

## **ENST 535 Local Climate Solutions**

Tues./Thurs. 9:30 – 10:50 AM

LA Bldg., Rm. 103B

Spring 2018

### **Instructor**

Robin Saha, Ph.D.

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Office Hours: Tues. 12:30-1:30 pm, Wed. 2:00-4:00 pm, or by appt.

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### **COURSE OVERVIEW**

This course meets the graduate Engagement and Policy Approaches requirements in Environmental Studies (EVST). It seeks to develop understandings, skills and connections needed to participate in local solutions to climate change. In this class, “local” primarily refers to city, county, state and tribal government levels. We will focus mainly on city and county levels. Course learning objectives will be accomplished through planning, implementing, and evaluating a class project that further advances existing climate change efforts in Montana.

This semester, the project will entail organizing, facilitating, and reporting on a one-day local climate action conference focused on identifying accomplishments of municipal and county governments in Montana as well as obstacles and opportunities for further progress. Student reports will be informed by the conference, follow-up interviews with conference participants and other stakeholders, and policy research.

Students will have the opportunity to examine local climate change and clean energy initiatives, policies and programs; interact with key leaders, stakeholders and resource people; conduct policy research; and learn to think strategically about ways to support existing efforts. Strategic thinking will be informed by theoretical frameworks from the fields of applied social and political science. Frameworks will be introduced by the instructor and covered in readings with the expectation that students will productively apply one or more framework in developing their project reports.

### **COURSE LEARNING OUTCOMES**

By the end of this course, students will have:

- Strengthened leadership skills and an expanded professional network.
- Improved project management skills needed to plan, carry out, and evaluate team projects.
- Developed understandings and appreciation of how international, national and state climate and energy policy can influence local climate action, and how the latter can influence climate action at higher levels of government.

- Developed knowledge of city, county, and state policies and initiatives and key individuals and groups that respond to climate change, including mitigation and adaptation strategies employed.
- Developed the ability to analyze obstacles to the effective implementation of local climate action policies and initiatives.
- Developed the ability to identify strategies to overcome barriers to implementation of climate change and clean energy policies and initiatives and in doing so utilize understandings of local government, policy making processes, as well as theories and concepts regarding advocacy coalitions, social capital, capacity building, social learning, deliberative dialog, and climate communications.
- Improved understanding and appreciation of approaches to community engagement, partnerships, policy advocacy, related analytic tools and their use in the design and implementation of effective project-based work.

### **CLASS PARTICIPATION**

The quality of your learning and that of your peers will depend on being present and prepared for class. If you are absent, you cannot benefit from listening to the discussion or contribute to group learning. Class will be held mostly in seminar format, and will consist of a combination of lecture, discussion, guest speakers, videos, and student presentations. The success of the class and your learning depends on your active participation in class. This requires coming to class prepared and willing to discuss assigned readings. I also expect that students will treat each other with respect in sharing thoughts and ideas in discussion and responding to the views of others.

Students who need to miss class should notify the instructor in advance and find out from me or another student about what was covered, including any course updates or announcements.

Success of the class project will depend on each student undertaking some of the logistical tasks related to planning and preparation for the conference, including communicating with conference participants. It expected that all students will complete (and report back on to the instructor and class) their conference tasks punctually, effectively and professionally. Student contributions to the conference project will weigh heavily in the class participation grades.

Carrying out the class project also will require meeting outside of class, perhaps as smaller project teams. I recognize that coordinating schedules is not always easy and ask that you each do your best to be available and accommodating in working with other members of the class as needed. I will help the work teams arrange regular out-of-class meeting times when I am also available to consult with the teams as needed.

If you have any concerns about the above expectations and anticipate or encounter difficulties meeting or working in small groups, please feel free to discuss your concerns with me, and we will address them. To the extent that you are able to address such issues collaboratively within your group, you will be fulfilling the leadership goal of this course.

A Note on Email Communication: In accordance with privacy laws the University requires me to communicate with students about academic matters through students' University email accounts. Thus,

your University account will be preferred for this class. I frequently use email for class updates and request that you regularly check email (ideally on a daily basis) so that you are up-to-date.

