Course Description
This course examines the development of science since the Scientific Revolution mainly from the perspective of history of ideas—concepts, methods, and theories. Yet we will also pay attention to the social, cultural, and political milieu in which scientific knowledge has been produced, organized, transmitted, purchased, and governed. Students will learn how to analyze scientific enterprises in historical context.

Course Requirements
Class Participation:
- This is a seminar course. Active participation in discussion is essential. You should be prepared to share your thoughts, engage with other students’ ideas, and critically analyze the main issues together.

Response Papers or After-Class Blog Postings:
- Each student must submit 10 response papers by noon on Monday before classes.
- The response papers should be one-page long, single-spaced, critically reflecting on reading materials (e.g. considering significance of main arguments, kinds of evidence used, logical structure, possibly alternative interpretations etc.).
- Since the course will have 11 discussion sessions (not counting introductory and presentation weeks), you may skip submitting a response paper once.
- In case you wish to take a leading role in after-class discussion, you may do so by posting a provocative question on the course blog. Blog postings will be counted as response papers, but not more than twice.

Term Paper
- Around 15 pages, double-spaced, 11 or 12 font, fully edited
- Each student is expected to produce a term paper in one of the following categories.
  (1) A research paper:
      Structuring an original case study around themes explored in this course or related ones.
  (2) A critical historiographical essay:
      Conducting a critical literature review on one of themes explored in this course or related ones.
  (3) A proposal for historical research (such as master’s thesis proposal and dissertation proposal):
      Outlining a full-length research project framed around the questions and approaches developed in this course. This must contain a discussion of the existing literature and available archives and sources, a preliminary analysis of research materials, and a thorough explanation of the value of the study and the benefits of the proposed approach. (This does not have to be your actual proposal, and there is no expectation that you will actually select this as your master’s thesis or dissertation topic.)
Books (you may want to consider purchasing)


**Tips: How to Write a History Paper**
(Adapted from Professor Michael Gordin's advice at Princeton University)

1. **EVERY ESSAY IS AN ARGUMENT.** This is the cardinal rule of writing history papers, or any other academic paper, for that matter. This means you must both make a claim and provide a logical structure in which to argue it. Think of the paper like a one-sided discussion you are having with your reader. Try to convince her/him of what you believe.

2. You must defend your argument; this is done with evidence.

3. You need to consider alternative points of view. Part of making an argument is to consider other reasonable positions and explain why you don’t find them as compelling as your own.

4. Anytime you quote anything, you must provide a reference. Referencing is an indispensable habit to acquire. The most common way to do this is with a footnote, and there are many different formats, such as the Chicago Manual of Style. Pick one, and use it consistently.

5. Proofread. After you are done making all your points, read it through at least once ON PAPER so that you can correct typos, grammatical errors, and so on.

6. Put page numbers on it.
Course Schedule and Readings

**Week 1 (9/5):** Introduction: What Is Historical Thinking?
Nicolas Copernicus, *De Revolutionibus* (1543), preface.


**Week 2 (9/12):** Historical Objectivity and Professionalism

Joyce Appleby, Lynn Hunt, and Margaret Jacob, *Telling the Truth About History* (New York: W. W. Norton & Co., 1994), chapters 1, 2, 6, 7.


**Supplemental Readings**


**Week 3 (9/19):** Knowledge Production -1: Making Experimental Facts

https://archive.org/stream/harvardcasehisto010924mbp#page/n5/mode/2up

**Week 4 (9/26):** Knowledge Production – 2: Trading, Translating, and Co-Producing


**Supplemental Readings**


**Week 5 (10/3):** No class. *(Individual meeting this week to discuss your research topic)*

**Week 6 (10/10): Knowledge Organization - 1: Social and Cultural Context**

Owen Hannaway, "Laboratory Design and the Aim of Science: Andreas Libavius versus Tycho Brahe," *Isis*, 1986, 77: 584-610. [JSTOR]


**Week 7 (10/17): Knowledge Organization -2: Intellectual and Institutional Context**


**Week 8 (10/24): Knowledge Transmission -1: Imperial and Cultural Imperatives**


**Week 9 (10/31): Knowledge Transmission - 2: Pedagogical and Moral Imperatives**


Melanie Keene, ““Every Boy & Girl a Scientist": Instruments for Children in Interwar Britain,” *Isis*, 2007, 98: 266-289. [JSTOR]


**Week 10 (11/7): No Class, Research Break**

**Week 11 (11/14): Knowledge Ownership -1: Secrecy and Intellectual Property**


Supplemental Readings


**Week 12 (11/21): Knowledge Ownership -2: Neoliberalism**


**Week 13 (11/28): Knowledge Governance – 1: Control and Regulation**


**Week 14 (12/5): Knowledge Governance - 2: Myth, Fraud, and Uncertainty**


**Week 15 (12/12): (Term paper presentation)**

**Week 16 (12/19): No class – Term paper due**