**Knowledge is Power: Science and Social Order, 1600–1850**

**Course Description**

This course surveys the history of knowledge-making from the beginning of the seventeenth to the middle of the nineteenth century, the period traditionally termed the Scientific Revolution and the Enlightenment. Our motto will be the aphorism of Francis Bacon, “knowledge is power”: throughout the course, the task will be to understand the inextricable entanglements of the making of knowledge and the wielding of power. We begin with Bacon’s *New Atlantis*, the dream of a scientific utopia in which knowledge, virtue, and power are one. Baconian experimental practice was to dominate scientific work in the seventeenth century, and we shall witness both its rise to power in spaces like the Royal Society and the resistance mounted by such luminaries as René Descartes and Thomas Hobbes. Simultaneously, the course will examine the science of statecraft: attempts to control what was written, read, and thought—by brute force if necessary—the exploration and exploitation of “new” worlds; and the quotidian tasks of managing a changing economy. In the eighteenth century, “enlightenment” proves as much the province of monarchs like Frederick the Great as of philosophers like Voltaire, as much about racial ideologies as about discourses of political liberty. The second half of the class is dominated by two revolutions, the French Revolution and the Industrial Revolution, no less epochal turning points in intellectual as in political and economic history, respectively. New political discourses and new technologies, together with the new forms of social organization they occasioned, radically recast the making of knowledge. Key themes will be the spaces where knowledge is made and power wielded, the emergence of distinct domains of the natural and human sciences, the relationship between science and religion, imperial and economic expansion, and the scientific roots of race, gender, and class hierarchies.

**Week I**

1. Introduction: Bacon’s Dilemma
2. Utopia I: Bacon’s *Bensalem*

* Francis Bacon, *Selected Philosophical Works*, ed. Rose-Mary Sargent (Indianapolis: Hackett Publishing Company, Inc., 1999), 239–68.
* Deborah E. Harkness, *The Jewel House: Elizabethan London and the Scientific Revolution* (New Haven: Yale University Press, 2007), chapter 4.

**Week II**

1. Court I: Galileo’s Career

* Maurice A. Finocchiaro, ed., *The Galileo Affair: A Documentary History*, trans. Maurice A. Finocchiaro (Berkeley: University of California Press, 1989), 1–46, 87–118.
* Mario Biagioli, *Galileo, Courtier: The Practice of Science in the Culture of Absolutism* (Chicago: University of Chicago Press, 1993), chapter 1.

1. Body I: Execution, Anatomy, Torture

* Michel Foucault, *Discipline and Punish: The Birth of the Prison*, trans. Alan Sheridan (New York: Vintage Books, 1995), 3–72.
* Katharine Park, “Dissecting the Female Body: From Women’s Secrets to the Secrets of Nature,” in *Crossing Boundaries: Attending to Early Modern Women*, ed. Jane Donawerth and Adele Seeff (Newark: University of Delaware Press, 2000), 29–47.

**Week III**

1. Library I: The Censor’s Desk

* <https://sourcebooks.fordham.edu/mod/indexlibrorum.asp>
* Carlo Ginzburg, “The Inquisitor as Anthropologist,” in *Clues, Myths, and the Historical Method*, by Carlo Ginzburg, trans. John A. Tedeschi and Anne C. Tedeschi (Baltimore: The Johns Hopkins University Press, 2013), 141–48.
* Hannah Marcus, “The Mind of the Censor: Girolamo Rossi, a Physician and Censor for the Congregation of the Index,” *Early Science and Medicine* 23, no. 1–2 (July 2018): 14–33.

1. Mind I: Descartes’s Stove

* René Descartes, *Discourse on the Method and Meditations on First Philosophy*, ed. David Weissman (New Haven: Yale University Press, 1996), 3–48, 121–47.
* Jessica Riskin, *The Restless Clock: A History of the Centuries-Long Argument over What Makes Living Things Tick* (Chicago: University of Chicago Press, 2016), 44–76.

