

KECK Geology Consortium
Information for On-Campus Research Advisors
Projects for Rising Seniors
2008-2009 Project Year

Student-Faculty Research Projects

From the beginning, the Consortium program focused on yearlong research experiences for rising seniors. The purpose of the program is simple: to provide students with a research experience that encompasses the entire problem-solving process. Students learn the overall problem, identify an individual part of the problem for their own project, gather and interpret data, and present results at a professional style symposium. Part of the symposium experience is submission of an extended abstract for publication in the Symposium Proceedings. The experience of submitting an abstract introduces the students to the technical editing process, including incorporating editorial changes suggested by reviewers (in this case, faculty research advisors and project directors) as well as preparing a manuscript to meet specific formatting requirements. The Short Contributions will be approximately 1950 words in length, with appropriate figures and illustrations. As of 2005, they are being published online.

Much of the work done by students following their summer field experience is accomplished at the home institution guided by an on-campus research advisor. The Consortium recognized from the beginning the importance of the research advisor in the overall quality of the final research results. Thus, a site-visit program for advisors for advanced projects was developed. The Consortium provides funds for advisors to travel to the field site, meet students and project faculty, and learn the overall research problem in order to enhance their understanding of the overall research problem and how their student's work fits into the group effort.

On-Campus Research Advisor Duties for Advanced Projects

Rising seniors on advanced projects are required to complete at least one term, block, or semester of independent study or thesis credit at their home institution. Your primary responsibility is to ensure that the student registers for this credit and to supervise this research based on the work done during the summer program. The student selects his/her research project within the bounds set out by the project director. However, it is essential to the student's success that the project selected be something that the on-campus research advisor can adequately supervise. To find such a project requires good communication among the research advisor, project director, and student. It is important that you meet with your student before they leave for the summer in order to discuss their summer work and the expectations for next academic year.

Supervision of the student's research requires not only guidance on the individual project but also cooperation with the rest of the research group. Thus, you need to familiarize yourself with the goals of the research group and the structure of their cooperative effort. We strongly encourage you to visit the summer project in order to facilitate the selection of an appropriate student project, to improve understanding of the group's research goals, and to establish good communication between the on-campus advisor and the project staff (funding is available for this visit). When such a trip is not possible, project director and on-campus advisor should discuss the project goals, the research advisor's role and the types of student projects that will be

manageable via e-mail or by phone. Student, project director and on-campus advisor should all share responsibility for good communications during the academic year.

The second major responsibility of the on-campus research advisor is to oversee preparation of the student's extended abstract and presentation for the Research Symposium in Geology held in April each year. It is your responsibility to see that the student meets the abstract deadlines or any earlier deadline imposed by the project director. Furthermore, you are responsible for overseeing editing of the abstract. The Symposium volume is widely circulated both to potential sources of funds and to schools, and starting in 2005 will be published online with color graphic capabilities. Thus, it is important that all Short Contributions be edited as they would be for a professional publication. Guidelines for producing the extended abstract will be sent to you and your student following the summer field season. Following the guidelines is critical because Contributions that do not meet the criteria will not be published in the research volume. Finally, you should also advise your student on the qualities of good oral and poster presentations and make sure that the student is adequately prepared.

Advanced Projects

Advanced projects are designed for nine rising seniors and three faculty. Students make a yearlong commitment to the program, and the nature of their experience varies markedly through the year. In the spring before the field season, project directors lead the students through the background study needed for a basic understanding of the project and geology of the study area. An e-mail list serve established for each project facilitates communication among participants (project faculty, students, and on-campus research advisors). The list serves are sited at Franklin and Marshall College and monitored by the Director. In the field phase, students spend four weeks at the study site, learning the geology in more detail, identifying a project, and gathering data.

Fieldwork varies with project but includes activities such as mapping, coring, surveying geomorphologic features, measuring stratigraphic sections, and sampling for later chemical or petrographic analyses. During the field season, the impetus of work transfers from the project faculty as students take responsibility for developing a research plan and collecting the data and samples needed to complete their work.

Following the field phase, students return to their home campuses and work under the guidance of an on-campus faculty research advisor. During this time, work is more independent in nature as students finalize data collection and analysis (e.g., sample preparation for petrographic and chemical analyses, distillation of survey data, textural analysis) and interpret their results. The project list serves, however, facilitate communication among participants so the collaborative aspect of the overall research project is maintained. Past experience shows that students have a better research experience in the independent-study phase when the on-campus research advisor travels to the field site. Site visits are especially critical for research advisors new to the program and funds are available to support this travel.

