



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

Application
Instructionally Related Activities Funds Request
2011-2012 Academic Year
DEADLINE: Fall and Academic Year 3/31/11
Spring 2012 deadline is 10/31/11

Applications must first be sent to the appropriate program chair. Chairs will then 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:

Project Sponsor/Staff (Name/Phone): Blake Gillespie

Activity/Event Date(s): 6 half-day cruises, specific date TBD

Date Funding Needed By: ASAP to secure reservations

***Please Note that for Fall Requests the earliest that you will be notified of funding availability will be early June 2011 and for Spring Requests early January 2012.*

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

- | | |
|---|---|
| <input type="checkbox"/> Equipment Purchase | <input checked="" type="checkbox"/> Field Trip |
| <input type="checkbox"/> Event | <input type="checkbox"/> Participant data collection for public dissemination, i.e. interviews/surveys that result is a journal/poster session/newsletter |
| <input type="checkbox"/> IT Requirements | <input type="checkbox"/> Risk Management Consultation |
| <input type="checkbox"/> International Travel | <input checked="" type="checkbox"/> Late Submission |
| <input type="checkbox"/> Space/OPC Requirements | |
| <input type="checkbox"/> Infrastructure/Remodel | |
| <input type="checkbox"/> Other _____ | |

Previously Funded: YES NO Yes, Request # _____

*If previously funded, please attach copy of IRA Report

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

Assessment submitted for previously Funded Activity: YES NO **N/A**

Academic Program or Center Name and Budget Code: Chemistry

Date of Submission: 1/25/12

Amount Requested: \$5400
(Should match item 2. E. on page 4)

Estimated Number of Students Participating:

18-50 (in addition to the 18 students enrolled in 298, we will invite students from BIOL 312 Marine Biology and CHEM301 Environmental Chemistry to participate)

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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-For a large event, consultation with the events coordinator is recommended.

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

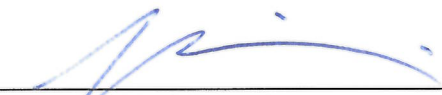
Please provide the following in your application:

1. **Brief Activity Description.** Describe the activity and its relationship to the educational objectives of the students' program or major.
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.
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.**
4. **Activity Budget.** Please enclose a complete detailed budget of the entire Activity **bold** specific items of requested IRA funding. (Page 4)
5. **Sources of Activity Support.** Please list the other sources of funding, and additional support for the activity.
7. **Acknowledgment.** Project Sponsor and Program Chair acknowledge that they have reviewed and accepted the Conditions and Considerations detailed on page 2.

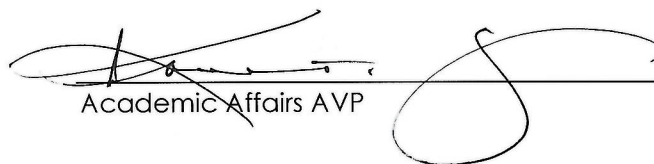
Signatures and Dates



Project Sponsor 1/25/12
Date



Program Chair/Director 1/25/12
Date



Academic Affairs AVP 1/25/12
Date

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ACTIVITY BUDGET FOR 2011-2012

1. Operating Expense Budget

A. Supplies	_____
B. Vendor Printing	_____
C. In-State Travel	_____
D. Out-of-State Travel	_____
E. Equipment Rental	_____
F. Equipment Purchase	_____
G. Contracts/Independent Contractors	_____
H. Honorarium	_____
I. OPC Chargeback	_____
J. Copier Chargeback	_____
K. Other (Please Specify)	field trips (6 half-day cruises)_____
	3@\$1050 = \$3150
	3@\$750 = \$2250
	TOTAL = \$5400

TOTAL Expenses _____ \$5400

2. Revenue

A. Course Fees	_____ none (no approved fee)
B. Ticket Sales	_____ none
C. Out of Pocket Student Fees (exclusive of course fees)	_____ none
D. Additional Sources of funding (Please specify And indicate source)	_____ none

