# V482/E482
# Environmental Policy and Management in Vietnam: Inquiries in Sustainability

The SPEA study-abroad program to Vietnam, a three-credit course, is designed specifically for undergraduates with an interest in environmental science and policy. The course is co-administered by Hanoi University of Science. It meets from Saturday, June 29, 2019 until Sat July 20, 2019.

The course is taught with active participation of the faculty from Vietnam National University's University of Sciences. We use their infrastructure facilities for the classes. Its unique characteristic is that the class comprises equal numbers of American & Vietnamese students. All instruction will be in English.

Vietnam is a fascinating country and the more you see it the more you want to see it again. It neighbors Cambodia with one of the world's greatest treasure like the Temple of Angkar Vat. You could even consider, after the course, a side trip within Vietnam or to Cambodia!

We will be in northern Vietnam for three weeks, based in Hanoi, with a week in tropical rainforest at the Tam Dao National Park and the Me Linh Biodiversity Research Station, a few hours away. A planned visit to the Red River valley will be both instructive and enjoyable. You will see for yourself the dangers of climate change and erosion of fertile tracts of land.

Our primary areas of study will be in environmental management of urban areas, environmental impacts of subsistence and commercial agriculture, management of protected and natural areas, conservation of endangered species of flora and fauna and impact on human habitation.

***V/E 482 Topics in Public Affairs* - 3 credits**

**Summer 2019:** June 29 - 20, 2019

Instructor: Professor Rajendra Abhyankar
SPEA (Indiana University)
Co-Instructor/s:
Professor Le Duc Minh (VNU HUS)
Professor Tran Van Thuy (VNU HUS)

**Highlights:**

- Class work with Vietnamese students, with teaching contributions from Vietnamese faculty, policy makers and guest speakers who are knowledgeable about environmental impacts and policies in Vietnam. Students will learn about Vietnam not only through their own eyes, but through the eyes of their Vietnamese peers and local experts.
- Several field trips in and around Hanoi, a week in a national park in tropical rain forest with a visit to Van Long Nature Reserve and over-night visit to the Red River Valley.
- Experience with the mix of science, management, and policy needed to ensure sustainability of

built and natural environments.

● An opportunity to work on professional skills – analysis, presentation, writing – in a supportive and exciting environment.

**Prospectus** (subject to minor changes)**:**

Sustainability is not merely a good idea – in the long run, it is essentially a law; those who cannot live sustainably, ultimately cannot live. As a developing country, Vietnam has both a substantial and still increasing urban population and considerable agricultural area. Its ‘ protected area system’ of parks and forests is relatively new and conservation of biodiversity and questions of sustainability generally are still a lesser concern in comparison to food security and improving quality of life.

Historically, Vietnam lagged other large Asian countries, like China and Indonesia, in the percentage of its population living in urban areas. Its current focus is to bring its economy up to ASEAN levels. After the failure of the Trans-Pacific Partnership, following withdrawal of the US, the remaining nations, including Vietnam have signed the ‘Comprehensive and Progressive Agreement for Trans-Pacific Partnership’ that is to be ratified. US withdrawal impact’s Vietnam yet it has persisted with the new agreement to increase its exposure to world trade.

In 2001, only 25% of Vietnam’s population lived in cities and towns compared to 37% in China and 42% in Indonesia. However, Vietnam’s urban growth rate is very high, with approximately 1,000,000 added to major and secondary cities and towns every year and a projected doubling of the urban population by 2020 compared to 2001. Yet important parts of Vietnam’s economy depend on natural resources from that country’s rural areas – and from rural areas in neighboring countries.

Both Vietnam’s urban expansion and its importation of large volumes of natural resources used in its growing economy, have environmental consequences. Hanoi, the capital, faces major challenges arising from rapid urbanization. A city of 2.1 million people, it copes with an urban environmental infrastructure designed for a city of approximately 150,000. Citizens of both Hanoi and Ho Chi Minh City endure comparatively high levels of air pollution (including dust, carbon monoxide and oxides of nitrogen) versus citizens living in most European cities.

Vietnam’s two largest rivers, the Red River and Cuu Long River are routinely polluted by untreated domestic and industrial sewage are not safe sources for drinking, fishing, agricultural, nor industrial water uses. Vietnam’s demands for wood for its burgeoning wood products industry has impacts on forest land, water, and soil in neighboring Laos, Cambodia, and Burma.

