

HIMALAYAN STUDY ABROAD PROGRAM: HEALTH & ENVIRONMENT IN NEPAL

Econ 395/595 (1-3 credits)

Winter Intersession: (December 15th, 2018 - January 5th, 2019)

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 the platform for students from Econ *369, “*Problem-Based Learning Using Data Analytics*”, to implement STEAM-motivated field interventions derived from their semester-long analysis of real-world data from Nepal (STEAM = Science, Technology, Engineering, Arts, and Mathematics). Simultaneously, this experience is designed to provide students a hands-on learning opportunity that combines research, eco-adventure, and community service-learning projects.

Prerequisite: None, Econ *369 is optional.

DETAILS

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 further develop a *citizen science program* previously established. A previous cohort of students established this program by collecting initial water quality samples from the Danda River, installing a weather monitor, and installing multiple indoor air quality monitors. UNM students will now build upon this program by doing the following (tentative) projects:

- Adding groundwater level tracking
- Building on classroom research on E.coli students will be developing an awareness intervention program
- Data dissemination project/Outdoor air quality monitoring

The **second part** of the program involves students taking a hill tour to discover new cultures, see sustainable development in action at rural clinics/farms, and observe the local flora and fauna native to the region’s mountainous terrain. Students will get a glimpse into the challenges of mountain living in Nepal, while experiencing the spiritual tourism offered in one of the most secluded regions in the world. During the hill tour students will also conduct a gender hygiene project by facilitating a program/survey at a rural school. The **third part** ends the program with learning about wildlife conservation and its relation to humans at Chitwan National Forest.

During their time at the park students will experience a *Tharu* cultural program, see endangered species such as rhinos and tigers in their natural habitats, and have the choice of going on a jungle safari to view crocodile breeding grounds or experiencing a once-in-a-lifetime elephant ride.

Previous year's program, itinerary, activities: [click here](http://nepalstudycenter.unm.edu/SustainableResearchLab/StudyAbroad.html)
<http://nepalstudycenter.unm.edu/SustainableResearchLab/StudyAbroad.html>

WHO SHOULD TAKE THE COURSE

Even though the primary course for this program is Econ *369 (*Problem-based Learning Using Data Analytics*, Fall 2018), 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 *369 has Stat 145 as the only pre-requisite.

Space for the Nepal trip is limited, and although enrollment in Econ *369 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 STEAM projects (environmental monitoring tools and methods, effective awareness initiatives using art) 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 STEAM 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., air quality installation training in Albuquerque, developing projects before leaving for Nepal)
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 Undergraduate Research Opportunity Conference (UROC) on April 18th, 2019.

Grade Options

Earning grades in this course will require students to do the following:

Part A: Daily Activities (40%)

1. Doing all the required tasks: being ready on time for events, participating in events, taking initiative in carrying out tasks, helping your fellow students with their tasks and/or assignments (e.g., setting up lab, conducting survey, social service engagement –kits distribution or anything that may come along)
2. Keeping daily diary of personal and/or group observation
3. Posting pictures and observation on the Lumbini Sustainability Circle blog <https://foxc01.wixsite.com/yogdan>
4. Nightly discussion
5. Being happy, cooperative, and upbeat!

Part B: Seminar Abroad (30%)

1. Seminar Abroad presentation. Join the group and/or create a group and prepare a PPT (10-15 slides) for a 15 to 20-minute presentation in Nepal. There will be other Nepali student counterparts doing the same.

Part C: Final Paper (30%)

1. Each of you will be required to turn in a mini research paper upon your return within two weeks. The theme of the paper is: Mini Research Report: Observe, Think, & Solve
 - a. Minimum 3-5 pages not including bibliography and appendices. Typed, 12 point TR font, single space.
 - b. Identify a problem that you have encountered or learned to have existed there in Nepal (in particular in the area of Lumbini Sustainability Circle trip).
 - c. Provide critical assessment of the problem with some literature review and references.
 - d. Offer solutions by using best practices from other communities and/or programs.

Part D: Bonus Points (5%-15%)

1. There are some activities that are required (Part A, B, and C), but your co-leaders (or fellow student leaders) may also ask you to volunteer for certain tasks and/or events and/or accommodations. You can earn bonus points to improve your grade by going extra miles.

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).

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; Time permitting

- 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)
- Chitwan National Park: Elephant ride; jungle safari; Tharu cultural program; rhinos, tigers, crocodiles.

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/UndergraduateResearchInitiatives.html>

Appendix

Sustainable Development Action Lab (SDAL)

Nepal Study Center, Department of Economics
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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](#).