

Arizona Board of Regents
INSTITUTIONAL SUPPORT FORM

Proposal Title: Improving Communication and Information Access within the
Community Environmental Leadership Program

Institution: University of Arizona DEPT/Unit: Bureau of Appl. Res. In Anth.

Multi-Campus/University Projects
(check other campuses or universities
participating)

List other participating agencies:

ASU Main UA

ASU East UA South

ASU West NAU

Briefly describe the program and the development plan.

The project will enhance the experiences of the student and faculty participants in the interdisciplinary Community Environmental Leadership Program (CELP) by developing a common base from which students from various campus departments can continue to work together through on-going community-based environmental projects and can build successfully on the work of students who came before them.

Funding Category

Indicate a primary (P) and, if applicable, secondary (S) funding category:

Professional Development

Program or Course Development/Modification P

LCE Research

Improved Assessment of Learning Outcomes S

Authorizations

Project Director

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Signature

Official Authorized to Enter into Contractual Obligations

Signature _____

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Improving Communication and Information Access within the Community Environmental Leadership Program

Part 1: Abstract

This project will enhance the experiences of the student and faculty participants in the Community Environmental Leadership Program (CELP). The goal is to develop a common base from which students from various campus departments can continue to work together through ongoing community-based environmental projects and can build successfully on the work of students who came before them. It requires helping students understand and learn from the diverse members of the communities with whom they are working, facilitating their communication with one another as they work on their projects, and improving their access to reports, booklets, and fieldnotes that have been produced by their predecessors. We will develop (1) a one-month learning module for all interns working on CELP projects that addresses diversity, communication, and working in multicultural settings; (2) a web-based communication network to supplement regular group meetings and through which students can continue learning beyond the module; and (3) a web-based retrieval interface through which students can readily access information that they need.

Part 2: Identification of Need

The Community Environmental Leadership Program was established at the University of Arizona by an informal, interdisciplinary association of faculty seeking to address local environmental problems while meeting community and university needs for experiential learning opportunities. The goal of the CELP is to enhance existing curricula and educational programs and create partnerships among community groups, faculty, staff, and students. Within each participating campus unit, faculty have identified opportunities to engage students in learning through the application of their knowledge and skills to local problems.

For example, faculty within the Bureau of Applied Research in Anthropology (BARA), working with faculty and staff from eight other campus departments, expanded BARA's undergraduate internship program to establish a UA connection to the Ambos Nogales Revegetation Partnership. This coalition of more than a dozen government, nongovernmental, academic, and business institutions has come together to address significant environmental concerns, strengthen ties between U.S. and Mexican schools and communities, and encourage leadership development. Working within the framework of the BARA internship program, student interns from across campus (Anthropology; Geography; Landscape Architecture; Soil, Water, and Environmental Science; Engineering; Spanish; Latin American Studies; and Media Arts) work with faculty, graduate students, and community leaders to identify learning goals and objectives and to develop specific tasks they will accomplish and products they will complete. They have completed more than a dozen projects such as helping to design and construct a water harvesting system at an elementary school, producing a video highlighting the efforts of one neighborhood to create a park, and creating environmental curricula in schools.

In addition, faculty from the Department of Soil, Water, and Environmental Science, BARA, and the Engineering Design program have incorporated applied environmental projects in their courses, and students have assessed the potential for computer recycling in Tucson, evaluated the potential for urban gardening in Tucson, mapped the UA campus watershed, examined the potential for water harvesting on the UA campus, documented the history of the UA campus landscape through oral histories and archival research, designed an air quality monitor, and assessed water and infrastructure needs of residents living in colonias located near Tucson.

The expansion of the program to include students from many disciplines and campus programs has drawn attention to the need to create a common base from which the students can work together on their projects and build successfully on the work of students who came before them. Students have developed a wealth of information about the topics they have studied; they have created bibliographies, developed paper and electronic files, collected pamphlets and books, and written their own booklets, guides, and other materials. However, without a mechanism through which new students can gain easy access to these materials, many of them sit in file cabinets and on shelves, and few students take the time to access them as they develop new projects.

Three areas need attention: (1) helping students understand and learn from members of the communities where they are working, including people of many ethnic and cultural backgrounds and socioeconomic levels; (2) facilitating communication among students as they work on their projects; and (3) improving students' access to reports, booklets, and fieldnotes that have been produced by their predecessors. The project directors are applied anthropologists with expertise in multicultural and environmental education; the additional participants bring significant experience working with undergraduate interns and in multinational training programs. Until now, we have approached these issues through workshops for the students; weekly team meetings; and computer storage of notes and reports organized by semester, year, and project. With only a few students and projects, this approach was sufficient. With each passing semester and the addition of students and departments, the problem of information management grows. In addition, regular communication with partners in Sonora and U.S. border communities requires ongoing translation of emails, letters, and project materials.

