



<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 2013 deadline is 10/31/12

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: Spring 2013 Poe Symposium: Global Warming: Earth Has Been Here Before.

Project Sponsor/Staff (Name/Phone): Biology/Geology Program Christopher Wheeler (437-2799)

Activity/Event Date(s): Late Spring 2013

Date Funding Needed By: January 2013

***Please Note that for Fall Requests the earliest that you will be notified of funding availability will be early June 2012 and for Spring Requests early January 2013.*

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

- | | |
|---|---|
| <input type="checkbox"/> Equipment Purchase | <input type="checkbox"/> Field Trip |
| X 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 type="checkbox"/> Late Submission |
| <input type="checkbox"/> Space/OPC Requirements | |
| <input type="checkbox"/> Infrastructure/Remodel | |
| <input type="checkbox"/> Other _____ | |

Previously Funded: **X YES** NO Yes, Request # 449

*If previously funded, please attach copy of IRA Report

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

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

Academic Program or Center Name and Budget Code: **Biology-720**

Date of Submission: **October 31, 2012**

Amount Requested: **\$6,500**
 (Should match item 2. E. on page 4)

Estimated Number of Students Participating: **100**

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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.

The Biology/Geology Program is organizing a symposium for Spring 2013 entitled "Global Warming: Earth Has Been Here Before". A major regulator of Earth's climate is atmospheric carbon dioxide, which can have a variety of sources. The present global warming trend is widely attributed in scientific circles to the burning of fossil fuels, but global warming events in Earth's past have had other sources, including CO₂ released during intense episodes of volcanic eruptions and methane gas released from the seafloor. Some events have been so severe as to trigger some of the greatest mass extinctions in the last 542 million years.

Study of the present global warming depends to a significant degree on modeling how the trend could develop, including changes in temperature, precipitation patterns, glacial and pack ice cover, and sea-level. Aspects of the modeling are derived from global warming events in Earth's past, among them how prolonged were the events and how Earth's climate system recovered.

The purpose of the symposium is to educate the campus community and the public about ongoing geologic research into global warming events in Earth history, and the application of that research to the present trend. Symposium talks will explore four major global warming events, their causes, their effects on the climate, atmosphere, ocean, and life, and their durations. These talks will also highlight both standard and recently developed techniques used to wrest information from the rock record. The final talk will feature a comparison of the present warming event with past episodes of intense volcanic CO₂ release, in order to anticipate how the present trend may develop over the next several centuries.

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 symposium will be a required or elective component for a number of courses offered in the Biology/Geology Program, including: Geol 121 (Physical Geology), Geol 122 (Historical Geology), Geol 300 (Foundations of Earth Science), and Geol 321 (Environmental Geology). Chemistry faculty and students in Chem 250 (Quantitative Analysis), Chem 450 (Instrumental Analysis and Laboratory), and Chem 499 (Chemistry Capstone) may also find the symposium topics useful.

Faculty in Physics, ESRM, and other programs may find the topics interesting and relevant as well, and may recommend that their students attend the symposium.

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.**

Students attending the seminar series will be given a questionnaire on the subject matter of the talks. The questions are to be answered and turned in toward assessment of the knowledge they gained from the seminar.

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

The requested funds are necessary to invite the well-known individual speakers that are listed on the attached program page. Five individuals will make up the final list of speakers. Most will be from California, such that \$1000 per speaker would sufficiently cover travel expenses and a suitable honorarium. The speaker who would give the key, final talk is located in Athens, Ohio; \$1500 is requested for him to cover the honorarium and the additional travel expenses. Additional funds are necessary to advertise the series to the local community, including newspapers, broadcast media, and other PR venues.

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

IRA funding will support the event. Biology/Geology faculty members, staff, and student assistants will support the event with volunteer time and work as needed. Some supplies and refreshments for the symposium attendees will be provided by the Biology/Geology Program.

