Welcome to CDAE 251: Contemporary Policy Issues: Community Development. In this advanced undergraduate service-learning course, you will learn about analyzing and evaluating a wide range of sustainable development policies, with emphasis on understanding the interactions among biodiversity, climate change, energy, transportation, food, water and air quality management policies. You are required to engage in critically analyzing and evaluating two substantive policy issues – managing Phosphorus flows in Lake Champlain at the regional scale and Green House Gas emissions at the global scale – by applying theoretical and policy analytical skills learned in this class. The emphasis will be placed on understanding the dynamics of complex systems, and investigating how different public policy interventions in complex systems change the structure and the dynamics of the biogeophysical and socioeconomic systems. You will become familiar with three policy analytical methods: Participatory Multi-Criteria Analysis, Policy Analysis and Complex Systems Dynamic Modeling.

COURSE OBJECTIVES

At the completion of this course, you should be able to:

- Understand a wide range of theoretical and practical perspectives about sustainable development policies;
- Critically analyze the assumptions, causal mechanisms and outputs of complex system dynamic models for scenario analysis of alternate policy interventions
- Design, implement and evaluate environmental policy mechanisms
- Critically analyze discourses surrounding sustainable development policy designs and implementation
- Develop and refine your research, writing, analytical, and problem-solving skills
AN UNDERGRADUATE SERVICE-LEARNING COURSE

This class is designed as an advanced undergraduate level service-learning course. All students are expected to take an active leadership role in stimulating class discussions on readings, assignments and relevant sustainable development policy discourses. Further, all students are expected to participate in two class projects. First project concerns working with Lake Champlain Watershed Basin (LCWB) and other relevant stakeholder groups to design and evaluate Phosphorus reduction policies for managing the water quality in Lake Champlain within the broader context of adaptation to climate change. Second project concerns the evaluation of different policy mechanisms, such as Reduced Emissions from Deforestation and Forest Degradation (REDD), Clean Development Mechanism (CDM), and Joint Implementation (JI), that are being negotiated at the global scale as part of the post-Kyoto climate change governance regime aimed at reducing Green House Gas emissions at the global scale. Your active participation in the class discussions will help you achieve the course objectives through an interactive learning experience. You will engage in these two real-world projects to apply and refine the sustainable development policy concepts, skills and tools discussed during the class. In particular, you will learn to apply both critical and integrative approaches, such as Participatory Multi-Criteria Analysis, Policy Analysis and Complex Systems Dynamic Modeling, for assessing and evaluating alternate policy designs.

At the beginning of each class, you will have an opportunity to ask me questions pertaining to the course expectations and assignments. If you anticipate missing class, please let me know. Excessive absences will jeopardize your success and ultimately, your grade.

COURSE WEBSITE

A course website is created on Blackboard, which can be accessed at https://bb.uvm.edu. All power point presentations, additional readings, and assignments will be available at the Blackboard website.

TEXTS AND OTHER READINGS

Required:


Additional assigned readings (in italics) will be uploaded on the Blackboard website for this class.

CALENDAR

<table>
<thead>
<tr>
<th>Date</th>
<th>Topics, Readings and Assignments</th>
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<tbody>
<tr>
<td>August 28</td>
<td>Topic: (1) Contemporary Policy Issues in Community Development</td>
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<td>Topic: (2) Sustainable Development Policy</td>
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<td>September 4</td>
<td>Topic: (1) Theoretical Frameworks of Sustainable Development</td>
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<td>Date</td>
<td>Topic</td>
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| September 11 | Topic: Elicitation of Trade-Offs through Participatory Multi-Criteria Analysis | Readings:  
SL1 Activity: Guest Speaker – Dr. Alan Betts, Atmospheric Research |
SL1 Activity: Guest Speaker – Dr. Brian Woods, Vermont Agency of Natural Resources |
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<tr>
<th>Date</th>
<th>Event</th>
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<tr>
<td>October 9</td>
<td>Field Trip to Lake Champlain Basin Program (<a href="http://www.lcbp.org">www.lcbp.org</a>) located at 54 West Shore Road, Grand Isle VT 05458. Class will meet there at 4:30 pm.</td>
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| October 16 | Topic: Transitions to a Sustainable System: Evaluating Policy Interventions in Complex Systems  
Assignments: (1) Mid-Term Exam # 1 |
| October 23 | Topic: International Climate Policy Goals and Challenges: Politics of Scale  
(2) Zia (2013) Chapter 1  
Assignments: (1) SL 2 Project Assigned  
SL1 Activity: Guest Speaker – Dr. Andrew Schroth, Department of Geology at UVM |
| October 30 | Topic: Global Climate Change Mitigation: REDD+, CDM and the Politics of Scale  
(2) Zia (2013) Chapters 2 and 3 |
| November 6 | Topic: Climate Change Risk: Politics of Ideology  
Readings: Zia (2013) Chapters 4 and 5  
Group Activity: World Climate – a role playing exercise to exhibit climate negotiations |
| November 13| Topic: Global Climate Governance: Politics of Knowledge  
Readings: Zia (2013) Chapters 6, 7 and 8  
Group Activity: Finalize SL1 Project Reports and Presentations  
Assignment: Mid-Term Exam # 2 |
| November 20| Topic: Revisiting the Big Picture on Sustainable Development Policy as a Contemporary Policy Issue  
Guest Speaker: Gregory White (Professor at Smith College), author of “climate change and migration” |
| November 27| No Class; Enjoy Thanksgiving |
| December 4 | Activity: Class Presentations for SL1  
Assignment: SL 2 Final Paper Due |
The service learning assignments are geared towards providing you hands-on experience in conducting sustainable development policy analysis and evaluation and applying policy analytical tools discussed during the class in a real-world service-learning context. Detailed instructions about both of the service learning projects will be uploaded on the blackboard website as well as extensively discussed in the class at the time of assigning projects. NO LATE ASSIGNMENTS WILL BE ACCEPTED UNLESS THERE ARE EXTRAORDINARY CIRCUMSTANCES THAT JUSTIFY LATE SUBMISSION. Two mid-term exams, both of which will contain multiple-choice questions, will also be employed to evaluate your performance in the class. Both in-class and take-home quizzes will be assigned throughout the semester. Finally, pro-active participation and leadership during the class will also play very important role in your final grade. Overall grading weights for SL assignments, mid-term exams, quizzes and class participation & leadership are as follows:

SL ASSIGNMENT 1: POLICY AND SCENARIO ANALYSIS FOR REDUCING PHOSPHORUS IN LAKE CHAMPLAIN (30%): Students will apply, in assigned teams of 4 to 6 members, participatory multi-criteria analysis, policy analysis and/or complex systems dynamic modeling approaches to evaluate alternate policy designs for reducing Phosphorus flows in Lake Champlain. A detailed description of this assignment will be uploaded on the course website and extensively discussed in the class on September 11.

SL ASSIGNMENT 2: INTERNATIONAL CLIMATE POLICY ANALYSIS (15%): Students could choose any one (or a combination) of the three policy analytical tools – multi-criteria analysis, policy analysis and/or systems dynamic modeling – to assess and/or evaluate emergent post-Kyoto climate policy designs. A detailed description of this assignment will be uploaded on the course website and extensively discussed in the class on October 16.

MID-TERM EXAMS (30%): First mid-term examination will take place on October 9th. There will be 15 to 20 multiple-choice questions, worth 15% points. First mid-term examination will cover all the readings and class discussions between September 4th and October 2nd. Second mid-term examination will take place on November 13th. There will be 15 to 20 multiple-choice questions, worth 15% points. Second mid-term examination will cover all the readings and class discussions between October 9th and November 6th.

IN-CLASS AND TAKE-HOME QUIZZES (15%)

CLASS PARTICIPATION AND LEADERSHIP (10%)

RELEVANT PEER REVIEWED JOURNALS
1. Agriculture, Ecosystems & Environment
2. AMBIO: A Journal of the Human Environment
4. Atmospheric Environment
5. Conservation Biology
6. Conservation and Society
7. Ecology and Society
8. Energy & Environment
9. Energy for Sustainable Development
10. Environment
11. Environment and Behavior
12. Environment and Development Economics
13. Environment and Planning, parts A, B, C and D
14. Environmental Conservation
15. Environment, Development and Sustainability
17. Environmental Ethics
18. Environmental Health Perspectives
19. Environmental Impact Assessment Review
20. Environmental Justice
21. Environmental Law
22. Environmental Management
23. Environmental Modeling & Assessment
24. Environmental Policy and Governance
25. Environmental Policy and Law
26. Environmental Progress and Sustainable Energy
27. Environmental Science and Policy
28. Environmental Values
29. Ethics, Place & Environment
30. Global Environmental Change
31. Global Environmental Politics
32. International Environmental Agreements: Politics, Law and Economics
33. International Journal of Sustainable Development and World Ecology
34. International Journal of Sustainable Energy
35. International Journal of Technology Management and Sustainable Development
36. Journal of Agricultural Biotechnology and Sustainable Development
37. Journal of Education for Sustainable Development
38. Journal of Environment and Development
39. Journal of Environmental Assessment Policy and Management
40. Journal of Environmental Management
41. Journal of Environmental Planning and Management
42. Journal of Environmental Policy and Planning
43. Journal of Sustainable Agriculture
44. Journal of Sustainable Development
45. Journal of Sustainable Forestry
46. Journal of Sustainable Tourism
47. Planning & Environmental Law
48. Population & Environment
49. Regional Environmental Change
50. Renewable and Sustainable Energy Reviews
51. Review of Environmental Economics and Policy
52. Sustainable Cities and Society
53. Sustainable Development