The independent-study phase culminates with a presentation of results at the Keck Research Symposium in Geology the following spring. The Consortium also requires the students to complete an independent study or senior thesis based on their Consortium project.

Keck Research Symposium in Geology

A professional style symposium, held in April each year, has been a critical part of the Consortium program from the very beginning. The symposium serves a number of purposes. For the students, it is an opportunity to present research results in a professional and supportive environment that emphasizes the importance of communication and builds self-confidence. Students share results of their work with other students, faculty, and professional geoscientists in poster sessions or talks. This experience challenges the students to present information in a clear and concise fashion, sharpening their communication skills. The Consortium publishes the proceedings and also maintains a web site devoted to the symposium. For the faculty, the symposium is an opportunity to interact and share information with each other and industry geoscientists, stimulating the development of new collaborations and innovative programs. The Consortium derives its sense of identity and purpose at the symposium.

The symposium is a gathering place for some of the most talented and motivated undergraduate students in the nation. While at the symposium, the students interact with those from different projects, exchanging ideas and approaches to problem solving as well as expanding their network of peer and faculty mentors.

Students are required to submit Short Contributions (approximately 1950 words plus appropriate graphics) for publication in the symposium volume. At the symposium, students present their work in poster presentations and short talks. The Consortium supports students in these endeavors, providing guidelines related to production of a Short Contribution to be published in the online symposium volume. As in the past, students will have the opportunity to submit Contributions for review prior to deadlines, receiving feedback from Consortium administration on graphics design and production, abstract organization, and writing in standard geoscience style.

KECK Geology Consortium
Information for Directors of Overseas Projects

ADDENDUM 1 for Overseas Project Directors

- 1 Overseas Project Director Checklist
- 2 Information for Directors of Overseas Projects
 - Passports, ID, Visas
 - Health and Safety
 - Cultural Information
 - Embassy Registration
- 3 Overseas Emergency Information Sheet
- 4 Overseas Travel Guidelines

KECK Geology Consortium
Overseas Project Director Checklist

Prior to Departure

- Develop contingency plans in the event that the project director is incapacitated
- Develop emergency response procedure and send all relevant information to the Office
- Send student information packets
 - Passport and visa information to students
 - Health and safety information (immunizations, insurance, meds, local conditions etc)
 - Address and phone number of field headquarters
 - Contact information for local emergency organizations for parent use
 - Request for one parent to hold a valid passport
- Send copy of above to the office
- Send list of project faculty and amount of stipends, if different from usual amounts

- **After project begins**
 - Mail letter upon arrival to US Embassy to register students and faculty
 - Contact local police to learn about conditions, precautions, and foreseeable risks. Inform students of those issues
 - Review contingency and emergency response plans with participants
 - Review health and safety info and send signed copies of Liability Waiver forms to the Office
 - Contact local adult resources and review emergency response procedures

- **During academic year**
 - Reimbursement requests, due July 31, 2008; Oct. 31, 2007; January 31, 2008; April 30, 2008
 - Project Director symposium volume contribution and report, due March 25, 2008
 - Final financial report, due June 1, 2008
 - Copies of publications, abstracts from talks, etc
 - Send electronic copies of 5 photos from the project

KECK Geology Consortium

Information for Directors of Overseas Projects

Passports, ID, and Visas

- Applications on the web for passports can be found at <http://travel.state.gov/passport/>. Follow the links to either new passports or passport renewals. Passports typically take six weeks for processing, although it can be expedited for an additional \$35. Please see a complete listing of passport acceptance facilities at travel.state.gov.
- International student or teacher ID cards. These provide travel and admission discounts, sickness, accident, and life insurance, emergency medical evacuation, 24-hour travelers' assistance for medical, financial, or legal emergencies abroad. The cards are \$22 and require a passport photo. Application forms are probably available through your Off-Campus Studies Program.
- Visa information can be found at <http://travel.state.gov/visa/americans/>.