Total Revenue _____ none

E. **Total Requested from IRA** _____ \$5400

Brief Activity Description

Each trip will consist of two distinct activities. First, students will be trained in and carry out detailed behavioral observations of gray whales on their northbound migration. These activities link directly to shore-based observations of the migration carried out in other class-periods. Second, the trip will follow a set of transects into the channel, sampling the different environments described by the channel-bottom. At several positions along this transect, water samples will be collected both at the surface and at various depths; these samples will be analyzed in the field and in the lab for pH, salinity, conductivity, total dissolved solids, turbidity, buffering capacity, as well as phosphate, nitrate, sulfate, and silicate content. As a result of these trips, the students will develop a comprehensive spatial and temporal map of water quality in the Santa Barbara Channel. As well, the students will keep extensive field notes during these trips that will play a central role in the course's assessed student deliverables.

Relationship to IRA to Course Offerings

The activities described above support the University 298 section currently being run by professors Rachel Cartwright, Blake Gillespie, and Brad Monsma. Additionally, since the boat capacity is greater than our course enrollment, we will extend an invitation to students enrolled in BIOL 312, Marine Biology, and CHEM 301, Chemistry and the Environment. While there will not be room on any given cruise to accommodate all these students, we expect that 6 cruises would provide all interested students an opportunity to join us. The instructors of these additional courses, and the chairs of their respective departments have been consulted about including these additional students in UNIV 298 activities.

Activity Assessment

The course is piloting use of novel GE assessment rubrics developed by the Channel Islands 'Goal 5 Outcomes Assessment Working Group'; see the attached rubrics for details. The field activities will be directly linked to 3 assignments to be assessed using the rubric described. First, students will work in groups to work the raw data they collect into graphical representations that support and explain the results. Second, each student will prepare an essay that integrates reading and discussion concepts with their graphical data. Third, students will work in groups to prepare posters aimed at a general audience that explain the work and the results. These assessments will be available in the new 'FolioCI' GE portfolio, which this course is piloting.

Activity Budget

See the budget above. The quoted trips costs were provided by Sunfish Scuba Dive Boat Charters, operating out of Channel Islands Harbor.

Sources of Activity Support

None. Though the SPIRaL classes are supported by the Keck Foundation grant at the level of \$1,200, these funds are absolutely required to support the analytical work the students will perform.

Acknowledgement

The applicant, Blake Gillespie, and the Chair of the Chemistry Program, Simone Aloisio, have reviewed and agree to the Conditions and Considerations attendant to this application.

Outcome 1.1 (c) Integrate content, ideas, and approaches from integrative perspectives across disciplines

	Initial 1	Emerging 2	Developing 3	Highly Developed 4
Synthesis	Presents examples, facts, or theories and asks questions deriving from more than one field of study or perspective.	Connects examples, facts or theories from more than one field of study or perspective, and asks questions that imply connective answers.	Independently connects examples, facts, or theories from more than one field of study or perspective, and independently that imply connective answers.	Independently creates wholes out of multiple parts (synthesizes) or asks questions and draws conclusions by combining examples, facts, or theories from more than one field of study or perspective.
Transfer	Uses, in a basic way, skills, abilities, theories, or methodologies gained in one situation in a new situation .	Uses, in a basic way, skills, abilities, theories, or methodologies gained in one situation in a new situation, to contribute to understanding of problems or issues .	Adapts and applies skills, abilities, theories, or methodologies gained in one situation to new situations to solve problems or explore issues .	Adapts and applies independently, skills, abilities, theories, or methodologies gain in one situation to new situations to solve difficult problems or explore complex issues in original ways .
Experience	Identifies connections between life experiences and those academic texts and ideas perceived as similar and related to own interests .	Compares life experiences and academic knowledge to infer differences, as well as similarities, and acknowledges perspectives other than own.	Effectively selects and develops examples of life experiences, draw from a variety of contexts (family life, artistic participation, community engagement, academic field work, work experience) to illuminate concepts/theories/frameworks.	Meaningfully synthesizes connections among experiences outside of the formal classroom (including life experiences and academic experiences such as internships and travel abroad) to deepen understanding of fields of study and to broaden own points of view.

