Course Description: Science is often portrayed as a higher calling, one that is insulated from the demands of the marketplace. Yet scientists have always been entrepreneurs, actively marketing and sometimes even directly profiting from their discoveries and inventions. Why, then, do we take it for granted that business professionals act in their own self-interest, while we are outraged to learn that a study on climate change was commissioned by the oil industry or that an important medical trial was bankrolled by a pharmaceutical company? This course will explore the vexed but longstanding relationship between science and commerce from the 17th century to our own. In so doing, we will ask when the modern notion of science as a disinterested pursuit of objective truth took root in the first place. We will also explore how our knowledge of the natural world has been shaped by personal, financial, and other kinds of self-interest in a number of diverse contexts. These will range from Galileo’s invention of the telescope in Renaissance Italy to the patenting of genetically engineered organisms in today’s globalized world.
Assessment:
Short Essays (3-4 pages): 10% each
Midterm Exam: 20%
Final Exam: 40%
Participation: 10%

Deadlines:
Midterm Exam: Feb. 20th
First Short Essay: Feb. 20th
Second Short Essay: March 20th
Third Short Essay: April 24th
Final Exam: TBD

No background in the history of science or economic history is assumed or required.

Participation: Your participation is a vital part of this course. Please come to class having completed the assigned reading, ready to engage in a lively and informed discussion.

Disabilities: Please contact me by the end of the second week if you have a documented disability so that we can make the necessary accommodations.

Short Essays: I will assign three short essays over the course of the term. These are designed to get you to think critically and to engage with the readings for each of the course’s main units, Natural Philosophy & Mercantilism, Industrialization, and Information Economies.

Writing Resources: You are encouraged to make use of Brown's Writing Center, whose main offices are located in room 213 of the J. Walter Wilson Building. You can schedule an appointment to receive help and feedback on your writing here: http://www.brown.edu/Student_Services/Writing_Center/appointments/.

A Note On Plagiarism: Plagiarism and cheating are serious offenses. Anyone suspected of such infractions will be referred to the Dean's Office.

Lateness Policy: all assignments must be turned in on the date they are due, or be penalized one third of a grade for each day they are late. So an assignment that would ordinarily earn an A would earn an A- if it is one day late, a B+ if it's two days late, and so on.
SCHEDULE

Week 1: Introduction & Overview

Jan 21: Introduction to syllabus and course mechanics


Jan 23: Tobacco & Global Warming


SECTION I: NATURAL PHILOSOPHY AND MERCANTILISM

Week 2: Beginnings

Jan 26: The Rise of Merchant Capitalism


Jan 28: The Scientific Revolution


Week 3: Rethinking the Scientific Revolution

Feb 2: Trust and Trade


Feb 4: Botany & Bio-prospecting

**Week 4: Scientific Personae**

Feb 9: The Gentleman Scientist


Feb 11: The Alchemists Trade & The Astronomer’s Secret


**Week 5: Objects and Institutions**

Feb 18: Museums & Gardens


Feb 20th: Midterm Examination

***First Essay Due in Class Friday February 20th. Also: no class on Monday.***

**SECTION II: SCIENCE & INDUSTRY**

**Week 6: Industrialization**

Feb 23: The Industrial Revolution


Feb 25: Heat & Work

Week 7: The Avalanche of Numbers

March 2: Statistics & Control


March 4: Scientific Management


Week 8: The History of Objectivity

March 9: Mechanical Objectivity


March 11: The Accounting Ideal


Week 9: Copyright & Patent Law

March 16: Patent Law


March 18: Copyright


***Second Essay Due in Class Friday March 20***
SECTION III: INFORMATION ECONOMIES

Week 10: Big Business / Big Science

March 30: Corporate Capitalism & Disruptive Innovation


April 1: Big Parma


Week 11: Bio-Technology

April 6: Biotechnology and the Commercialization of Science


April 8: Patenting Life


Week 12: Patent Wars

April 13: Patenting Genes


***NOTE: No Class on April 15th or 17th***
Week 13: Our Informational Future

April 20: GMO’s and Big Agrobusiness


April 22: The High-Throughput Revolution


***Final essay due in class Friday, April 24th***