A Note about Course Content: This course assumes students have a moderate level of understanding of the U.S. political system and governmental institutions. Although many policy terms and concepts will be defined, it is important that we have a reasonably common language and knowledge base. Likewise, the course assumes a basic understanding of the scientific consensus on current causes and consequences of global climate change. If you think you would benefit from reading a short primer or “refresher” on American government or climate change science, please don’t hesitate to ask me.

A Note about Obtaining Assistance: I am available to help if you or the small group you are working with need assistance outside of class or encounter difficulties of any kind, particularly with preparing to lead class discussion, identifying readings, and/or developing research or project ideas. Please see me after class, email me, come see me during office hours, or set up an appointment via email.

## ASSIGNMENTS

In addition to reading reaction papers (see below), there are ten assignments related to the class project: (1) a local climate policy topic proposal; (2) a 5-6 double-spaced page local climate policy report; (3) draft conference program; (4) 3-5 page conference reports; (5) a conference follow-up interview plan; (6) follow-up interview reports; (7) a proposal for final report/deliverables; (8) final presentation(s); (9) final report and/or other deliverables; and (10) a project reflection essay and peer evaluations. Assignments 1, 2, and 10 will be done individually; assignments 3-6 will be done in small groups; and assignments 7-9 will be done by the entire class, though some group work may be involved those assignment as well. Some assignments will be submitted as memos. Guidelines for these assignments will be handed out and/or discussed in class.

**Reaction Papers.** A total of five reaction papers for assigned readings are required by Mar. 8, including one in each of the first four weeks of class. Reactions papers should be no more than two double-spaced pages, use at least 1-inch margins, and be submitted before class on Moodle or in hard-copy form in class the same day the readings are assigned. Please do not email reaction papers to me. Reaction papers should focus on two or three or more readings assigned for a specific day. In your reaction papers, you are asked to: (1) identify what you found to be the most valuable points of each assigned reading, and explain why; and (2) offer your critique and/or comments on each reading. In doing so, you could (a) identify the strengths and weaknesses of each reading; (b) synthesize themes across the readings; (c) explain how the readings relate to previous topics and key themes and learning outcomes of the course. In addition, you are encouraged to offer thoughtful and thought-provoking questions that the readings raise for you and that you can also bring up in class to help stimulate class discussion. You need not include a reference list but include in-text citations (author, year) and page numbers for quotes and references to specific information from the readings

## ACADEMIC DISHONESTY AND PLAGIARISM

Plagiarism is a serious violation of academic integrity. All work and ideas submitted are expected to be your own or must be fully and accurately attributed to verifiable sources. The *Academic Policies and Procedures in the University Catalog* states: “Students who plagiarize may fail the course and may be

remanded to Academic Court for possible suspension or expulsion.” If you have any doubts about plagiarism and citing of others’ work or ideas, especially web sources, please consult the instructor.

### **STUDENTS WITH DISABILITIES**

If you are a student with a disability and wish to discuss reasonable accommodations for this course, contact me privately to discuss the specific modifications you wish to request. Please be advised I may request that you provide a letter from Disability Services for Students verifying your right to reasonable modifications. If you have not yet contacted Disability Services, located in Lommasson Center 154, please do so in order to verify your disability and to coordinate your reasonable modifications. For more information, please visit the Disability Services website.

### **GRADING AND EVALUATION**

Course grades will be based on:

- Class attendance and participation (15%)
- Reaction papers (10%)
- Local climate/clean energy policy report (10%)
- Draft conference program (5%)
- Draft follow-up interview protocol (5%)
- Follow-up interview reports (10%)
- Proposal for final report and/or other deliverable(s) (10%)
- Final report/deliverable(s) (15%)
- Final presentation (10%)
- Reflection essay (10%)

Your participation grade will take into account factors such as: your class attendance; punctuality; preparation; active listening; productive and supportive engagement with your peers, guest speakers and the instructor; contributions to class discussions of readings; participation in class activities; volunteering for and timely, professional and effective completion of and communications about project tasks (heavily weighted); and quality and thoughtfulness of your peer evaluations.

Evaluation of written and oral assignments will be based on the appropriateness of sources consulted, quality of the writing, research conducted, documentation, level of analysis, insight, originality, organization, clarity, delivery and use of visual aids (for presentations). There will be penalties for assignments turned in late unless arrangements are made with me well in advance of the due date. In the case of submitted assignments that exceed the page limit, only the number of pages assigned will be read for grading purposes; this requirement is intended to encourage the practice of pithy writing.

