University of Toronto
New Undergraduate Program Proposal

Section 1

Program Proposed:	**Major Program in Environmental Studies (B.A.)**
Department where the program will be housed:	**Department of Physical & Environmental Sciences**
Faculty / Academic Division:	**University of Toronto Scarborough**
Institutional Contact:	Jane E. Harrison, Director, Academic Programs and Policy, Office of the Vice Provost, Academic Programs *jane.harrison@utoronto.ca*
Direct Entry or Selection of POSt at end of 1st Year:	**Selection of POSt at end of 1st Year**
Start date of new program:	**September 2013**
Version Date:	**3 February, 2012**

Section 2

1. Executive Summary

A major in Environmental Studies (B.A.) is being proposed as part of a broader suite of Environmental Science offerings at the University of Toronto Scarborough (UTSC). At UTSC, there is a well-developed suite of Environmental Science programs including undergraduate programs, a joint program with Centennial College, a very successful professional Masters, and a burgeoning doctoral program. An Environmental Studies program adds breadth to the existing offerings and will provide our undergraduate students with the necessary social context of environmental issues, a perspective absolutely essential in order to develop sustainable responses.

There is significant public and student interest in environmental issues, but a substantial number of students have an interest and aptitude not for the mathematics, physics and chemistry of environmental issues (environmental science) but rather the social context of these issues and potential solutions within this realm. For these students, this major is ideal in providing the scientific basis within the appropriate social context. It will also serve as an excellent companion to majors such as Anthropology, Human Geography, Political Science, Public Policy, Sociology, Chemistry, Biochemistry, Environmental Science, Biology, Biodiversity, Ecology and Evolution, Physics and Astrophysics, and Physical Sciences. The title of the program is consistent with other offerings at universities in Canada. At UTSC, the program name "Studies" rather than "Science" is a clear indicator that there is a significant social science component to the program.

The program is designed as a contemporary rendering of the study of environmental problems. A key feature of the proposed program is the classification of the courses offered into *Foundation & Skills* and *Capstone & Applications*. The former group aims to build the foundation of the prospective students on different topics related to socioeconomics and environmental science, while the latter group consists of courses that integrate insights from different disciplines and nurture an interdisciplinary way of thinking. These courses also include many opportunities for experiential learning through problem-solving case studies, team-based projects and individual research. Special emphasis is placed on the capacity of the program to successfully build the requisite interdisciplinary, problem-solving skill sets needed when tackling environmental management issues. Relative to other programs, a careful examination of their structure and offerings also suggests that our proposal provides a substantially higher number of cohort courses as well as a very wide range of courses in environmental science, anthropology, sociology, geography, and political sciences. The proposed program effectively balances between the need for a strong foundation on the basic principles characterizing a typical program in Environmental Studies and the importance of building bridges among the various disciplines involved.

We anticipate the hiring of one new tenure track faculty member in the field of Environmental Studies. This individual will have oversight of the new experiential learning courses being proposed at the third and fourth year level. The Chairs of Physical and Environmental and Social Sciences are committed to support the success and further growth of this program. No additional space will be required. Finally, the University of Toronto Scarborough Library as well as the Robarts Library have excellent resources and personnel to offer assistance specifically in the area of environmental studies.

2. Rationale

Statement of Purpose/Overview:
There is significant public interest in environmental issues, yet a substantial number of students do not have an interest in the mathematics, physics and chemistry of environmental problems, but rather in the social context of these issues and potential solutions within this realm. For these students, this major is ideal and can serve as an excellent companion to majors such as Anthropology, Human Geography, Political Science, Public Policy, Sociology, Biology, Biodiversity, Ecology and Evolution, Chemistry, Biochemistry, and Environmental Science, Physics and Astrophysics, and Physical Sciences.

Appropriateness of nomenclature and program name:
The title of the program is consistent with other offerings at other universities in Canada. At UTSC, the program name “Studies” rather than “Science” is a clear indicator that there is a significant and important social science component to the program.

Consistency of the program with the University’s mission and divisional academic plan and priorities:
The Department of Physical & Environmental Science is committed to not only providing an understanding of the fundamentals of environmental science, but also tools to apply this knowledge when addressing environmental challenges, consistent with the goal of this new program. The core mission of the Department of Social Sciences is to provide students with the knowledge and conceptual tools to enable the development of a strong, realistic and nuanced understanding of contemporary processes of social and political change.

Impact of program on the nature and quality of the division’s program of study/overall curriculum:
At UTSC, there is a well-developed suite of Environmental Science programs including undergraduate programs, a joint program with Centennial program, a very successful professional Masters and a burgeoning doctoral program. An Environmental Studies program adds breadth to this suite of programs and will provide undergraduate students with the necessary social context of environmental issues, a perspective absolutely essential in order to develop a sustainable response.

