

Generation Green: Germany and the Environment
GETR 3590/STS 2500, TR 11:00 – 12:15, CAB 311
Fall 2009, University of Virginia



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Course Description:

Germany is a global front runner in environmental policies and technology. How did Germany come to play this pioneering role? And what can we learn from its example? This course will study the history and politics of the German Green movement, new trends in German environmental research, the relationship between technology and culture, as well as environmentally friendly business strategies. Lectures by experts in the field of environmental sustainability will be complemented by readings, films and class discussions. Requirements include weekly response papers, a midterm exam, a final team project, and a learning portfolio.

Assignments and Grading:

- 15% Attendance and Participation
- 15% Response Papers
- 10% Presentations
- 20% Midterm Exam
- 15% Final Team Project
- 25% Learning Portfolio

Attendance and Participation: Attendance in class is mandatory. You are expected to complete the readings before each class meeting, and to actively engage in the lectures and discussions. You will be allowed one unexcused sick day, after which further absences might have a negative effect on your grade. Please arrive in class on time. If you are shy and have trouble talking in class, please let me know so we can discuss strategies for getting you to be comfortable in class.

Presentations: You will be asked to give two short oral presentations (10-15 minutes). One presentation will introduce a text we have read for class. The other will summarize a lecture. At the end of your presentation, you should ask three discussion questions. Feel free to bring in hand-outs or display images.

Exams: The mid-term exam will require familiarity with materials from the lectures, readings and discussions, and will consist of a combination of identifications and essay questions. Make-up exams will not be administered except in cases of documented illness or severe personal emergency. If you are concerned about being able to take the exam at the scheduled time, please discuss this with me before the deadline.

Response Papers: Once a week, you will be asked to hand in a written response to the lectures or readings. Each weekly response should address issues that you found (a) objectively most important and (b) subjectively most surprising or thought provoking. You may be asked to present your observations in class. Your response should be typed, and should be no longer than one single spaced page. You may draw on these responses when composing your learning portfolio.

Team Project: Since global challenges will only be resolved if people across the globe work together, it is important that you develop your collaborative skills. You will therefore be asked to work with your peers on a team project that you will present at the end of the semester. The project should relate the materials covered in this course to the UVa environment.

Learning Portfolio: The learning portfolio to be handed in at the end of class (in lieu of the final exam) will reflect upon the changes in your thinking about the subject of the course. Everything you will write and read in this course is eligible for inclusion in your portfolio. Your success with this final assignment will depend in large measure on your continuous effort. Look for topics that engage you early on and pursue them in your weekly reading responses. The learning portfolio is due on Friday, December 11, 2009, by 1:00 PM, my office (CAB 506).

All written work should be word-processed, double-spaced, in 12-point Times New Roman font on paper with 1" margins.

Honor: It is expected that all wording and ideas presented in any written work handed in for this class are your own, unless you have explicitly credited your source/s. It is also assumed that any work turned in for this class was composed exclusively for this class, and not recycled from an earlier assignment in another class. If you have questions about the UVa honor code, please go to:

<http://www.virginia.edu/honor/>

You will receive more information on all of these assignments as we get closer to their due dates. If you have any questions about any of the requirements for this class, please feel free to talk to me during my office hours or email me to make an appointment.

Required Readings: All materials for this course will be available through *Collab*, the UVa course collaboration site.

Schedule

WEEK 1

T (08/25) Introduction
Th (08/27) Germany in Numbers

WEEK 2

T (09/01) Arne Jungjohann (Böll Foundation): Germany's Environmental Policies
Th (09/03)* History and Politics of the German Green Movement (Discussion)

WEEK 3

T (09/08) Renewable Energies in Germany
Th (09/10)* Everyday Environmentalism – What Germans Do to Protect the Environment (Internet Research)

Week 4

T (09/15) Sustainable Education (Presentations / Discussion)
Th (09/17)* A Special Case: Nuclear Energy in Germany (Discussion)

WEEK 5

T (09/22) Prof. Chad Wellmon (German Department, UVa): Romantic Ecologies
Th (09/24)* "Nature" in German History – How Green were the Nazis? (Discussion)

WEEK 6

T (09/29) Prof. Dana Elzey (Materials Science and Engineering, UVa): Technology and Culture/Culture and Technology
Th (10/01)* Brian Marrs (Bosch Foundation Fellow and Energy Consultant for Vattenfall): German Climate Policy – Ambitions and Reality

WEEK 7

T (10/06) Reading Day (no class)
Th (10/08) No class

WEEK 8

T (10/13) Prof. Mark White (McIntire School of Commerce, UVa): Putting a Price on the Planet
Th (10/15)* Benjamin Goodman (Darden MBA Class of 2010), and Jim Madden (Business Developer for BP Wind Energy and Darden Alumnus): Onshore and Offshore Wind Energy

WEEK 9

Tue (10/20)* Review
Th (10/22) **Exam**

WEEK 10

T (10/27) Prof. Joerg Sieweke (Landscape Architecture, UVa): Landscapes of Resistance: Redesigning Industrial Sites

Th (10/29)* Prof. Timothy Beatley (Urban and Environmental Planning, UVa): Green Urbanism: Learning from European Cities

WEEK 11

T (11/03) Dale Medearis (Senior Environmental Planner at the Northern Virginia Regional Commission): The Transfer and Application of Environmental Lessons From Germany to the U.S.

