Course Description
How do technologies and ideas move from one setting to another? How do political relations, regulatory institutions, economic policies, cultural norms, differing ideas of property, or colonial relationships shape processes of innovation, knowledge generation, and technological change? This course will study how ideas and technologies travel, with a focus on how these flows are interrupted or redirected in unexpected, yet productive ways.

The course will be interdisciplinary in scope (with readings from history, anthropology, sociology, geography, and science and technology studies (STS)), and is designed for students who want to broaden their understanding of how science and technology function in different cultural, political, economic, and geographical contexts.

Objectives
By the end of this class students will be able to:
1) Understand and critique conventional models of technology and knowledge transfer.
2) Develop an interdisciplinary understanding of technology and knowledge production.
3) Participate in the intellectual community of the Mellon Sawyer Seminar.
4) Express their ideas clearly in writing.
Grading
Students will be responsible for completing the assigned readings prior to class and participating in class discussion. In addition, all students must prepare 2-3 questions that they would like to discuss during class. These questions must be posted on Oncourse by 5pm on Wednesday.

Twice during the semester, graduate students will also be responsible for preparing a 4-5 page response paper and will take a leadership role in structuring the first part of class discussion that week. To do this, students will identify connections among the readings, propose questions for discussion and be prepared to summarize the argument of each of the assigned readings.

Undergraduate students will submit a 750-1000 word midterm paper responding to the first capstone workshop. This paper will identify a key theme raised during the capstone workshop had discuss how that theme was addressed by one or more of the invited speakers and in at least one of the readings.

Students will submit a final paper on a) original research relating to the course that integrates course readings and themes or b) a paper that critically engages course readings and identifies new questions or areas for future research. Graduate students will submit a 15-20 page paper. Undergraduates will submit a 7 page paper.

Graduate students:
Weekly questions 20%
Response (x2) 20%
Participation 30%
Final paper 30%

Undergraduates:
Weekly questions 20%
Participation 30%
Midterm paper 20%
Final paper 30%

Sawyer Seminar
The course will be linked to the year-long Mellon Sawyer Seminar "Rupture and Flow: The Circulation of Technoscientific Facts and Objects" that will take place at Indiana University during the 2010-2011 academic year. Students will have the unique opportunity to read and then interact with the leading scholars brought to campus for the Sawyer Seminar.

Students are required to attend the two capstone Sawyer workshops that will take place during the spring semester (http://sawyer.indiana.edu).
Books to purchase:


All other readings are available on Oncourse.

**Reading list**

**Week 1. January 13th: Introduction**


**Week 2. January 20th: Technology and Western Dominance**


**Week 3. January 27: Technological Diffusion**

- Gabrielle Hecht, "Rupture-talk in the Nuclear Age: Conjugating Colonial Power in Africa," Social Studies of Science 32, No. 5-6 (October -December 2002): 691-728.

**Week 4. February 3: Science and Technology in Comparative Contexts**


**Week 5. February 10th: Biotechnology and Capitalism**


**Week 6. February 17th: Science, Technology and the Laboratory**


***February 19 -- Capstone Workshop: Attendance Mandatory***

**Week 7. February 24th: The Power of Numbers**

- Optional: Michel Foucault, "Governmentality," in *The Foucault Effect*, pp. 87-104.

**Week 8. March 3rd: Truth Spots**

- Reading TBD: Speaker Tom Gieryn
Week 9. March 9th: Creating Science Outside the Academy: Political and Epistemological Implications


Week 10. March 17th: Spring Break

Week 11. March 24th: Citizen Science, Now and Then (Don't panic: these readings are mostly very short!)


Week 12. March 31st: Indigenous Ecological Knowledge


**Week 13. April 7th: Creating Knowledge in the Environmental Justice Movement**

**Week 14. April 14th: Creating knowledge in the Private Sector**

**Week 15. April 21st: The Role of Neoliberalism**

***April 23 -- Capstone workshop: Attendance Mandatory ***

**Week 16. April 28th: Wrap up**

Final Papers due Monday May 2 @ 5pm