

## ENVS 80.08: The Practice of Science Policy & Diplomacy

<b>Instructor:</b>	Melody Brown Burkins
<b>Office location:</b>	146 Haldeman
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<b>Class periods:</b>	2 - MWF 1:45-2:50PM
<b>Classroom:</b>	<i>tbd</i>
<b>Office hours:</b>	Mondays 3:00-4:00 PM
<b>X-hours:</b>	Thursdays 1:00-1:50 PM

### Course objective and background

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This course is designed to introduce students to the global landscape, emerging ideas, and the art and practice of science policy and diplomacy in the U.S. and internationally. Coursework will be highly interactive, emphasizing how both scientists and non-scientists can most effectively engage in science policy and diplomacy activities in the U.S., with international organizations, and in their careers. Class time will emphasize current issues in science policy and diplomacy, the development of policy briefings and other strategic communications, and comprehensive policy analysis including social, economic, and political concerns as well as a science and technology perspective. Guest lectures by faculty and distinguished practitioners at the intersection of science, policy, and diplomacy will bring unique perspectives about the advancement of complex policy and diplomacy issues at regional, national, and international scales. Students will complete a final project in which they develop and present a policy briefing with recommendations for next steps relevant to U.S. legislative and/or diplomatic activity.

### Prerequisites:

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ENVS 2 or ENVS 3 or permission of the instructor

### Basic course information:

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By the end of this course you will be able to:

- Understand the broad scope of activities categorized as science policy and diplomacy and learn about current professional and political trends
- Understand the broader social, political, and economic context in which science policy decisions and science diplomacy activities are developed
- Gain introduction to the skills needed – above and beyond scientific knowledge and technological expertise – to engage in effective science policy and diplomacy activities through trusted science policy and diplomacy networks
- Distill complex scientific, social, economic, political, and cultural issues, arguments, and positions into clear policy briefings with recommendations for decision-makers
- Understand emerging trends in scientific communication and engagement by science policy and diplomacy professionals, including use of social media

### Readings

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#### Required Text:

Science Diplomacy: New Day or False Dawn? L.S. Davis and R.G. Patman, Eds. World Scientific Publishing Co(2015)

#### Additional Readings (Short / Preparation for in-class discussions):

1. The U.S. Constitution  
[http://www.archives.gov/exhibits/charters/print\\_friendly.html?page=constitution\\_transcript\\_content.html&title=The%20Constitution%20of%20the%20United%20States%3A%20A%20Transcription](http://www.archives.gov/exhibits/charters/print_friendly.html?page=constitution_transcript_content.html&title=The%20Constitution%20of%20the%20United%20States%3A%20A%20Transcription)
2. The U.S. Bill of Rights  
[http://www.archives.gov/exhibits/charters/print\\_friendly.html?page=bill\\_of\\_rights\\_transcript\\_content.html&title=The%20Bill%20of%20Rights%3A%20A%20Transcription](http://www.archives.gov/exhibits/charters/print_friendly.html?page=bill_of_rights_transcript_content.html&title=The%20Bill%20of%20Rights%3A%20A%20Transcription)
3. How to write a policy brief – International Development Research Center of Canada  
[http://www.idrc.ca/EN/Resources/Tools\\_and\\_Training/Documents/how-to-write-a-policy-brief.pdf](http://www.idrc.ca/EN/Resources/Tools_and_Training/Documents/how-to-write-a-policy-brief.pdf)
4. Tips for Working with Congress – American Society for Biochemistry & Molecular Biology  
<https://www.asbmb.org/Advocacy/Toolkit/WorkWithCongress/>
5. Science Policy Exchange (Consortium)  
<http://news.letnet.edu/Article2809.html> &  
[http://harvardforest.fas.harvard.edu/sites/harvardforest.fas.harvard.edu/files/Science%20Policy%20Exchange%20brochure\\_spring%202014.pdf](http://harvardforest.fas.harvard.edu/sites/harvardforest.fas.harvard.edu/files/Science%20Policy%20Exchange%20brochure_spring%202014.pdf)
6. Scenarios to Simulation Project with Dartmouth College <http://harvardforest.fas.harvard.edu/news/scenarios-simulation-workshop-explores-regional-landscape-change>
7. “Research Presentation” by “Dr. Lorraine Fisher-Katz of MIT”  
<https://www.youtube.com/watch?v=nSGqp4-bZQY&feature=youtu.be&list=PLHIDjovBPleYyw1NBUHIptVdpQnBhuJh>  
  
