Overview

Are society’s technological choices open to democratic participation? Through a novel seminar and research workshop format, this course will explore political and geographical dimensions of technological change around key environmental issues – including systems of energy and waste – with a focus on North Carolina settings. Students will engage in literatures and produce research informing these questions, and will publish or make available the results of their research in innovative and accessible forms, including maps and atlases, fact sheets, and white papers. Geographical approaches to society-nature-technology relations, engagements with democratic theory, and a series of workshops highlighting geographic and cartographic methods, will provide building blocks for interdisciplinary study, while students will also be encouraged to investigate “big issues” that transcend disciplines. Students will work with faculty, graduate students, and community partners in developing their own research projects around substantive issues, including energy futures, the proposed Shearon Harris nuclear plant expansion, geographies of waste and the environmental justice, and North Carolina’s changing agricultural landscapes.

Undergraduate students will participate in GEOG650 as a research-oriented service learning (APPLES*) course. Graduate students may participate in group projects in different capacities or pursue their own research in relation to course themes, and will participate in the graduate reading section.

Format

Experimental. The premise is to combine an inquiry-based learning approach – the idea that we learn most by asking questions – with experiential education and community engagement. The weekly seminar will be organized around readings and formal discussion of course texts; occasional lectures and research presentations; methods workshops; documentary and new media sources, on- and off-campus visits with a range of experts, organizations, and
institutions; and ultimately, our own collaborative research projects. Hence, a “technology & democracy workshop.” Please note that some field-based class activities will be scheduled outside of normal class hours – we will try to accommodate everyone’s busy schedules and to work around conflicts if they arise.

Research emphasis. This is also a course about doing research, emphasizing fundamental concerns about the evaluation of sources, interpretation of different kinds of geographical data, explanations, analyses, and representation of findings. Students will develop skills in identifying research problems, in listening to community groups, and in working collaboratively on practical technological and environmental challenges and problems facing North Carolinians. Research workshops running throughout the semester will focus on methodology and research practices; cartography and new media; the archive and open source; and other themes. While a set of general project frameworks will be designed for students to step into, students will develop projects in areas of special interest, in conversation with community partners (who will be introduced during the course), and work collaboratively to produce informative, digital media-based projects that include both textual and graphic components. Collectively, the class will produce a website – probably via the UNC Digital Commons initiative – designed to inform and promote public discussion of critical issues in technology and society, focusing this year on geographies of energy and waste in North Carolina, and to serve as a continuing resource for the workshop.

In this research-exposure course, you will be working with a Graduate Research Consultant, Conor Harrison (conorh@email.unc.edu), who will assist you in the research project. The GRC Program is sponsored by the Office for Undergraduate Research (www.unc.edu/depts/our); you may be able to use this research-exposure course to meet a requirement of the Carolina Research Scholars Program (http://www.unc.edu/depts/our/students/students_crsp.html).

Graduate section. Graduate students will have an additional reading list, and will meet separately for another ~hour every other week, time and place to be determined.

Requirements

- Informed class participation & response assts. 25%
- Seminar presentation 5%
- ‘Mappings’ project: geographies of energy & waste 10%
- Research project 30%
  - Reflection paper 10%
- Mid term exam 10%
- Final exam 10%

All assignments (and due dates) will be explained in class and posted on blackboard. Since student contributions to seminar discussion and research groups are the major emphasis of the course, keeping up with course readings and informal weekly response assignments is especially important. You should *expect to read between 40-100 pages per week* from a variety of sources – academic journals, book chapters, periodicals, websites, in addition to your reading for your research projects, along with additional materials that may
be distributed by class visitors or in preparation for field trips -- so please set aside time accordingly.

Undergraduate research projects, to be developed in collaboration with faculty, graduate research consultants, and community partners, are expected to fulfill a minimum of 30 hours of service time.

**Texts**


*Practising Human Geography* ("PHG") by Cloke et al., which will be our main text on methodology and research practices, is available at UNC Student Stores. Additional required readings, *to be read in advance of each week’s meeting*, are listed in the schedule below. They will be available on blackboard.

**Provisional Schedule & Reading List**

| Jan 10 | Introduction to course. |
| Jan 17 | **Part I: Keywords.** |
|        | Rethinking technology, democracy, science & geography |
|        | Raymond Williams, “Democracy”; “Nature”; and “Technology”; in *Keywords* (Oxford University Press, 1983), 93-98; 219-224; 315-316. |
|        | PHG (Preface), x-xv; |
|        | Steven Shapin, “Science” in T. Bennett, L. Grossberg, M. Morris (eds), *New Keywords: A Revised Vocabulary of Culture and Society*, 314-317. |
| Jan 24 | **Mapping energy, waste, and power** |
http://unc.news21.com/


The University of North Carolina at Chapel Hill, 2009 Climate Action Plan.


Jan 31

Rethinking the political


The Danish Board of Technology, http://www.tekno.dk/ (selections)


PHG, “Changing practices of human geography,” 1-33

Feb 7

Part II: Practicum

Introduction to GIS and web-based mapping resources: library workshop with Amanda Henley, GIS librarian, @ DAVIS LIBRARY

PHG, “Constructing geographical data” and “Official sources,” 35-61

Feb 14 Archive; historical methods

PHG, “Non-official sources” and “Imaginative sources,” 62-122
Mike Featherstone, “Archive” New Encyclopedia Project, 591-596

Feb 21 Part III: Energy Futures

Geographies of energy; fuel poverty


Feb 28 Energy landscapes; “our nuclear future”?


Gerry Canavan, “After Fukushima, a tour of the Shearon Harris nuclear power facility” Independent Weekly 6/01/2011.


Mar 6 – Spring Break

Mar 13 On which we visit a nuclear reactor


March 20  Part IV: Practicum – Mapping and Geographic Research

Counter-mapping and critical cartography workshop; interviews and surveys; ethnography

PHG, “Talking to people” 123-168; “Observing, participating and ethnographies” 169-205

www.countercartographies.org

March 27  Historical GIS workshop; project meetings

PHG, “Constructing geographical interpretations” 207-214; “Sifting and Sorting” 215-246

April 3:  Part V: Contested spaces: landscapes of productivity & waste


PHG, “Explaining” 285-306

April 10  Environmental Justice and ‘Working Landscapes’ in North Carolina


Robert Bullard, “From the director” Environmental Justice Resource Center, Clark Atlanta University, http://www.ejrc.cau.edu/fromdirector.htm
http://endeavors.unc.edu/the_price_of_pork

Mary McKenna, “Giant pig farms: antibiotic resistance is not the only problem” Wired Science blog, 2/11/2011. 
http://www.wired.com/wiredscience/2011/02/pig-farms-pollution/

April 17  Technology & Democracy Workshop 2012 Teknologirådet*: The future of nuclear energy in North Carolina

*Technology council readings (tba)

PHG, “Understanding” 307-335

April 24  Models of public engagement; digital commons initiatives

PHG, “Representing human geographies ”336-363

UNC-Chapel Hill, APPLES service learning program
http://www.unc.edu/apples/

Syracuse Hunger Project (Department of Geography, Syracuse University)
http://www.communitygeography.org/index.php/projects/syracusehungerproject

Philadelphia Field Project: rethinking urban poverty (Department of Geography and Honors College, Penn State University)
http://www.philadelphiafieldproject.com/

CIRA (Collaborations for Integrating Research and Action @ UNC-CH) http://cira.unc.edu/; Warren County SPARC project
http://cira.unc.edu/warren-county-sparc-working-landscapes-1

April 27-May 4 (TBA– Final exam schedule)– Final Project presentations*

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