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

Christopher Wheeler

Oct. 31, 2012

Date

Amy Denton

31 October 2012

Date

Karen Carey

10/31/12

Date

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ACTIVITY BUDGET FOR 2012-2013

1. Operating Expense Budget

A. Supplies	_____
B. Vendor Printing	<u>\$800 (including printing supplies)</u>
C. In-State Travel	_____
D. Out-of-State Travel	_____
E. Equipment Rental	_____
F. Equipment Purchase	_____
G. Contracts/Independent Contractors	_____
H. Honorarium	<u>\$5500 (includes travel)</u>
I. OPC Chargeback	<u>\$200</u>
J. Copier Chargeback	_____
K. Other (Please Specify)	_____
 TOTAL Expenses	 <u>\$6500</u>

2. Revenue

A. Course Fees	_____
B. Ticket Sales	_____
C. Out of Pocket Student Fees (exclusive of course fees)	_____
D. Additional Sources of funding (Please specify And indicate source)	_____
 Total Revenue	 _____

E. Total Requested from IRA

\$6500

Proposed Program and Speakers

The research scientists listed below have made significant recent contributions to the study of global warming events in Earth's past. They will be invited to make presentations at the symposium if this proposal is funded, but it is likely that some will decline due to other commitments. Others of comparable stature will be substituted until five have committed to attend.

Warming following the Neoproterozoic snowball Earth.

Frank A. Corsetti, Ph.D., is Associate Professor of Earth Sciences in the Department of Earth Sciences at University of Southern California, Los Angeles, California. His research interests are the co-evolution of Earth and its biosphere using sedimentology, stratigraphy, and geochemistry. He is most noted for his studies of life during "Snowball Earth", which occurred about 700 million years ago.

The end-Permian global warming event.

Jonathan L. Payne, Ph.D., is Associate Professor in paleontology and carbonate sedimentology in the Department of Geological and Environmental Sciences at Stanford University in Stanford, California. His research interests center on the causes of mass extinctions and the processes that control subsequent recovery of biodiversity and global ecosystems. He and his research group focus on the causes of the end-Permian and end-Triassic mass extinctions using sedimentology, geochemistry, and paleontology.

The Late Triassic global warming event.

Gregory J. Retallack, Ph.D., is Professor in paleobotany and paleosols in the Department of Geological Sciences at University of Oregon, Eugene, Oregon. His research interests center on fossil soils as monitors of climate change and as factors in the evolution and extinction of terrestrial biota. He authored a landmark paper on the use of stomata density on fossil Late Triassic leaves to reveal increased levels in atmospheric CO₂.

The Paleocene-Eocene Thermal Maximum.

James C. Zachos, Ph.D., is Professor in geology in the Earth and Planetary Sciences Department at the University of California-Santa Cruz in Santa Cruz, California. His research interests cover a wide variety of problems related to the biological, chemical, and climatic evolution of late Cretaceous and Cenozoic oceans. His focus since the 1990s has been the application of stable isotope and trace metal ratios to reconstruct the ocean temperature and chemistry for several episodes of extreme climates, including the Paleocene-Eocene Thermal Maximum.

Projection about the present global warming event

L. David Kidder, Ph.D., is Associate Professor in geology in the Department of Geological Sciences, Ohio University, Athens, Ohio. His research interests center on characterization of the hothouse planetary state, which can be triggered by the eruption of a large igneous province (LIP). In addition to the thermal effects, he also examines the effects on ocean oxygenation, acidity, circulation, and nutrient availability. He and fellow geology professor T. R. Worsley published studies in 2004 on the end-Permian global warming event as a product of a LIP, in 2010 on a series of global warming events since 542 million years that may have been produced by LIPs, and in 2012 that applied that understanding to the present global warming trend.

**Instructional Related Activities
Report Form**

SPONSOR	DEPARTMENT
Ruben Alarcon	Biology

ACTIVITY TITLE	DATE (S) OF ACTIVITY
Poe Symposium- Agriculture in the Golden State: Challenges in Feeding California in the 21 st Century	April 20, 2012

PLEASE EXPLAIN (1) DESCRIPTION OF ACTIVITY; (2) HOW DID THE ACTIVITY RELATE TO A COURSE(S); AND (3) WHAT YOU LEARNED FROM THE PROCESS.