“The Science of Science Communication” Arthur Lupia (University of Michigan) National Academy of Sciences Sackler Colloquium, Washington, D.C. May 21-22, 2012.  
[https://www.youtube.com/watch?v=UsYFa\\_abIeQ&feature=plcp](https://www.youtube.com/watch?v=UsYFa_abIeQ&feature=plcp)
8. “Professors, We Need You!” Nicholas Kristof Op-Ed, 2/14/15 – New York Times  
<http://www.nytimes.com/2014/02/16/opinion/sunday/kristof-professors-we-need-you.html?smid=tw-share&r=1>
9. “Dear Nicholas Kristof: We are right here!” Eric Voeten Blog, 2/15/15 – Washington Post  
<http://www.washingtonpost.com/blogs/monkey-cage/wp/2014/02/15/dear-nicholas-kristof-we-are-right-here/>
10. Dartmouth Rockefeller Center for Public Policy – Policy Research Shop (PRS)  
<http://rockefeller.dartmouth.edu/shop/>
11. Vermont’s Town Meeting  
[https://www.sec.state.vt.us/kids/Citizen's\\_Guide\\_to\\_Town\\_Meeting.pdf](https://www.sec.state.vt.us/kids/Citizen's_Guide_to_Town_Meeting.pdf)
12. Transparent NH  
<http://www.nh.gov/transparentnh/index.htm>
13. Dartmouth Conflict of Interest Policy – Office of Sponsored Projects  
<http://www.dartmouth.edu/~osp/resources/policies/dartmouth/cofinterest.html>
14. **Required Text:** Science Diplomacy: New Day or False Dawn? / Chapter 1: The Emergence of Science Diplomacy
15. National Academies Board on International Scientific Organizations Website  
[http://sites.nationalacademies.org/PGA/biso/PGA\\_045431](http://sites.nationalacademies.org/PGA/biso/PGA_045431)
16. UNESCO – Natural Sciences Website  
<http://www.unesco.org/new/en/natural-sciences/>
17. UNESCO – Social & Human Sciences Website  
<http://en.unesco.org/themes/learning-live-together>

18. International Council for Science (ICSU)  
<http://www.icsu.org>
19. Polar Diplomacy 4/17/09, Paula Dobriansky, Senior Fellow, The Future of Diplomacy Project, Harvard Belfer Center for Science & International Affairs  
[http://belfercenter.ksg.harvard.edu/publication/18975/polar\\_diplomacy.html](http://belfercenter.ksg.harvard.edu/publication/18975/polar_diplomacy.html)
20. *Hands Across the Melting Ice*, James Collins, Ross Virginia, Ken Yalowitz, 5/13/13 New York Times Op-Ed  
<http://www.nytimes.com/2013/05/14/opinion/global/Hands-Across-the-Melting-Arctic.html>
21. **Required Text:** Science Diplomacy: New Day or False Dawn? / Chapter 4: Antarctic Science: A Case for Extending Diplomacy
22. Space Diplomacy: Research and Diplomacy 350 Kilometers above the Earth: Lessons from the International Space Station; Julie Payette, December 2012 <http://www.sciencediplomacy.org/article/2012/research-and-diplomacy-350-kilometers-above-earth>
23. Water Diplomacy: Creating Value and Building Trust in Transboundary Water Negotiations by Lawrence Susskind and Shafiqul Islam, 8/22/12 <http://www.sciencediplomacy.org/perspective/2012/water-diplomacy>
24. **Required Text:** Science Diplomacy: New Day or False Dawn? / Chapter 6-9
25. **Required Text:** Science Diplomacy: New Day or False Dawn? / Chapters 10-14
26. Health Diplomacy: U.S. Department of Health & Human Services <http://www.globalhealth.gov/global-health-topics/health-diplomacy/>
27. USAID Report to Congress on Activities in Global Health, 2013:  
<http://www.usaid.gov/sites/default/files/documents/1864/GHreportUpdatedOnePageView.pdf>
28. National Academies Board on Science, Technology, and Economic Policy  
[http://sites.nationalacademies.org/PGA/step/PGA\\_043839](http://sites.nationalacademies.org/PGA/step/PGA_043839)
29. United Nations System Task Team on the Post-2015 UN Development Agenda: Science, technology, and innovation for sustainable development in the global partnership for development beyond 2015:  
[http://www.un.org/en/development/desa/policy/untaskteam\\_undf/thinkpieces/28\\_thinkpiece\\_science.pdf](http://www.un.org/en/development/desa/policy/untaskteam_undf/thinkpieces/28_thinkpiece_science.pdf)
30. UN Women Singapore Committee Website <http://unwomen-nc.org.sg>
31. United Nations Commission on the Status of Women, 58<sup>th</sup> Session, March 2014: “Access and participation of women and girls in education, training and science and technology, including for the promotion of women’s equal access to full employment and decent work,”  
[http://www.unwomen.org/~media/headquarters/attachments/sections/csw/58/csw58\\_issues\\_paper\\_review\\_theme\\_14\\_feb\\_2014\\_final%20pdf.ashx](http://www.unwomen.org/~media/headquarters/attachments/sections/csw/58/csw58_issues_paper_review_theme_14_feb_2014_final%20pdf.ashx)
32. NATO: Science & Technology to Combat Terrorism <http://www.natolibguides.info/science>
33. Science Diplomacy for Nuclear Security, Micah D. Lowenthal, October 2011, United States Institute for Peace  
[http://www.usip.org/sites/default/files/SR\\_288.pdf](http://www.usip.org/sites/default/files/SR_288.pdf)
34. **Required Text:** Science Diplomacy: New Day or False Dawn? / Chapter 2: U.S. Science Diplomacy with Arab Countries
35. Science Diplomacy as Bridge to Peace in Middle East <http://www.aaas.org/abstract/malta-conferences-science-diplomacy-bridge-peace-middle-east>

## Assignments and grading

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### **Class Participation & Engagement: 20%**

Time in class will be highly interactive, with informed participation driving our in-class debates, discussions, and recommendations regarding global science policy and diplomacy issues. Attendance and active participation during each class period – engaging in discussion, debate, and policy exercises after having read short reading assignments ahead of class - are therefore a critical part of the final grade.