Rubrics for 1.1.a. and 1.1.c. are adapted from the VALUE rubrics, “Assessing Outcomes and Improving Achievement: Tips and Tools for Using Rubrics.” Ed. Terrel L. Rhodes. AAC&U, 2010.

Outcome 4.2 Write effectively in various forms.

1 | English writing [] writing in languages other than English

1 | specific genres (essay, short story, research paper, technical report, lab report, scientific poster, interdisciplinary writing, etc.)

(specify)

	Initial 1	Emerging 2	Developing 3	Highly Developed 4
Purpose and context	Shows some focus but occasionally wavers in its sense of purpose; often shows problems in organization; inappropriate or simplistic support.	Shows a clearly identifiable purpose and adequate organization, and some support beyond generalizations.	Shows a clearly identifiable purpose with good organization. Without digression from the purpose and focus of the work, consistently articulates relationships between points of development. Takes responsibility for own ideas and distinguishes from those of others.	Shows sophisticated sense of own purpose throughout, along with sophisticated organization appropriate to disciplinary, interdisciplinary, and/or professional contexts. Clearly articulates relationships between ideas/concepts out of an academic framework/theory and those out of his/her own thinking.
Audience	Uses language that shows little awareness of appropriate style/tone and varied word choice. There is little sense of an academic genre being used and the intended audience is unclear.	Uses language that shows general awareness of appropriate style/tone and varied word choice – avoiding vague, empty, and condescending expression. An academic genre is discernible but <i>multiple violations of the genre</i> (e.g. organization, tone, referencing, vocabulary) limit its ability to communicate with the intended audience.	Uses language that shows consistent awareness of appropriate style/tone and varied word choice. An academic genre is clear and generally adhered to. There is <i>obvious awareness of the intended audience</i> , often representing more than one discipline. There may be minor errors in tone, mechanics, and referencing.	Uses language that reflects a refined awareness of the audience's degree of knowledge, values, need for clarity, right to an opinion, and expectation of interest. An academic genre is <i>clear and consistently adhered to</i> and there is obvious awareness of the intended audience, often representing more than one discipline.
Content	Ideas vague or inaccurate, randomly developed, and supported with limited or random detail. Uses appropriate and relevant content to develop simple ideas in some parts of the work. Outside sources inadequate, or seem perfunctory, and do not serve message.	Controlling idea is apparent and supported with some relevant detail; demonstrates appropriate application of designated or selected ideas. Uses appropriate and relevant content, including outside sources, to develop and explore ideas through most of the work. Provides transitions to clarify relationships between most points of development.	Identifies controlling idea developed with consistently pertinent detail; identified key elements indicate understanding of frameworks/ theories. Uses appropriate, relevant, and compelling content to support and explore ideas within the context of the discipline(s) or genre and shape the whole work. Relevant outside sources are integrated appropriately and add to effectiveness of paper.	Important and controlling idea fully developed with concrete and vivid detail. Articulates original applications, syntheses, and/or evaluations of academic frameworks/theories, validating them with substantiated thinking and appropriately using valid sources. Extensive use of relevant outside sources which are integrated seamlessly where appropriate and strengthen entire paper.
Conventions	Serious and persistent lapses in convention make comprehension difficult. Contains many fragments and/or run-on sentences, most sentences begin the same way.	Lapses in convention interfere with comprehension.	Generally free from lapses in convention, no interference in comprehension.	Mastery of writing conventions, effortless and pleasurable to read.

Outcome 3.2 Evaluate information and its sources critically.