During this course, we will examine aspects of sustainability related to urban living, agriculture, and biodiversity conservation. We will assess current policies and practices, and consider how these might change in the future to improve sustainability. Our assessments will make use of ideas and information from social sciences including policy analysis, economics, and environmental management; environmental sciences, particularly in the areas of soil protection, water quality, applied ecology; and the overlap of these broad areas in the human dimensions of natural resource use and management.

In this course, students will develop the following skills and knowledge:

- Familiarity with the range of environmental problems affecting urban and rural areas in Vietnam and in comparison with OECD countries;
- Ability to distinguish between command-and-control and market-oriented strategies to control and prevent pollution, and to support agriculture and agricultural reform.
- Understand the concept of ecosystem services and the importance of these to social and economic processes in Vietnam and more generally. Understand the link between ecosystem services and biodiversity conservation and opportunities and limitations of protected-area systems in Vietnam.
- Understanding of trade-offs between investments in environmental policy measures versus other societal policy demands, e.g., impacts on short-term wealth accumulation when environmental measures are undertaken, problems of regressive environmental policies.
- Understanding of basic considerations of study design and data collection techniques for environmental studies.
- Improved analytical-writing and critical-thinking skills through class discussions and projects.

With the exception three out-station visits, all classes are conducted in Hanoi, with field trips in-city and to nearby villages (urban and historical environmental impacts), the Red River Valley (agricultural and rural sustainability), and Me Linh Biodiversity Research Station and Pham Dao National Park (sustainable forest management, interactions between rural areas and protected areas, ecotourism).

**Logistics**

Students must arrive in Hanoi on Sat June 29, 2019 and will begin course work on Sunday June, 30, 2019 continuing through Sat July 20, 2019. Meeting times will include weekends when some visits to field sites will occur and progress on teamwork will take place. In addition, a variety of excursions will occur in and around Hanoi. Students from IU will travel to Hanoi on Friday June 28, 2019 and depart Hanoi on July 20, 2019.

The course, co-taught by Professor Rajendra Abhyankar, School of Public and Environmental Affairs, Indiana University and Prof. Le Duc Minh and some faculty from the Department of Environmental Science, Hanoi University of Science.

It will include approximately 15 undergraduate students from Hanoi University of Science. Students will have ample time to explore Hanoi on their own and with their Vietnamese colleagues. We will endeavor to have SPEA and HUS students to work in teams throughout to promote greater exchange of information on mores and culture apart from on course work.

Field work at Me Linh Biodiversity Station, Tam Dao National Park and Red River Valley is intended to lay the groundwork for publishable studies in environmental science and on the human dimensions of natural resource and protected area management. Students will assist in study design and data collection that will serve as the basis for longer-term studies.

## Pre-trip sessions

The US contingent of the course will meet before finals week (tbd) for orientation and logistics.

We will meet for roughly two hours (somewhere between 5 and 8 pm, depending on schedules), possibly over pizza, to get acquainted and to begin to discuss logistics. You will also get an orientation to Vietnam generally and our Hanoi living and learning situation.

## Travel

As far as possible, travelling together as a group, from Indianapolis to Hanoi and back is strongly recommended. Those who are in Bloomington may make arrangements to travel to the airport together, as well. Medical insurance during our travels, including return to the US if needed for medical reasons, is provided as part of the Study Abroad program.

During the first few days, we will plan meals together, but thereafter students are able to make their own arrangements with their local colleagues.

No special clothing outside of rainwear is needed.

We would recommend that each student carries some medicines they are familiar with for upset stomach, diarrhea, flu and common cold. Those who are required to take any particular medicine on a regular basis should bring a stock for 25 days. Medicines in Vietnam are available but may not be familiar.

Course Schedule (as of 9/26/18)

| Date: | Activity: |
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| Friday, June 28th | Leave Bloomington |
| Saturday, June 29th | Arrive Hanoi |
| Sunday, June 30th | Walking city tour and related short assignment |
| Monday, July 1st | Ho Chi Minh Museum, Hanoi |
| Tuesday, July 2nd | VN History Museum with discussion of related readings<br><br>Visit Pottery Museum |
| Wednesday, July 3rd | Guest Lecture: Hanoi's Urban Challenges/Urban Water Use<br><br>Vietnam today by Indiana Ambassador to Vietnam/ Meeting with VN National Assembly's Committee on Science, Technology and Environment |
| Thursday, July 4th | Guest talk from city staff: Climate Change Impacts |

