Course Description

This course provides an overview of the history of innovation & entrepreneurship in the United States since the 1820s. Topics include invention, corporate research and development, intellectual property, sources of investment, regulation, and American competitiveness in global markets. We will study examples such as the development of mass manufacturing at Ford, the rise of Silicon Valley, the evolution of Apple Computers, and the development of the atomic bomb. We will use a variety of primary sources, from political speeches to advertisements to patent records. This course pays particular attention to the evolution of markets, to advances in science and technology, and to the development of public policy related to innovation and entrepreneurship. You will write a research paper or case study, as well as two primary source analyses and three reading responses. We will welcome at least two guest speakers, and we will visit the Hartman Center for Sales, Advertising, and Marketing History in the Rubenstein Library. Finally, you will explore how the history of I&E helps us understand contemporary entrepreneurial ventures such as Uber and Rent the Runway.

Objectives

1) You will develop and understanding of innovation and entrepreneurship as complex processes that emerge from networks of people and institutions that include inventors, entrepreneurs, researchers, workers, consumers, investors, firms, and governments.

2) You will become familiar with important events and trends in the history of innovation & entrepreneurship in the United States.

3) You will develop skills in historical research, primary source analysis, and persuasive, evidence-based writing.
Assignments

Class Participation (10%):
Course attendance is required. More than 3 absences for reasons other than religious holidays, approved university activities (e.g. sports), or documented serious illness will result in reduced class participation grades. See the rubric on the course site for more information on how I will assess your participation.

Primary Source Analyses (30%):
1. Sewing Machine Times (independent): 2-3 pages

Reading Response (30%):
You will turn in 3 response papers over the course of the semester. These papers will respond in depth to the prompt provided on Sakai or to some other aspect of the week’s reading that you find compelling. The best papers will make connections to others readings from this course or to other course work or research you have completed. These papers should be 2-3 pages. You may select your own weeks for writing response papers; however, at least 1 paper must be complete by February 24 at 9:00 am.

Research Project (30%):
You will conduct research into a topic of your choice in the history of innovation. Projects must include readings from the scholarly literature on your topic and employ primary source research from the collections of the university library, local history resources, or from the digital collections of other libraries. A list of possible topics is available on the course site, or you may choose your own.

Your research project may take one of the following forms:

Option 1
You may work alone to craft a traditional research paper of 12-15 pages.

Option 2
You may work in pairs to develop case studies. See the Sakai course site for additional information about what the case study option entails.

You are required to turn in a project proposal, paper draft, and final paper. Your total paper grade or case study grade will be determined as the weighted average of these elements: Proposal 10%; Draft 10%; Final Paper 80%

Other Course Policies

Academic Integrity: The Duke Community Standard is in effect at all times in this class.

Students with Disabilities: I will be happy to make arrangements with students as needed in conjunction with the Student Disabilities Access Office.
Readings
All readings available on the coursesite unless otherwise noted.

Week 1: Introduction to Innovation & Entrepreneurship in History
Thursday, January 14:

Week 2: Emergence of the "American System" of Manufacturing
Tuesday, January 19:
Blanchard Lathe demo (National Park Service & UMass)
Where Machines Come From, General Motors publication (1953)

Thursday, January 21:

Primary Source Analysis of Sewing Machine Times Due: Sunday, Jan. 24, 9:00 am

Week 3: Development of Industrial Research
Tuesday, January 26:
Georg Meyer-Thurow, "The Industrialization of Invention: A Case Study from the German Chemical Industry" Isis 73:3 (1982): 363-381

Thursday, January 28:
Correspondence, War Department to Dupont Co., May 25, 1807 [pdf or the Hagley Library]
**Week 4: Inventors & Entrepreneurs in the Age of R&D**

**Tuesday, February 2:**


**Thursday, February 4:**

*Keen-Raskob correspondence on talking moving picture film invention*, (5 letters, 1915-1917), Hagley Library


Eliot Keen, U.S. *Patents*

**Week 5: Organizational Innovation: Management, Vertical Integration, and Mass Production**

**Tuesday, February 9:**


Annual Report of the Pennsylvania Railroad (1873): especially 11-12 & 28; skim entire

Rebecca Greenfield, "*Inside Rent the Runway's Secret Dry Cleaning Empire*," *Fast Company* (2014)

**Thursday, February 11:**


*Research Project & Case Study Proposals Due: Sunday, Feb. 14, 9:00 am*

**Week 6: Bureaucratic Entrepreneurship & Policy Innovation**

**Tuesday, February 16:**
Thursday, February 18:

Year Book of the United States Department of Agriculture (1905): 58-62, 241-248 [online at the Internet Archive]

Year Book of the United States Department of Agriculture (1906): 69-72 [only at the Internet Archive]

Final date for first response paper: Feb. 24, 9:00 am

Week 7: Science in the Public and National Interest
Tuesday, February 23:
Guest: Steve Lommel, Associate Dean & Director, North Carolina Agriculture Research Service, College of Agriculture and Life Sciences, NCSU

David Danbom, "The Agricultural Experiment Station and Professionalization: Scientists' Goals for Agriculture," Agricultural History (1986): 246-255


"An Act to Establish Agricultural Experiment Stations" (Hatch Act), Federal Register, March 2, 1887

Thursday, February 25:

Vannevar Bush, chapter 3, "Science and the Public Welfare" Science The Endless Frontier, July, 1945 [online at the National Science Foundation]

White House Press Release on the bombing of Hiroshima, August 6, 1945, Truman Library

Statements by President Harry Truman on the establishment of the National Science Foundation (May 10, 1950)


Week 8: Regulation and Diffusion of Innovations
Tuesday, March 1:
Thursday, March 3:


**Week 9: Networks of Innovation & Entrepreneurship**

Tuesday, March 8:
**Guest:** Robert Geolas, President & CEO, Research Triangle Park


"The Improbable Years," *Electronics* 41:4 (Feb 19, 1968): 78-90


Thursday, March 10:


*Spring Break*

**Week 10: Innovation in the Consumer Economy**

Tuesday, March 22:


Richard Nixon & Nikita Khrushchev "*Kitchen Debate*" (video) and transcript (pdf)

**Thursday, March 24:**

Hartman Center Activity – meet in the Breedlove Conference Room, Rubenstein Library 349

*Primary Source Analysis of Advertisements Due: Sunday, Mar. 27, 9:00 am*
Week 11: Innovation, Adaptation, and Firm Survival

Tuesday, March 29:


Thursday, March 31:


Research Papers & Case Study Drafts Due: Sunday Apr. 3, 9:00 am

Week 12: Meetings to Discuss Research Papers
No class this week, April 5 & 7. Meet individually by appointment with instructor to discuss research paper drafts.

Week 13: Organizing for Innovation in an Anxious America

Tuesday, April 12:


Thursday, April 14:


Week 14: Competition, Antitrust Regulation, and Innovation

Tuesday, April 19:
Thursday, April 21:  

Transcript of Proceedings, July 29, 1981, United States of America v AT&T et al. [pdf or the Hagley Library]

Laura Nelson, "The Battle for Passengers: Hailing a low rate; Long Beach council votes to let cab drivers lower fares to better compete with Uber and Lyft," Los Angeles Times (May 14, 2015)

Week 15: Conclusion

Tuesday, April 26: Conclusion


Final Papers Due: Thursday, Apr. 28, 9:00 am

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