We must pay more attention to developing a program through which this diverse group of students can gain sufficient background and also receive social and emotional, as well as intellectual, support as they work on their projects. Student participants in the CELP have accepted the challenge of getting out of the classroom setting, and this means that they must incorporate community work, at sites up to an hour away from campus, into their course and work schedules. Though project teams meet weekly to discuss their progress, coordinate efforts, and plan activities, finding additional time for all students to be present simultaneously is difficult. Students and faculty rarely have time to focus on the "people" skills that are needed for successful collaborative work and to share frustrations, joys, and concerns. We are confident that their growth will be greatly enhanced by opportunities to share their experiences.

Through this project we will develop (1) a one-month learning module for all interns working on CELP projects that addresses diversity, communication, and leadership; (2) a web-based communication network (such as Microsoft's Exchange or XC Connect) that will facilitate sharing of project calendars, contact lists, tasks, and data files, as well as providing regular

opportunities to expand the lessons of the initial learning module; this communication mode will supplement the weekly team meetings; (3) a web-based retrieval interface for documents through which students can readily access information that they need (such as Thunderstone’s Webinator, available at no cost for first 10,000 pages, up to 10,000 hits per day, or via a webpage with links to a web document storage area directory of scanned or word processed documents).

Part 3: Technical Needs

Technical needs for this project will be met by BARA, the individual personal computer labs on the UA campus, and the services of the Computing Center for Information Technology. We will use computers, scanners, and software in these locations. We will require the dedicated service of BARA’s systems analyst to establish the web-based retrieval interface and web-based communication network; ongoing administration and maintenance of these systems will be accomplished as part of his regular duties. We will also require software for creating pdf files (Adobe Acrobat Professional is currently available for \$50); software to translate emails, letters, and documents between English and Spanish; and software for developing the communication network (for both the latter there are free to inexpensive online versions and more expensive, sophisticated packages; UA has no-cost site licenses for various database packages, such as Oracle, which can be used to organize information; we will determine the best combination of software based upon prices and site licenses when the project is underway).

Part 4: Work Plan

What and How	Who (Estimated Hours for Key Personnel)	Where	By When
Task 1: Assess knowledge and experience of incoming interns via questionnaires and pre-internship interviews	Longbottom, GRA1	Various locations on campus	30 & 270 days from project startup
Task 2: Develop intern training module	Cammarota (3 weeks), Austin (2 weeks); also Longbottom, Hazel, GRA1	BARA offices	90 days from project startup
Task 3: Assemble program-related information and organize it by topic	Austin (2 weeks), also Riley, Bender, GRA2, student assistants	BARA and SWES offices	90 days from project startup
Task 4: Scan and process materials not yet available digitally	Oakes (1 week), also GRA2, student assistants	BARA offices	120 days from project startup
Task 5: Use Thunderstone’s Webinator to organize materials in a searchable format	Austin (2 weeks), Oakes (2 weeks), also GRA2, student assistants	BARA offices	150 days from project startup
Task 6: Develop protocols for information exchange and establish a web-based interface through which students can communicate with one another and access information	Oakes (3 weeks), also GRA2, student assistants	BARA offices	240 days from project startup
Task 7: Offer intern training module	Cammarota (2 weeks), Austin (2 weeks), also Longbottom, Hazel, GRA1	BARA conference room and computer lab	270 days from project startup
Task 8: Administer post-internship	Longbottom, GRA1	Various locations	150 & 360

questionnaires and conduct interviews		on campus	days from project startup
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Part 4: Work Plan (continued)

Jan. 2004	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Pre-intern interviews & questionnaires											
Develop training module											
Assemble and organize program materials											
	Scan and process materials										
	Organize materials using web-based retrieval interface										
				Post-intern interviews & questionnaires							
				Develop protocols for information exchange and establish web-based communication network							
							Pre-intern interviews				
								Training Module			
								Use retrieval interface, communication protocols and network with interns			
											Post-intern interviews & questionnaires

Part 5: Key Personnel

Project Directors

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Participants

James Riley, Associate Professor, Department of Soil, Water and Environmental Science

Stephanie Hazel, Service Learning Coordinator, Institute for Children, Youth, and Families

Carol Bender, Director, Undergraduate Biology Research Program

Judy Longbottom, Research Scientist, Bureau of Applied Research in Anthropology

Part 6: Expected Results and Outcomes

This project will lead to an internet-based interface through which student and faculty participants in the Community Environmental Leadership Program can communicate with one another and access information generated by that program. This interface is expected to facilitate communication among program participants and improve the transitions between students as one group leaves and another one comes into the program. Specific outcomes include:

1. Students and faculty will share a common understanding of program objectives and expectations of the participants.
2. Students and faculty will interact more often and effectively, as measured by internet communication, questionnaires and interviews.
3. Students and faculty will become familiar with and use information technology to increase awareness of and access to materials related to their projects, as measured by “hits” to the website, questionnaires and interviews.