# Fund for the Improvement of Postsecondary Education (FIPSE) FY 2007 U.S.-Brazil Higher Education Consortia Program - New Awards by Award Number -

## P116M070001

Title: Cross-Cultural Interdisciplinary Studies in Literature and Film

U.S. Lead: Wayne State University (Detroit, Michigan)U.S. Partner(s): New York University (New York, New York); University of California, Los Angeles (Los Angeles, California)

**Brazil Lead**: Universidade Federal de Santa Catarina, Florianópolis, Brazil **Brazil Partner**(s): Universidade Federal de Minas Gerais (Belo Horizonte, Brazil); Universidade do Estado da Bahia (Salvador, Brazil)

**Subject Areas:** Literature and Film Studies

**Project Description:** Building on the student and faculty exchanges of a previous four-year FIPSE grant, we have secured two new university partners (University of California, Los Angeles and Universidade do Estado da Bahia) in a new two-year program on the topic of "Cross-Cultural Interdisciplinary Studies in Literature and Film." We plan to send ten more American students to study in Brazil and two faculty members to offer mini-courses. The Project Co-Directors of the grant will also travel to Brazil for organizational and planning meetings to expand the ongoing exchanges, as well as to lecture there. In addition, we intend, both from Wayne State and the other American universities, to send to the Brazilian universities with whom we have agreements other students without FIPSE stipends and to receive additional Brazilian students in return.

**U.S. Lead Contact:** Renata Wasserman, Professor of English, Wayne State University, 5057 Woodward Ave., Suite 9201.1, Detroit, MI 48202; Tel: 313-577-8627; Fax: 313-577-8618; E-mail: <u>aa0902@wayne.edu</u>

**Brazilian Lead Contact:** Anelise Corseuil, Universidade Federal de Santa Catarina, Campus Trindade, Florianópolis, Santa Catarina, Brazil 88040-900, Tel: 55-48-233-1236; E-mail: corseuil@cce.ufsc.br

\_\_\_\_\_

# P116M070003

Title: Business Education in the Age of Globalization and Technology

U.S. Lead: Bentley College (Waltham, Massachusetts)U.S. Partner(s): University of Texas-Pan American (Edinburg, Texas)

**Brazil Lead:** Universidade de São Paulo (São Paulo, Brazil) **Brazil Partner**(s): Universidade Federal do Parana (Parana, Brazil)

**Subject Areas:** Business Education

Project Description: This four-year consortium program builds on extensive prior collaboration among its partners: Bentley College, Universidade de São Paulo, Universidade Federal do Parana, and the University of Texas-Pan American. We will leverage and expand already existing joint activities to enhance multinational and cross-cultural business education. Our proposed program focuses on management of technology, including information technology, with results in three primary areas: (1) a common business curriculum working toward dual degree and joint masters programs; (2) twenty academic year student exchanges, short-term intensive courses, and summer programs; and (3) community/enterprise outreach, including workshops, internships, and networking with local business and trade associations. Our institutional leaders are active program participants, enhancing program integration and outreach. Bentley is committing substantial funds and will work to sustain the project beyond the grant period.

**U.S. Lead Contact:** Nader Asgary, Associate Provost for International Relations, Bentley College, AGC 161, 175 Forest Street, Waltham, MA 05452; Tel: 781-891-2784; Fax: 781-891-2478; E-mail: nasgary@bentley.edu

**Brazilian Lead Contact:** Isak Kruglianskas, Universidade de São Paulo, Cidade Universitaria, Av. Prof. Lucian Gualberto, 908, São Paulo, Brazil, 05508-900; Tel: 55-11-3818-4034; Fax: 55-11-3818-4034; E-mail: <a href="mailto:ikruglia@usp.br">ikruglia@usp.br</a>

#### P116M070005

Title: Understanding Poverty, Displacement, and the Environment Across Continents: Towards Interdisciplinary, Intercultural, Values-Based Curriculum

U.S. Lead: Fairfield University (Fairfield, Connecticut)U.S. Partner(s): University of La Verne (La Verne, California)