Th (11/05)* Eugene Ryang (Landscape Architect in Charlottesville, and UVa Alumnus): Regenerative Design for a Bank and a School

WEEK 12

T (11/10) Review / Discussion / Presentations

Th (11/12)* Prof. Ed Freeman (Darden School of Business Administration): Shades of Green. Business Ethics and the Environment

WEEK 13

T (11/17) Prof. Jose Fuentes (Environmental Sciences, Penn State): Climate Change in Germany and Abatement Strategies

Th (11/19)* Discussion / Presentations

WEEK 14

T (11/24) Michael Mehling (President of the Ecologic Institute in Washington, D.C.): Germany's Ecological Tax Reform: Perspectives from a Think Tank

Th (11/26) Thanksgiving Recess (no class)

WEEK 15

T (12/01)* Anja Kueppers (Climate and Energy Office, Embassy of the Federal Republic of Germany), Friedo Sielemann (Energy & Environment Counselor, Embassy of the Federal Republic), and L. Preston Bryant (Secretary of Natural Resources, Commonwealth of Virginia): The Transatlantic Climate Bridge (Roundtable)

Th (12/03) Outlines of Final Team Projects

Week 16

T (12/08) **Presentation of Final Team Projects**

DECEMBER 11 – Learning Portfolio due by 1 PM, CAB 506 (my office)

* Written response due at the beginning of class.

Course Materials

AUG. 27 – INTRODUCTION

- “Germany: An Overview,” *Deutsche Welle*, 01/29/2009
<http://www.dw-world.de/dw/article/0,,3881262,00.html>
- Germany: Facts and Figures, International Resource Centers, May 2009
http://frankfurt.usconsulate.gov/root/pdfs/germany_facts_figures/factsandfigures0509.pdf
- Hans-Josef Fell (Member of the German Parliament for the Green Party and co-author of the German Renewable Energy Law): “The Rise of the Renewable Energy Age,” Lecture, UNSW, Sydney, Australia, 14 May 2008
<http://tv.unsw.edu.au/video/the-rise-of-the-renewable-energy-age>
- Fell Lecture – Official Event Flyer
http://www.ies.unsw.edu.au/docs/Fell_flyer.pdf

SEPT. 1 – ENVIRONMENTAL POLICIES (JUNGJOHANN LECTURE)

- “Lessons From Germany”, *Time/CNN*, 23 April 2008
http://www.time.com/time/specials/2007/article/0,28804,1730759_1734222_1734213,00.html
- “No Country is More ‘Green by Design,’” *Newsweek*, July 7-14, 2008
<http://www.newsweek.com/id/143679/output/print>
- Böll Foundation Website
<http://www.boell.de/climate-transatlantic/index-34.html>

SEPT. 3 – GERMAN GREEN MOVEMENT (DISCUSSION)

- Horst Mewes, “A Brief History of the German Green Party,” *The German Greens: Paradox between Movement and Party*, ed. Margit Mayer and John Ely (Philadelphia: Temple University Press, 1998), 29-48
- Optional: *Green Parties: Reflections on the The First Three Decades*, ed. Frank Zelko and Carolin Brinkmann (Heinrich Böll Foundation North American 2006)

SEPT. 8 – RENEWABLE ENERGY (OVERVIEW)

- “Renewable Energies in Germany - A Success Story,” Federal Ministry of the Environment [main text and subsections], <http://www.german-renewable-energy.com/Renewables/Navigation/Englisch/root.html>
- *Renewable Energy Sources Act – Progress Report 2007*, http://www.erneuerbare-energien.de/files/pdfs/allgemein/application/pdf/erfahrungsbericht_eeg_2007_hg_en.pdf

Background:

- Roland Wengenmayr and Thomas Bürhrke (eds.), *Renewable Energy: Sustainable Energy Concepts for the Future* (Weinheim: WILEY-VCH Verlag, 2008)
- “Renewable Energy Policy in Germany: An Overview and Assessment”, *JGCRI*, January 2005 (Paul Runci)
<http://www.globalchange.umd.edu/energytrends/germany/1/>

SEPT. 10 – EVERYDAY ENVIRONMENTALISM (PRESENTATIONS / DISCUSSION)