3. Program Description and Content

Distinctive/innovative aspects of the program:
The new program provides the interdisciplinary breadth required for the study of environmental issues, their implications for society and the social solutions to these problems. This program will draw courses from established environmental sciences programs, in which the integration of material from multiple disciplines is already commonplace. It will also have a strong focus on student individual and group projects that are linked to real world issues and will offer opportunities to work with internal and external organizations dealing with environmental problems. The students will take a number of required courses and work together in their last year on a common team problem, so that they have a cohort learning experience from their different perspectives (we anticipate that students will take another major that may range from management, development studies, economics, biology, or other sciences). This strategy differs from most programs in which students share a few early year "perspectives" courses and then separate into varying courses of their own choice, never coming back to share differing viewpoints.

Modes of delivery and how they are appropriate to meet the learning objectives of the program:
Largely classroom teaching, plus community-based research, team-based execution of projects, attendance of high level seminars. Many of these modes of delivery emphasize the process of learning through reflection on doing, i.e., they involve activities outside the conventional setting of the classroom, whereby students have the opportunity to gain hands-on experience. In a later stage, our intent is to have more courses that embrace activities related to action learning, free choice learning, cooperative learning, or service learning. The department of Physical and Environmental Sciences has a long history in experiential learning with a substantial number of courses based on labs, tutorials, and field trips. Moreover, both departments have recently been involved in a major revaluation exercise of their contemporary practices of experiential learning, whereby the main goals are to conduct a reflective pedagogical scan of the related activities to clearly identify what is currently done that fits within this label and to consider how to enhance the experiential offerings both in quality and quantity. The benefits from this exercise will be highly relevant to the Environmental Studies program proposed.

How the curriculum addresses the current state of the discipline:
The program is designed as a contemporary rendering of the study of environmental issues. The program begins with a series of interdisciplinary environmental science courses providing both the scientific foundation and social context of current environmental challenges. Their primary focus is to dissect a number of contemporary environmental pollution problems (global warming, atmospheric pollution, stratospheric ozone depletion, acid deposition, eutrophication) and to pinpoint the challenges involved when integrating environmental concerns with different socioeconomic values. These courses will be taken from the current inventory of well-crafted and tested courses from both the Department of Social Sciences and from the Department of Physical & Environmental Sciences. The first-

year offerings will be followed by an additional suite of courses in environmental science, anthropology, sociology, geography, and political science. All these courses provide different and often conflicting perspectives (e.g., globalization, increasing urbanization, unevenness of economic development, international migration) that are essential for a critical appreciation of the immense challenges encountered when striving for social and environmental sustainability. Finally in the final year, case studies are examined with significant fieldwork to provide a relevant experiential learning component. These capstone experiences will bring the students together in a powerful cohort experience drawing from the foundational components from the earlier years. A calendar entry of the sequence of courses appears at the end of this section as well as the new course descriptions.

Similar programs:
Environmental studies programs in Canadian Universities are widespread. They often draw courses from multiple departments, they mix physical and life sciences with social sciences, and are often based in geography departments. The exact nature of the prescribed courses depends on available faculty. We have compiled information from ten Environmental Studies programs offered by the following universities: York University, University of Windsor, University of Waterloo, University of Guelph, Wilfrid Laurier University, Lakehead University, Trent University, Queen's University, University of Ottawa and Carleton University. The most distinct feature of the proposed program is the classification of the courses offered into *Foundation & Skills* and *Capstone & Applications*. The former group aims to build the foundation of the prospective students on different topics related to socioeconomics and environmental science, while the latter group consists of courses that integrate insights from different disciplines and nurture an interdisciplinary way of thinking. These courses also include many opportunities for experiential learning through problem-solving case studies, team-based projects and individual research. Relative to other programs, a careful examination of their structure and offerings also suggests that our proposal provides a substantially higher number of cohort courses (e.g., Queen's University) as well as a very wide range of courses in environmental science, anthropology, sociology, geography, and political sciences (e.g., York University). In this regard, we believe that the revised proposal effectively balances between the need for a strong foundation on the basic principles characterizing a typical program in Environmental Studies and the importance of building bridges among the various disciplines involved.

Program Requirements:

Students who enrol in the Major Program in Environmental Studies must also enrol in a companion major program selected from the following list: Anthropology, Human Geography, Political Science, Public Policy, Sociology, Biology, Biodiversity, Ecology and Evolution, Chemistry, Biochemistry, and Environmental Science, Physics and Astrophysics, and Physical Sciences. Other majors are possible with permission of the Supervisor of Study.

Completion of 8.5 credits as follows:

Core Courses: 2.5 credits
EESA01H Introduction to Environmental Science
[ECMA01H Introduction to Microeconomics *or* ECMA05 Introduction to Macroeconomics]
ESTB01H Introduction to Environmental Studies (new – approved November 15, 2011)

0.5 full credit chosen from:
ANTB01H Political Ecology
GGRA03H Cities and Environments
POLA51H Critical Issues of Canadian Democracy
POLA83H Exploring Globalization
POLB50H Canada's Political Institutions
POLB80H Introduction to International Relations

0.5 full credit chosen from:
EESA05H Environmental Hazards
EESA06H Introduction to Planet Earth
EESA07H Water
EESA09H Wind

EESA10H Human Health and the Environment
EESA11H Environmental Pollution

Foundations & Skills: 3.5 credits
GGRB21H Environments and Environmentalisms
IDSB02H Environment and Development
STAB22H Statistics I