**Brazil Lead:** Universidade Estadual do Norte Fluminense (Campos do Goytacazes, Brazil)

Brazil Partner(s): Universidade do Vale do Rios dos Sinos (São Leopoldo, Brazil)

**Subject Areas:** Interdisciplinary Curriculum

**Project Description**: Poverty, and the inequality that causes it, are the most serious challenges facing global society. An estimated 78 percent of the world's population lives under conditions of poverty today. This consortium will investigate three global

institutions that contribute to entrenched poverty even as they seek to alleviate it. Working from the strengths of our partner institutions, we will focus on (1) the regimes addressing the phenomenon of immigration, regimes that in seeking to alleviate the desperate situation of migrants and refugees only too often entrench the poor in their poverty; (2) the institutional causes of both environmental degradation and the depletion of natural resources, as attempts to provide for basic human needs often end in undermining the basis of life itself; and (3) the legal and economic institutions of land acquisition and tenure, given that access to and ownership of land can be the key to providing for families in the present and saving for their future.

**U.S. Lead Contact:** Dina Franceschi, Associate Professor of Economics, Fairfield University, 1073 North Benson Rd, Fairfield, CT 06824-5195; Tel: 203-254-4000 x2850; Fax: 203-254-4074; E-mail: dfranceschi@mail.fairfield.edu

**Brazil Lead Contact:** Marcos Pedlowski, Universidade Estadual do Norte Fluminense, Av. Alberto Lamego 2000, Parque California, Campos do Goytacazes, Brazil 28.013-602; Tel: 22-2726-1583; Fax: 22-2726-1685; E-mail: pedlowma@uenf.br

# P116M070006

Title: U.S.- Brazil Engineering Education Consortium on Renewable Energy

**U.S. Lead:** North Dakota State University (Fargo, North Dakota) **Partner**(s): Michigan Technological University (Houghton, Michigan)

**Brazil Lead:** Universidade Federal do Pará (Belém, Brazil) **Partner**(s): Universidade Federal do Campinas (Campinas, Brazil)

**Subject Areas:** Energy and Environmental Policy

**Project Description**: This project addresses the most significant question to face the two largest economic engines in the northern and southern parts of the Western Hemisphere - Brazil and the United States - as the functional context to address reforms in engineering education. The consortium will use consideration of renewable and alternative energy opportunities as the focus for upper-level review and reform of the engineering curriculums for electrical, mechanical, and computer disciplines and for electrical engineering technology. The partner institutions will use the exchange of students and faculty to study questions of credit equivalents, shared curriculum, distance education, and professional practice. If necessary, new educational methods and pathways will be proposed to the accrediting agencies in both countries.

**U.S. Lead Contact:** Ivan T. Lima Jr., Assistant Professor, North Dakota State University, Department of Electrical and Computer Engineering, 1735 Research Park Dr.,

P.O. Box 5756, NDSU Station, Fargo, ND 28105-5756; Tel: 701-231-6728; Fax: 701-231-8677; E-mail: Ivan.Lima@ndsu.edu

**Brazil Lead Contact:** João C. Costa, Universidade Federal do Pará, Centro Tecnológico, DEEC, Rua Augusto Correa, s/n, Belém, Pará, Brazil 66075-900; Tel: 91-3201-7740; Fax: 91-3201-7740; E-mail: jweil@ufpa.br

#### P116M070007

Title: Energy, Environment, and Sustainable Development: The Central Role of the United States and Brazil

U.S. Lead: Washington and Lee University (Lexington, Virginia)U.S. Partner(s): University of Florida (Gainesville, Florida)

**Brazil Lead**: Universidade Federal do Amazonas (Amazonas, Brazil) **Brazil Partner**(s): Universidade Federal do Rio de Janeiro (Rio de Janeiro, Brazil)

**Subject Areas:** Energy and Environmental Policy

**Project Description:** Energy choices over the next several decades will determine the future of the planet and human society. This project looks at these choices and how best to inform the decisions that must be made. We have chosen a variety of activities to pursue our goals, including student exchange, curricular development, internships, faculty-mentored student research, collaborative faculty research, university/industry partnerships, and the creation of informational resources for both academic and practitioner use.

