Course objective and background

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:

ENVS 2 or ENVS 3 or permission of the instructor

Basic course information:

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

Required Text:

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
2. The U.S. Bill of Rights
3. How to write a policy brief – International Development Research Center of Canada
4. Tips for Working with Congress – American Society for Biochemistry & Molecular Biology
   https://www.asbmb.org/Advocacy/Toolkit/WorkWithCongress/
5. Science Policy Exchange (Consortium)
6. Scenarios to Simulation Project with Dartmouth College
7. “Research Presentation” by “Dr. Lorraine Fisher-Katz of MIT”
   https://www.youtube.com/watch?v=nSGp4-bZQY&feature=youtu.be&list=PLHIDljovBPlYeyw1NBUIpVdpQnBhuJh
   https://www.youtube.com/watch?v=UsYFa_ableQ&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
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/ocfinterest.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
16. UNESCO – Natural Sciences Website
17. UNESCO – Social & Human Sciences Website
    http://en.unesco.org/themes/learning-live-together
18. International Council for Science (ICSU)  
   http://www.icsu.org

   http://belfercenter.ksg.harvard.edu/publication/18975/polar_diplomacy.html

   http://www.nytimes.com/2013/05/14/opinion/global/Hands-Across-the-Melting-Arctic.html


22. Space Diplomacy: Research and Diplomacy 350 Kilometers above the Earth: Lessons from the International Space Station; Julie Payette, December 2012  

23. Water Diplomacy: Creating Value and Building Trust in Transboundary Water Negotiations by Lawrence Susskind and Shafiqul Islam, 8/22/12  
   http://www.science-diplomacy.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

   http://www.globalhealth.gov/global-health-topics/health-diplomacy/

27. USAID Report to Congress on Activities in Global Health, 2013:  

   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:  

30. UN Women Singapore Committee Website  
    http://unwomen-nc.org.sg

31. United Nations Commission on the Status of Women, 58th 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,”  

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  

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

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.

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<thead>
<tr>
<th>Component</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Policy Paper – First Draft</td>
<td>5%</td>
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<tr>
<td>Presentation/Briefing (5 minute presentation; 5 minute Q&amp;A)</td>
<td>10%</td>
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<tr>
<td>Policy Paper – Final</td>
<td>15%</td>
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Course policies

Academic honor: The Dartmouth Academic Honor Principle applies in this class (see [http://www.dartmouth.edu/~uja/honor/](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.
<table>
<thead>
<tr>
<th>Date</th>
<th>Topic and activity</th>
<th>Readings/Assignments</th>
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<tbody>
<tr>
<td>Sep 16</td>
<td>Science Policy &amp; Diplomacy Overview</td>
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<tr>
<td>Sep 21</td>
<td>The Art &amp; Science of Policy Briefings</td>
<td>Reading #3</td>
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<td>Sep 23</td>
<td>Presenting Science to Policy-Makers</td>
<td>Reading #4</td>
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<td>Sep 25</td>
<td>Policy Roundtable</td>
<td>1-Page Briefing Due</td>
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<td>Sep 28</td>
<td>Effective scipolicy scicomm (*Kathy Lambert, Harvard)</td>
<td>Reading #5, #6 &amp; Videos #7</td>
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<td>Sep 30</td>
<td>Science Communication &amp; Media</td>
<td>Readings #8 &amp; #9</td>
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<tr>
<td>Oct 2</td>
<td>Policy Roundtable / Ethics in S&amp;T Advocacy</td>
<td>1-Page Briefing Due</td>
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<td>Oct 4</td>
<td>Working with Legislators (*Ron Shaiko, Dartmouth)</td>
<td>Readings #10, #11, #12</td>
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<td>Oct 6</td>
<td>Policy Roundtable / Managing Conflict of Interest</td>
<td>Reading #13</td>
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<tr>
<td>Oct 9</td>
<td>Science Policy Networks</td>
<td>1-Page Briefing Due</td>
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<td>Oct 12</td>
<td>Class Presentations</td>
<td>-Presentations</td>
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<td>Oct 14</td>
<td>Class Presentations</td>
<td>-Presentations</td>
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<tr>
<td>Oct 16</td>
<td>Class Presentations</td>
<td>-Presentations</td>
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<tr>
<td>Oct 19</td>
<td>Introduction to Science Diplomacy</td>
<td>Reading #14</td>
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<td>Oct 21</td>
<td>International Science &amp; Technology Organizations</td>
<td>Web Review #15-#18</td>
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<td>Oct 23</td>
<td>Diplomacy Roundtable</td>
<td>1-Page Briefing Due</td>
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<td>Oct 26</td>
<td>Polar Policy &amp; Diplomacy (*Ross Virginia, Dartmouth)</td>
<td>Readings #19-#21</td>
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<td>Oct 28</td>
<td>Science Diplomacy: National Perspectives, Issues &amp; Collaborations</td>
<td>Readings #22-#24</td>
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<td>Oct 30</td>
<td>Diplomacy Roundtable</td>
<td>Reading #25</td>
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<td>Nov 2</td>
<td>Global Health Diplomacy (*Lisa Adams, Dartmouth)</td>
<td>Reading #26 &amp; 27</td>
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<td>Nov 4</td>
<td>S&amp;T and Global Economic Development</td>
<td><em>Draft</em> of Final Paper Due</td>
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<td>Nov 6</td>
<td>Global Women, Gender, &amp; STEM</td>
<td>Reading #28 &amp; #29</td>
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<td>Nov 9</td>
<td>S&amp;T, Diplomacy, and International Security</td>
<td>Reading #30 &amp; Web Review #31</td>
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<td>Nov 11</td>
<td>Development &amp; Security (*Daniel Benjamin, Dartmouth)</td>
<td>Reading #34 &amp; #35</td>
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<td>Nov 13</td>
<td>Class Wrap Up Discussions</td>
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<td>Nov 16</td>
<td>Class Presentations</td>
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