### **1-Page Briefing Papers (4): 25%**

There will be four, one-page (maximum) policy briefing assignments on an assigned topic from an assigned perspective unique to each student. The briefing will include a recommendation for next steps on a policy activity or decision-making event (e.g., legislative vote) that will be defined during class.

### **Mid-Term Presentation: 25%**

At mid-term, everyone will make a presentation on a current issue in science policy and diplomacy developed from an assigned perspective (public official, private interest, diplomat, other). A topic covered in one of the previous one-page briefings can be used. After the presentation, there will be five minutes for at least two questions that must be thoughtfully addressed.

### **Final Project 30%**

The final project will include a briefing paper with recommendations for legislative action and/or diplomatic activity. A first draft will be due at least two weeks ahead of end-of-term and the final draft will be turned in after a formal class presentation. Teams of up to three will be allowed to work together, with more in-depth analysis expected from larger groups.

Policy Paper – First Draft	<b>5%</b>
Presentation/Briefing (5 minute presentation; 5 minute Q&A)	<b>10%</b>
Policy Paper – Final	<b>15%</b>

## Course policies

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**Academic honor:** The Dartmouth Academic Honor Principle applies in this class (see <http://www.dartmouth.edu/~uja/honor/>). Students are expected to conduct their own work for the individual quizzes and lab assignments.

**Student Needs:** Students with disabilities enrolled in this course and who may need disability-related classroom accommodations are encouraged to make an appointment to see me before the end of the second week of the term. All discussions will remain confidential, although the Student Accessibility Services office may be consulted to discuss appropriate implementation of any accommodation requested.

**Religious observances:** I realize that some students may wish to take part in religious observances that occur during this academic term. Should a religious observance conflict with your participation in the course, please come speak with me before the end of the second week of the term to discuss appropriate accommodations.

## Course schedule

*\*Invited/Guest Lectures*

<b>Date</b>	<b>Topic and activity</b>	<b>Readings/Assignments</b>
Sep 16	Science Policy & Diplomacy Overview	
Sep 18	U.S. Policy-Making – Who Makes Decisions?	<i>Readings #1 &amp; #2</i>
Sep 21	The Art & Science of Policy Briefings	<i>Reading #3</i>
Sep 23	Presenting Science to Policy-Makers	<i>Reading #4</i>
Sep 25	Policy Roundtable	1-Page Briefing Due
Sep 28	Effective #scipolicy #scicomm ( <i>*Kathy Lambert, Harvard</i> )	<i>Reading #5, #6 &amp; Videos #7</i>
Sep 30	Science Communication & Media	<i>Readings #8 &amp; #9</i>
Oct 2	Policy Roundtable / Ethics in S&T Advocacy	1-Page Briefing Due
Oct 4	Working with Legislators ( <i>*Ron Shaiko, Dartmouth</i> )	<i>Readings #10, #11, #12</i>
Oct 6	Policy Roundtable / Managing Conflict of Interest	<i>Reading #13</i>
Oct 9	Science Policy Networks	1-Page Briefing Due
Oct 12	<i>Class Presentations</i>	-Presentations
Oct 14	<i>Class Presentations</i>	-Presentations
Oct 16	<i>Class Presentations</i>	-Presentations
Oct 19	Introduction to Science Diplomacy	<i>Reading #14</i>
Oct 21	International Science & Technology Organizations	<i>Web Review #15-#18</i>
Oct 23	Diplomacy Roundtable	1-Page Briefing Due
Oct 26	Polar Policy & Diplomacy ( <i>*Ross Virginia, Dartmouth</i> )	<i>Readings #19-#21</i>
Oct 28	Science Diplomacy: National Perspectives, Issues & Collaborations	<i>Readings #22-#24</i>
Oct 30	Diplomacy Roundtable	<i>Reading #25</i>
Nov 2	Global Health Diplomacy ( <i>*Lisa Adams, Dartmouth</i> )	<i>Reading #26 &amp; 27</i> <i>*Draft* of Final Paper Due</i>
Nov 4	S&T and Global Economic Development	<i>Reading #28 &amp; #29</i>
Nov 6	Global Women, Gender, & STEM	<i>Reading #30 &amp; Web Review #31</i>
Nov 9	S&T, Diplomacy, and International Security	<i>Reading #32 &amp; #33</i>
Nov 11	Development & Security ( <i>*Daniel Benjamin, Dartmouth</i> )	<i>Reading #34 &amp; #35</i>
Nov 13	Class Wrap Up Discussions	
Nov 16	<i>Class Presentations</i>	-Presentations
Nov 19	<i>Class Presentations</i>	-Presentations
Nov 23	<i>Class Presentations</i>	-Presentations / Final Paper Due