**U.S. Lead Contact:** James Randall Kahn, PhD, Professor of Economics, Washington and Lee University, Environmental Studies, 204 W. Washington St., Lexington, VA 24450; Tel: 540-458-8036; Fax: 540-458-4007; E-mail: <u>KahnJ@wlu.edu</u>

**Brazilian Lead Contact:** Alexandre Rivas, Av. Gal. Rodrigo Otávio, 3000, Campus Universitario, Manaus, Amazonas, Brazil 69000-000; Tel: 92-3647-4063; Fax: 92-3647-4062; E-mail: <a href="mailto:alexandre.rivas@pq.cnpq.br">alexandre.rivas@pq.cnpq.br</a>

#### P116M070010

**Title: Training Industrial Engineers in Cognitive Engineering Approaches to Manage High Risk, Complex Systems** 

U.S. Lead: University of Virginia (Charlottesville, Virginia)

**U.S. Partner(s)**: Ohio State University (Columbus, Ohio)

**Brazil Lead:** Universidade Federal do Rio de Janeiro (Rio de Janeiro, Brazil) **Brazil Partner**(s): Universidade Federal do Rio Grande do Sul (Porto Alegre, Brazil)

Subject Areas: Forestry

**Project Description:** This project exchange 42 students over the next two years. Each student will spend five months abroad and work in bilateral year-long project teams with one of our industrial partners in addition to taking courses in both Brazil and the United States. We will host three international human factors workshops in order to spread the word about cognitive ergonomics in Brazil and either to add more institutions to our consortium or to encourage the creation of similar consortiums managed by others. Finally, we will contribute to the literature on international engineering education through publications in peer-reviewed journals, particularly focusing on our unique exchange format and dissemination of a scoring methodology for evaluating international engineering education experiences on three criteria: foreign language competency, global competency, and mitigation of student barriers to participation.

**U.S. Lead Contact:** Stephanie A.E. Guerlain, Associate Professor of Engineering, University of Virginia, 151 Engineer's Way, P.O. Box 400747, Charlottesville, VA 22904-4747; Tel: 434-924-4438; Fax: 434-982-2972; E-mail: <a href="mailto:sag3c@virginia.edu">sag3c@virginia.edu</a>

**Brazilian Lead Contact**: José Gomes, Universidade Federal do Rio de Janeiro, Engenharia Industrial, Av. Brig. Trompowsky, s/n- Pradio do CT, Rio de Janeiro, Brazil; Tel: 552-125-9831; Fax: 552-125-9831; E-mail: <a href="mailto:joseorlando@nce.ufrj.br">joseorlando@nce.ufrj.br</a>

P116M070011

Title: Forest Ecosystem Services: A Curriculum in an Emerging Field

U.S. Lead: University of Florida (Gainesville, Florida)U.S. Partner(s): University of Georgia (Athens Georgia)

**Brazil Lead:** Universidade Federal de Viçosa (Viçosa, Brazil) **Brazil Partner(s):** Universidade Federal do Paraná (Curitiba, Brazil)

Subject Areas: Ecosystem Services

**Project Description:** This is a study abroad program that addresses the mechanisms and economic valuation of forest ecosystem services. It represents a new curriculum that will be introduced into six universities (three U.S. and three Brazilian) and that will train 64 students with an appreciation for, and competency in, this emerging topic. The foundation course is an intercontinental, team-taught, distance-delivered discipline

entitled Forest and Soil Ecosystem Services. This course will be developed in the first year and taught in the fall semester of each year. All students are required to take this course before or during their study abroad, then round out their course work with preapproved, existing courses in Brazil and the United States. A minimum of six credits abroad and six credits at the home institution are required to complete the curriculum. The topic, ecosystem services, is an emerging field with an estimated annual value of \$33 trillion that is now being applied to forest ecosystem management and conservation.

