

Graduate Timetable – 2015-16

Fall Term

HPS1000H Pro-seminar in the History and Philosophy of Science and Technology

Denis Walsh/Chen-Pang Yeang

Tuesdays 12-2, Birge-Carnegie Library, Room 20

This course is mandatory for all first year students in the MA and PhD programs. The purpose of this course is to provide an overview of current issues in the History and Philosophy of Science and Technology. The History of Science and the Philosophy of Science often operate at a distant remove from one another. We have chosen to emphasize the integration between them. The course is divided into a series of contemporary issues, each of which is addressed by both historians and philosophers of science. Our objectives will be not just to understand each of these issues in its own domain, but to seek to find common ground between them. You will be asked to read the material in advance and come prepared each week to discuss it.

HPS3000H Introduction to Philosophy of Science

Brian Baigrie

Fridays 10-12

Emmanuel College, Room 108

This course is designed as a graduate level introduction to philosophy of science. The lectures and discussions will explore some important issues in the philosophical literature on the natural sciences: rationality, experimental practice, theory, the role of instruments, the unity/disunity of the sciences, problem-solving in the sciences, incommensurability, and the underdetermination thesis, to name just a few. Wherever possible, we will attempt to situate these issues in their historical context, and to relate their emergence to associated intellectual approaches (e.g., feminist, anthropological, sociological trends). In order to facilitate discussion, however, we will chiefly be concerned with the treatment that these issues have been given by a handful of scholars (esp. Kuhn, van Fraassen Hacking, Latour, Cartwright) who have contributed greatly to the present shape of philosophy of science and the considerable influence that it enjoys in many academic circles.

HPS4007H Body, Medicine, and Society in Early Modern Europe

Lucia Dacome

Mondays 12-2

Northrop Frye Hall, Room 231

The medical understanding of the human body is related to how societies view life and health. This course will investigate early modern medical approaches to the body in their social and cultural contexts, and explore the relationship between medical knowledge and bodily knowledge. On the one hand, we will analyze how the body was represented in social, cultural, political and religious contexts. On the other, we will investigate how medical knowledge and practice both reflected and shaped beliefs, knowledge and values about the human body. The historical time period covered will be mainly 1400-1800. Readings will be in English and French.

HPS4511H Philosophy of Science and Religion
Yiftach Fehige
Tuesdays 10-12, Birge-Carnegie Library, Room 20

“Science and Religion” is a relatively young field of research. Philosophy matters crucially both for relating science and religion, and in tackling issues that are central to their relationship. This course explores different models for relating science and religion. Topics include: creation vs. multiverse in Big-Bang cosmologies, the reliability of human cognitive faculties vs. naturalism, and deductive vs. inductive proofs for the existence of god.

Winter Term

HPS2000H Introduction to the History of Mathematics
Craig Fraser

Thursdays 12-2, Emmanuel College, Room 302

Each session will be focused on one particular mathematician and one work that the mathematician wrote. We will devote one or two sessions to each topic, the first consisting of an overview of the relevant history of mathematics, and the second devoted to the particular subject under consideration. The subjects considered have led to historical discussion and even controversy, and in many cases have resulted in a novel historical interpretation of some part of past mathematics.

HPS2006H Introduction to the History of Technology II
Chen-Pang Yeang

Tuesdays 12-2, Emmanuel College, Room 105

This seminar provides a highly selective overview of the history of modern technology from the time of the classical Industrial Revolution onwards. “Technology”, like “Nature”, is a complicated and ambiguous word. Moreover, its meaning seems to be getting muddier the more it is invoked as saviour, demon, the way to heaven, or the road to hell. History can help us understand the word and the thing a little better and we will attempt to do this in this course. Because of the breadth and the nature of the subject, the course cannot claim to be anything but introductory. Its intent is to provide you with an exposure to selected readings and issues in the history of modern technology, the opportunity to think and write about these, present them to other seminar members, and benefit from their comments and criticisms. You will not have the opportunity to do serious research, but you will be required to explore beyond your readings and write on your findings.

HPS4600H Theory of Scientific Change
Hakob Barseghyan

Fridays 12-3, Emmanuel College, Room 105

In this seminar course, we will study how scientific theories and methods of their evaluation change through time. To examine the mechanism of scientific change, we will focus on various aspects of scientific change, such as theory acceptance, method employment, scientific inertia and compatibility, underdeterminism, splitting and merging of scientific mosaics, the role of sociocultural factors and methodologies, etc. We will proceed axiomatically: the theorems of

the theory will be deduced from the four axioms – the four laws of scientific change. All axioms and theorems will be illustrated by means of examples from different periods of the history of science. You may choose to write a theoretical essay, in which case you will be expected to discuss, criticise, or amend some parts of the theory. Alternatively, you may choose to write a historical essay by applying the laws of scientific change to a certain historical episode.

HPS4601H Special Topics in the philosophy of Science: Social Epistemology

Joseph Berkovitz

Wednesdays 10-12, Northrop Frye Hall, Room 205

Among the fast growing interdisciplinary fields is the study of the relationships between science and religion. Christian philosophers of the analytic school dominate this field. This explains the revived interest in miracles, a classical topic in the philosophy of religion. The resurgence of interest in miracles is carried by significant changes in the historiography of the so called Scientific Revolution and developments in epistemology pertaining to our understanding of science. This seminar revisits the widely contested idea that there is a God who has violated laws of nature in order to bring about certain events of religious meaning. The principal aim of the course is to contextualize this idea in historical and systematic perspective. A special focus is placed on the growing importance of probability theory in contemporary accounts of miracles. In doing so, the seminar deals with central questions in philosophy of science (the nature of science, laws of nature, scientific explanation, scientific confirmation etc.) and confronts them with fundamental theological claims related to the possibility and nature of miracles.