California State University | INSTRUCTIONALLY RELATED ACTIVITIES CHANNEL ISLANDS

Proposal # ___**785**___

Instructionally Related Activities Report Form

SPONSOR: NITIKA PARMAR
DEPARTMENT: BIOLOGY
ACTIVITY TITLE: UNIV 392-BIOTECHNOLOGY IN INDIA
DATE (S) OF ACTIVITY: DECEMBER 26, 2016- JANUARY 20, 2017

Please submit via email to the IRA Coordinator along with any supporting documentation at david.daniels@csuci.edu within 30 days after the activity.
Thank you for your commitment to engaging our students!

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A. ADDRESS THE FOLLOWING QUESTIONS:

(A) PROVIDE A DESCRIPTION OF THE ACTIVITY:

IRA FUNDS WERE UTILIZED TO FUND TRAVEL TO INDIA DURING THE WINTER BREAK. I TAUGHT UNIV392-BIOTECHNOLOGY IN INDIA, IN FALL, 2016 AND ONE KEY COMPONENT OF THIS COURSE WAS AN INTERNATIONAL TRIP. 14 UNDERGRADUATE STUDENTS WENT ON A TRIP TO INDIA FOR 3 WEEKS TO UNDERSTAND BIOTECHNOLOGY IN THE ACADEMIC RESEARCH INSTITUTIONS AS WELL AS BIOTECH COMPANIES AND EXPLORE TYPES OF BIOTECH RESEARCH CURRENTLY UNDERTAKEN THERE. THE STUDENTS CAME FROM A VARIETY OF DISCIPLINES- BIOLOGY, CHEMISTRY, SOCIOLOGY AND COMMUNICATION.

(2) HOW DID THE ACTIVITY RELATE TO A COURSE(S) AND/OR LEARNING OBJECTIVES?

THE GOAL OF THIS COURSE WAS TO FAMILIARIZE STUDENTS WITH A BROAD ARRAY OF AREAS WITHIN THE FIELD OF BIOTECHNOLOGY (SUCH AS ANIMAL, PLANT, INDUSTRIAL, MICROBIAL AND ENVIRONMENTAL BIOTECHNOLOGY) IN INDIA. THE COURSE EXPLORED BIOLOGY IN THE CONTEXT OF APPLIED RESEARCH AND PROVIDED STUDENTS THE OPPORTUNITY TO OBSERVE RESEARCH PROJECTS ONGOING IN INDIA. THE COURSE ALSO OFFERED OPPORTUNITIES TO DISCUSS AND DEBATE SELECTED BIOETHICAL ISSUES PERTINENT TO THE FIELDS OF BIOTECHNOLOGY AND THE ENVIRONMENT, PARTICULARLY IN THE AREA F CLONING.

THE LEARNING OUTCOMES FOR THIS COURSE INCLUDED:

- **UNDERSTAND THE CONCEPTS OF BIOTECHNOLOGY AS PRACTICED IN INDIA**
- **EXPLAIN THE THEORY AND PRACTICE OF A VARIETY OF EXPERIMENTAL TECHNIQUES AS PRACTICED IN INDIA**
- **UNDERSTAND THE ROLE OF INDIA AS A BOOMING BIOTECHNOLOGY HUB**
- **DEMONSTRATE THEIR ABILITY TO EXPLORE AND APPRECIATE THE DIVERSE NATURE OF INDIA'S TRADITIONS**
- **UNDERSTAND THE VIBRANT HISTORY AND CULTURE OF INDIA**

BASED ON ALL THAT WE ACCOMPLISHED DURING THIS TRIP AND IN CLASS, I BELIEVE ALL LEARNING OUTCOMES WERE SATISFIED.

(3) WHAT DO YOU SEE AS THE STRENGTHS OF THE ACTIVITY?

STUDENTS RECEIVED AN AMAZING OPPORTUNITY TO EXPERIENCE A COUNTRY 10,000 MILES FROM USA! STUDENTS NOT ONLY GOT A FEEL FOR TOP-NOTCH SCIENCE BUT ALSO FOR THE CULTURE AND TRADITIONS OF INDIA. THE MAJORITY OF THE CLASS HAD NEVER TRAVELED OUT OF USA AND THIS WAS TRULY AN EYE OPENER FOR THEM TO BE ABLE TO EXPERIENCE HOW DIVERSE THE WORLD IS. UNLIKE VISITS TO WESTERN COUNTRIES WHERE THINGS COULD BE SIMILAR TO USA INDIA HAD TO OFFER A VASTLY DIFFERENT AND ENRICHING EXPERIENCE, SOMEWHAT OVERWHELMING AT TIMES! THE MEETINGS WITH THE SCIENTISTS AND THE INDIAN DIASPORA PROVIDED CONFIDENCE AND A STRONG DRIVE TO MAKE A CHANGE IN THE SOCIETY. STUDENTS REALIZED THAT THINGS TAKEN FOR GRANTED IN USA ARE SOMETIMES A LUXURY IN INDIA AND DEVELOPED A SENSE OF APPRECIATION.

(4) WHAT WOULD YOU SAY ARE/WERE THE ACTIVITY'S WEAKNESSES?

