

Fund for the Improvement of Postsecondary Education (FIPSE)

FY 2010 Project Abstracts - U.S.-Russia Program

P116S100001

Capacity Building Partnership to Improve Tourism, Education, Research, and Industry Outreach

U.S. Lead: University of Florida, Center for Tourism Research and Development

Russian Lead: State University of Nizhni Novgorod

Given the current influx of visitors as well as development of destinations and attractions in Russia, there has been a limited number of institutions that have focused on tourism-related curriculum. Overall, capacity building and institutional development in tourism education is a fundamental component for the vitality and sustainability of the industry in Russia. Therefore, the objective of this project is to create a synergistic partnership between the University of Florida (UF) and the State University of Nizhni Novgorod (UNN) to strengthen tourism education, training, research and industry outreach.

More specifically, the project will engage in tourism degree curriculum development and pedagogy, faculty and student exchange mobility, language skills development, experiential education and service learning projects. In addition partners will engage in collaborative research initiatives and participate in industry outreach via the proposed Center for Tourism Management at UNN which is likely to be the first university-associated tourism research center.

It is important to highlight that the partnership is mutually beneficial for UF and UNN. New curriculum development and on-line delivery will be implemented at both institutions. Service learning projects and field trip for students from both countries will strengthen their understanding of issues pertinent to tourism, hospitality, and destination management and allow them to experience practical applications. Moreover, students will improve their language skills and cultural understanding of the host country. During the faculty mobility program, UF and UNN team will engage in developing and sharing teaching methodologies, instructional materials, and research initiatives as well as industry outreach activities. More importantly, it is expected that this partnership will continue beyond the completion of this project.

Total FIPSE Funding: \$399,385 (3 years)

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P116S10003

Reading Networked Societies

U.S. Lead: George Mason University

Russian Lead: State University - Higher School of Economics

The College of Humanities and Social Science at George Mason University will collaborate with the State University – Higher School of Economics (HSE) to develop and implement the U.S.-Russia Collaboration: Reading Networked Societies project focusing on the academic discipline of the social sciences.

Today's college students, the first to be "born digital," share an online computer-mediated virtual space creating what we posit as an "illusion" of commonality and mutual understanding. This proposal rests on the conviction that the theories and analytical tools of the social sciences, particularly those of economics, political science, and sociology, will provide students the capability to identify and appreciate the culturally and historically embedded structures and institutional processes that they miss by assuming commonalities. Applying such methods and strategies generates value by increasing common understanding between Russians and Americans and beyond the confines of this project improves links at the intersections of cultures. The concept of "reading societies" can be relevant generally to comparative studies, and the social science curricula will be enriched and revised as a result of what we learn.

This three-year collaboration, which has been fostered through preliminary site visits by faculty from both campuses over the past two years, involves a number of initiatives. First, two-week faculty exchanges in the two disciplines will occur each semester throughout the grant period, allowing faculty from each institution not only to impart a more nuanced understanding of his/her country to students and faculty of the host country, but to probe from their own social science perspectives the origins of what is similar and what is dissimilar, and to explore potential collaborative research projects. Second, student exchange for a semester will permit students from both universities to learn together, querying their common illusion of shared identities from the perspective of a social science discipline, and forge new pathways, online and off, that attend to our differences and find our common purpose. Third, faculty exchanges and student exchanges will be incorporated into the group of students and faculty participants in the grant at the host university through a one-credit seminar permitting further discussion of the themes outlined above and through a Web site created for the initiative. Fourth, language acquisition and improvement will be fully incorporated into each student exchange. Fifth, faculty teaching colloquia and virtual classroom partnerships will introduce faculty to teaching practices that foster more appropriate methods for identifying cultural similarities and differences.

Finally, new interdisciplinary programs and courses will be developed at both institutions under the existing umbrellas of Russian Studies or American Studies but with the goal of being integrated more centrally in the social science disciplines, thereby furthering the benefits of the program beyond the grant period. In addition, the faculty involved at HSE and Mason will lay the groundwork for the creation of a new comparative joint Center on the Internet and Society.

Total FIPSE Funding: \$382,581 (3 years)

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P116S100004

Innovative Information Security Education

U.S. Lead: University at Albany - SUNY

Russian Lead: Bauman Moscow State Technical University

We propose an innovative exchange program between Bauman Moscow State Technical University (BMSTU) and the University at Albany, (UAlbany) which will be based on the creation and delivery of joint online curricula in the area of information security. This program would attract both higher-level undergraduate and graduate students without imposing any additional tuition-based fees. Through this effort, we hope to both improve language and cultural understanding between the United States and Russia as well as enhance knowledge acquisition and sharing between faculty and students at the two institutions.

The online courses will involve the use of video-recorded lectures with subtitles and the creation of bilingual case studies, exercises, and online assessment instruments. Curricula will be developed jointly by the faculty at the two institutions and will leverage existing curricula already in place. The effort will involve an exchange of both project members and students from the two institutions and incorporates intensive language training.

