HPS 83100
**Colloquium** T 4:15–5:30 (Howard)
1 credit hour
Graduate Students Only
Group Discussion by the HPS faculty and students of a prominent recent work in the history and philosophy of science and research presentation by visiting scholars.
Required course for HPS students in first and second years of program.

HPS 83602
**History, Science, Technology, Medicine since 1750** W 3:00–6:00 (Stapleford)
3 credit hours
Crosslist: HIST 83976
Graduate standing or permission of instructor required.
The course will begin by reviewing the several distinct social contexts of late 18th century science, including its relations to technology and medicine. It will then trace the emergence of academic (or more properly, university-based) science, sanctioned by the state and characterized by the emergence of distinct professions, disciplines and/or ways of knowing in the 19th century. The second half of the course will be devoted to tracing these themes in the 20th century, giving particular attention to both theoretical transformations and to the relationships between scientific disciplines, between science and the state, and between science and technology. Assignments include review essays and a final exam.

HPS 93311
**Novels by Aliens** TR 9:30–10:45 (Marshall)
3 credit hours
Crosslist: ENG 40752
This course will constitute a study of the strange narrative creatures populating the contemporary novel – “persons” who are something close to but not quite human. These characters and narrators are sometimes slight genetic modifications of the traditional human, cognitive beings existing after traditional comforts such as history, or victims of technological trauma who think just a little bit differently than what we are accustomed to. By examining these novels and their techniques for rendering the interiority of such characters, we will also begin a survey and discussion of how key texts in narrative theory might be accountable to the perspectives forming each text’s experiment with fictional form. By doing so, we will also consider the alienation that always goes along with reading novels in the twenty-first century. Texts will include Kazuo Ishiguro’s Never Let Me Go, Michel Houellebecq’s The Elementary Particles, David Mitchell’s Cloud Atlas, Tom McCarthy’s Remainder, Cormac McCarthy’s The Road, and others. (possible "others": Michael Cunningham's Specimen Days, Marilyn Robinson's Housekeeping)
HPS 93671

**Latin Scientific Literature**  F  9:00–11:30 (Goulding)
3 credit hours

Crosslist: MI 63298, CLLA 63671/43671, HIST 93987

This course is organized around the reading of Latin scientific texts, in the original language. We will read natural philosophical and scientific texts from antiquity to the seventeenth century, in a variety of genres (philosophical poetry, technical treatises, question commentaries etc.), working from manuscript and early printed editions, as well as modern editions. Equal emphasis will be paid to the content of the text, and linguistic or palaeographical issues. Requirements: Intermediate level Latin required.

HPS 93742

**History of Economic Thought**  R  12:30–1:45 (Mirowski)
3 credit hours

Crosslist: ECON 43110

This course approaches the history of economics from the viewpoint of the history and philosophy of science: it directly confronts questions of the intellectual affiliations and scientific status of various schools of economic thought. After some preliminaries concerning alternative ways to frame intellectual history, it proceeds in a chronological fashion from the mid-18th century to the late 20th century, covering Classical, Marxian, Neoclassical, Institutionalist and Neoliberal schools. The relationships of economics to other disciplines, as well as the persistence of differences in national contexts, are stressed throughout. The course aims to give the student the wherewithal to understand why modern economics looks the way it does. Main texts: Marion Fourcade, Economists and Societies [E&S] Philip Mirowski, More Heat than Light [MHTL] Alessandro Roncaglia, The Wealth of Ideas [WI]

HPS 93826

**Forbidden Knowledge: Social Construction and Management of Ignorance**  TR  2:00–3:15 (Kourany)
3 credit hours

Crosslist: PHIL 93826

Within the last 10 years historians of science such as Robert Proctor, Londa Schiebinger, Peter Galison, and Naomi Oreskes, have been promoting a new area of enquiry—Proctor calls it agnotology, the study of ignorance—which they suggest is of as much relevance to philosophers and social scientists and others as it is to historians. Indeed, the suggestion is that agnotology offers a new approach to the study of knowledge, an approach at least as complex and important as its more established sister, epistemology. In this course, after briefly considering the naturalness and even inevitability of certain kinds of ignorance, we shall focus on the unnaturalness of other kinds—on ignorance as active social construction. Here we will investigate various ways in which ignorance is socially produced—such as through government secrecy and censorship, cultural prejudice (e.g., what Miranda Fricker calls “hermeneutical injustice”), industry influence on scientific research (e.g., industry shaping of the “war on cancer”), and so on—and the epistemological and societal implications of such ignorance. (The specific topics will be chosen in accordance with students’ backgrounds and interests.) We will also investigate the social production of “virtuous ignorance”—for example, the ignorance that would ensue if certain kinds of research were no longer publicly funded or encouraged (e.g., race- and gender-related IQ research). All this will lead us to consider the sort of freedom of research and other social structures that would need to be in place to support the
legitimate quest for knowledge. It will also lead us to recognize that agnotological/epistemological questions are also, ultimately, social/political questions. The style of the course will be discussions rather than lectures, and these will be led by members of the seminar. Requirements: The requirements will also include class presentations as well as one (longer) or two (shorter) papers aimed at preparing students for presentations at scholarly meetings or submissions to journals.

HPS 93827

**Biomedical Ethics, Scientific Evidence, & Public–Health Risk**  M  3:30–6:00  (Shrader-Frechette)
3 credit hours
Crosslist: PHIL 43708, BIO 50545
This course is designed for those interested in social-justice, medical, and health problems, especially premedical students and those studying the environment, science, and engineering. It will survey ethical and scientific issues associated with current public health problems such as pollution-induced cancers, occupational injury and death, threats to children’s health, and inadequate emphasis on disease prevention, nutrition, and environmental health. For more information, see the syllabus at (www.nd.edu/~kshrader/courses/). Course requirements: Weekly quizzes but no tests and no exams, 3 short papers, readings for every class, participation in classroom analysis. Course Prerequisites: Because of limited class size, sophomore, junior and senior premedical students need no permission, but all others should have instructor’s permission, via email, to (kshrader@nd.edu) to register for course.

HPS 93873

**Advanced Topics in Philosophy of Physics: Symmetry**  W  9:00–11:30  (Brading)
3 credit hours
Crosslist: PHIL 93873
From prediction to explanation, from laws of nature to taxonomies of particles, from space and time to quantum theory, from interactions to individuality and identity, from the Higgs boson to the fact that the universe is left-handed, from ontology to epistemology to methodology: symmetries are everywhere. This course is about the different symmetries, their different roles in physics, and the different ways of trying to understand their significance. We will address various specific conceptual issues arising from particular symmetries, and well as general interpretational challenges. Our core textbooks will be: (1) Symmetries in physics: philosophical reflections (K. Brading and E. Castellani, eds., 2003) and (2) Gauging what’s real (R. Healey, 2007). These will be supplemented with journal papers. The format of the class is discussion seminar. Examination is through class participation, short-answer tests, and a term paper.

HPS 78599

**Thesis Direction**  (Howard)
Variable credit
Thesis direction for terminating Master’s students.

HPS 78600

**Non–resident Thesis Research**  (Howard)
Variable credit
Thesis direction for terminating Master’s students.

HPS 96697

**Directed Readings**

Variable credit

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HPS 98699

**Research and Dissertation** (Don Howard)

Variable credit

HPS 98700

**Nonresident Dissertation Research** (Don Howard)

Variable credit