- “Attitudes of European Citizens towards the Environment. Results for Germany” (March 2008),
http://ec.europa.eu/public_opinion/archives/ebs/ebs_295_sheet_de.pdf
- “We Must Discuss Climate Change's Devastating Consequences Openly,” Interview with German Environment Minister Sigmar Gabriel, *Der Spiegel*, 23 April 2009
<http://www.spiegel.de/international/germany/0,1518,druck-620819,00.html>

SEPT. 15 – SUSTAINABLE EDUCATION (PRESENTATIONS / DISCUSSION)

- *Renewable Energies*
http://www.bmu.de/english/renewable_energy/downloads/doc/42007.php
 - Journey into the future - Four teenagers discover the energy supply scenario of the future
 - Energy from the future - Renewable energies at a glance
 - Energy research - Experiments with renewable energy sources
 - What is fair? - Lifestyle and energy consumption
 - Energy network of the future - Renewable energies worldwide
 - The renewable energy Superstars - Who has visions for the future?
 - Green power - Eco-electricity at the socket
 - A tank full of sun? - Fuels of the future
 - Learning / competence check - Are you and your pupils fit for pisa?
- *Climate Protection and Climate Policy*
<http://www.bmu.de/publikationen/bildungsservice/bildungsmaterialien/sekundarstufe/lehrer/doc/42085.php>
 - Climate Research - A climatic journey through time
 - The global climate on its sickbed - What are the consequences of climate change?
 - Where do the emissions come from? - CO2 emissions and the polluters
 - Who can save the world? Climate protection and climate policy in Germany and worldwide
 - A round trip to the future - Scenarios for climate change
 - Competence check

SEPT. 17 – NUCLEAR POWER (LECTURE / DISCUSSION)

- FORSA survey: “Majority Oppose Nuclear Power,” Press release, Federal Ministry of the Environment (April 2009)
http://www.bmu.de/english/current_press_releases/pm/44005.php
- “Questions and Answers on Nuclear Energy” (= “Nuclear Power - A Costly Mistake), Website of the Federal Ministry of the Environment (August 2008)
http://www.bmu.de/english/nuclear_safety/doc/42594.php

SEPT. 22 – ROMANTIC ECOLOGIES (WELMON LECTURE)

- Alexander von Humboldt, *Aspects of Nature: Different Lands and Different Climates. Scientific Elucidations* (Philadelphia: Lea and Blanchard, 1850), 25-42.

SEPT. 24 – “NATURE” IN GERMAN HISTORY (PRESENTATIONS / DISCUSSION)

- Michael Imort, “Eternal Forest – Eternal Volk,” *How Green were the Nazis?*, ed. Franz-Josef Brüggemeier (Athens: Ohio University Press, 2005), 42-72
- Arvid Nelson, *Cold War Ecology: Forests, Farms and People in the East German Landscape, 1945-1989* (New Haven: Yale University Press, 2005), 141-188

SEPT. 29 – TECHNOLOGY AND CULTURE (ELZEY LECTURE)

- Arnold Pacey, *The Culture of Techology* (Cambridge, MA: MIT Press, 1983), 1-12.
- Elzey Lecture Slides

OCT. 1 – AMBITIONS AND REALITIES (MARRS LECTURE)

- “Where will Germany's Energy come from?,” *Der Spiegel*, April 15, 2008
<http://www.spiegel.de/international/germany/0,1518,druck-547555,00.html>
- Photo-Gallery: Germany's Energy Gap, *Der Spiegel*
<http://www.spiegel.de/fotostrecke/fotostrecke-30665.html>
- “Germany Not Likely To Achieve CO2 Reduction Targets,” *Der Spiegel*, 24 August 2009
<http://www.spiegel.de/international/germany/0,1518,644677,00.html#ref=nlint>
- “German Renewable Energy Roadmap,” *Der Spiegel*, February 13, 2009
<http://www.spiegel.de/international/germany/0,1518,607412,00.html>
- *New Thinking – New Energy: Energy Policy Road Map 2020* (January 2009)
http://www.bmu.de/files/pdfs/allgemein/application/pdf/roadmap_energiepolitik_en.pdf
- MARRS lecture slides

Week 7 – No class!

