Course Introduction: PLAN 625 is part of the Asia-Pacific Initiative (API), which coordinates through video-conference with universities throughout the Asia-Pacific region. This course will explore the issue of environmental sustainability in the Asia-Pacific region from a holistic perspective using Climate Change as a cross-cutting theme. Lectures are designed to provide a background in climate science, negotiation and implementation of the Kyoto Protocol, environmental effects of climate change and policy solutions including coastal zone management, sustainable energy, forest management and food security. Additional topics include the role of land-use planning, sustainable cities, environmental equity and policy coordination. This course combines a series of lectures over video-conference by academics and practitioners who have accumulated knowledge on the environmental issues on various sites in the Asia-Pacific and a series of presentations on chosen topics by the students.

The international community is facing rising oil prices, a global food crisis and unprecedented climate changes. The implications for the Asia Pacific region are immense and daunting. This region is home to 65% of the world’s population and has two of the largest oceans on Earth. As major climate disasters impact across the region, we all understand that environmental issues, such as global warming, know no national border.

While the economic profile of the region has been changing rapidly, stimulated by the global movement of goods and services, it is also vulnerable to increasing freight costs as oil prices surge.

As we shift to find replacement for oil through biofuels, there has been an increase
in agricultural land used for this purpose. At the same time, in parts of Asia, we have witnessed shortages of key commodities such as rice and associated social unrest.

These problems are evidence of complex interlinkages in the modern world whereby the vibrant national economies for some can work to undermine the bases for a sustainable life for others. This raises a number of important questions: 1) how can policy coordination be sustained among the countries when the beneficiaries of economic development may not coincide with those who bear the burden for that development? 2) How can an environmental issue in one country be properly recognized by others in distant areas? 3) How can environmental issues as perceived at local level be communicated effectively and efficiently to the policy-makers?

The Asia Pacific region, with an immense diversity in cultural, geographic, economic, political, and historical make-ups, offers an excellent site to explore these questions. On a per capita basis, the emissions of greenhouse gases in most countries in this region have historically been lower than in other industrialized parts of the world although it is predicted that China will overtake the United States as the world's biggest emitter of CO2 before 2010. Climate change, its underlying causes, mitigation and adaptation, therefore is a matter of great importance for the region.

At the same time, it is predicted that world energy demand will expand by more than 50% by 2030. Two-thirds of the increase will be from developing countries, led by China and India. These trends amplify the magnitude of global climate change but also raise fundamental questions regarding the issue of energy security and sustainability in the region. Finally, as the global population continues to grow, we have more mouths to feed. This is placing increased stress on an already stressed global agricultural system, which without effective measures, could collapse.

Collaborating Institutions: Asian Institute of Technology, Aoyama Gakuin University, Keio University, Waseda University, Okayama University, Tokyo Institute of Technology, University of the Ryukyus, United Nations University, University of Hawai‘i, National University of Samoa, TERI University, University of Gadjah Mada, FASID.

Student Learning Objectives: The objective of this course is to provide an introduction to issues of environmental planning through the lens of climate change. Specific objectives include building competency of climate change science and possible greenhouse gas reduction solutions; impacts of climate change and planning responses; as well as build a comfort-level with video-conferencing as an educational and collaborative medium.
Course Requirements and Grading Policy: This is a seminar course and requires significant class participation and preparation. Lecture readings will be given at least a week in advance (coordinated with API lectures and supplemented with additional readings) and students are expected to be prepared by completing readings prior to assigned lectures. There will be several (small) class assignments throughout the semester that will aid students to better understand lectures and connect with the online course community. The large assignments include a term paper and a final class presentation. The presentations will be a group projects and presented to all API students.

Grading

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Class &amp; Online Participation</td>
<td>25%</td>
</tr>
<tr>
<td>Group Presentation</td>
<td>20%</td>
</tr>
<tr>
<td>Group Briefing Paper</td>
<td>20%</td>
</tr>
<tr>
<td>Term Paper</td>
<td>35%</td>
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</tbody>
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Seminar Schedule:

September 10, 2009

Introductory Lecture: What is Environmental Planning?