- 1) For the 8th Poe Science Symposium we invited 5 speakers, who are regional experts in various aspects of agriculture, to discuss the challenges facing growers along the Central Coast of California. The Aliso Hall Auditorium was filled with 137 students, staff and community members in attendance.
- 2) The symposium allowed students from various disciplines to learn how biological/environmental principles apply to real world situations. For example, Dr. Michael Cahn, from the UC Cooperative Extension-Monterrey, discussed the effects of precipitation and water use patterns on the ability of the Central Coast of California to pump enough water to grow food; decrease inputs and increase outputs will result in unsustainable systems. Students in my courses wrote summaries of each speaker's presentation.
- 3) Each speaker discussed their area of expertise. For example, Dr. Oleg Daugovich, from the UC Cooperative Extension-Ventura, presented his work on the challenges in controlling soil borne pathogens in strawberries, and how the loss of methyl bromide as a means of chemical control will make it extremely difficult for growers to continue to produce strawberries. Mr. Brett Chandeler, President of Associates Insectary, informed the audience that even "organic" fields are sprayed with pesticides. The only difference is that the compounds organic growers apply must be produced by an organism; however the compounds are just as toxic. Dr. Gordon Wardell, from Paramount Farms, explained to the audience the factors that are contributing to the drastic decline in honey bee populations due Colony Collapse Disorder.

****Please attach assessment forms from students, list of attendees, peoplesoft program report**

XLS PCE Symposium

Last	Name	Affiliation to CI	If faculty, select program	CI members may leave this field empty
Abing	Joanne	None	Other	Master Gardeners of Ventura County
Abing	Jim	None	Other	Hansen Ag. Center Volunteer
Adlof	Cassidy	Student	Biology	
Ahankoo	Nadia	Student	Anthropology	
Aleantar	Gabriel	Student	Biology	
Alfino	Beryl	None	Anthropology	
Anderson	Judy	None	Anthropology	
Arreola Jr	Hugo	Student	Anthropology	
Bachelor	Keegan	Student	Anthropology	
Bartels	Marjie	None	Anthropology	Bartels Ranch
Battile	Kayte	Student	Anthropology	
Beatty	Caitlin	Student	Biology	
Beers	Robin	None	Other	
Ben	Fox	Student	Anthropology	Ventura County Master Gardener
Benitz	Alejandro	Student	Anthropology	
Bern	Michael	Student	Biology	
Bizzella	Linda	None	English	
Black	Peggy	None	Anthropology	
Boromeo	Gardv	Student	Chemistry	UC/ANR Master Gardener
Bowers	Betsy	None	Anthropology	
Brown	Joan	None	Anthropology	Ventura Co. UC Extension Master Gardeners
Brown	Ming Jun	Student	Anthropology	
Burnside	Michael	Student	Chemistry	
Capazzi	Joanna	None	Anthropology	
Carey	Lynne	None	Other	Ventura County Master Gardeners
Garmichael	Adam	Staff	Biology - duplicate	
Garmichael	Adam	Student	Biology	
Case	Molly	Student	Anthropology	
Castro	Bryan	Student	Biology	
Gerda	Kimberly	Student	Biology	
Chari	Jeannie	None	Anthropology	College of the Canyons
Carpes	Lynsie	Student	Biology	
Clifford	Jerry	Faculty	Applied Physics	
Collins	Matthew	Student	Anthropology	
Coltrin	Carol	None	Anthropology	
Constantine	Cerissa	Student	Anthropology	duplicate
constantine	corissa	None	Anthropology	
Coral	Stephanie	Student	Biology	
Cordero	Gabriele	Student	Anthropology	
Cornelius	Jessica	Student	Biology	
Cortez	Justin	Student	Anthropology	

Last	Name	Affiliation to CI	If faculty, select program	Institution (if other than CI). CI members may leave this field empty
Countryman	Camille	Student	Anthropology	
dakessian	Jacob	None	Anthropology	
day	S.	Faculty	Anthropology	
Dean	Dale	None	Anthropology	Ventura County Master Gardener
Delahoyde	Jane	None	Anthropology	
Diaz de Leon	Elzbet	None	Anthropology	Ventura College/ Master Gardeners
Dirreley	Hannah	Student	Anthropology	
Dingus	E. Patricia	None	Anthropology	
Drahsen	Anna	Student	Anthropology	
Espinosa	Kimberly	Student	Anthropology	
Feller	Beryl	None	Anthropology	
Fish	Adam	Student	Biology	
Fisher	Morgan	Student	Nursing	
Foley	Kelsey	Student	Biology	
Fox	Lisa	None	Anthropology	
franco	Jon	Student	Anthropology	
Garra	Yvonne	Student	Anthropology	
Gery	Briana	Student	Biology	
Giehl	Matt	None	Anthropology	
Gilbreath	Stephen	Student	Anthropology	
Gonzales	Henry	None	Anthropology	Ventura County Agricultural Commissioner
Graham	Casey	None	Anthropology	Newbury Park High School Teacher
Granatelli	Lace	Student	Anthropology	
greninger	ashley	Student	Anthropology	
Gutierrez	Megan	Student	Anthropology	
Hedrick	Evan	Student	Anthropology	
hense	morley	Student	Anthropology	
Herbertson	Ari	Student	ESRM	
Hilburn	Barbara	None	Anthropology	Calif. Master Gardener
Hilpert	Nathan	Student	ESRM	
Hilpert	Spencer	Student	Business	
Hlavacek	Sydney	Student	Biology	
Hlavacek	Sydney	Student	Biology	
Howell	Anna	None	Anthropology	University of California Cooperative Extension
Hutchinson	Catherine	Staff	Anthropology	
In	Chris	Student	Anthropology	
Ishbashi	Steven	None	Anthropology	
Jerberg	Ben	None	Anthropology	
Kalenack	Charlotte	None	Anthropology	Ventura County Master Gardeners
Kurtz	Carol	None	Anthropology	Ventura County Master Gardeners

