Abstract	<p>A technical elective on international construction with an emphasis on mega projects is proposed for the construction management curriculum to be offered in the spring of 2012. The class is to include a visit to Panama and the \$5.25 billion Panama Canal Expansion project. Currently there is no course in the Construction Management curriculum that directly addresses international, large scale public infrastructure projects, otherwise known as megaprojects. The construction industry is becoming increasingly more global in nature and to remain competitive graduates of construction management programs must be able to demonstrate their knowledge of the international aspects of the industry today. This class is essential in order to ensure the construction management program remains competitive and attractive to prospective students as well as meet the needs of current students in the program. The course will be a 3 hour semester class. The course will include a one hour seminar once a week throughout the semester and a weeklong international trip focused on an international megaproject construction site. As part of the course, students will be required to present a summary of their experiences and lessons learned to the Construction Management introductory class and to the Construction Management Industry Advisory Group.</p>