

HIMALAYAN STUDY ABROAD PROGRAM: HEALTH & ENVIRONMENT IN NEPAL

Econ 395 (1-3 credits)

Winter Intersession: (December 16th, 2017 - January 6th, 2018)

Sustainable Development Action Lab (SDAL)

Nepal Study Center, Department of Economics

Study Abroad Co-leaders:

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COURSE OVERVIEW

This three-week winter-course is designed to provide students an experiential learning opportunity that combines research, eco-adventure, and hands-on community service-learning projects. The **first part** of the study abroad is spent in the urban town of Siddharthanagar near the world heritage site of Lumbini (Western Nepal), where UNM students will work with the local institutional collaborator and the eco-club members of the local college and schools to start a *citizen science program*. In particular, UNM students will install environmental monitoring stations to track water and air quality and generate scientific data for use in policy interventions and awareness. The practical STEM-motivated project ideas (STEM = Science, Technology, Engineering, and Mathematics) for the field intervention are generated by students in the Sustainable Development Action Lab classroom [Econ 395/595: Fall 2017, see the details of SDAL in the Appendix]. The **second part** of the program involves students taking a hill tour to discover new cultures, see sustainable development in action, and enjoy natural beauty and biodiversity. The **third part** ends the program with an elephant ride and the viewing of the rhinos in the Chitwan National Forest, while learning about the wildlife conservation and its relation to humans.

WHO SHOULD TAKE THE COURSE

Even though the primary course for this program is Economics 395/595 (*Problem-based Learning: Health and Environment in Urban Nepal*, Fall 2017), where the field projects are developed, this program is open to students from other classes and disciplines who are interested in an interdisciplinary educational experience with a community engaged research component. Econ 395 has Stat 145 as the only pre-requisite.

Space for the Nepal trip is limited, and although enrollment in Economics 395/595 is not required, preference will be given to students who are enrolled in the course. Limited seats could be made available for graduate students.

PROGRAM STRUCTURE

This experiential learning, when combined with rigorous research, inquiry, and investigation, can open doors to personal growth and academic maturity.

Learning Objectives

The Himalayan Study Abroad Program will have the following broad objectives:

1. To provide opportunity to understand how STEM projects (environmental monitoring tools and methods) can be integrated with social sciences and humanities (awareness, policies, and health behavior and outcome).
2. To offer service learning opportunity for students to develop and transfer their skills and knowledge from the classroom to the field.
3. To provide opportunity to observe sustainable development projects in action across the hilly landscape.
4. To help students experience up close and personal the vast mosaic of people, mountain culture, and agrarian society.
5. To offer opportunity to students to observe the grandeur of natural beauty, bio-diversity, and deep river valleys.

Expected Outcomes

Upon completion of the Himalayan Study Abroad Program, students will be able to:

1. Understand how to work within the STEM project-based integrative classroom environment, and develop practical projects.
2. Travel to developing world and implement community projects in the field.
3. Understand cultural awareness, development practices, gender empowerment, and history of the mountain communities of Nepal.
4. Develop respect for cultural diversity.
5. Understand the role of geographic landscape and its impact on poverty, development strategies, and opportunities.

Expected Tasks

Participating students are expected to fully engage before and during the study abroad trip. For example:

1. Be involved in the preparation of the trip (e.g., water quality testing exercises in the field in Albuquerque)
2. While in Nepal, students will participate in the project implementation-related hands-on activities.
3. Keep daily diaries and have a nightly group discussion.
4. Blog entry, whenever possible during the trip (e.g., experience, photos, reflection)
5. Upon return, students are expected to write a final paper on a topic of their choice, and turn it in for a final grade.

6. Optional: poster presentation at the UNM Shared Knowledge Conference mid-April.

Grade Options

Students are graded based on the following:

1. Pre-trip preparatory-related participation and background readings (20%)
2. On-the-ground engagement in project implementation (20%)
3. Daily diary, blog contribution, and nightly discussion (30%)
4. Final paper (30%)

THE EXPERIENCE

Program Itinerary & Program Activities

Arrival in Kathmandu: some sightseeing and travel adjustment, and departure to Siddharthanagar (Bhairahawa) on the third day (ground travel).

Manakamana Cable Car ride: If time permits, a cable car ride across Trishuli River and go up the mountain top to visit a popular shrine (lunch).

Community Project Engagement (Citizen Science) in Siddharthanagar (Rupandehi): local site visits, engagements in community project preparation and implementation (ecological monitoring citizen science program); lectures and consultation as needed. (approximately 1 week)

Lumbini Circle Eco-adventure Loop in Western Nepal:

- Lumbini World Heritage Site in Rupandehi: (Lumbini world heritage site; Buddha's birth place (650 BC); world class monasteries from all over the Buddhist world),
- Kapilvastu Kingdom: (pre-650 BC Buddha's father's Kingdom; Jagadishpur Lake for bird watching, time permitting).
- Sandhikharka Valley in Arghakhachi: (hilltop historical landmarks, unique communities and people).
- Madhane Health Center and Arubindo Ashram in Gulmi: organic farming, indoor pollution project, health, bio-diversity;
- Rasunga Hill in Tamghas Valley, Gulmi: Hill-top bird sanctuary hiking in Tamghas Valley, Himalayan range;
- Kali Gandaki River Valley: Palpa (Kali Gandaki River confluence –Gulmi-Palpa– and the Holy town of Ridi; Hill station town of Tansen –Palpa; Blue Palace and Rani Ghat, time permitting)
- Elephant Ride in Chitwan National Park: elephant ride; rhinos, tigers.

Study Abroad Program ends. Back to Kathmandu for departure to US or off to other destinations (e.g., Pokhara, Mustang Valley, Annapurna Circuit).

USEFUL LINK

<http://nepalstudycenter.unm.edu/SustainableResearchLab/UndergraduaterResearchInitiatives.html>

Appendix

Sustainable Development Action Lab (SDAL)

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The Sustainable Development Action Lab (SDAL) builds upon the field research track record of the Nepal Study Center ([NSC](#)), a South Asia focused research center at UNM, and its various doctoral research activities over the last several years. This is an interdisciplinary approach to research, learning and problem solving by bringing together the three disciplines: *Natural Sciences, Social Sciences and Humanities*. The lab trisects the whole learning process in three ways. **First**, using UNM's access to research platforms in Nepal –[Lumbini Center for Sustainability](#), NSC's global research program gathers real world data (e.g., water and air quality data, geomatic maps of urban built-environment and ecosystems, household surveys, feasibility studies, health and sanitation, randomized control trial experiments). **Second**, an interdisciplinary graduate-undergraduate mentorship classroom lab at UNM ([special topic course](#)) analyzes the baseline data rigorously and tries to come up with practical solutions that are implementable on the ground in Nepal (e.g., [long-term scientific data monitoring programs](#); sustainable technologies; evidence-based policies; educational and awareness platforms including riparian bio-gallery, visual arts, Apps & e-portals; citizen science program; urban ecosystems and conservation; urban wildlife refuge). **Third**, the [Himalayan Study Abroad Program](#) and its community engaged-research component provide students an opportunity to travel to Nepal to implement some of their solutions. This STEM project-based integrative environment and linkages are strengthened every year as a cutting-edge learning platform for UNM and its Himalayan-based [collaborators](#).