**U.S. Lead Contact:** Nicholas Brian Comerford, University of Florida, Professor of Agriculture, 2169 McCarty Hall, Gainesville, FL 32611-0290; Tel: 352-392-1951; Fax: 352-392-3902; E-mail: nbc@ufl.edu

**Brazilian Lead Contact**: Nairam Barros, Universidade Federal de Viçosa, Departamento do Solos, Viçosa, Brazil 36570-000; Tel.: 31-3899-1048; Fax: 31-3899-2630; E-mail: nfbarros@ufv.edu

# P116M070015

Title: U.S.-Brazil Higher Education Consortium Program in Microelectronics

U.S. Lead: Arizona State University (Tempe, Arizona)
U.S. Partner(s): University of Buffalo, SUNY (Buffalo, New York); Iowa State University (Ames, Iowa); Texas A&M University (College Station, Texas)

**Brazil Lead:** Universidade Federal de Santa Catarina (Florianópolis, Brazil) **Brazil Partner(s):** Universidade Federal do Rio Grande do Sul (Porto Alegre, Brazil);
Universidade Federal do Rio Grande do Norte (Natal, Brazil)

**Subject Areas:** Technology Education

**Project Description:** Four U.S. universities and three Brazilian universities are collaborating on microelectronics education. Microelectronics is a subject area that has received a special emphasis in the Northern Hemisphere, and no current FIPSE program is focused on this field. The Southern Hemisphere is an appropriate place to seek expansion of industrial, research, and educational resources and personnel for this field. Tapping of talent in this region and economic development in Brazil make this an appropriate area of collaboration. The four U.S. universities are some of the largest in the country, and bring together long-standing strengths in device physics (Arizona State University and University of Buffalo), very-large-scale integration (VLSI) design (Iowa State University), and analog and mixed signal design (Texas A&M University).

**U.S. Lead Contact:** Stephen M. Phillips, Chair of Electrical Engineering Department, Arizona State University, 1711 S. Rural Rd., Box 875706, Tempe, AZ 85287-5706; Tel: 480-965-6410; Fax: 480-965-3837; E-mail: <a href="mailto:Stephen.Phillips@asu.edu">Stephen.Phillips@asu.edu</a>

**Brazilian Lead Contact:** Márcio Cherem Schneider, Universidade Federal de Santa Catarina, Engenharia Elétrica, Campus Universatario- Trindade CEP, Florianópolis - SC, Brazil 88040-900; Tel: 048-3721-9320; Fax: 048-3234-4069; E-mail: marcio@eel.ufsc.br

## P116M070016

Title: U.S.-Brazil Partnership in Sustainability and Innovative Design

U.S. Lead: University of Pittsburgh (Pittsburgh, Pennsylvania)U.S. Partner(s): Rose-Hulman Institute of Technology (Terre Haute, Indiana)

**Brazil Lead**: Universidade Estadual de Campinas (Campinas, Brazil) **Brazil Partner(s)**: Universidade Federal do Espírito Santo (Vitória, Brazil)

Subject Areas: Sustainability and Innovative Design

Project Description: This partnership will address sustainability and innovative design. Student teams will work first in the United States and then in Brazil over two semesters addressing an important sustainable design problem as part of their coursework. Internships with industry and non-governmental organizations (NGOs) will enable students to spend additional time in the host country. The initial focus will be on engineering and architecture with business students added later. A Certificate Program in Sustainable Design for the Developing World will be created across the consortium partners. All U.S. students will have at least 10 credits of Brazilian Portuguese as well as intensive Portuguese. The program will involve 28 U.S. and 18 Brazilian students. Including the annual meeting, the consortium will meet twice per year, once each in the United States and Brazil.

