IRA Funds Request for UNIV392: Biotechnology in India

Instructionally Related Activities Funds Request Summary

- Project Sponsor: Nitika Parmar
- Activity Title: UNIV392: Biotechnology in India
- Activity/Event Date: Spring break, 2016
- Date Funding Needed By: June 30, 2015
- Previously Funded?: Yes
- Semester/Year: Fall 2014
- Proposal #: 626
- Report submitted for previously funded Activity?: Yes
- Estimated total Course Fee revenue: 14000
- Amount Requested from IRA: 20964
- Estimated Number of Students Participating: 14
- Conditions and Considerations: International Travel

Brief Activity Description:
Funds are being requested for student travel to India during the spring break of the 2015-2016 academic year (March 18-28, 2016). This will be through a UNIV392 course entitled Biotechnology in India that will be taught in Spring, 2016. The 3-unit course will provide CI students an opportunity to visit India and explore biotechnology advancements there. A maximum of 14 students will be enrolled in this class and the instructor will accompany the students to India for the international experience field trip. Students will be exposed to applications in a wide variety of areas within the large field of biotechnology. Emphasis will be placed on demonstration of research experimentation in the fields of molecular biology, immunology, cell biology, biomedical research and ecological conservation at top research institutions in two cities- Mumbai and Pune, as well as an Ecovillage close to Mumbai. Students will learn about the booming biotechnology research in India on one side and the deep emphasis placed on India's ancient history, cuisine, culture, arts, religion and rich traditions on the other. The goal of this course is to familiarize students with techniques used in the fields of biotechnology and environmental biotechnology in India.

The activity directly relates to the program major by enabling students to observe high-tech experimentation and glean ideas about research projects which will provide them with choices to pursue similar research back at CI. It will align with the experiential learning skills that are part of Biology program's objectives. However, this course is not meant for Biology or STEM students alone but rather meant to encompass students from all disciplines. Students from other non-science disciplines enrolled in this course will gain useful experiences in the areas of Indian multiculturalism, art, history, music and food and will be able to enrich their content knowledge by direct experiences.

Learning Outcomes and Relation to IRA to Course Offerings:
LEARNING OUTCOMES: Students who successfully complete this course will be able to:
- Understand the concepts of biotechnology as practiced in India
- Explain the theory and practice of a variety of experimental techniques as practiced in India
- Demonstrate their ability to explore and appreciate the diverse nature of India's culture, traditions and history
- Integrate content, ideas, and approaches from multicultural and international perspectives

The proposed activity (international travel component) directly relates to the 3-unit UNIV392 course which will be offered in spring, 2016 pending
approval by the Center for International Affairs.

The proposed activity will provide a real-life experience to the content taught in UNIV392 whereby various elements of classical and modern-day biotechnology will be discussed. Students will be able to observe biotech practices in India from a scientific and cultural context. The travel component is a crucial and required biotechnology research in India along with its traditions and culture. Over a period of about 9 days, students will get the opportunity to explore two major cities in India and interact with scientists and students at seven different institutions. The course will also offer opportunities to discuss and debate selected bioethical issues pertinent to the fields of biotechnology and the environment. Thus, the proposed travel component of this course directly aligns with CI's mission of graduating students with multicultural and international perspectives.

Description of Assessment Process

A variety of assessment tools will be utilized as listed below:

* Pre-trip presentations (2 presentations, 25 points each): Students will research the biotechnology practices in India as well as its culture, traditions and history and present their findings in the form of a powerpoint presentation in class.

** Quiz (25 points each): These quizzes will be administered after the trip has concluded and will focus on (i) biotechnology, (ii) culture and (iii) traditions in India.

*** Reflective journal (40 points): Students are required to develop a journal where they are expected to record their reflections and thoughts on what they are learning about.

**** Participation (50 points): Students are required to attend and participate in each event/activity, all-in-class sessions at CI as well as all orientation sessions. Students will be graded for their participation in each research lab that will be visited in India.

***** Student behavior and attitude (20 points): Students will be evaluated for their attitude as it relates to citizenship, punctuality, helpfulness, team dynamics, responsible behavior, respect and sensitivity toward the host culture and their people, following group leader’s instructions, etc.

****** Final poster and oral presentations (20 points each): After the conclusion of the trip, each student will be making a presentation about the experiences gained during the international experience in the form of a poster and an oral talk.