OCT. 13 – PUTTING A PRICE ON THE PLANET (WHITE LECTURE)

- “The Next Industrial Imperative”, by Peter Senge, Bryan Smith, and Nina Kruschwitz, *Strategy and Business*, Issue 51, Summer 2008 (reprint)
- Mathis Wackernagel, “The Ecological Footprint” (Video)
http://www.youtube.com/watch?v=94tYMWz_Ia4
- Satish Kumar, Deep Ecology (Video)
<http://www.youtube.com/watch?v=R2gZ6FRhc3w>
- White lecture handout
- White lecture slides

OCT. 15 – WIND ENERGY (MADDEN AND GOODMAN LECTURE)

- “Offshore Wind Farms: A Green Revolution off Germany's Coast,” *Der Spiegel*, July 24, 2008; <http://www.spiegel.de/international/germany/0,1518,druck-567622,00.html>
- Photo Gallery: The Alpha Ventus Wind Park, *Der Spiegel*, July 24, 2008 <http://www.spiegel.de/fotostrecke/fotostrecke-33595.html>
- “Projects on Hold: Offshore Wind Farms Fall Victim to Financial Crisis,” *Der Spiegel*, 30 January, 2009 <http://www.spiegel.de/international/business/0,1518,druck-604586,00.html>
- “Climate Change Paradox: Wind Turbines in Europe Do Nothing for Emissions-Reduction Goals,” *Der Spiegel*, February 10, 2009 <http://www.spiegel.de/international/business/0,1518,druck-606763,00.html>
- “Germany's First Offshore Wind Park Goes Online,” *Der Spiegel*, August 13, 2009 <http://www.spiegel.de/international/germany/0,1518,642243,00.html>
- “Cabinet Approves Massive Expansion of Offshore Wind Farms,” *Der Spiegel*, 18 September, 2009 <http://www.spiegel.de/international/germany/0,1518,druck-649219,00.html>

Week 9 – Review and **Exam**

OCT. 27 – LANDSCAPES OF RESISTANCE (SIEWEKE LECTURE)

- Sieweke, Text 1: Landscape Urbanism
- Sieweke, Text 2: Venice
- Sieweke lecture slides

OCT. 29 – GREEN URBANISM (BEATLEY LECTURE)

- Build to Last (Video) http://www.youtube.com/watch?v=VGJt_YXIojI
- Germany’s Solar Coated SurPLUS-House Wins Solar Decathlon (Oct. 16, 2009) <http://www.inhabitat.com/2009/10/16/germanys-solar-coated-surplushome-wins-solar-decathlon/>
- U.S. Department of Energy, Solar Decathlon Website <http://www.solardecathlon.gov/>
- *The Nature of Cities*, film by Tim Beatley (2010)
- Optional: Tim Beatley, *Green Urbanism: Learning from European Cities* (Washington, D.C.: Island Press, 2000)

NOV. 3 – CULTURAL TRANSFER (MEDEARIS LECTURE)

- Dale Medearis, “Looking Beyond Copenhagen - Sub-National Governments as Transformers of Energy, Climate and Transatlantic Policies” (manuscript)
- Dale Medearis and David Dolowitz, “Considerations about the Obstacles and Opportunities for Formalizing Cross-National Policy Transfer to the United States,” *Environment and Planning C: Government and Policy* 2009, Volume 27
- Medearis lecture slides

NOV. 5 – REGENERATIVE DESIGN (RYANG LECTURE)

- *New Waterscapes: Planning, Building and Designing with Water*, ed. Herbert Dreiseitl and Dieter Grau (Basel, Berlin, Boston: Birkhäuser – Publishers for Architecture)
- Elisabeth K. Meyer, “Sustaining Beauty. The Performance of Appearance: A Manifesto,” *lunch: territory*, Volume 3 (University of Virginia School of Architecture)

Nov. 10 – Review, Presentations, Discussion

NOV. 12 – SHADES OF GREEN (FREEMAN LECTURE)

- R. Edward Freeman, “Managing for Stakeholders,” Darden Business Publishing 2007.

NOV. 17 – CLIMATE CHANGE AND ABATEMENT STRATEGIES (FUENTES LECTURE)

- Helmut Weidner and Lutz Mez, “German Climate Change Policy: A Success Story With Some Flaws,” *The Journal of Environment Development* 2008
<http://jed.sagepub.com/cgi/content/abstract/17/4/356>
- Max Planck Institute for Chemistry, Institute Report 2007/2008 (bilingual)

Nov. 19 – Review, Presentations, Discussion

NOV. 24 – ECOLOGIC TAX REFORM (MEHLING LECTURE)

- Michael A. Mehling, “The Ecological Tax Reform in Germany” (manuscript)
- Michael A. Mehling, “New Energy Tax Act – A Sign of Progress?,” *Tax Notes Int’l*, October 23, 2006

Nov. 26 – Thanksgiving Recess

DEC. 1 – TRANSATLANTIC CLIMATE BRIDGE (KUEPPERS, SIELEMANN, BRYANT LECTURE)

- Transatlantic Climate Bridge Website
http://www.germany.info/Vertretung/usa/en/09_Press_InFocus_Interviews/03_Infocus/03_ClimateBridge/TCBgeneral/ClimateBridge_general.html
- *Deutschland Magazine Special* (hard copy)
- German Christmas cookies (*Weihnachtskekse*)

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