

ACS Melon Foundation Faculty Renewal Grants

Final Report

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Institution : Furman University
Name of Project : *Development of New course/study abroad program
focused on Geology and Environment of India*
Date of Project : August 2008 to Jan 2009.
Amount awarded : \$3050

Please address the following points in your 'detailed narrative' report with evaluation and dissemination information:

1. Original Goals and Objectives

Two main objectives were 1) to develop a new course focused on geology and environment in India, 2) to plan for future study away program in India.

2. If goals/objectives changed during the course of the project, please state the revised goals/objectives

No major changes were made. I have broadened the scope to include sustainability in my plans for study away program. This change stems from the fact that Furman is signatory to the Presidents Climate Commitment (<http://www.presidentsclimatecommitment.org>), which aims to bring down the carbon footprint of Furman University down to being carbon neutral. Some of the ideas that I have include – getting the students to purchase carbon offset for their flight to India, while in India utilizing public transportation for local travel needs, tree planting, and engaging the students in local projects involving sustainable development practices.

3. In what ways were the goals/objectives met? Please give examples.

New Course: A draft proposal for new course has already been developed and is awaiting comments and approval from the department. Once approved by the department, it will be submitted for approval by the Curriculum Committee and later for approval by Furman faculty. Once the course is approved, I will create a web page with detailed course syllabus and related activities to go with it for public access.

Study Away: Even though I was not able to travel to all possible places of interest due to budgetary constraints, I picked three main areas in Southern India that were accessible as well as had interesting geological or environmental features. Those three places are: Bangalore, Karnataka; Madurai and surrounding area, Tamil Nadu; and Auroville, Pondicherry.

From business standpoint, Bangalore is considered the IT capital of India and has made rapid technological progress in the last two decades. Some of the leading IT companies are headquartered here that include India's own InfoSys, Wipro, Tata Consultancy, HCL, L&T and many multinational corporations. There are lots of opportunities to visit some of these IT companies in Bangalore and learn

how they are able to integrate business and sustainability. It will be a valuable experience to gain for students participating in the study away program to visit and learn from these companies. We have established contacts with InfoSys officials for a guided tour of their facilities and for a talk on their environmental initiatives. Geologically, there are numerous mines and granite quarries in the state of Karnataka including one of the world's deepest gold mines – Kolar Gold Field. An introduction to the geology of the region with emphasis on economic geology and environmental costs can be combined with a field trip to a gold mine, and one of the granite quarries in the region to learn about mining practices and slab cutting and polishing methods. There are several other places of geologic and cultural importance that can be covered along the way, but geology and sustainable business practices will be the focal point of our time in Karnataka.

The city of Madurai is also called as the Temple Town of Tamil Nadu. It is one of the oldest and culturally most important cities in India that is in existence for more than 2500 years. Madurai is also located in geographically and geologically interesting location where Western Mountain range (Western Ghats) and Eastern Mountain range meet. It sits in the rain shadow of these mountains and only gets seasonal monsoon rains. Most temples in Madurai are ancient (1500 years or older) and are architectural wonders that span acres and were built using rocks from the surrounding region. It makes an interesting site to visit to study the architecture, geology, culture, and social interactions. From Madurai, traveling west will take us through the Eastern Hill Ranges (also called Eastern Ghats) to the west coast of India in the state of Kerala. The journey along this way has exceptional geologic structures, scenic mountains, vast tea plantations, spice plantations, dense forests, and wildlife. There are several opportunities to witness and study geology, sustainable agriculture and ecotourism. There are also some dams and giant reservoirs in the southern region, some comparable to Hoover Dam in Nevada that can make very interesting topic for visit as well as for classroom discussion.