### **READINGS AND RESOURCES**

There are no required text books. Readings will be posted on Moodle (see: <https://umonline.umd.edu/>) no later than Friday of the week before they are assigned. The readings listed below for each day are subject to changes announced in class or via email communications. Additional resources will be posted in topical folders on Moodle, for example, municipal climate action plans. Other recommended resources, some of which are news services that can be subscribed to, include:

The Daily Climate: <http://www.dailyclimate.org/>  
 Carbon Tax Center: <https://www.carbontax.org/>  
 Grist Climate Change: <http://grist.org/climate-change/>  
 Grist Climate and Energy: <http://grist.org/climate-energy/>  
 ClimateWire: <http://www.eenews.net/cw>  
 EnergyWire<sup>1</sup>: <http://www.eenews.net/ew>  
 Climate Access: <http://www.climateaccess.org/>  
 Climate Solutions: <http://www.climatesolutions.org/>  
 Climate Adaptation Knowledge Exchange (CAKE): <http://www.cakex.org/>  
 Climate Central: <http://www.climatecentral.org/>  
 InsideClimate News: <http://insideclimatenews.org/>  
 Greentech Media: <https://www.greentechmedia.com/>  
 Citizens Climate Lobby: <https://citizensclimatelobby.org/>  
 U.S. DOE Energy Information Administration: <https://www.eia.gov/>  
 MDEQ Energy Office: <http://deq.mt.gov/Energy>  
 Climate Smart Missoula: <http://www.missoulaclimate.org/>  
 Climate Smart Glacier Country: <http://climatesmartglaciercountry.org/>  
 Community Tool Box: <http://ctb.ku.edu/en> (esp. for Ch. 5 [Organizing a Conference](#))  
 Resource Media Toolbox: <http://www.resource-media.org/toolbox/>

### COURSE OUTLINE

(subject to changes – also see “Reading Schedule” below)

Week/Dates	Topics	Assignment (Due Date)
<b>1</b> 1/23 & 1/25	The international and national context and the case for local climate action	Reaction Paper 1 (1/25)
<b>2</b> 1/30 & 2/1	State climate and clean energy policy	Reaction Paper 2 (1/30 or 2/1)
<b>3</b> 2/6 & 2/8	Local climate action planning processes	Reaction Paper 3 (2/6 or 2/8); Local policy topic proposal (2/8)
<b>4</b> 2/13 & 2/15	Local clean energy policies and initiatives; State climate assessment	Reaction Paper 4 (2/13 or 2/15)
<b>5</b> 2/20 & 2/22	Deliberative dialogue; Conference planning & preparations	Local policy papers (2/22)
<b>6</b> 2/27 & 3/1	Local gov't, policy processes and policy makers; Conference planning & preparation	Draft conference program (3/1)
<b>7</b> 3/6 & 3/8	Community capacity building, leveraging social capital and fostering social learning; Conference planning & preparation	
<b>8</b> 3/13 & 3/15	Conference (date to be finalized)	

<sup>1</sup> Accessing ClimateWire and EnergyWire requires being logged into your student account with the Mansfield Library. To access either source, go to the Library's main [webpage](#) and use the Journals tab in the Search window.

Week/Dates	Topics	Assignment (Due Date)
<b>9</b> 3/20 & 3/22	Conference debrief and follow-up planning	Draft follow-up interview protocol (4/5)
<b>SPRING BREAK</b>	No class	
<b>10</b> 4/3 & 4/5	Follow-up interviews	
<b>11</b> 4/10 & 4/12	Follow-up interview in-class reports	Follow-up interview report (4/12)
<b>12</b> 4/17 & 4/19	Climate framing and communications	Final report /deliverables proposal (4/19)
<b>13</b> 4/24 & 4/26	In-class work week	
<b>14</b> 5/1 & 5/3	Project oral report(s) (venue(s) and audience(s) to be determined)	Project oral report(s) – date TBD (could occur final's week)
<b>Finals Week</b> Tues. 5/8 8-10 AM	Class project debrief and course evaluation	Final report/deliverables (5/8); Reflection essays and peer evaluations (5/12)

**READING SCHEDULE**  
(subject to change)

WEEK 1 – 1/23 & 1/25

Obama, Barack. 2017. The Irreversible Momentum of Clean Energy. *Science* 355(6321): 126-129.

