Course Description and Objectives:
Senior year at the Kilachand Honors College is dedicated to the realization, consolidation, and presentation of the research that began in the during the Junior year (KHC HC 401, “Process of Discovery”). This final year will culminate in the completion of students’ keystone projects, which they will present at a conference that they plan during the final semester.

During fall term, as students work on their own projects, they will also consider the larger issue of innovation and its social and cultural impact in the context of an interdisciplinary course. Drawing on a broad selection of readings and case studies spanning literature, the arts, urban life, science, technology, business, and higher education, the course will present the following questions:

- What are the moral implications and social effects of technological, artistic, and scientific discovery?
- What is “disruptive” about innovation and technology?
- What are the cultural, economic, political and ideological factors that drive (or restrict) innovation?
- How does innovation impact diverse realms of activity, including science, technology, the arts, and business?
- What are the social and cultural costs of innovation?
- How can certain historical models help us both understand the diverse consequences of innovation in our own time and think critically about its effects?

In this class we will discuss some of the landmark essays that anticipate and critique the modern technological and media revolution (McLuhan, Foucault), as well as identify key historical moments of tension when innovation sparked important paradigmatic shifts or cataclysmic cultural repercussions (Gutenberg, Galileo, Oppenheimer). We will extend the discussion to identify key disruptive moments in business (in automobile manufacturing, regulation of safety standards, and technology), and relevant global issues by looking at the accelerated pace of technological change in Asia—using India as an informant—and its effect on culture. Finally, we will consider two celebrated urban examples—fin-de-siècle Vienna and post-World War II New York—where many lines of innovation converged, fundamentally changing the culture and society of the metropolis. As they did in the Junior year, students will work together in small groups to identify and discuss the ongoing relationship between innovation and culture. They will present their findings through classroom discussion and written work.

Textbook / Readings
Thomas P. Hughes, Human-Built World: How to Think About Technology and Culture (Chicago and London: University of Chicago Press, 2004); all other class readings are available on JSTOR or included in the Coursepack available from the Bookstore.
Course Requirements
During the first semester students will write two five-page papers on the relationship between innovation and culture. The papers may be a detailed analysis or critique of one or more of the readings or a comparative study of the issues. The approaches will vary according to the students’ own native areas of study. Students are expected to engage critically with the course readings and be prepared to deliver regular oral reports and responses.

In addition, KHC HC 501 continues the process initiated in the junior course, KHC HC 401, of students working together in groups that straddle disciplines. Throughout the semester students will report on their preliminary keynote research and present parts of their projects—focusing not just on the “results,” but also on the “process”—and methodology. Three classroom “mini-conferences,” held in the 5th, 10th, and 15th weeks, will allow students to observe each others’ preliminary research evolving in stages, and will lay the groundwork for the formal presentation of the research at the keynote conference held at the end of the year.

Grading
Two 5-page papers: 20% each
Three “mini-conference” presentations and related organization: 15% each
Class discussion and participation: 15%

Academic Conduct
Cheating is a serious infraction of scholarly conduct, and will earn an automatic F for the course. Cheating includes plagiarism, which is defined as the use of intellectual material produced by another person without appropriate acknowledgment. Students are expected to adhere to the and Boston University Academic Code of Conduct.
http://www.bu.edu/academics/resources/academic-conduct-code/

I. Week 1: Innovation, Technology, Culture, and Power: Some Foundational Readings
Reading
Hughes, 1-16; 45-76.
Johann Wolfgang von Goethe, Faust, Part 2, Act 5.
Carl Maria von Weber, Der Freischütz, From Act 2, “Wolf’s Glen Scene”
David Hollinger, Cosmopolitanism and Solidarity (Madison: University of Wisconsin Press, 135-65).

II. Weeks 3-4: Classic Paradigm Shifts: Gutenberg, Galileo, Kuhn
Reading
Hughes, 17-44.


### III. Week 5: Mini-Conference 1

#### IV. Weeks 6-7. Disruptive Science: Relativity, Quantum, Chaos

**Reading**


http://www.nytimes.com/2012/10/14/opinion/sunday/the-possibilities-of-quantum-information.html?_r=0


#### V. Week 8: Los Alamos and Atomic Culture

**Reading**

Hughes, 77-110


Robert Serber, *Los Alamos Primer* (distributed to class as a pdf).


Marvel Comic Books: Selections from *The Incredible Hulk*

Relevant contemporary readings of nuclear incidents at Three Mile Island, Chernobyl, and Daiichi Fukushima

Supplemental readings:


#### VI. Week 9: Innovation and Instability in Higher Education: Culture Wars, the Humanities, “Relevance,” and Technology

**Reading**


Other readings on Distance Learning & the impact of technology.

VII. Week 10: Mini-Conference 2

VIII. Week 11: Disruption in Business and Material Culture
Reading
https://cbred.uwf.edu/sahls/medicalinformatics/docfiles/Disruptive%20Technologies.pdf

IX. Week 12: The Metropolis: Cultural Renaissance and Urban Renewal
Reading
Hughes, 111-52

X. Week 13: Globalization, Technology, and Culture
Reading

XI: Week 14: Computers, Companies, and Culture
Reading
Hughes, 153-74

XII. Week 15: Mini-Conference 3