

Kilachand Honors College  
*Innovation, Culture, and Society*  
KHC HC 501

**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 keystone 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 5<sup>th</sup>, 10<sup>th</sup>, and 15<sup>th</sup> 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 keystone 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”

Thorstein Veblen, “The Intellectual Pre-eminence of the Jews in Modern Europe,” *Political Science Quarterly* 34 (1919), 33-42.

Marshall McLuhan, “Print and the Electric Revolution,” in *Essential McLuhan*, ed. Eric McLuhan and Franck Zingrone (New York: Basic Books, 1995), 89-160.

David Hollinger, *Cosmopolitanism and Solidarity* (Madison: University of Wisconsin Press, 135-65).

Supplemental reading: Bertholt Brecht, *Life of Galileo*, trans. Charles Laughton, in *Works of Bertholt Brecht*, ed. Eric Bentley (New York: Grove Press, 1966).

## II. Weeks 3-4: Classic Paradigm Shifts: Gutenberg, Galileo, Kuhn

### Reading

Hughes, 17-44.

Thomas Kuhn, *The Structure of Scientific Revolutions* (Chicago: Univ. of Chicago Press, 1962), excerpts.

- Elizabeth Eisenstein, *The Printing Press as an Agent of Change* (Cambridge: Cambridge University Press, 1979), excerpts.
- Galileo Galilei, *Siderius Nuncius, or the Sidereal Messenger*, trans. Albert Van Helden (Chicago: University of Chicago Press, 1989).
- Mark A. Peterson, "Galileo, Humanist," & "Painting," in *Galileo's Muse: Renaissance Mathematics and the Arts* (Cambridge, MA.: Harvard University Press, 2011), 3-32; 95-148.

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

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

*Reading*

- Stephen Hawking, *A Brief History of Time* (New York: Bantam, 1992)
- James Gleick, *Chaos: Making a New Science* (New York: Viking, 1997), 3-56
- Adam Frank, "Cracking the Quantum Safe," *The New York Times*, October 12, 2012  
[http://www.nytimes.com/2012/10/14/opinion/sunday/the-possibilities-of-quantum-information.html?\\_r=0](http://www.nytimes.com/2012/10/14/opinion/sunday/the-possibilities-of-quantum-information.html?_r=0)
- John Gribbin, *In Search of Schroedinger's Cat: Quantum Physics and Reality* (New York: Bantam Books, 1984), excerpts
- Supplemental Reading: Albert Einstein, *Relativity: The Special and the General Theory*, 15<sup>th</sup> Edition (New York Three Rivers Press, 1961)

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

*Reading*

- Hughes, 77-110
- Michel Foucault, "Truth and Power," in *The Foucault Reader*, ed. Paul Rabinow (New York: Pantheon, 1984), 51-75.
- Robert Jungk, *Brighter than a Thousand Suns: A Personal History of the Atomic Scientists*, trans. James Cleugh (New York: Harcourt Brace and Company, 1958)
- Robert Serber, *Los Alamos Primer* (distributed to class as a pdf).
- David Nye, "Energy Narratives" in *Narratives and Spaces: Technology and the Construction of American Culture* (New York: Columbia University Press, 1997), 75-91.
- Marvel Comic Books: Selections from *The Incredible Hulk*
- Relevant contemporary readings of nuclear incidents at Three Mile Island, Chernobyl, and Daiichi Fukushima
- Supplemental readings:
- Heinar Kipphart, *In the Matter of J. Robert Oppenheimer; a Play Freely Adapted on the Basis of Documents* (New York: Hill and Wang, 1968)
- Michael Frayn, *Copenhagen* (New York: Anchor, 2000).
- Friedrich Dürrenmatt, *The Physicists*, trans. James Kirkup (New York: Grove Press, 1964).

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

*Reading*

- Allan Bloom, *Closing of the American Mind* (New York: Simon & Schuster, 1987), 313-82.
- Gerald Graff, *Beyond the Culture Wars: How Teaching the Conflicts Can Revitalize American Education* (New York: W.W. Norton, 1992), 3-63.
- Frank Donoghue, *The Last Professors: The Corporate University and the Fate of the Humanities* (New York: Fordham University Press, 2008), 83-110.

Mark Taylor, *Crisis on Campus: A Bold Plan for Reforming Our Colleges and Universities* (New York: Knopf, 2010), 112-38.

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

Peter Drucker, *The Concept of the Corporation* (New York: The John Day Company, 1946), selections

Ralph Nader, *Unsafe at Any Speed: The Designed-In Dangers of The American Automobile* (New York: Grossman Publishers, 1965), selections

Clayton M. Christensen, Thomas Craig, and Stuart Hart, "The Great Disruption," *Foreign Affairs* 80 (2001), 80-95.

Joseph L. Bower and Clayton Christensen, "Disruptive Technologies: Catching the Wave," *Harvard Business Review* (January and February, 1995), 43-53.

<https://cbred.uwf.edu/sahls/medicalinformatics/docfiles/Disruptive%20Technologies.pdf>

### IX. Week 12: The Metropolis: Cultural Renaissance and Urban Renewal

#### Reading

Hughes, 111-52

Carl Schorske, "The Ringstrasse, its Critics, and the Birth of Urban Modernism," in *Fin de Siècle Vienna: Politics and Culture* (New York: Knopf, 1980), 24-115.

Robert Caro, *The Power Broker: Robert Moses and the Fall of New York* (New York: Knopf, 1974), 207-25; 850-94.

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

#### Reading

Martin Stokes, "Globalization and the Politics of World Music," in *The Cultural Study of Music*, ed. Clayton, Herbert, & Middleton (New York: Routledge, 2003), 297-308.

Peter Manuel, *Cassette Culture: Popular Music and Technology in North India* (Chicago: University of Chicago Press, 1993), 60-88; 236-56.

Alex Seago, "Where Hamburgers Sizzle on an Open Grill Night and Day" (?): Global Pop Music and Americanization in the Year 2000," *American Studies* 41 (2000), 119-136

Divya C. McMillin, "Outsourcing Identities: Call Centres and Cultural Transformation in India," *Economic and Political Weekly* 41 (Jan. 21-27, 2006), 235-241.

### XI. Week 14: Computers, Companies, and Culture

#### Reading

Hughes, 153-74

Walter Isaacson, *Steve Jobs: A Biography* (New York: Simon & Schuster, 2011), excerpts.

Benjamin Aldes Wurgaft, "Starbucks and Rootless Cosmopolitanism," *Gastronomica: The Journal of Food and Culture* 3 (2003), 71-75.

Jon Gertner, *The Idea Factory: Bell Labs and the Great Age of American Innovation* (New York: Penguin, 2012), 9-58.

## XII. Week 15: Mini-Conference 3