Year one of the project will involve the exchange of project members, curriculum development, and the creation of online courses. Years two and three will involve the exchange of students and faculty as well as the delivery and refinement of curriculum. The goals of the project are to: (1) Train the workforce to address security problems at the international level; (2) Develop a joint security curriculum between BMSTU and UAlbany; (3) Bridge ideological differences in handling information security incidents; (4) Increase cooperation between BMSTU and UAlbany in research and teaching; and (5) Create student exchange programs to improve language and cultural understanding.

Total FIPSE Funding: \$389,777 (3 years)

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P116S100006

Online Media for Engineering and Engineering Ethics Education

U.S. Lead: Georgia Institute of Technology

Russian Lead: Bauman Moscow State Technical University

The goal of the proposed collaboration between Bauman Moscow State Technical University (BMSTU) and the Georgia Institute of Technology (GT) is to share best practices and to develop new tools and pedagogical approaches in the area of science and technology, focusing on new online media for engineering and engineering ethics education. Based on the need to: (a) improve student exchange programs; (b) foster greater sensitivity to the ethical and social responsibility of engineering professionals; (c) improve the quality of student involvement in engineering and engineering ethics classes; and (d) design distance learning platforms for the technical disciplines, the project will: (1) develop an interactive and Web-based argument visualization tool, called AGORA, that supports collaboration in small groups of students; (2) develop a Russian-language "engineering ethics" class that includes a collaborative, AGORA-based learning environment; (3) develop distance laboratories in laser technologies and radio-electronics; (4) share educational achievements that can enhance both the quality of distance learning and of traditional instruction for the best of the partner institutions; and (5) establish a student and faculty mobility program that initiates a long-term educational partnership between BMSTU and GT.

Total FIPSE Funding: \$399,860 (3 years)

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P116S100007

Improving Research and Educational Activities in Multifunctional Nanomaterials

U.S. Lead: Texas A&M University

Russian Lead: National Research Nuclear University

The development of a new generation of materials, based on an understanding of its structure at the nano-level and the development of appropriate technology has had significant impact on the progress of society. This proposal partners two world-renowned universities to develop a sustainable collaboration to understand the science of a new generation of materials and the gainful development of associated technologies. Texas A&M University and the National Research Nuclear University (MEPhI) will work together to acquire new understanding and thereby develop new methodologies to prepare students and faculty for the challenges concerning the science, design, and manufacture of multifunctional materials. The two universities have some common ground in engineering and science education, but there are also several significant differences in curricula and teaching methodologies.

One of the main challenges is to develop predictive models that incorporate the morphologies and multifunctional response of materials at multiple length scales, processing conditions, etc., which can be integrated into the macro scale in continuum models and used for designing multifunctional structures. Investigators need to have an interdisciplinary approach in order to understand and be able to predict and model the properties of this new generation of materials. In many cases, these new concepts are not taught in the classrooms. There exists a gap between the new objects that we would like to study, and textbooks and the courses taught in the classrooms that focus on traditional materials. At the same time, we need to study the structure of materials at the nanoscale in order to produce technologically advanced products. This important and indispensable objective necessitates the development of new teaching approaches, and in view of this, we propose through the collaborative research program the development of the same by specialists at universities in Russia and the United States.

Joint courses will employ a Web-based portal with access to lesson plans, video conferencing, and seminars. It will benefit both institutions to have a cooperative educational program that uses distance education technology to share courses that provides the exchange of graduate students and faculty between the universities to improve communication and cultural awareness. An external evaluator will evaluate the course content and student learning through this program so that improvements can be made to the program beyond the funded period. Course materials and content will be available to other U.S. and Russian universities for evaluation and integration into other programs. The graduates from this program will obtain a unique research and educational experience from both the scientific and cultural perspective.

Total FIPSE Funding: \$359,106 (3 years)

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P116S100009

Sustainable Safety and Security Culture Development

U.S. Lead: Texas A&M University

Russian Lead: Tomsk Polytechnic University

The objective of this program is to facilitate the exchange of relevant cultural information and nuclear best practices to ensure the next generation of American and Russian nuclear experts are properly equipped to make meaningful advances in the field of nuclear cooperation.

Multiple mechanisms will be utilized to accomplish these objectives: (1) Collaborative curriculum development on subjects related to nuclear nonproliferation, safeguards, and security; (2) Research in the fields of nuclear terrorism, future safeguards systems evaluation, and treaty verification regime requirements; (3) Participation from Texas A&M University (TAMU) and Tomsk Polytechnic University (TPU) in the foreign field experience (FFE); and (4) Student and faculty exchanges to ensure joint research and curriculum development will continue to benefit both universities and host countries, and enable students and faculty to take advantage of resources and capabilities at both sites.

Funding for TPU participation in the FFE will serve to expand a historically very successful program between TAMU, the Moscow Engineering Physics Institute (MEPhI), and the Obninsk State Technical University's Institute for Nuclear Power Engineering. The proposed work will be a unique opportunity for American and Russian educators and students working in fields needed for future cooperation between the American and Russian governments to become familiar with the cultural ideals of their counterparts and to substantially contribute to the academic and technical state of their field.

Total FIPSE Funding: \$385,575 (3 years)

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