



<http://www.csuci.edu/ira/index.htm>

Application
Instructionally Related Activities Funds Request
2009 – 2010 Academic Year
DEADLINE: Fall and Academic Year 3/15/09 Spring 10/15/10

Applications should be sent to the appropriate program chair. Chairs will route them to the Dean's Office, then to the IRA Committee.

Activity Title: Math Exchange with University of Hidalgo Mexico

Project Sponsor/Staff (Name/Phone): **Jorge Garcia, x2769, Jesse Elliott, x2768, Ivona Grzegorzczak x8868**

Activity/Event Date(s): Spring Break, Spring Semester, 2010

Date Funding Needed By: December 2009

**Please Note that for Fall Requests the earliest that you will be notified of funding availability will be early June 2008 and for Spring Requests early January 2009.
 2010

Please check if any of the following apply to your IRA:

| | |
|------------------------|--|
| Equipment Purchase | Field Trip |
| Event | Participant data collection for public dissemination, i.e. interviews/surveys that result is a journal/poster session/newsletter |
| IT Requirements | Risk Management Consultation |
| International Travel | Late Submission (Passed Deadlines: Fall 3/15, Spring 10/15) |
| Space/OPC Requirements | |
| Infrastructure/Remodel | |
| Other _____ | |

Previously Funded: YES NO Yes, Request # ____ Date (10-12-2007) _____

Does your proposal require IRB (Institutional Review Board) approval: Yes No **NO**

Assessment submitted for previously Funded Activity: YES NO **Yes**

Academic Program or Center Name and Budget Code: 750 - Mathematics

Date of Submission: March 13, 2009

Amount Requested: **\$11,900**

(Should match item 2. E. on page 4)

Estimated Number of Students Participating: **10**

1. Program and Course Description

We have been successful in establishing the collaboration with University of Hidalgo in mathematical sciences. We are planning to have the Fourth Meeting between CSUCI and University of Hidalgo (UAEH) in Mexico. During our previous meetings to Mexico (March 2006, May 2008), the students participated in academic, cultural and international experiences, and this will continue during this meeting. The CSUCI mathematics program is working toward formalizing a student exchange agreement between CSUCI and UAEH, as this type of event benefits the students greatly.

This activity will be a continuation what we have done in the last three years: 10 students each year (from Mathematics, Psychology, Biology, Spanish, Political Sciences, and Chicano Studies) traveled to the city of Pachuca in Mexico to participate in scientific and cultural exchange. Participating students will prepare academic presentations and deliver them to faculty and students from CSUCI and UAEH. They will discuss and comment on presentations others. Students will spend time interacting with UAEH students in both formal and informal settings, thus gaining a better appreciation of our southern neighbors. Finally, they will go on several field trips in the state of Hidalgo and surrounding states.

It is worth to mention that during each trip, there are activities planned from the local Mexican students and faculty for us. These activities include field trips, museums visits, soccer games, dancing and tours to local places. This really shows the interest from hosts to welcome us. It is our experience that we have had and will have “the royal welcome” each time we go.

The conference this year will be in Hidalgo during the 2010 spring recess. The city of Pachuca, where the university is located, was one of the first settlements in New Spain and lies in a rich mining district in the Sierra Madre Oriental, 7,959 feet above sea level. Typically, there will be morning math seminars given by our students and our host students and by CSUCI and our host faculty, then afternoon and/or evening field trips inside the state. We will be accompanied by our Mexican host students and faculty on the field trips. We will also make a trip to Mexico City to visit the National University of Mexico, where we will learn about the largest mural in the world as well as about other murals from Diego Rivera and David Siqueiros. As one of the sponsors is a native of Hidalgo with professional mathematical contacts in the area, this trip will give the students a good introduction to the state, both professionally and culturally. There will be three meetings prior to the trip during which we will discuss a) students' presentations, b) Mexican history and culture, and c) necessary details (orientation) for the trip. There will also be one post-trip meeting in which we will discuss the project that will result from this trip, and a poster session for the entire CSUCI community in which our students will present their project.

