Overview: This seminar will address the question: Was there an Industrial Revolution? Historians have been discussing the Industrial Revolution since Arnold Toynbee first used the term in 1884. Scholars have agreed that the period between roughly 1700 and 1850 was marked by an enormous increase in the production and transportation of goods (cotton cloth and pig iron are the most frequent examples), but they do not agree on the cultural, economic, and intellectual ramifications of these changes. They do not agree that such marked discontinuities do indeed amount to a revolution, nor are they agreed on the technological bases behind such changes. As historians continue to study the implications of the period of early industrialization they have, in light of more recent industrialization in central Europe, Asia, and Latin America, also begun to reassess the concept of industrial revolution itself. This reassessment includes renewed attention to the scientific and technical parameters within which such change took place.

We will begin by reading classic studies of the industrial revolution, from Toynbee, Phyllis Deane, and David Landes, looking next at how the roles of technology and science have been described in general. We then turn to specific examinations of industrialization, looking at how it was powered (prime movers), how technology interacted with science in the case of precision mechanics and scientific instrument making (applied science), and how educational and other institutions affected industrialization in particular localities. We consider the economic history of the industrial revolution in two ways, first, by examining evidence that economic growth was a central driver of British industrialization, and second, by looking at evidence growth was not necessary, and that revolutionary change was instead local and limited. We next move outward from a focus on Britain to consider international aspects of industrialization, including technology transfer, industrial espionage, and early industrialization elsewhere in Europe and the world. Other key issues in the industrial revolution have been the genesis and role of factories, to which we turn in week eleven, and the role and experience of working people under early industrialization, which we examine in weeks twelve and thirteen. Our final set of readings concerns demographic analyses of the industrial revolution, including the current debate over whether or not industrialization benefited worker health.

Format: The seminar is a discussion course, and students are expected to attend and participate in the weekly discussions.
**Reports:** Each student will prepare a report on, and lead discussion of, two of the scheduled readings topics during the semester. Reports should discuss the evolution of scholarship on the topic, survey principal works, summarize current thinking on the topic, and suggest what the other students in the class should read before the discussion. Each report should be in the range of 12 to 20 pages long. So that other students can prepare, reports must be submitted and distributed one week before the date of discussion. The instructor has samples of such reports, and students are welcome to see them.

We will begin with student reports in week IV, to give students time to prepare. The first three weeks we will discuss possible topics, and have readings in common.

**Summary paper:** Each student must write a short (5 to 8 pages long) paper answering the question: Was there an Industrial Revolution? Summary papers will be due in class during our final meeting of the term, and will form the basis of our concluding discussion.

**Grading:** Grading will be based on participation in discussion, on written reports, and on the summary paper.

**Schedule of Topics and List of Possible Readings:** Below is a list of possible readings; students will choose among them in conference with the instructor. The listed titles are intended to give students a preliminary idea of the variety of subtopics within each of the main divisions, and to help them choose the topics for which they will write reports. Students writing reports will assign the readings for their topics for that week. Students should expect to read the equivalent of two articles or book chapters each week that they are not doing a report; they are expected to do more intensive reading on the topics for which they are writing reports.

**Conference with Instructor:** Students are required to meet with the instructor for guidance on the selection of readings for each of their reports.

**Week I.** Introduction and discussion of topics for reports

**Week II.** Discussion: Parameters of the industrial revolution
Also: Choosing of topics for reports

These readings are required.


**Additional general treatments**

Arnold Toynbee, *Lectures on the industrial revolution of the 18th century in England: popular addresses, notes and other fragments* (New York, 1884)


**Week III. Technology and industrial revolution. Distribution of first student report, for use in Week IV.**

**These readings are required:**


Additional readings of interest:


**Week IV.** Science and industrial revolution: Presentation of first student report, based on readings chosen in conference with the instructor. We will continue with student reports in the succeeding weeks.

Possible readings:

Larry Stewart and Margaret Jacob, *Practical Matter*


**Week V.** Prime Movers

Possible readings:


**Week VI. Applied science: craft and mechanics**

**Possible readings:**


J.E. Burnett and A.D. Morrison-Low, ‘*Vulgar and mechanick’: The scientific instrument trade in Ireland, 1650-1921* (Dublin: Royal Dublin Society, 1989)

**Week VII. Institutions and the industrial revolution**

**Possible readings:**


**Week VIII. Economics of industrialization I: Britain and growth**

**Possible readings:**


**Week IX Economics of industrialization II: the limited revolutions thesis**

**Possible readings:**


**Week X. Technology transfer and international comparisons**

**Possible readings:**


Week XI. Manufactures

Possible readings:

Charles Babbage, On the Economy of Machinery and Manufactures (Philadelphia: Carey and Lee, 1832)


Week XII. Labor in the industrial revolution I: Luddites and theories

Possible readings:


Two classics that bear on the subject:


**Week XIII. Labor in the industrial revolution II: Slaves, children, and women**

**Possible readings:**


Week XIV.  

Demographic questions

Possible readings:


**Week XV. Was there an Industrial Revolution?**

Discussion, and summary papers due.