Health and Safety

- State Department Citizen's Emergency Center and Travel Advisories: Check the site <http://travel.state.gov/>. Or you can call 1-888-407-4747 in the U.S., and (317) 472-2328 from Overseas. After hours: (202) 647-5225. See also <http://travel.state.gov/travel/tips/emergencies/>. You will also find contact information about U.S. Embassies.
- Useful background information about many countries can be found at www.state.gov/www/background_notes/. Information about crises abroad, travel tips, HIV testing requirements, and many other topics is at http://travel.state.gov/travel_pubs.
- A good source of information related to safety abroad is the SAFETI On-Line Newsletter (<http://www.usc.edu/dept/education/global/safeti>). The site contains information such as tips for personal safety and sexual harassment prevention abroad.
- US Center for Disease Control: <http://www.cdc.gov/>

Cultural Information

- Brigham Young University produces a series called Culturegrams for many countries that include an introduction to daily customs and lifestyles as well as political and economic structure. I can get copies of these from the Carleton Off-campus Studies Office.

Embassy Registration

- You may now complete an online registration of your travel. See <http://travel.state.gov> and note the information under "Registration with Embassies." Follow the links to the travel registration website, <http://travelregistration.state.gov/ibis/>.

KECK Geology Consortium
Emergency Information Sheet (Overseas Projects)

Consortium Resources

Office	717-291-4133 (Dept of Earth & Environment, F&M)
Andrew P. de Wet	717-291-3815 (o) 717-393-4067 (h)
	717-471-2559 (cell)

Project Director Institutional Resources

Academic Dean	_____
Dean of Students	_____
Sexual Harassment Consultant	_____
Director of Counseling	_____
Risk Manager/Insurance Person	_____

On-Site Resources

Emergency Service (911 type response) _____
Nearest hospital emergency room and directions:

Crisis Resource and Referral _____
Police/sheriff _____
Backcountry Evacuation _____

US State Department Overseas Citizens Emergency Center

888-407-4747 (M-Sa, 8AM-5PM), in the U.S.; from Overseas: (317) 472-2328
202-647-5225 (after hours)

Student and Faculty Information

Health Conditions

Name	Condition
17	_____
18	_____
19	_____
20	_____

Emergency Contact Information

Student Name	Emergency Contact Name	Phone Number	Insurance Provider
21	_____	_____	_____
22	_____	_____	_____
23	_____	_____	_____
24	_____	_____	_____
25	_____	_____	_____
26	_____	_____	_____
27	_____	_____	_____
28	_____	_____	_____
29	_____	_____	_____
30	_____	_____	_____
31	_____	_____	_____
32	_____	_____	_____

Faculty Name	Emergency Contact Name	Phone Number	Insurance Provider
4	_____	_____	_____
5	_____	_____	_____
6	_____	_____	_____
7	_____	_____	_____

KECK Geology Consortium Overseas Travel Guidelines

Traveling overseas with students requires a few extra details with respect to planning and student orientation. Preparation is essential. Consider carefully local health or environmental hazards, physical, climatic, cultural, and social conditions of the field area, and send this information to the participants. Pre-departure orientation materials should include information on the following topics.

Alcohol and drug policy	Health care delivery	Nutrition
Basic hygiene	Immunizations	Passports and Visas
Local environmental risks	Jet lag	Personal security
Eye care	Medical insurance	Prescription medications

Travel Risks: Check the State Department advisory on travel at <http://travel.state.gov/> and familiarize yourself with cautions that apply to your host county. State department warnings are very serious status reports. Contact the Director immediately if any such warning is applied to your site. Safety is a primary concern of the Consortium. Thus, if at any point you have concerns for the safety of your students abroad you should take corrective action and be in contact with the Consortium office.

Reservations and Funds: Get all reservations in writing and take photocopies of these documents with you. Insure that you have sufficient funds on hand to carry you through the first few days without carrying large amounts of cash, and in case you can't get to an ATM or other electronic sources of funds. Consider travels checks as part of your strategy

Passports and Visas: You need to determine what documentation and visas students will need to travel to the site and return to the U.S. and direct them to obtain the appropriate documents. Their passport must extend three to six months beyond the end of the project. Remember that foreign students may require different documentation and that leaving the country may change their status. They need to be able to both travel to the site and return to the U.S. Ask them to check in with the department on their campus that deals with INS issues. They should also contact their Consulate for information. Finally, it might be necessary for a parent to travel to a project during an emergency. You should recommend that at least one parent or guardian for each student has a valid passport in order to expedite travel.

