CH 410/510

Syllabus

Winter 2019

Syllabus

Library Research Help

Course Syllabus

Jump to Today

Course: The Science-Policy Interface

Primary Instructor: G. Bothun, Physics - bigmoo@gmail.com

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Place and Time: MW 1600-1720 BO40 PSC; note that I am aware that some Earth Sciences students might not be able to attend on some Wednesdays.

Course Textbook:

The Beyond Sputnik book is available via University of Oregon E-Books. From a uoregon.edu machine you can access that at this URL:

https://ebookcentral.proquest.com/lib/uoregon-reader.action?docID=3414955&ppg=18 (Links to an external site.)

Links to an external site.
Much of the initial foundation of this course will be based on readings and discussion from that document. Try and read Chapter 1 by Wednesday January 9 to help frame the initial discussion.

Course Mechanics:

This is intended to be a workshop based approach with hopefully lively discussion each period around a particular topic. Therefore, it's actually important to do the reading before each class (there will not be a lot of reading). Yes, of course, there will be occasional Rage Against the Machine "lecture" by the instructor, but for the most part, this course should operate via facilitated discussions.

The first 2-3 weeks of the course will be fairly general in nature to set up some kind of foundation. After that the course will become topic based for a given day and there will be a few guest "ranters" to offer their experienced perspective on a particular topic. These guest rants will likely occur on Mondays. We will get to climate change and climate change policy in the last 2-3 weeks of the course. The particular topics will be fluid and if there is developing class interest in a particular topic then we can go there. For the most part we will stay away from Life Sciences policy as that domain is too large.

There will likely be some data analysis done on various forms of Big Data that can help drive science input into the policy process. For now, the concept of "data driven decisions" are simply 3 words that are strung together but this process is actually never realized in the real world on any level, not even at the level of University departments. My overall experience is that policy decisions are generally made on the emotional spur of the moment and such decisions do not contain any ethical component. That is the boundary condition that Science must work with.

Actual course material and resources will be found in the Pages section of Canvas where there will be material placed there for the specific day of the class. For instance, Jan7 is already there under Pages.
Assignments and Course Work

This will consist primarily of teams of students working together to produce 3 page policy documents on some issue (the changing food pyramid may be one). There will probably be 4 of these and we will likely devote some of Wednesday's time to a group discussion of the various pros and cons of these documents. In addition, there will be one final capstone document related to Climate Change policy which will occur in the last week of class. Obviously there are no exams in this class. Very likely the group policy documents will be published on UO blogs, after that gets set up.

Course Purpose:

There is an emerging need to better training of students on various aspects of how Science can better inform public policy. There are also newly emerging careers in this area as various Science agencies are now realizing they need to better understand the policy frontier. In addition, perhaps the most important think for any scientist to engage in, from the ethical viewpoint, is to strive to make public policy more sensible and less stupid. In any event, the main purpose of this course is for the students to engage in an extended discussion of the various points of public policy and the input (or lack thereof) from Science. A very good example of this is US Energy policy (we don't have one) and one of the case studies and policy document discussions will be based on this.

Last August NASA made this announcement and this is the result of continuing ineffective discussions with the current congress about why NASA is important. Once upon a time, NASA was likely the most important agency we had .., By the way, I responded to NASA by saying that it is unlikely the "Experts" in this area actually exist.

NASA Seeks Public Policy Expert(s)
NASA's Science Mission Directorate is looking for one or more public policy experts to join our Strategic Integration and Management Division, located at NASA Headquarters in Washington, DC. Interested individuals should apply using the links below.

The individual(s) selected would join a 7-person team focused on providing policy support to SMD's over 90 missions that span Astrophysics, Earth Science, Heliophysics, Planetary Science, and various reimbursable projects for other agencies. In support of SMD's policy functions, the policy team manages SMD's relations with external groups, including Congress, the Office of Management and Budget (OMB), the Office of Science and Technology Policy (OSTP), and external advisory committees and boards. In partnership with other SMD Divisions, the policy branch also supports the SMD Associate Administrator by providing integrated guidance, strategy, and focused advocacy for NASA's science program.

The specific responsibilities of the policy branch include the following:

Develop and coordinate testimony, congressional correspondence, white papers, congressional reports, staff briefings, and responses to congressional and Executive Branch actions.

Monitor, support development of, and track inter-agency agreements, coordinate interagency meetings, and manage SMD's coordination with OSTP and OMB.

Coordinate SMD international activities and relationships, including Agency and SMD international policy, agreements status tracking, export control, and international meetings.
Manage the NAC Science Committee and support the SMD Divisions in the management of the Division advisory committees;

Oversee and coordinate Directorate audit and review activities with the NASA Inspector General, the Government Accountability Office (GAO) and other auditors or reviewers.

Coordinate and support the development of SMD elements of the NASA strategic plan and Directorate science plan, and provide support to the Resource Management Division's activities in response to the Government Performance and Results (GPRA) Modernization Act of 2010.

In addition, as we will be reading, the US is basically a disaster in terms of making Science a relevant input to anything that it does. The current mode of governing by Tweet, is just an example of the situation at its worse. Indeed, likely when this class starts some of the Government remains shutdown and it is principally Science that is being shut down. For instance both the NSF and NASA are shutdown and current postdocs or even graduate students, may not get a paycheck in January. Here is a recent message from the American Astronomical Society (AAS):

**ACTION ALERT:**

Tell Congress How the Federal Shutdown Impacts You, and Ask Them to Help End It

Many federal agencies, including NASA, NSF, and the Smithsonian, have ceased all but essential operations since the start of the federal shutdown on 22 December, 2018. Federal workers are going without pay - including those essential employees still reporting to work - and scientific research, education, and facility development activities have been held at a standstill. Contractors with funding already in hand have had limited access to their colleagues and/or workspaces, and face more uncertainty every day the shutdown continues. Make a phone call now (Links to an external site.)Links to an external site. to tell your representatives in Congress how the shutdown is impacting you in your professional and personal life, and ask them to pass legislation today that
ends the shutdown and provides full-year spending to these agencies and gets federal employees back to work.

A direct consequence of this shutdown is that research programs and research funding gets delayed, review panels get cancelled, the James Webb Space Telescope steering committee can not "officially" meet, etc. This is more than just bullshit - real programs can be threatened the longer this shutdown is maintained. The point here is that the US really doesn't care about the continuity of science and research.

And so, the current situation is relatively dire and needs a swift and significant course correction. Indeed, this has been recognized by this recently published work:

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and I will try to get some excerpts from that work to discuss in class.

So, there you go, a course syllabus