**Week IV**

1. Workshop I: The Peasant’s Clock

* Gerhard Dohrn-van Rossum, “Time,” in *The Oxford Handbook of Early Modern European History, 1350–1750: Volume I: Peoples & Place*, ed. Hamish Scott (Oxford: Oxford University Press, 2015), 145–64.
* Otto Mayr, *Authority, Liberty & Automatic Machinery in Early Modern Europe* (Baltimore: The Johns Hopkins University Press, 1986), 28–53.
* Jessica Riskin, *The Restless Clock: A History of the Centuries-Long Argument over What Makes Living Things Tick* (Chicago: University of Chicago Press, 2016), chapter 1.

1. Laboratory I: Boyle’s Air-Pump

* “Autorité,” in the *Enyclopédie*
* Robert Boyle, *New Experiments Physico-Mechanicall, Touching the Spring of the Air, and its Effects* (Oxford: H. Hall, 1660), 20–37.
* Steven Shapin and Simon Schaffer, *Leviathan and the Air-Pump: Hobbes, Boyle, and the Experimental Life* (Princeton: Princeton University Press, 2011), 3–21, 110–54, 332–44.

**Week V**

1. Mind II: Locke’s *tabulae*

* <https://fs.blog/2014/07/john-locke-common-place-book/>
* John Locke, *An Essay Concerning Human Understanding*, ed. Roger Woolhouse (London: Penguin Books, 1997), 55–73.
* Matthew Daniel Eddy, “The Nature of Notebooks: How Enlightenment Schoolchildren Transformed the Tabula Rasa,” *Journal of British Studies* 57, no. 2 (April 2018): 275–307.

1. Nation I: Newton’s Mint
   * John Herbert McCutcheon Craig, *Newton at the Mint* (Cambridge: Cambridge University Press, 1946), 1–25, 51–56, 95–101.
   * Margaret C. Jacob and Larry Stewart, *Practical Matter: Newton’s Science in the Service of Industry and Empire, 1687–1851* (Cambridge: Harvard University Press, 2004), 9–25.

**Week VI**

1. Ship I: Harrison’s Longitudes

* William J. H. Andrewes, ed., *The Quest for Longitude: The Proceedings of the Longitude Symposium, Harvard University, Cambridge, Massachusetts, November 4-6, 1993* (Cambridge: Collection of Historical Scientific Instruments, Harvard University, 1996), 43–48, 71–84, 115–32.
* David S. Landes, *Revolution in Time: Clocks and the Making of the Modern World* (Cambridge: The Belknap Press of Harvard University Press, 1983), 145–57.

1. Prison I: The Plantations of Saint Domingue

* James E. McClellan III, *Colonialism and Science : Saint Domingue in the Old Regime* (Baltimore: The Johns Hopkins University Press, 1992), 109–80.
* Larry Stewart, “The Edge of Utility: Slaves and Smallpox in the Early Eighteenth Century,” *Medical History* 29, no. 1 (January 1985): 54–70.

**Week VII**

1. Court II: Frederick’s Berlin

* Immanuel Kant, “Answering the Question: What is Enlightenment?”
* A. Lentin, ed., *Enlightened Absolutism (1760–1790)* (Newcastle: Avero, 1985), 163–93.
* H. M. Scott, ed., *Enlightened Absolutism: Reform and Reformers in Later Eighteenth-Century Europe* (Basingstoke: Macmillan, 1990), 1–37.

1. Library II: d’Alembert’s Bookshelf

* Robert Darnton, *The Forbidden Best-Sellers of Pre-Revolutionary France* (New York: W. W. Norton & Company, 1995), 3–82, 337–89.

**Week VIII**

1. Ship II: Empire’s Expeditions

* Captain Cook’s journals: https://www.captaincooksociety.com/home/the-journals
* Richard Sorrenson, “The Ship as a Scientific Instrument in the Eighteenth Century,” *Osiris* 11, no. 1 (1996): 221–36.

