Course Description

Science and technology policy (STP) requires a synthetic understanding of how public resources are mobilized to promote scientific discoveries and technological innovations, and at the same time how the latter are appropriated to address social needs and public values. As such, it covers a wide terrain of issues and topics such as the direction and rate of scientific advances, promotion of innovation, R&D planning and evaluation, politics of expertise, regulation of technological risks, and a search for effective policy of scientific or technological significance. As an introductory graduate course, this course will expose students to theories, models, and approaches that help to understand the policymaking processes and institutions for S&T as well as socioeconomic, political, historical, and cultural factors influencing and influenced by S&T development.

Course Evaluation

<table>
<thead>
<tr>
<th>Evaluation Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class Discussion (5%)</td>
<td>For productive class discussions, you are expected to offer your well-reasoned comments relevant to the assigned class readings rather than rambling on tidbits of superficial personal observations.</td>
</tr>
<tr>
<td>Reading Notes (15%)</td>
<td>You will bring a 1~2 (single-spaced) page reading note to class that summarizes your understanding of the assigned class readings. You can also use the notes to list discussion points and any other thoughts on the readings.</td>
</tr>
<tr>
<td>Sample Course Syllabus (20%)</td>
<td>Writing a sample syllabus for a hypothetical course is great experience to canvass the existing literature and state-of-the-art research. In this syllabus writing, you will create a scheme of a course on one of the topics we cover in this course. Length may vary by topic, but it will be about 10~12 (single-spaced) pages with full citations of the readings.</td>
</tr>
</tbody>
</table>
| Research Prospectus (60%) | As a detailed plan for intended research, a research prospectus will include the goal/background, theory/argument, method/strategy, and expected outcomes of the proposed research.  
  - Goal/background: Why is this research needed? What are you going to achieve through this research? |
<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>* Theory/argument: What is the working hypothesis/logic/model that guides your research?</td>
</tr>
<tr>
<td>* Method/strategy: How are you going to support your argument?</td>
</tr>
<tr>
<td>* Expected outcomes: What results do you expect from this research? What ramifications does your research have for the broader research field and/or the related policy area?</td>
</tr>
</tbody>
</table>

**Note on Referencing**

Students should follow a professional style guide (e.g., Chicago Manual of Style, MLA, or APA) when citing other work.

**Course Schedule**

All readings are required before class except those recommended ones marked by asterisks.

**Week 1 (3/8): Introduction to Public Policy**


**Week 2 (3/15): Values, Paradigms and Models of Public Policy**


**Week 3 (3/22): Mechanisms of Decisionmaking**

Ch 8: The Policy Window, and Joining the Streams, Ch 9: Wrapping Things Up.


**Week 4 (3/29): Introduction to Science and Technology Policy**


**Week 5 (4/5): Structure of Science Policy**


**Week 6 (4/12): Politics of Science Policy**


**Week 7 (4/19): Economics of Science Policy**


**Week 8 (4/26): Midterm Week (Sample Syllabus Due)**

**Week 9 (5/3): Science of Science Policy**


**Week 10 (5/10): R&D Policy**


**Week 11 (5/17): Innovation and Technology Policy**


Wisconsin Press.

Week 12 (5/24): Regulation in the S&T Context


Week 13 (5/31): Science Advising, Expertise, and Democracy


Week 14 (6/7): Research Prospectus Presentation

Week 15 (6/14): Comparative STP

Policy and the Quest for Modernization. Harvard University Press. Introduction: Science Policy in a Developmental State. Conclusion: Is Taiwan’s Past China’s Future?


Week 16 (6/21): Final Week (Research Prospectus Final Version Due)