This project supports the interdisciplinary and international mission of CSUCI.

2. Relation to IRA Program to Course Offerings.

The program is integrally related to the formal instructional offering of several programs in the university: Mathematics, Spanish, History, and Art, among others. The proposed program establishes immediate links for those students learning the Spanish language as well as for those involved in the study of history of Latin-American cultures. For mathematics people, this is a great opportunity to interact and share talks, experiences and culture with Mexican students. Most importantly, the proposed program will enhance the students' international perspectives and will allow them to see themselves within a global framework. The following classes are particularly related to the program.

- SPAN 411 Civilizations and Cultures of Latin America (3)
- HIST 420 History of Mexico (3)
- HIST 421 Revolutionary Mexico, 1876-1930 (3)
- SPAN 301 Advanced Spanish: Part One (3) or
- SPAN 302 Advanced Spanish: Part Two (3)
- MATH 140 Calculus for Business
- MATH 150 Calculus I
- MATH 240 Linear Algebra
- MATH 300 Discrete Mathematics
- MATH 308 Modern Mathematics for Elementary Teachers
- MATH 330 Mathematics and Fine Arts
- MATH 352 Probability and Statistics
- MATH 351 Real Analysis
- MATH 393 Abstract Algebra
- MATH 350 Differential Equations

3. Program Assessment

There will be three meetings before the trip to discuss Mexican history, culture, and general orientation for the trip. After the trip, there will be a poster session during which each student will be responsible for presenting a poster on a topic related to one of the five case studies examined on the trip. This will serve as a post-trip assessment.

This conference is designed to provide the student with a basic understanding or experience of the following:

- Modern mathematical issues across the world.
- Cultural exchange within a scientific context: USA/Mexico
- Interchange of scientific and professional ideas
- History of science and mathematics in Mexico
- Mexican culture and the Mexican perspective
- Language immersion for students qualified to participate
- Guided exploration of cultural landmarks in the area

4. Program Budget and Other Funding

The following are approximate costs of the trip per student.

Cost of Trip (per student, estimated)

Costs Associated with Fee

| | |
|-------------------------------------|----------------|
| Roundtrip Airfare from LAX | \$350 |
| Accommodations (7 nights) | \$250 |
| Travel Insurance | \$ 50 |
| Shuttle to LAX | \$ 50 |
| Local Transportation in Mexico | \$100 |
| Cultural Activities (museums, UNAM) | <u>\$100</u> |
| | TOTAL: \$900 |
| TOTAL for students | \$9,000 |

Cost for 1 faculty \$900 = \$900

Other Costs

Meals (7 days x 11 people) \$2,000

TOTAL cost \$11,900

TOTAL REQUESTED for 10 students + 2 faculty \$11,900

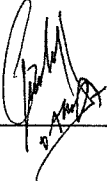
5. Sources of Program Support.

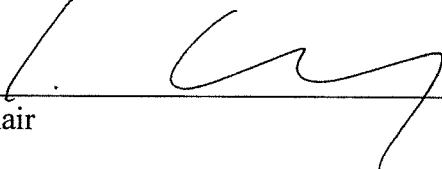
Since this is a fully scientific and educational trip we request full funding for students (participating faculty will arrange to cover their own costs). Additional support will be sought from Hidalgo University, the host of this trip. The Hidalgo University has generously indicated that they will provide cheap accommodations for the students, as well as numerous indirect costs, such as classroom space and cafeteria usage (providing high quality, inexpensive meals). The Hidalgo University will also be a place where CSUCI students will interact with Mexican students, who will also be our hosts on our field trips.

7.- Acknowledgment.

Chair Ivona Grzegorzcyk has read and agreed to this proposal.

Signatures and Dates

 3/13/2009
Project Sponsor Date

 3/13/2009
Program Chair Date

A-h Vaidyan 4/23/09
Dean Date