Preston, Brian J. 2016. The Contribution of the Courts in Tackling Climate Change. *Journal of Environmental Law* 28: 11-17.

Glicksman, Robert. 2017. The Fate of The Clean Power Plan and U.S. Greenhouse Gas Emissions in the Trump Era. *Carbon & Climate Law Review* 11(4): 292-302.

Einbinder, Nicole. 2017. [Scott Pruitt Says That EPA Will Repeal the Clean Power Plan](#). *FRONTLINE* (PBS.org). Oct 10. [you are also encouraged to view the related FRONTLINE episode "[War on the EPA](#)"]

Arroyo, Vicki. 2017. State and Local Climate Leadership in the Trumpocene. *Carbon & Climate Law Review* 11(4): 303-313.

Skim:

Henrikson, Craig, Garrett Martin, Jeff Blend, Rebecca Harbage, Stephen Coe, Kristen Martin, David Klemp and Tracy Stone-Manning. 2014. [Options for Montana's Energy Future: Creating jobs and Delivering Clean Air in a Changing Economy](#). Montana Department of Environmental Quality.

WEEK 2 – 1/30 & 2/1

Rabe, Barry. 2009. Second-Generation Climate Policies in the States: Proliferation, Diffusion, and Regionalization. In Henrik Seli and Stacy D. VanDeveer (Eds.) *Changing Climates in North American*

*Politics: Institutions, Policymaking, and Multilevel Governance* (pp. 67-85). Cambridge, MA: The MIT Press.

Carbon Tax Center. [States](#).

Harball, Elizabeth and Emily Holden. 2016. [Carbon Trading Finds a Foothold in at Least 20 States](#). *ClimateWire* (Jan. 19).

Scruggs, Gregory. 2018. 2018 Could See Wave of West Coast Climate Pollution Pricing. *Reuters* (Jan. 17).

Gustin, Georgina. 2017. [9 Eastern States Agree to Cut Power Plant Emissions an Extra 30%](#). *Inside Climate News* (Aug. 23).

Robert, David. 2015. [RECs, Which Put the "Green" in Green Electricity, Explained](#). *Vox* (Nov. 9).

Barbose, Galen. 2017. [U.S. Renewable Portfolio Standards 2017 Annual Status Report](#). Lawrence Berkeley National Laboratory.

National Conference of State Legislatures (NSCSL). [Net Metering: Policy Overview and State Legislature Updates](#). Denver, CO and Washington D.C: Author.

Kidston, Martin. 2017. [Lawsuit: Montana Solar Industry Claims PSC Order is "Death Knell" for Growth of Renewables](#). *Missoula Current* (Dec. 15).

Skim:

Montana Department of Environmental Quality. 2016. [Montana Energy Future: The Future of Montana Electricity](#). (Governor Bullock's "Energy Blueprint"). Helena, MT: Author.

### WEEK 3 – 2/6 & 2/8

Bulkeley, Harriet. 2010. Cities and the Governing of Climate Change. *Annual Review of Environment and Resources* 35: 229-253.

Saha, Robin, Kathryn Makarowski, Russ Van Paeppeghem, Bethany Taylor, Michelle Lanzoni, Michael Lattanzio, and Owen Weber. 2010. [Missoula Greenhouse Gas Emissions Inventory and Analysis, 2003-2008: Toward a Blueprint for Municipal Sustainability](#). Missoula, MT. **[Read Executive Summary and one chapter of interest]**

Jones, Chase and Andrew Valainis. 2012. [City of Missoula Conservation and Climate Action Plan](#). Missoula, MT. **[Read pp. 1-19, 79-84, and sections relevant to your local policy paper]**

Skim (especially parts relevant to your local policy paper):

Barnett, Erika. 2017. [Missoula County Operations Greenhouse Gas Emissions Inventory Report and Analysis, 2016: A Baseline Inventory to Guide Future Climate Action Goals for Missoula County Operations](#). Missoula County Community and Planning Services.

Clark Fork Coalition, Geos Institute and Headwaters Economics. 2011. [Missoula County Climate Change Primer: Strategies To Care for Our Community, Land and Water](#).

Cilimburg, Amy, Chase Jones, Beth Schenk and Caroline Lauer. 2015. [Missoula Community Climate Smart Action Plan v1.0](#). Climate Smart Missoula – City of Missoula.