	Initial 1	Emerging 2	Developing 3	Highly Developed 4
Assumptions and contexts (from VALUE Information Literacy rubric)	Shows an emerging awareness of present assumptions (sometimes labels assertions as assumptions). Begins to identify some contexts when presenting a position.	Questions some assumptions. Identifies several relevant contexts when presenting a position. May be more aware of others' assumptions than one's own (or vice versa).	Identifies own and others' assumptions and several relevant contexts when presenting a position.	Thoroughly (systematically and methodically) analyzes own and others' assumptions and carefully evaluates the relevance of contexts when presenting an opinion.
Evidence Selecting and using information (from Critical thinking VALUE rubric)	Information is taken from source(s) without any interpretation/evaluation. Viewpoints of experts are taken as fact, without question.	Information is taken from source(s) with some interpretation/ evaluation, but not enough to develop a coherent analysis or synthesis. Viewpoints of experts are taken as mostly fact, with little questioning.	Information is taken from source(s) with enough interpretation/evaluation to develop a coherent analysis or synthesis. Viewpoints of experts are subject to questioning.	Information is taken from source(s) with enough interpretation/ evaluation to develop a comprehensive analysis of synthesis. Viewpoints of experts are questioned thoroughly.

From Value Information Literacy and Critical Thinking rubrics.

Outcome 5.1 Conduct planned investigations using the scientific method to reach reasoned conclusions

	Initial 1	Emerging 2	Developing 3	Highly Developed 4
Observation	Few or no significant observations are identified or reported; those that are identified or reported lack detail.	Some observations correctly identified, but may not be fully or clearly articulated.	Many observations accurately identified and details of at least some of the elements provided.	Most observations accurately identified and details assigned appropriate significance.
Hypothesis Recognition	A hypothesis not identified or stated, OR, a hypothesis proposed that may not be plausible or testable.	Hypothesis recognized but its relevance to the scientific issue under study not discussed, OR a simplistic hypothesis proposed.	A plausible hypothesis recognized or proposed, relevant to the scientific issue under study.	A plausible testable hypothesis recognized or proposed, and a sophisticated understanding of its implications is demonstrated.
Measurement and Data Collection	Limited understanding shown of measurement strategies and/or data collection techniques appropriate to scientific issue under study.	Recognition of need for measurement and data collection, but appropriate techniques not used or not described. Recognition of measurement and data collection as integral part of the scientific method, but application may not be done correctly.	Measurement strategies and/or data collection techniques correctly identified or described for scientific issue under study. Recognition of measurement and data collection as integral to scientific method and application is done correctly.	Measurement strategies and/or data collection techniques correctly identified and/or described, and/or performed and applicability and limitations of each discussed.
Experimentation	Little or no evidence of understanding of relationship between a testable hypothesis and the test or experiment used to support or refute the hypothesis.	Some evidence of an understanding of how experiments are used to support or refute the hypothesis.	Evidence of understanding of how information from a well-designed experiment can support or refute a hypothesis.	Evidence of understanding of how appropriate experimentation can be shown to be a valid method to test the hypothesis.
Analysis and Evaluation of Data	Little or no evidence of an understanding of how information gained from an experiment is analyzed or evaluated	Some evidence of how experimental data is analyzed or evaluated	Evidence, in the context of the scientific issue under study, of how information gained from an experiment is analyzed or evaluated	Evidence of discussion of the significance of experimental information, and its strengths and limitations
Reasoned conclusions	Work shows no evidence of ability to apply scientific concepts and experimental results to reach reasoned conclusions	Work shows limited evidence of ability to apply scientific concepts and evidence to reach reasoned conclusions	Work shows evidence of reasonable ability to apply scientific concepts and evidence from experiments to reach reasoned conclusions	Work shows evidence of sophisticated ability to apply scientific concepts and analysis from experiments to develop reasoned conclusions

Adapted from Empire State Natural Science GE Rubric