Tutorial: How to use UH’s online resources

September 17, 2009

Sustainability Planning

Readings:


September 24, 2008

API Course Introduction
Climate Change Legislation: A Primer on Carbon Tax and Cap-and-Trade

Readings:

Summary of ACES (acesa_summary.pdf)


October 1, 2008 (In D.C.)

Climate Security and Human Security: The Convergence of Policy Requirements

Hiroshi Ohta Waseda U.

Readings:

IPCC Fourth Assessment Report – Synthesis Report


October 8, 2009

Global Climate Change

Hironori Hamanaka Keio U.

Readings:


October 15, 2009: Paper Topics Due

Extreme Weather Events

Thomas A. Schroeder UH
Readings:

**October 22, 2009**

Large-scale climate changes local meteorology and small-scale meteorology makes global climate

Prof. Tsutsumi
University of the Ryukyus

Readings:
TBA

**October 29, 2009**

Monitoring the Earth

Kenneth Kaneshiro
UH

Cyberinfrastructure for Environmental Research and Education

Mike Kido
UH

Readings:
TBA

**November 5, 2009**

Climate Change and Global Sea Level Rise

Dolan Eversole
UH

Readings:


**November 6, 2009: World Town Planning Day**

**November 12, 2009**

Energy and Climate Change in an Island Context

Makena Coffman
UH

Energy Security in Asia

Ram Shrestha
AIT

Readings:
TBA
November 19, 2009
Climate change and Global Food Security  Keijiro Otsuka  FASID
Local food security  Asuao Kirifo  Pouono  Chief Executive Officer, Ministry of Agriculture and Fisheries

Readings:

Thanksgiving Holiday: November 26, 2009

December 3, 2009
Japan as a recirculatory society  Toshiro Kojima  Aoyama Gakuin University
Reduce, Reuse and Recycle  Visanathan  AIT

Readings:
TBA

December 10, 2009: UH Student Presentations
Climate Change and Biodiversity  Roland Cochard  AIT

Readings:

December 17, 2009: UH Student Presentations
Okayama - Searching for Local Sustainability  Hideki Yamamoto  Okayama University

Winter Holiday
January 7, 2010 (Optional)

Reflections on COP15 Rajendra Pachauri IPCC Chair

January 14 & 21, 2010
Open dialogue: Facilitator and Student Presentations

Term Paper: The term paper will be a review and evaluation of an environmental plan relating to climate change, focusing on plan outcomes as well as processes. The paper should include a pertinent literature review, background on the planning environment, process, assessment of planning outcomes (i.e. is the plan being executed?), recommendations and conclusions, and bibliography. Research questions include 1) what type of planning process occurred (i.e. community inclusive, experts, combination)? 2) were all relevant stakeholders include within the planning process, 3) does the plan address the pertinent issue of climate change that it was designed to?, 4) is the plan being implemented?, 5) how could the plan be improved upon (were there any constraints that precluded this in the first place, like funding?) Information may or may not be available to answer all of these questions, but this is the type of assessment that should be kept in mind.

The required length is between 15-25 pages double-spaced. This paper is meant to both give students the opportunity to assess and environmental plan in practice as well as advance analytical and writing skills. For questions on proper citation, please refer to *The Elements of Style* by William Strunk and E.B. White.

A topic proposal (1 page) will be due on October 15th. The final paper will be due in class on December 10th. Revised papers are due in class on January 21st, with the opportunity to raise grades by one step (ex: B+ to A-). Please submit topic proposal and comments back with final paper.

Class Presentation: The presentations will be given to the API community via live videoconference in December 2009. Presentations will be between 10 and 20 minutes in length (depending on the number of groups). Presentations should focus on solutions to climate change, energy, and/or food security. A five-page briefing paper will be due one week prior to the presentation for the API community.

*Syllabus subject to change by the instructor.*