Course Description
Movements throughout Europe and increasingly the US are beginning to consolidate the recognition of the profound effects that research outcomes have upon the world under the idea of Responsible Research and Innovation. The Responsible Research and Innovation pushes beyond the responsibilities of the individual researchers and addresses larger issues such as research agenda setting, management of large scale research and innovation enterprises, funding priorities and innovation as a national policy priority. This course will explore the idea of innovation as a national policy, the practical and theoretical underpinnings of responsibility in the research world, the history, current state and future trajectories of responsible research and innovation. This is a discussion course that will focus on the current literature in the field.

Student Learning Outcomes
Students will understand the role of the government and the private sector in the innovation process.
Students will have a practical, theoretical and philosophical understanding of ideas of responsibility as they relate to both innovation and research.
Students will learn the history of responsible research and innovation and be able to relate that to current efforts and potential future directions of the field.
Students will be able to apply principals of responsible research and innovation to their own work.

Assignments
A large portion (35%) of the course credit will be given for participation in the weekly class discussion. Participation in this discussion is crucial for success in the class and unexcused absences will no be tolerated. With in the participation grade is the expectation that all of the assigned reading will be accomplished prior to arriving to class.
Students will provide six written questions or comments pertaining to the weeks reading for each class (15%).
The primary written work will be a research project that will explore the idea of Responsible Innovation in the context of the BRAIN Initiative (35% of grade). The BRAIN (Brain Research Through Advancing Innovative Neurotechnologies) Initiative is a major effort by the US Government and will touch upon a multitude of different disciplines. You will propose how a Responsible Innovation Program would look from your own disciplinary prospective, you will write two types of
policy documents to support your proposal. One will be a white paper outlining justification for the proposed Responsible Innovation Program, the other will be procedural memo setting the structure of the Program. Examples of both types of documents will be provided.

Students will give two 10-minute presentations throughout the semester, one proposing their approach to the RI Program and one on the findings of their research (15%).

Course Itinerary

**August 25:** Introductions, syllabus and course expectations, discussion on Responsible Innovation generally. Guest: David Guston

**Reading:**
- Richard Owen, Phil Macnaghten and Jack Stilgoe. 2012 Responsible research and innovation: From science in society to science for society, with society Science and Public Policy 39 pp. 751–760

**September 1:** Research and Innovation as drivers of national economies

**Reading:**

**September 8:** Understanding the idea of Responsibility in Research and Innovation

**Reading:**

**September 15:**

**Reading:**

**September 22:** Presentation?

**September 29:**

**Reading:**

**October 6:** Learning Lesson about Responsibility from Science Fiction

**Reading:**

**October 13:** Fall Break

**October 20:** Responsible Innovation and Geoengineering and Science and Technology Governance in Brazil. Guest: Phil Macnaughten and Marko Monteiro

**Reading:**


**October 27:** Thinking about ‘Public Responsiveness’ in Responsible Innovation

**Reading:**
http://link.springer.com/article/10.1007/s11186-011-9147-3#page-1


**Optional readings**


http://sth.sagepub.com/content/19/4/395.short

**November 3:** Laboratories, Decision-making and Responsibility. Guest: Erik Fisher  
**Reading:**  


**November 10:** Engineered Obsolescence and Responsible Design Guest: Prasad Boradkar  
**Reading:**  

**November 17:** Presentations?

**November 24:** Organizational Aspects of Innovation. Guest: Derrick Anderson  
**Reading:**
December 1:
Readings:

Academic Integrity
Cheating and Plagiarism are unethical and represent serious violations that will be dealt with as University procedures permit. Cheating means presenting others work as your own. Plagiarism is using specialized information or original wording in your writing without giving proper credit to the source. If you follow an argument closely or quote a source directly, you must provide a citation to the publication, including the author, date, and page number. If you directly quote a source, even in an assignment, you must use quotation marks and a page number citation for each quoted sentence or phrase. You may work with other students on assignments, however, all writing that you turn in must be done independently. If you have any doubt about whether the form of cooperation you contemplate is acceptable, ask the instructor in advance of turning in an assignment. Students are required to review and adhere to the ASU academic integrity policies:
http://provost.asu.edu/academicintegrity

Disability Policy Statement
Disability Accommodations: Qualified students with disabilities who will require disability accommodations in this class are encouraged to make their requests to me at the beginning of the semester either during office hours or by appointment. Note: Prior to receiving disability accommodations, verification of eligibility from the Disability Resource Center (DRC) is required. Disability information is confidential.

Establishing Eligibility for Disability Accommodations: Students who feel they will need disability accommodations in this class but have not registered with the Disability Resource Center (DRC) should contact DRC immediately. Their office is located on the first floor of the Matthews Center Building. DRC staff can also be reached at: 480-965-1234 (V), 480-965-9000 (TTY). For additional information, visit: www.asu.edu/studentaffairs/ed/drc. Their hours are 8:00 AM to 5:00 PM, Monday through Friday.