

# History of Science at York University

The Graduate Program in Science and Technology Studies at York University will be the first English-speaking program of its kind in Canada. It is so new that we have yet to admit a single student. The Program is scheduled to begin in the fall of 2009, with an application deadline of April 1st, 2009. (Depending on the availability of spots, late applications may be accepted after the deadline.) The Program will offer both M.A. and Ph.D. degrees. In the first year we plan to accept about eight M.A. and four Ph.D. students. The Program will grow slowly over the next few years. History of science is an integral component of the faculty's vision of the interdisciplinary study of science and technology studies. But students in the Program will be expected to have an interest in the social studies and philosophy of science, and they will learn about other disciplines in the humanities and the social sciences that are used to study science, past and present.

There are four comprehensive exam fields. The first, *Biosciences and Biotechnologies*, encompasses studies of those sciences and technologies that concern living organisms. Courses in this field will explore the geopolitical significance of epidemics, the use of model organisms as instruments of investigation, and the specific ways in which the ambiguous concept of life is made visible, legible, and tangible in the biological sciences. The second field, *Human-Machine Interactions*, draws on the analytical resources of history, sociology, anthropology, and philosophy to make sense of the historical and contemporary interactions between humans and machines. Courses have been mounted on bodies in technology, designs of war, and technologies of behavior. *Focusing on Public Science*, the third field, explores the interactions of science and the public sphere. Among the courses planned in this field are science and narrative, the sciences in the Enlightenment, science and print culture, and race and racism in the human sciences. Finally, the fourth field on *Physical Systems* features courses on big science, mapping nature, and understanding the oceans. Rather than treat the physical sciences as autonomous domains, this field emphasizes the interconnectedness of astronomy, physics, chemistry, and related disciplines as systems designed for analysis, experiment, and intervention in the inorganic world. Ph.D. students are required to take comprehensive examinations in three fields, one of which can be a specially constructed field within a discipline that does not overlap with the four Program fields.

Mounting a new graduate program in Science and Technology Studies at York made sense for two reasons. York University has had tremendous success in the past launching interdisciplinary graduate programs, such as Environmental Studies, Social and Political Thought, Communications and Culture, Women's Studies, Interdisciplinary Studies, and Humanities. The STS Program continues in that tradition. But the other reason had to do with the unusually large number of scholars, over 30, working in all areas of STS at the University. The Graduate Program builds on the strengths of the undergraduate STS Program, which began in the fall of 2006, when two separate undergraduate programs at York, Atkinson's Science and Technology Studies program and the Faculty of Arts' Science and Society Program, amalgamated into a single program in STS open to students in both the Faculty of Arts and the Faculty of Science and Engineering. Currently, the new undergraduate program has over 50 majors and is growing quickly. In addition to forming a vibrant student STS club, which has planned a number of successful social events, the undergraduate students have made an important contribution to the formation of the graduate program. Last fall two eminent scholars in science and technology studies came to York on behalf of the provincial body that approves new graduate programs. Their task was to draft a report evaluating the new program. Since there were no graduate students to talk to, we arranged a meeting between them and the undergraduate majors in STS. About a

dozen students showed up for the meeting. Their enthusiasm for science and technology studies impressed the scholars evaluating the program and played no small role in the positive report that was later written.

The creation of the new undergraduate program unified several groups of faculty and made possible the construction of a new graduate program. The Graduate Program is fortunate to have anthropologists of science (Naomi Adelson, Kathryn Denning, and Natasha Myers), sociologists of science (Pat Armstrong, Aryn Martin, Eric Mykhalovskiy, Peter Vandergeest, and Lorna Weir), and others working on the social studies of science and technology (Myles Ruggles and Ana Viseu). The Program also benefits from the participation of a strong group of historians of the social sciences, including Alexandra Rutherford, Michael Pettit, Thomas Teo, Marlene Shore, and Christopher Green. Faculty with research interests in science, technology, and culture include Katharine Anderson, Steven Bailey, Jody Berland, Tina Choi, Leslie Korrick, Bernard Lightman, Joan Steigerwald, and Nell Tenhaaf. Faculty from the Natural Science program who specialize in the philosophy and history of science, medicine and technology are Ernst Hamm, Jagdish Hattiangadi, Richard Jarrell, Edward Jones-Imhotep, Kenton Kroker, and Byron Wall. We also have faculty from Education (Steve Alsop), Environmental Studies (Leesa Fawcett and Bonnie Kettel), and Law (Joan Gilmour and Roxanne Mykitiuk). This collection of scholars represent an enormous breadth of expertise, and they can offer courses and supervision to a broad range of students, whose interests will vary in terms of historical period, scientific disciplines and methodology.

In addition to breadth and depth in its faculty, York has a number of strengths that render it an excellent place for graduate training in STS. For 13 years, the STS community at York has hosted a colloquium, at which scholars from York, Canada, the U.S., the U.K., and Europe, have presented their research and have been engaged in lively discussion by the audience. Nearly 300 such seminars have been given since they first began in 1994. York is also home to two prominent journals in the field – *ISIS* and *Journal of Theoretical and Philosophical Psychology*. York is one of six regional nodes in the SSHRC-funded Strategic Knowledge Cluster in STS/HPS. As a regional node, scholars at York will develop and secure funding for collaborative research projects, and hold small conferences and summer workshops. Activities such as these will provide rich opportunities for graduate students to build networks, develop their own projects, and share their insights with the STS community outside of York. Finally, STS faculty have developed a proposal to create a new research institute in Science and Technology Studies at York, which would provide a focal point for undertaking a series of exciting new research projects that would involve graduate students. More information on the Graduate Program is available on the Program Web site at: <http://www.yorku.ca/gradsts>.

– by *Bernard L. Lightman*

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