**New Courses**

**Department of Physical and Environmental Sciences, UTSC**
- ENV1126H – Environmental Tracers
- ENV2200H – Advanced Seminar in Environmental Sciences
- ENV2201H – Advanced Readings in Environmental Sciences

**New Program**

Doctor of Philosophy (Ph.D.) in Environmental Science, University of Toronto Scarborough

The natural physical, chemical and biological environment within which humans exist is under increasing stress generated by both man’s interference with the natural world, and the natural changes which inevitably occur in this dynamic world. Climate and all the natural environmental systems which depend upon it are now recognized to have a human-induced component of change which will dramatically affect existing environmental systems within human lifetimes, and a vast number of fundamental problems will need solutions in the short and medium term.

The proposed new graduate research program for the degree of Doctor of Philosophy (Ph.D.) in Environmental Science will build upon the extremely successful Master of Environmental Science Program (M.Env.Sc.), which has been in existence since January 2006 and, as of 2009, enrolls 54 full-time and 20 part-time students. A significant number of these students wish to pursue doctoral research in a truly interdisciplinary mode, and it is appropriate that the University of Toronto provide such an opportunity. The program is designed to provide the advanced expertise required to search for scientific solutions to our growing environmental problems as it is only in understanding the interactions among the physical, chemical and biological systems of the world that solutions will be found. This demands scientists trained at the interface between traditional disciplines with a holistic view of environmental issues. UTSC already has a faculty committed to research and teaching at this interface, and is well-placed to contribute to the challenge of training highly qualified personnel in the discipline of environmental science.

The Ph.D. program will be extremely attractive to newly graduated M.Sc. students and also direct entry B.Sc., and BA.Sc. students with the requisite background. Students admitted to the program will require a minimum B+ average in a master’s degree in an appropriate discipline. Exceptional students may enter the program with a minimum A-average grade from a 4-year University of Toronto baccalaureate degree, or equivalent, in science or relevant post graduation experience as evidenced by a resume, a written statement outlining the applicant’s research objectives in applying to the program, and three letters of reference from the student’s academic advisors. Admission of students and administration of the program will lie solely in the hands of the Graduate Chair of DPES at UTSC in conjunction with a Graduate Program Committee.
The requirements for the degree of PhD in Environmental Science will consist of: (i) the completion of a total of 2.0 full course equivalent courses approved by the Graduate Program Committee; (ii) a mandatory Advanced Environmental Seminar half-course (part of the 2.0 FCEs); and submission of a thesis documenting original scientific work in environmental science carried out under the supervision of graduate faculty members. This new Ph.D. program in Environmental Science will be the first of its kind within the University of Toronto and will be one of a relatively small number in Ontario and in Canada to highlight the value of research at the interface of traditional disciplines to solve fundamental environmental problems.

An initial enrolment in the new Ph.D. stream at UTSC of between five and ten students is expected, with increasing numbers as the program develops, as new faculty are brought on stream and as existing faculty include the graduate supervision of students in the new doctoral program. A steady state enrolment of about 40 students will be attained within the first seven years of program initiation.