The third and last area is Pondicherry, which is a Union Territory of India (formerly a French colony) that is situated in the east coast of India bordered by Tamil Nadu state on west and Bay of Bengal on east side. Pondicherry has large number of educational institutions in the region and is also popular for handicrafts and art work. It's fast becoming a center for sustainable tourism and sustainable living. Ecotourism is relatively new concept that is catching on in the hotel industry since early 2000's. In the area bordering Tamil Nadu and Pondicherry, there is a whole new sustainable, global village in the making that is attracting worldwide attention. The global village, named Auroville (<http://auroville.org>), has residents from all over the world living in there contributing to the development of a sustainable society. There are lots of opportunities for our students to study there, exchange ideas, learn sustainable practices, and contribute their own expertise for betterment of a global "model" sustainable village. My objective here is to get the students engaged in projects at Auroville or other potential localities in such a way as to make a difference in the life of people in those villages. The experience, knowledge, and the inspiration students derive from this should make them think of getting involved in such projects back home here in Greenville or United States.

There are lots of other places of interest and plenty of opportunities to study geology, environmental impacts, and sustainability in India. My focus for this grant purpose was primarily on South India, covering the localities described above.

4. Describe the evaluation/assessment process used. Summarize the results of this process? Include any instruments used to evaluate/assess your project.

Once the course is approved by the faculty at Furman University, I will post the syllabus and details on a website that can be accessed by faculty from other ACS and non ACS colleges. The next study

abroad program to India when I will be leading will be in fall of 2011. No evaluation has been done as yet since the course and study abroad program have not been offered as yet.

5. If you were to redesign your project, what would you do differently and why? (What are the “lessons learned?”)

Given the nature of the projects proposed, I would seek additional budget to enable me to travel to more places and make all the travel arrangements beforehand. Making all the travel arrangements ahead of time will definitely help in making this more efficient. I was also too ambitious in thinking that I will be able to pretty much have a detailed tour itinerary for a study away program in India ready by the time I leave India, which was impossible. What I learnt is that it's more important to establish contacts who will take responsibility for making necessary arrangements for leading different segments of the trip rather than trying to do it all by myself.

6. How did your project impact other faculty on campus? If done jointly with one or more institutions, how did it impact faculty on the other campuses?

The faculty members in the Department of Earth and Environmental sciences are excited about the new course as well as the May experience program in India. The same applies to the faculty members in the Department of Asian Studies. They were very supportive of the initiative to have a science course specializing in one of the South Asian Country. Faculty members at Anna University, Madras where I was a visiting faculty are very excited about the possibility of collaborating with and developing programs for Furman faculty and students.

7. How did the project impact the institution(s) as a whole?

At Furman, we have Asian Studies concentration program that can benefit by the addition of the new course on Geology and Environment in India. This will encourage students in non-science departments to consider taking a science class that can meet science GER requirement as well as the Asian Studies program requirements.

At Furman, faculty are exploring different ways of incorporating sustainability into pedagogy and this program provides a perfect opportunity to combine classroom teaching with hands on experience. If this program comes into existence the way I am envisioning it to be, it may provide a role model for incorporating sustainability in other study away programs at Furman too.

8. If students were involved, what was the impact on them?

Students were not involved

9. How have you shared the results with ACS colleagues and beyond ACS? What are your plans for dissemination?

At this point, I have not shared anything with ACS colleagues. Once the course and the study away programs are proposed and approved by the faculty at Furman, I will create a website and post the relevant information including the tentative syllabus, itinerary, photos, maps etc., on the website.

10. Did any publications result from this project? If yes, list here. No.

11. What are the next steps (follow-up) in your project? Evaluations, surveys etc are to be included as part of this report.

First, I will have to formally propose the new course for approval by the faculty at Furman. I am intending to do this during the summer of 2009. Secondly, I have to discuss my plans for the study abroad/May Experience program with the Associate Dean for International Studies and get the approval for the program to be offered in fall of 2011. The reason for such a long delay is that we are already offering one for the fall of 2009. India program runs every other year, which means the earliest time I can offer this is in 2011. Finally, I will have to work with my department to see if we can offer a May Experience course on Geology of India in the next year or two. Depending on the outcome from the departmental discussions, I will take additional steps towards implementing the project.

13. Please include a summary of your work that may be included on the ACS Faculty Renewal website.

Please refer to my answer to question number 3 for a summary.