I DON'T SEE ANY IMMEDIATE WEAKNESSES THAT NEED ATTENTION BUT SOMETIMES STUDENTS WHO DO NOT HAVE A BIOLOGY BACKGROUND MAY FIND THE TECHNICAL JARGON USED IN THE RESEARCH INSTITUTIONS A BIT DIFFICULT TO UNDERSTAND. THIS WAS REMEDIED THROUGH APPROPRIATE QUESTION AND RESPONSE FORMAT. ANOTHER CHALLENGE COULD BE THE ENGLISH PRONUNCIATION OF THE INDIAN DIASPORA WHICH WAS SOMEWHAT DIFFICULT TO GRASP BUT THIS DID GET BETTER WITH TIME WHEN STUDENTS GOT USED TO THE DIALECTS.

(5) HOW WOULD YOU IMPROVE THIS ACTIVITY FOR NEXT TIME?

- **GIVE STUDENTS MORE TIME FOR SHOPPING- ALTHOUGH THEY DID SHOP THEY WANTED TO SEE DIFFERENT SHOPPING AREAS**
- **ENSURING THAT STUDENTS GET TO PICK THEIR AIRLINE TICKETS AHEAD OF THE FLIGHT. WE COULD NOT DO IT THIS TIME AS A RESULT OF THE GROUP BOOKING**
- **REMOVE INSTITUTIONS FROM THE ITINERARY WHICH ARE FAR PLACED FROM THE HOTEL AND REQUIRE THE GROUP TO SPEND UNNECESSARY TIME IN TRAFFIC**
- **EXPLORE NEWER UNIVERSITIES AND INCREASE NETWORK OPPORTUNITY**
- **HAVE STUDENTS DELIVER A SEMINAR, IF TIME ALLOWS**

(6) WHAT DID YOU LEARN FROM THE PROCESS?

- **STUDENTS CAN BE HIGHLY ADAPTIVE OR SLOW TO UNDERSTAND THE CULTURAL DIFFERENCES. GIVE THEM MORE TIME DESPITE GIVING THEM FULL INFORMATION AHEAD OF THE TRIP ON WHAT TO EXPECT**
- **FOR A TRIP LIKE INDIA, THE MINIMUM PERIOD SHOULD BE 2 WEEKS. A SPRING BREAK TRIP WILL NOT BE USEFUL.**
- **AN EXCELLENT TRAVEL AGENCY CAN MAKE ALL THE DIFFERENCE- WHEN STUDENTS FELL SICK, THE TRAVEL AGENCY REPRESENTATIVES TOOK EXCELLENT CARE AND ARRANGED EVERYTHING FOR US.**

(7) WHAT ARE STUDENT RESPONSES TO THE ACTIVITY? ATTACH STUDENT EVALUATIONS OR ASSESSMENTS (IN ACCORDANCE WITH FERPA RESTRICTIONS YOU MUST REMOVE ALL PERSONALLY IDENTIFIABLE STUDENT INFORMATION)

STUDENTS HAVE BEEN GUIDED TO THE QUALTRICS ONLINE EVALUATION LINK AND HAVE BEEN GIVEN THE STUDENT EVALUATION FORM AS WELL. ONCE I RECEIVE ALL EVALUATIONS, I WILL FORWARD THE SAME TO IRA.

8) GIVE A SUMMARY OF EXPENSES FOR THE ACTIVITY.

1. EDUCATIONAL GROUP PACKAGE (ACCOMMODATION, TRANSPORT, TOURS, ENTRANCE FEES AND CULTURAL ACTIVITIES FOR GROUP): $33846

2. ECOVILLAGE RETREAT: $1800

3. FLIGHTS: $17096.40 ($1139.76 PER PASSENGER)

4. ROADRUNNER SHUTTLE: $632.10

5. MEALS (FOR FACULTY ONLY): $803

6. COMMUNICATION DEVICE CHARGES: $50

TOTAL: $54, 227

B. ATTENDEE LIST- SEPARATE SUPPORTING DOCUMENT:

In addition to the report form, *in a separate document,* attach to your email a list of attendees complete with each student major and grade level. This for IRA Committee reference only and will not be published on the IRA website. Include your name and the title of your IRA activity on the document.

ATTACHED

C.IMAGES FROM ACTIVITY:

Finally, include up to 6 images demonstrating student participation (under 2.5 MB total). You MUST include captions/titles for each photo. You may put these photos in a Word or PDF format, or attach these photos in JPEG format directly to email. Thank you!

ATTACHED

UNIV392 STUDENT LIST
FALL 2016
BIOTECHNOLOGY IN INDIA
INSTRUCTOR: NITIKA PARMAR, BIOLOGY

Name	Level	Major
LURDE Vasquez	JUNIOR	SOCIOLOGY
MACY SMITH	SENIOR	BIOLOGY
SHENLEY DIAZ	SOPHOMORE	SOCIOLOGY
CAITLIN CAMPBELL	SENIOR	BIOLOGY
SARA ANIS	SENIOR	BIOLOGY
AUGUSTIN GONZALEZ	SENIOR	COMMUN/HEALTH EMPHASIS
JIM RODARTE	SENIOR	CHEMISTRY
MARIA RIVERA	SENIOR	BIOLOGY
RIANNA SMITH	JUNIOR	BIOLOGY
LYNN UTLEY	SENIOR	BIOLOGY
MY GEM LEE GUZMAN	JUNIOR	BIOLOGY/SPANISH
DANIEL ESPINOZA	SENIOR	BIOLOGY
JESICA MENDOZA	JUNIOR	BIOLOGY
TWYLA GOLLERY	SENIOR	BIOLOGY