**U.S. Lead Contact**: Larry J. Shuman, University of Pittsburgh, Department of Engineering, 323 Benedum Hall, 3900 O'Hara St., Pittsburgh, PA 15260; Tel: 412-624-9815; Fax: 412-624-9831; E-mail: <a href="mailto:shuman@engr.pitt.edu">shuman@engr.pitt.edu</a>

**Brazilian Lead Contact:** Leandro Palermo, Jr., Universidade Estadual de Campinas, Arquitetura e Urbanismo, Av. Albert Einstein, no. 951, Campinas, SP Brazil 13083-852; Tel: 55-19-3788-2300; Fax: 55-27-3788-2411; E-mail: doris@fec.unicamp.br

\_\_\_\_

#### P116M07017

Title: The Development of a Global Engineering Certification Program

U.S. Lead: North Carolina State University (Raleigh, North Carolina)
U.S. Partner(s): Virginia Polytechnic Institute and State University (Blacksburg, Virginia); North Carolina A&T State University (Greensboro, North Carolina)

**Brazil Lead**: Universidade Federal do Rio de Janeiro (Rio de Janeiro, Brazil) **Brazil Partner(s)**: Pontifícia Universidade Católica do Paraná (Curitiba, Brazil)

**Subject Areas:** Engineer Education

Project Description: The project has the following objectives: (1) establish an institutionally based engineering exchange program; (2) establish a Global Engineering Certificate awarded by the hosting university to foreign students; 3) establish an International Engineering Certificate awarded by the U.S. university to U.S. engineering students; and 4) establish Engineering Equivalency between the engineering programs in the United States and those in Brazil. To achieve these objectives we will establish an engineering exchange program and engineering equivalency between three engineering schools in the United States and three engineering schools in Brazil. Students will take equivalent engineering courses at the foreign university and not significantly extend their degree completion time. U.S. students will take their engineering courses in Portuguese while in Brazil. Students who successfully complete the exchange program will receive formal certification.

**U.S. Lead Contact:** Robert E. Young, Professor of Industrial Engineering, North Carolina State University, Department of Industrial & Systems Engineering, Campus Box 7906, Raleigh, NC 27695-7906; Tel: 919-515-7201; Fax: 919-515-5281; E-mail: <a href="mailto:young@ncsu.edu">young@ncsu.edu</a>

**Brazilian Lead Contact:** Erickson Alemdra, Escola Politécnica da UFRJ, Centro de Universitaria, Ilha do Fundão, Rio de Janeiro, Brazil CEP 21949-900; Tel: 55-21-2562-7064; E-mail: <a href="mailto:almendra@metalmat.ufrj.br">almendra@metalmat.ufrj.br</a>

\_\_\_\_\_

# P116M07019

Title: Obesity Dilemma: A Cross-Cultural Ecologically-Based Model

U.S. Lead: Kennesaw State University (Kennesaw, Georgia)U.S. Partner(s): California State University, Long Beach (Long Beach, California)

**Brazil Lead**: Universidade Federal de Santa Catarina (Florianópolis, Brazil) **Brazil Partner(s)**: Universidade de Pernambucco (Recife, Brazil)

**Subject Areas:** Health and Ecology

**Project Description:** Despite efforts to curb the rising obesity epidemic, it continues to be a significant preventable cause of death in the United States. As countries such as Brazil have become more industrialized, the obesity rates have started to climb to levels similar to those in the United States decades ago. Preventing obesity has been a challenging problem, necessitating the need to reexamine paradigms for prevention programs. A growing body of evidence suggests that ecological (environmental) influences are strong contributing factors, i.e., obesity has become a normal response to an abnormal environment. The primary purpose of this consortium is to employ a crosscultural ecologically based model for training health professionals to address the obesity dilemma. The specific goals are the following: (1) expand the understanding of the etiology of obesity; 2) infuse these cross-cultural lifestyle/environmental comparative perspectives into the curriculum; and (3) develop/implement country-specific teaching modules that address public policy.

**U.S. Lead Contact:** Mitchell Collins, Chair, Health, Physical Education and Sport Science, Kennesaw State University, 1000 Chastain Rd., MS #0202, Kennesaw, GA 30144-5591; Tel: 770-423-6216; Fax: 770-423-6561; E-mail: mcollins@kennesaw.edu

**Brazilian Lead Contact:** Markus V. Nahas, Universidade Federal de Santa Catarina, Campus Universitario - Trindade, Florianópolis, Santa Catarina, Brazil 88040-900; Tel: 011-55-48-3721-7089; Fax: 011-55-48-3331-9927; E-mail: markus@cds.ufsc.br