Activity Budget

PammarIRA/Budget2015.pdf

GIA Budget

PammarUNIV392Budgetworksheet.xls

GIA Proposal

UNIV392IndiaNikhilPammarSpring2016Final.pdf

Course Syllabus

PAMMARSpring2016UNIV392CourseSyllabus.pdf

GIA Certification

I certify that students attending this trip are not previous or repeat attendees of a prior International UNIV392 Trip

Other Sources of Funding

The only source of funding for this course would be the course/travel fee that students are expected to pay. This will be $1000 per student and will amount to $14,000 for 14 students.

Target Audience/Student Marketing

TARGET AUDIENCE: The course is open to all undergraduate students of all majors. Students who have previously visited India via UNIV392 courses will not be considered. In addition, all IRA guidelines students who have been funded by previous IRA funds for other international travel/study abroad programs will also not be considered. The purpose will be to give as many students as possible an opportunity to visit India who have not undertaken major international travel.

MARKETING: Advertisement of the course will be done through flyers and posters posted across campus, through global e-mails sent to all program coordinators, through information sessions presented at Student Clubs as well as at the LSAP meetings. The course will be advertised in the fall, 2015. Interested students will be required to complete an application form and provide at least two letters of recommendation from CI faculty, excluding the instructor for this course. The application will primarily provide me insights into students’ academic preparation, their level of confidence and expectations as well as their motivation for this course. The recommendation letters will provide useful feedback about students’ potential and skills. The applications will be due in the last week of November, 2015. Subsequently, students will be invited for an interview in the first week of December following approval by the Center for International Affairs.

Bring Benefit to Campus

This activity pertains to an international short term trip to India exploring biotechnology over a period of about 10 days. The course will offer tremendous benefits to the participating students in terms of acquired knowledge and skills in the area of biotechnology and also allowing them to explore the diverse culture and traditions of India. I intend upon mobilizing students’ experiences to enhance learning in the classroom back on campus and will involve the following:

1. Have the students present their experiences in the form of poster and oral presentations at campus events such as the Sage Conference as well as at Student Club meetings so as to increase the visibility of this program.

2. Students will be encouraged to interact with the Center for International Affairs (CIA) at CI and help promote study abroad program by discussing their experiences at events such as the International week celebrations.

3. After returning back from these trips some students expressed interest in pursuing career options in the environmental biotechnology areas in international countries. Students will be encouraged to contact the Career Development services to seek advice on the same.

4. The benefits of this experience in terms of cultural enrichment will be shared with the Center for Multicultural Engagement (CME) via student-led workshops.

5. The students may also reflect on their experiences by contributing articles to Channel and Wavelength media and the CI newspaper. This will allow reach to a wide student population at CI.

Sustainability

One of the activities that students will be engaged in is an Educational Retreat at Govardhan Eco Village (GEV) in India. Govardhan Eco Village is a farm community spread over a scenic landscape of 100 acres north of Mumbai. Since its inception in the year 2003, Govardhan Eco Village has made steady progress in Environmental Biotechnology, Organic farming, Education, Rural development, Alternative energy, Eco friendly construction, and Sustainable living. The purpose behind Govardhan Eco Village is to present a sustainable living model based on community living. Students in this course will thus get to observe and practice sustainable practices in India and will glean valuable information which will be shared with the CI community and could potentially be implemented in a practical sense on our campus.

The visit to this Eco Village has been the most prominent and rewarding highlight of the international trip (please see student feedback) and 100% of the students indicated that this educational retreat was the best part of the trip for them. Since this retreat heavily focuses on sustainability and has garnered so much interest, it is very much likely that students will be bringing home knowledge of unique sustainability measures that can be adopted here. In the previous trips there were ESPM students enrolled in this class and they were intent on expanding what they learnt in India in the areas of sustainability in their discipline here at CI. Sustainable ways of living were also impacted at a personal level.

Program Chair/Director

amydenton

Academic Affairs AVP

karen.carey

Acknowledgement

I acknowledge that I have reviewed and accepted the Conditions and Considerations herein. Please check off boxes as appropriate.

Program Chair/Director Approval

I approve the IRA Funds Request described on this page
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**Academic Affairs AVP Approval**

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