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| | Introduction to statistical presentations |
| Friday, July 5th | Environmental Regulations, Social Realities and Economics<br><br>In-class work on statistical presentations |
| Saturday, July 6th | Student Presentations- Social and environmental relationships in developed and developing countries in an interactive session between SPEA and VNU HUS students |
| Sunday, July 7th | Mid-term |
| Monday, July 8th | Ethnology Museum, discussion with staff<br><br>Natural resources linkages |
| Tuesday, July 9th | Leave for Me Linh Biodiversity Research Station and Tam Dao NP Orientation talk on work of the Me Linh Station and issues arising from the conflict between people and parks |
| Wednesday, July 10th | Understanding first-hand the work of the Me Linh Station on Conservation of endangered flora and fauna, endangered species<br><br>Interactive discussion on impressions gained |
| Thursday, July 11th | Discussion with Station staff to understand policy on conservation |
| Friday, July 12th | Visit Tam Dao NP- buffer zone to get first-hand knowledge of protecting the park area from encroachment from local communities; understanding policies |
| Saturday, July 13th | Visit NP to study impact of tourism on protected zones<br><br>Visit local villages, study design for village/park reciprocal impacts, understand policies to build self-sustaining local communities |
| Sunday, July 14th | Pilot data collection for local villages<br><br>Return to Hanoi |
| Monday, July 15th | Free time and class assignments |
| Tuesday, July 16th | |
| Wednesday, July 17th | Field trip to Red River Valley: visit mangroves, agriculture and soil conservation and discussion on management of commons<br><br>Return to Hanoi |
| Thursday, July 18th | Agricultural policies and sustainability<br>Agricultural impacts on soil and water resources in Vietnam guest lecture<br><br>Presentations by students |

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| Friday, July 19th | Preparation for joint student presentations on allotted issues<br><br>Presentations to directing faculty |
| Saturday, July 20th | Final outing, Farewell party |
| Sunday, July 21st | Depart for Bloomington |

**Course Activities**
Class Participation

Participation of students in debate and discussion is not simply desirable -- **it is vital,** especially for a course like V482. Hence, a portion of your grade will be determined by the vigor of your participation in class discussions as well as your professionalism during the course.

Team-led Reading

In each class session, a team generally composed of two IU and two HUS students will introduce the day's readings for the whole class. This team of two must be prepared to present approximately 15 minutes of comments about the *key themes* in the readings and to prepare and present three discussion questions for the class to consider. In order for the class to have adequate time to consider your discussion questions, please post your questions to **Oncourse** and/or send them to your classmates no later than 24 hours prior to your presentation in class.

Also, please send Professor Abhyankar (rmabhyan@indiana.edu) and Professor Le (le.duc.minh@hus.edu.vn) a copy of any presentation materials that you will use for your presentation at least 24 hours prior to your presentation.

Most readings will be provided electronically; the majority are available on web sites, with URLs provided to you. There is no single textbook for this course. Most readings will be in the form of scholarly articles, official publications of government agencies and professional organizations, and news articles.

Please complete all assigned readings before class. **Readings are an essential part of this course** and all students are required to know the material. We may ask students about readings in class ("cold call"), and information and concepts from the readings will appear on exams. Briefly, everyone must come to class prepared to discuss and utilize the assigned readings. Thanks!

**Innovations Note**

The innovations note is due any time between the midterm and the final.

During your time in Hanoi, you will have an opportunity to see both problems and solutions encountered by city residents in daily life. This short, two-part assignment asks you to work as a team with one of the Hanoi students to address both of these:

a) based on your observations in Hanoi, what clever and practical strategies do people use to solve particular problems – work together to describe and explain.

b) What easily realizable strategies can you suggest that people or groups of people can use to address particular problems that you have observed in Hanoi? Your effort will be to relate any particular strategy that you have seen in the US to the situation in Vietnam.

Pleas answer Part a) from your personal experiences, exchanges with your colleagues, and observations. Answer in ½-1 single-spaced page. [Indicate the nature of the problem, the nature of the solution in Hanoi and if appropriate, compare to solutions elsewhere, including in the US.] Be sure to explain how or why your solution has a chance of working.

Part b) may draw on what you have learned in this class, in other classes, or from your observations and experiences elsewhere.

**Short papers**

Short papers give students an opportunity to synthesize information from across multiple readings, discussions, and activities. Papers from students enrolled in E482 should have a significant foundation in environmental science but up to 1/2 of the paper may deal with policy and management issues. Papers from students enrolled in V482 should include at least 50% discussion of policy and management issues, but will generally need to include at least some discussion of the underlying science, which may take up as much as 50% of the paper.