### WEEK 4 – 2/13 & 2/15

Center for the New Energy Economy. 2016. [Residential Property Assessed Clean Energy](#).

Money Tips. 2017. [Are PACE Loans Just Another Debt Time Bomb?](#) *The Week* (Mar. 17).

Tawney, Letha, Celina Bonugli and Daniel Melling. 2016. [Green Tariffs Take Off in the US, Expand Access to Renewable Energy](#). World Resource Institute Blog.

Sierra Club. 2017. [Ready for 100 Case Study Report](#). Online. **[Read Intro and any two cities]**.

Whitlock Cathy, Wyatt F. Cross, Bruce Maxwell, Nick Silverman and Alisa A. Wade. 2017. 2017 Montana Climate Assessment. Bozeman and Missoula MT: Montana State University and University of Montana, Montana Institute on Ecosystems. **[Read [Executive Summary](#) p. XXIII-XLI and sections of interest and/or related to your local policy topic paper]**

#### WEEK 5 – 2/20 & 2/22

Regan, Kathleen. 2007. A Role for Dialogue in Communication about Climate Change. In Susanne C. Moser and Lisa Dilling (Eds.) *Creating a Climate for Change: Communicating Climate Change and Facilitating Social Change* (pp. 213-222). New York: Cambridge University Press.

McCoy, M. L., & Scully, P. L. (2002). Deliberative Dialogue To Expand Civic Engagement: What Kind of Talk Does Democracy Need? *National Civic Review* 91(2): 117-135.

#### WEEK 6 – 2/27 & 3/1

Christensen, Terry and Tom Hogen-Esch. 2006. Intergovernmental Environment of Local Politics. In *Local Politics: A Practical Guide to Governing at the Grassroots 2<sup>nd</sup> ed.* (pp. 78-110). Armonk, NY: M.E. Sharpe.

Christensen, Terry and Tom Hogen-Esch. 2006. Community Power Structures: Official and Unofficial Decision Makers. In *Local Politics* (pp. 216-279).

Richan, Willard C. 2003. Understanding Policymakers. In *Lobbying for Social Change, 2nd Ed* (pp. 59-91) New York: The Haworth Press.

#### WEEK 7 – 3/6 & 3/8

Press, Daniel and Alan Balch. 2002. Community Environmental Policy Capacity and Effective Environmental Protection. In Thomas Dietz and Paul C. Sterns (Eds.) *New Tools for Environmental Protection: Education, Information, and Voluntary Measures* (pp. 183-200). Washington D.C.: National Academies Press.

Sirriani, Carmen and Lewis Friedland. 2001. Civic Innovation in American Politics. In *Civic Innovation in America: Community Empowerment, Public Policy, and the Movement for Civic Renewal* (pp. 1-34). Berkeley, CA: University of California Press.

#### WEEK 8 – 3/13 & 3/15

Local Climate Action Conference – date to be determined

#### WEEK 9 – 3/20 & 3/22

Conference debrief and follow up planning



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SPRING BREAK  
(no class on 3/27 & 3/29)

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WEEK 10 – 4/3 & 4/5

Follow-up interviews

WEEK 11 – 4/10 & 4/12

Follow-up interview in-class reports

WEEK 12 – 4/17 & 4/19

Moser, Suzanne C. 2009. Communication Strategies. In Jonathan Isham Jr. and Sissel Waage (Eds.) *Ignition. What You Can Do to Fight Global Warming and Spark a Movement* (pp. 73-94). Washington D.C.: Island Press.

Akerlof, Karen, Greg Bruff, and Joe Witte. 2011. [Audience Segmentation As a Tool for Communicating Climate Change](#). *Park Science* 28(1): 56-64.

Moser, Susanne C. 2006. [Talk of the City: Engaging Urbanites on Climate Change](#). *Environmental Research Letters* 1:014006.

Resource Media. 2009. [Communicating Climate Change and Water Linkages in the West: Guidelines and Toolkit](#). Seattle, WA: Author.

WEEK 13 – 4/24 & 4/26

In-class work week

WEEK 14 – 5/1 & 5/3

Project oral report(s)

**FINALS WEEK – Tuesday 5/8**

Class project debrief and course evaluation (unless otherwise arranged, class meets 8:00 to 10:00 AM!)

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(subject to changes – also see “Reading Schedule” above)

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