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Last	Name	Affiliation to CI	If faculty, select program	Institution (if other than CI). CI members may leave this field empty
Langton	Ryan	None	Anthropology	
larrnon	debbie	None	Anthropology	
Lawrence	Carol	None	Anthropology	Ventura County Star
Leland	Alyssa	Student	Anthropology	
lessing	Amber	Student	Anthropology	Ventura County Master Gardener
Lindgren	Melanie	Student	Anthropology	VC Master Gardeners
Lindsay	Ron	None	Anthropology	VC Master Gardeners
Lindsay	Nancy	None	Anthropology	
llamas	emmanuel	Student	Anthropology	
loustalot	Jerry	None	Anthropology	
Majda	Kristin	Staff	Anthropology	
Manasievici	Emmanuel	Student	Other	
Maranville	Mary	None	Anthropology	San Luis Obispo Office of Education
Marchand	Lisa	Student	Anthropology	
Moshua	James	Student	Other	
mein	jon	None	Anthropology	Monsanto
Milina	Allina	Student	Anthropology	
Murata	Nicole	Student	Anthropology	
Myers	McKenna	Student	Anthropology	
Nava	Jazmin	Student	Anthropology	
Newkirk	Ryan	Student	Anthropology	
Olivo	Theresa	Staff	Other	
O'neay	Loren	Student	Anthropology	
Ostermann-Kelm	Stacey	Faculty	ESRM	National Park Service
Parker	Tatsiana	Student	Other	
Pedersen	Codey	Student	Anthropology	
Peterson	Theodore	Student	ESRM	
phillips	laurian	Student	Sociology	
Phillips	Mary	None	Anthropology	Master Gardeners
Richardo Isaac	Lucero	Student	Anthropology	
Pidduck	Kurt	None	Other	
Prayer	Edean	Student	Anthropology	
Price	Elizabeth	Student	Anthropology	
Prow	Kevin	Student	ESRM	
Quiroz	Anahi	Student	Anthropology	
Rapoza	Tania	Student	Other	
Ray	Gindy	None	Anthropology	Ventura County Certified Master Gardener
Resnick	Spencer	None	Anthropology	Waste Gardener Ventura County
Robertson	Lindsey	Student	Anthropology	
Robieto	Jacklyn	None	Other	
Rodriguez	Robert	Student	Biology	Monsanto Vegetable Seeds

