CSUCI CALIFORNIA STATE UNIVERSITY CHANNEL ISLANDS

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

**Application**
**Instructionally Related Activities Funds Request**
**2012-2013 Academic Year**
**DEADLINE: Fall and Academic Year 3/31/12**
**Spring 2012 deadline is 10/31/12**

Applications must first be sent to the appropriate program chair. Chairs will the recommend and route them to the Dean's Office for review and authorization. The Dean's Office will then forward them to the IRA Committee for consideration.

**Activity Title: Museum visit – Physics of Art**
Project Sponsor/Staff (Name/Phone): Jerry Clifford, 437-2798
Activity/Event Date(s): Spring semesters 2013
Date Funding Needed By: March 2013.

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

- ☐ Equipment Purchase
- ☐ Event
- ☐ IT Requirements
- ☐ International Travel
- ☐ Space/OPC Requirements
- ☐ Infrastructure/Remodel
- ☐ Field Trip
- ☐ Participant data collection for public dissemination, i.e. interviews/surveys that result is a journal/poster session/newsletter
- ☐ Risk Management Consultation
- ☐ Late Submission (Passed Deadlines)
- x Other: partial payment for outside event

Previously Funded: ☐ YES x NO

Does your proposal require IRB (Institutional Review Board) approval: ☐Yes x No

Assessment submitted for previously Funded Activity: ☐ YES x NO

Academic Program or Center Name and Budget Code: Applied Physics

Date of Submission: 7/20/12

Amount Requested: $360
(Should match item 2. E. on page 4)

Estimated Number of Students Participating: 24

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**Conditions and Considerations**

**Equipment Purchase**-If requesting large equipment, Project Sponsor must show proof of correspondence with OPC Administration. In addition, all other purchases must follow Procurement Guidelines

**Events**-Attach copy of Events and Facilities Use Request Form (Public Folders-Events & Facilities folder) Consider time frame for set-up and take down.

**Participant Data Collection for Public Dissemination-**If Project Sponsor proposes to conduct research with human participants then it may be subject to IRB (Institutional Review Board for the Protection of Human Subjects) review. It is the Project Sponsor's responsibility to inquire with the IRB **prior** to IRA application submission to determine if the project is exempt from IRB review so that funding is not delayed. Please indicate on the cover page if your project is exempt from IRB review.

**Field Trip**-If approved, Identified Risks of Participation and Release Agreement must be submitted for each student to the Program Office (Public Folders-HR Forms).

**IT Requirements**-Requires proof of correspondence and approval from IT Administration

**International Travel**-Requires International Travel application be submitted to Center for International Affairs.

**Risk Management Consultation**-Requires proof of correspondence with Risk Management.

**Space/OPC Requirements, Infrastructure/Remodel**-Requires proof of correspondence with OPC Administration .

**Late Submission -** Requires explanation for emergency funding.

**Fiscal Management:** Project Sponsor's program will be responsible for all costs incurred over and above what is funded through the IRA award and will be responsible for seeing that any revenue that is intended to offset the amount of the IRA award is transferred accordingly.

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**Requirements and Signatures**

Please provide the following in your application:

1. **Brief Activity Description.** Describe the activity and its relationship to the educational objectives of the students' program or major.

   The Physics of Art course is designed to help increase students' appreciation and understanding of art by examining the physics of light, color, shapes and visual perception. Through classical and current artwork, students examine how artist, usually through skilled observation, learn to manipulate light and color. Art majors use this knowledge to improve their artwork, while art aficionados use it to enjoy artwork. The course covers the nature of light and optical phenomena, the interaction of light with objects, the perception of light in different media or applications. Students examine how we perceive visual arts, from light striking the eye to images formed in our brain. Demonstrations, experiments, activities and computer simulations are used to enhance your understanding. The course includes many fun art projects where students can experiment with specific art concepts and ideas.

   To enhance the course, we want to expose students to genuine classical and modern artwork in museum collections. Representations of artwork in texts or on the Internet cannot convey some important aspects of artwork such as brushstrokes and texture. Therefore, we require students to visit one (or more) of the following museums: the LA County Museum of Art (LACMA), the Getty Museum (not the Getty Villa) or the Santa Barbara Museum of Art, and choose a painting to analyze based on the topics discussed in class. Students select artwork that is personally interesting due to the subject matter or the manner in which it was created.

   This is not a field trip. The choice of a museum is up to the students and they may go any time prior to the report due date.

2. **Relation to IRA to Course Offerings.** All IRAs must be integrally related to the formal instructional offerings of the University and must be associated with scheduled credit courses. Please list all classes that relate to the program proposed.