Students may choose topics from among the issues of the course: urban environmental issues, rural/agricultural environmental issues, and biodiversity conservation and protected-area management.

Professor Abhyankar or Professor Le must approve topics**.** Email your proposed topic to both professors latest TWO days before the paper is due, with a proposed topic and a list of resources you will use (readings, class discussions, guest lectures, field experiences).

**Statistical presentations**

Teams composed of two IU and two HUS students will select data sets from the data tables found at the World Resources Institute's Earth Trends data base (http://earthtrends.wri.org/).

Following class instruction in two-sample tests of means and two-variable correlation, students will choose data to test a simple hypothesis. **You don't want to conduct an absurd test; you want to test a credible one that tells you something interesting about the relationship between the two sets of data.**

In your presentation, show us a visual display of your data (e.g., scatter plot, bar chart) and make sure to accurately label your axes. State clearly, what you tested; show us relevant descriptive statistics (mean, median, variance, etc.). Justify your analysis (i.e., tell us what your

expectations were for the tests before you actually conducted the test), and then, tell us what you found for this test. Mention what additional data or other information you wish you had at your disposal to strengthen your analysis.

Note: Naturally, it's important to really understand what your data mean. What exactly is the meaning of the data in the data set you have collected? How are they measured and what do they measure?

Prepare a 5 to 10-minute oral presentation of your data analysis. Please prepare one or two Powerpoint slides. Presentations will take place on July 19, 2019.

Each group should **e-mail their Powerpoint presentation to rmabhyan@indiana.edu and le.duc.minh@hus.edu.vn** to make sure they get full credit for the assignment.

**E-mail your assignment no later than by 9 PM Hanoi time, July 20.**

**Forest and village datasets**

During our field classes at Pham Dao NP, Me Linh Biodiversity Station and the Red River Valley, students will be working together in teams to collect data on forest tree composition and on villager relations with the national park and conservation of endangered species. Instructions for collating these data will be provided in the field. Accurate data collection and careful dataset compilation will be needed to ensure class data can contribute to design of publishable studies.

**Exams**

Both the midterm and final exams are based primarily on readings, field trips, guest lectures and regular lectures. Exams will likely consist of a combination of short answer and essay questions.

**Retrospective Note**

The Retrospective Note is an opportunity to review your time in Vietnam in the context of your own life professionally and personally. It is will be written on the plane on the way home. In max. 2 pages, tell us what you will take from this experience into your professional and personal life.

| Assignment | Due Date |
|---|---|
| Team-led readings | various dates |
| First short paper | Jul 05 |
| Second short paper | Jul 12 |
| Innovations note | between Jul 11 and Jul 17 |
| Presentation and PowerPoint slides on international statistics | Jul 08 |
| Field dataset preparation | Jul 13 & 14 |
| Midterm exam | Jul 11 |
| Final exam | Jul 19 |
| Retrospective | Jul 22 |
| Class participation | all class meetings |

**Structure of Final Grade**

| Task | Percent of final grade |
|---|---|
| Team-led readings | 10% |
| First short paper | 12% |
| Second short paper | 12% |
| Innovations note | 8% |
| International statistics presentation | 12% |
| Field dataset preparation | 8% |
| Retrospective | 5% |
| Midterm | 14% |
| Final exam | 14% |
| Class participation | 5% |

**Late assignments**

Short papers are due by 8 pm Hanoi time on the specified due date. Other assignments are due as specified in the information above. Written assignments will generally be submitted electronically. **Late assignments will not be accepted** except in the case of a genuine emergency.

If you anticipate a serious conflict that prevents you from completing a class assignment on time, please contact Prof Abhyankar or Dr. Le by email prior to 9 PM, Hanoi time.

**Academic misconduct**

Academic misconduct, including, e.g., cheating on exams, passing off work that is not the student's own, and plagiarism are forms of academic dishonesty and will be punished – typically with a failing grade for the course and a report to the Office of Student Ethics. University policies for dealing with violations are documented in the *Code of Student Rights, Responsibilities and Conduct* (http://www.indiana.edu/~code/code/how/index.shtml).

Professional conduct (civility) towards your members of your class, both America & Vietnamese and the local population is expected. Any lapse will be sanctioned if/when it is lasting. Again, please see the *Code of Student Rights, Responsibilities and Conduct* and also, SPEA's Honor Code at http://www.indiana.edu/~speaweb/careers/honor_code.php.