Health Issues: Please review the Health & Safety Policy, updated April 2005.

Immunizations: Students need to receive information regarding required or recommended immunizations from a qualified medical practitioner. You may want to obtain this information from such a person and provide it for your students. If you do so, make sure that the name and office of the qualified medical practitioner are cited on the document. Your off-campus studies office or wellness center (or campus health service) may be able to help you with this. Alternately, you can advise students to seek this information themselves from a qualified medical practitioner (e.g. their campus wellness center/health service). Remember that immunization series can take many weeks to complete. In addition, provide students with the information needed to access health and safety resources such as the Center for Disease Control (<http://www.cdc.gov/> or <http://www.cdc.gov/travel/>).

Health Insurance: Students and faculty are required to carry their own health insurance. Some policies do not provide coverage abroad. You should advise students to check with their insurance company about coverage abroad. They may wish to purchase an International Student ID card. This card includes some coverage for emergency medical treatment and for medical evacuation if needed.

Students and faculty should also know how health services should be paid. In most cases, payment at the time of service will be necessary, so all participants should probably carry a credit card with enough credit to cover emergency medical services.

Medications and Health Care: Students who require prescription drugs need to carry enough medication for the duration of their stay. They should be in the original container with the complete label including the generic or Latin name for the drug. Prescription drugs should be packed in carry-on luggage. Participants with allergies should wear medical alert bracelets or carry an emergency medical ID card. Project directors should never distribute medicine to the students. Participants should carry their own supply of common remedies such as pain relievers and antihistamines. Encourage all participants to carry a basic first-aid kit.

Health & Safety Issues: Please read the Consortium Health and Safety Policy. Should a participant require medical care during the project, they should realize that there are cultural and medical differences in health care, especially overseas. In some countries, physicians are less likely to prescribe drugs than in the US. In some places, the patients' families are responsible for providing food, and feeding the patient if needed. Be prepared for the unexpected, in occurrence and practice. There may be a shortage of medicine or lack of technology. The project director should check with the health officer or nurse at the US Embassy or Consulate in the host country for information related to health care. This information should be included in the pre-departure information. The project director should have names and addresses of several embassy-recommended physicians before a participant becomes ill or need medical attention.

Women Abroad: Travel in foreign cultures can pose special challenges for women. Copies of *Preparing U.S. Women for Study Abroad: Leveling the Playing Field* are on file in the Consortium office for you information.

State Department: Register your project with the state department. This must be done on arrival at the site. A sample letter is at the end of this document

Resources: Think through how you will handle emergencies. What are your local resources on site? What are your resources on your home campus?

Alcohol: PROVIDE INFORMATION TO PROJECT PARTICIPANTS ABOUT THE ALCOHOL AND DRUG LAWS IN THE COUNTRY YOUR PROGRAM IS LOCATED. You are expected to obey local laws. Within these limits, you can set your own alcohol policy for your project, but you are encouraged to set some guidelines or restrictions. The Consortium has a policy that no funds may be spent on alcohol for students. In addition, our insurance guidelines state that no drinking will be allowed where driving might be a possibility.

Drinking practices and traditions vary markedly in each country and culture. Behavior that is acceptable in the US might be offensive elsewhere. Additionally, freedoms accorded to students in the US should not be presumed upon without discussion concerning how those actions might be viewed through a different cultural lens.

SAMPLE LETTER

March 17, 1998

To: U.S. Consulate
24/31 Grosvenor Square
London W1A 1AE
ENGLAND

From: Keck Geology Consortium
Franklin and Marshall College
Lancaster, PA 17604

As project director for a Keck Geology Consortium undergraduate research project, I am writing to identify our participants and register them with your office for the duration of our stay in England.

The **twenty-one** students listed below are undergraduates enrolled in a Keck Geology Consortium undergraduate research project of off-campus study for **ten** weeks, from **March 29, 1998 through June 4, 1998**. The dates of our program events and the addresses and telephone numbers of our residence and classroom facilities are on the page enclosed.

<u>List of Participants</u>	<u>Sex</u>	<u>Year</u>	<u>Hometown</u>	<u>Passport #</u>
-----------------------------	------------	-------------	-----------------	-------------------

1.

Please keep me informed of any advisories for U.S. citizens in this area. I will be glad to provide any other information that you might require about our group and its movements.

On site contact address and phone number

Sincerely,