Last	Name	Affiliation to CI	If faculty, select program	Institution (if other than CI). CI members may leave this field empty
Rowland	Carole	None	Other	UC Master Gardener Ventura County
Rubalcava	Elizabeth	Staff	Other	
Russell	Deborah	None	Other	Master Gardener Program
Salazar	Tessa	Student	Anthropology	
Satnick	Iiana	Student	Anthropology	
Schmidhauser	Tom	Faculty	Biology	
schumacher	nicole	Student	Biology	
Scrivano	Sarah	Student	Biology	
Sauss	Charleen	None	Other	
Sebastian	Isabel	Student	Anthropology	
Sellers	Joel	Student	Chemistry	
Sepulveda	Lourdes	Student	Other	
Serna	Briseyda	Student	Anthropology	
Shaldon	Ben	Student	Biology	
shoemaker	lois	None	Anthropology	
Sideleau	Brandon	Student	Biology	
Singer-Englar	Tahli	Student	Chemistry	
Sousa	Vanessa	Student	Chemistry	
Spivey	Steven	Student	Biology	
Tadayon	Shiva	Student	Anthropology	
Tan	Felicia	Student	Anthropology	
Tejada	Arell	Student	Biology	
Teran	Daniel	Student	Biology	
Thiessen	Peter	Student	Anthropology	
Thompson	Jeremy	None	Other	Monsanto Vegetable Seeds
Tran	Charlene	None	Anthropology	
Van Coops	Tina	None	Anthropology	
Varela	Breana	Student	Anthropology	
Vasquez	Vanessa	Student	Anthropology	
Velazquez	Miguel	Student	Anthropology	
Villanueva	Erica	Student	Biology	
Villanueva	Daniel	None	Other	QAD Inc.
Volkerding	Eugene	None	Other	Master Gardeners
Volkerding	Eugene	None	Other	Master Gardeners
Vreeken	Brian	Student	Anthropology	
Walsh	Deanna	None	Anthropology	Ventura County Master Gardener
Walsh	Christopher	Student	Anthropology	
Walters	Ashley	Student	Anthropology	
Webb	Guy	None	Anthropology	Ventura County Master Gardeners
White	Nick	None	Other	
Winegar	Dixie	Student	Anthropology	

Last	Name	Affiliation to CI	If faculty, select program	Institution (if other than CI)	CI members may leave this field empty
wolfe	John	Student	Anthropology		
Yokota	Ryan	Student	Anthropology		
Yoo	Bernard	None	Anthropology	private citizen	
Zapparelli	Jennifer	Student	Biology		
Zaragoza	Robert	Student	Biology		
Zeider	Rob	Student	Biology		

Add non-registered attendees here:

1. OLSON, SUNDKE _____ 12. REINDA ZUJIANI _____

2 SACKERSON, CHARLES _____ 13. AHMED AWAD _____

~~3~~ ~~4~~ ~~5~~ ~~6~~ ~~7~~ ~~8~~ ~~9~~ ~~10~~ ~~11~~ ~~12~~ ~~13~~ ~~14~~ ~~15~~ ~~16~~ ~~17~~ ~~18~~ ~~19~~ ~~20~~ ~~21~~ ~~22~~ ~~23~~ ~~24~~ ~~25~~ ~~26~~ ~~27~~ ~~28~~ ~~29~~ ~~30~~ ~~31~~ ~~32~~ ~~33~~ ~~34~~ ~~35~~ ~~36~~ ~~37~~ ~~38~~ ~~39~~ ~~40~~ ~~41~~ ~~42~~ ~~43~~ ~~44~~ ~~45~~ ~~46~~ ~~47~~ ~~48~~ ~~49~~ ~~50~~ ~~51~~ ~~52~~ ~~53~~ ~~54~~ ~~55~~ ~~56~~ ~~57~~ ~~58~~ ~~59~~ ~~60~~ ~~61~~ ~~62~~ ~~63~~ ~~64~~ ~~65~~ ~~66~~ ~~67~~ ~~68~~ ~~69~~ ~~70~~ ~~71~~ ~~72~~ ~~73~~ ~~74~~ ~~75~~ ~~76~~ ~~77~~ ~~78~~ ~~79~~ ~~80~~ ~~81~~ ~~82~~ ~~83~~ ~~84~~ ~~85~~ ~~86~~ ~~87~~ ~~88~~ ~~89~~ ~~90~~ ~~91~~ ~~92~~ ~~93~~ ~~94~~ ~~95~~ ~~96~~ ~~97~~ ~~98~~ ~~99~~ ~~100~~ ~~101~~ ~~102~~ ~~103~~ ~~104~~ ~~105~~ ~~106~~ ~~107~~ ~~108~~ ~~109~~ ~~110~~ ~~111~~ ~~112~~ ~~113~~ ~~114~~ ~~115~~ ~~116~~ ~~117~~ ~~118~~ ~~119~~ ~~120~~ ~~121~~ ~~122~~ ~~123~~ ~~124~~ ~~125~~ ~~126~~ ~~127~~ ~~128~~ ~~129~~ ~~130~~ ~~131~~ ~~132~~ ~~133~~ ~~134~~ ~~135~~ ~~136~~ ~~137~~ ~~138~~ ~~139~~ ~~140~~ 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