   This proposal would support the existing courses PHYS 208/ART 208, which is a 3 unit course, taught in the Spring semesters. The course covers the following topics using a wide selection of classical and modern artwork to illustrate the concepts.

   What is light?
   3D art & sculptures
   Black & white. Value scale
   Reflections & mirrors
   Color & color spectrum
   Additive and subtractive colors

Soap bubbles, oil slicks & rainbows
Lenses & Photography
The eye and brain in visual processing
What vs. where systems in visual processing
Visual acuity
Visual color mixing
Luminance in 3D
Illusions of motion
Optical illusions.

The course is popular and has an enrollment capped at 24 students, limited by the lab. The course is especially popular with art majors, who often comment on the value of the material to their understanding and application of skills in their creative process.

3. **Activity Assessment.** Describe the assessment process and measures that the program will use to determine if it has attained its educational goals. **Please note a report will be due at the end of the semester.**

After the museum visit, the students will write a paper for course credit and answer a brief questionnaire about the visit. The reports will be evaluated to determine the extent of understanding students showed for the physics of the art observed. In the student reports, each student will write an in-depth analysis of the chosen painting based on the ideas and information from this course. Topics students should consider in selecting artwork and may address may address in their report include:

- Describe the light source and how it affects shapes, color and detail.
- Describe any particular physics applications of light (reflection, illumination, refraction, interference), as they are relevant. Did the artist represent or use them well?
- What kind of textures do you see? How did the artist show them?
- Describe the color and how the artist may have produced them.
- Describe how luminance is used to enhance the artwork.
- Describe how the artist is utilizing space. Is perspective being conveyed? What are the depth cues?
- If this is a sculpture or installation, explain how the physical dimensions enhance the piece.
- What materials are being used? What did the artist need to understand about the properties of those materials?
- Is there implied movement? How is it represented?
- What does the artist do to communicate the story or idea behind the work?
- Explain why you selected this particular work of art.
- How does the artist use the eye's visual acuity and peripheral vision to enhance the artwork.
- How is the artwork perceived in the three stages of visual processing, including the Center-Surround and the What-Where systems?
- How does the artist take a 3D subject and represent it accurately in 2D; especially using luminance & stereopsis?
- How does the artist use optical mixing of colors?

The course is popular and has an enrollment capped at 24 students, limited by the lab. The course is especially popular with art majors, who often comment on the value of the material to their understanding and application of skills in their creative process.

Student interest in this activity will also be assessed. The information from the final reports and the students assessment of the museum visit will be collected into an IRA report at the end of the semester.

4. **Activity Budget.** Please enclose a complete detailed budget of the entire Activity **bold** specific items of requested IRA funding. (Page 4)

   The cost to enter the Los Angeles County Museum is $15 and parking is $10. The cost to park at the rather-remote Getty Museum is $15 though the entrance is free. For planning purposes, I propose to reimburse students $15 when they submit a validated entrance ticket and a final report on the museum visit. For 24 students, the total cost would be $360.

5. **Sources of Activity Support.** Please list the other sources of funding, and additional support for the activity.

   Students will pay their own transportation and parking. The total student cost will be around $10-15 each for a total of $240 -$360.

7. **Acknowledgment.** Project Sponsor and Program Chair acknowledge that they have reviewed and accepted the Conditions and Considerations detailed on page 2.

Signatures and Dates

JEROME CLIFFORD _____ 7/20/2012
Date

IVONA GRZEGORCZYK _____ 7/20/12
Date

KAREN CAREY _____ 7/24/12
Date

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## ACTIVITY BUDGET FOR **2012-2013**

1. Operating Expense Budget

| | |
|---|---|
| A. Supplies | none |
| B. Vendor Printing | none |
| C. In-State Travel | none |
| D. Out-of-State Travel | none |
| E. Equipment Rental | none |
| F. Equipment Purchase | none |
| G. Contracts/Independent Contractors | none |
| H. Honorarium | none |
| I. OPC Chargeback | none |
| J. Copier Chargeback | none |
| K. Other (Please Specify) | $360 |
| $15 per ticket for 24 students. | |
| TOTAL Expenses | $360 |

2. Revenue

| | |
|---|---|
| A. Course Fees | _____ |
| B. Ticket Sales | _____ |
| C. Out of Pocket Student Fees (exclusive of course fees) | $240-$360 |

Each student will pay transportation and parking. This would cost $10-15 per student for a total of $240- $360 for 24 students.

| | |
|---|---|
| D. Additional Sources of funding | none |
| Total Revenue | $360 |
| **E. Total Requested from IRA** | **$360** |