1. Nation II: Guillotin’s Machine

* Ken Alder, “A Revolution to Measure: The Political Economy of the Metric System in France,” in *The Values of Precision*, ed. M. Norton Wise (Princeton: Princeton University Press, 1995), 39–71.
* [*Declaration of the Rights of Man and Citizen*](https://www.conseil-constitutionnel.fr/sites/default/files/as/root/bank_mm/anglais/cst2.pdf)
* Dan Edelstein, *The Terror of Natural Right: Republicanism, the Cult of Nature, and the French Revolution* (Chicago: University of Chicago Press, 2010), introduction.

**Week IX**

1. Prison II: Condorcet’s Attic

* Browse the Photo Requests from Solitary project [website](http://www.photorequestsfromsolitary.org/)
* Keith Michael Baker, “On Condorcet’s ‘Sketch,’” *Daedalus* 133, no. 3 (Summer 2004): 56–64.
* Selections from Nicolas de Condorcet, *Political Writings*, ed. Steven Lukes and Nadia Urbinati (Cambridge: Cambridge).

1. Workshop II: Malthus’s Manchester

* Ken Alder, *Engineering the Revolution: Arms and Enlightenment in France, 1763–1815* (Princeton: Princeton University Press, 1997), conclusion.
* Margaret C. Jacob and Larry Stewart, *Practical Matter: Newton’s Science in the Service of Industry and Empire, 1687–1851* (Cambridge: Harvard University Press, 2004), 119–54.
* E. P. Thompson, “Time, Work-Discipline, and Industrial Capitalism,” *Past & Present*, no. 38 (December 1967): 56–97.

**Week X**

1. Body II: Blumenbach’s Skulls

* Browse the People of Color in European Art History blog (<http://medievalpoc.tumblr.com>)
* Watch Nell Irvin Painter, “Five Skulls That Made Human Taxonomy” (April 23, 2015), <https://www.youtube.com/watch?v=WwDwnD1iQGI>.
* Stephen Jay Gould, *The Mismeasure of Man*, rev. edition (New York: Norton, 1996), introduction and chapter 1.

1. Utopia II: Fourier’s Phalanstery

* D. Graham Burnett, “Funhouse Goddess,” *Lapham’s Quarterly* 1, no. 3 (Summer 2008), 183–89, <https://www.laphamsquarterly.org/book-nature/funhouse-goddess>.
* Erika Lorraine Milam, “Introduction,” and Lorraine Daston, “The Naturalistic Fallacy is Modern,” *Isis* 105, no. 3 (September 2014), 564–68, 579–87.
* Selections from Henri de Saint-Simon, *Social Organization, the Science of Man and Other Writings*, ed. and trans. Felix Markham (New York: Harper & Row, 1964).

**Week XI**

1. Church I: Paley’s Creation

* Neal C. Gillespie, “Divine Design and the Industrial Revolution: William Paley’s Abortive Reform of Natural Theology,” *Isis* 81, no. 2 (June 1990): 214–29.
* William Paley, *Natural Theology: Or, Evidences of the Existence and Attributes of the Deity; Collected from the Appearances of Nature* (London: R. Faulder, 1802), 1–18, 259–71, 374–97.

1. Laboratory II: Liebig’s Laboratory

* Sven Dierig, “Engines for Experiment: Laboratory Revolution and Industrial Labor in the Nineteenth-Century City,” *Osiris* 18 (2003): 116–34.
* Graeme Gooday, “Placing or Replacing the Laboratory in the History of Science?,” *Isis* 99, no. 4 (December 2008): 783–795.
* Bruno Latour, “Give Me a Laboratory and I Will Raise the World,” in *Science Observed: Perspectives on the Social Study of Science*, ed. Karin Knorr-Cetina and Michael Mulkay (Beverly Hills: Sage Publications, 1983), 141–170.

**Week XII**

1. Church II: Comte’s Church

* John Stuart Mill, *Auguste Comte and Positivism* (Ann Arbor: The University of Michigan Press, 1965).

1. Conclusion: Putting the Enlightenment in its Place

* Isaiah Berlin, “The Counter-Enlightenment”
* Robert E. Norton, “The Myth of the Counter-Enlightenment,” *Journal of the History of Ideas* 68, no. 4 (October 2007): 635–658.