2.0 full credit chosen from:
EESB03H Principles of Climatology
EESB04H Principles of Hydrology
EESB05H Principles of Soil Science
EESB17H Hydro Politics and Transboundary Water Resources Management
EESC13H Environmental Impact Assessment and Auditing
GGRA30H Geographic Information Systems (GIS) and Empirical Reasoning
GGRC22H Political Ecology Theory and Applications
GGRC26H Geographies of Environmental Governance
GGRC44H Environmental Conservation and Sustainable Development
HLTA01H Plagues and People
POLC53H Canadian Environmental Politics (if instructor grants permission)
POLD89H Global Environmental Politics

Capstone & Applications: 2.5 credits
ESTC34H Sustainability in Practice (new - approved December 7, 2011)
ESTD16H Project Management in Environmental Studies (new - approved December 7, 2011)
ESTD17Y Cohort Capstone Course in Environmental Studies (new - approved December 7, 2011)
ESTD18H Environmental Studies Seminar Series (new - approved December 7, 2011)

New Course Descriptions:
ESTB01H Introduction to Environmental Studies
This course introduces the Environmental Studies major and the interdisciplinary study of the environment through a team-teaching format. Students will explore both physical and social science perspectives on the environment, sustainability, environmental problems and their solutions. Emphasis will be on critical thinking, problem solving, and experiential learning.
Breadth Category: Social & Behavioural Sciences
Exclusions: None
Pre-requisites: Enrolment in the Environmental Studies major program
Co-requisites: None
Recommended preparation: None
Limited enrolment: 60 [This course is designed to help build a cohort of environmental studies students and introduce them to the program. There will be significant experiential learning components to this class. For both of these reasons the size of the course needs to be limited.]

ESTC34H Sustainability in Practice (new)
Course description:
This course is intended for students who would like to apply theoretical principles of environmental sustainability learned in other courses to real world problems. Students will identify a problem of interest related either to campus sustainability, a local NGO, or municipal, provincial, or federal government. Class meetings will consist of group discussions investigating key issues, potential solutions, and logistical matters to be considered for implementation of proposed solutions. Students who choose campus issues will also have the potential to actually implement their solutions. Grades will be based on participation in class discussions, as well as a final report and presentation.
Breadth Category: Natural Sciences
Exclusions: None
Pre-requisites: Enrolment in the Environmental Studies major program and 9.5 credits
Co-requisites: None

Recommended preparation: None
Limited enrolment: 20 [Course will be partially seminar based and projects must be chosen with the help of the course instructor]

ESTD16H Project Management in Environmental Studies (new)
Course description:
Students will select a research problem in an area of special interest. Supervision will be provided by a faculty member with active research in geography, ecology, natural resource management, environmental biology, or geosciences as represented within the departments. Project implementation, project monitoring and evaluation will form the core elements for this course.
Breadth Category: Natural Sciences
Exclusions: None
Pre-requisites: Enrolment in the Environmental Studies major program and 14.5 credits
Co-requisites: None
Recommended preparation: None
Limited enrolment: 30 [Course will be partially seminar based and projects must be chosen with the help of the course instructor]

ESTD17Y Cohort Capstone Course in Environmental Studies (new)
Course description:
This course is designed to provide a strong interdisciplinary focus on specific environmental problems including the socioeconomic context in which environmental issues are resolved. The cohort capstone course is in 2 consecutive semesters, providing final year students the opportunity to work in a team, as environmental researchers and consultants, combining knowledge and skill-sets acquired in earlier courses. Group research to local environmental problems and exposure to critical environmental policy issues will be the focal point of the course. Students will attend preliminary meetings schedules in the Fall semester.
Breadth Category: Natural Sciences
Exclusions: None
Pre-requisites: Enrolment in the Environmental Studies major program and 14.5 credits
Co-requisites: None
Recommended preparation: None
Limited enrolment: 30

ESTD18H Environmental Studies Seminar Series (new)
Course description:
This course will be organized around the DPES seminar series, presenting guest lecturers around interdisciplinary environmental themes. Students will analyze major environmental themes and prepare presentations for in-class debate.
Breadth Category: Natural Sciences
Exclusions: None
Pre-requisites: Enrolment in the Environmental Studies major program and 14.5 credits
Co-requisites: None
Recommended preparation: None
Limited enrolment: None

4. Learning Outcomes

Learning outcomes:
The goal is to provide students with cutting edge knowledge of the fields of study necessary to understand the fundamental cause-effect relationships surrounding the major environment problems and the ability to seek solutions to current environmental issues. Our students will be able to understand:

i. The basic principles of the physical sciences and economics that underlie our major environmental problems;
ii. The social and cultural factors that affect our ability to implement solutions to these problems;

iii. The history of environmental science and environmental movements;
iv. The current state of environmental policy; and
v. The challenges of teamwork within multidisciplinary teams.

Describe how the structure of the program supports the learning outcomes:
As noted above, the program is a contemporary rendering of the study of environmental issues beginning with a series of interdisciplinary environmental science courses providing both the scientific foundation (outcome i) and social context of current environmental challenges (outcome ii). These courses are followed by a series of social science courses providing the grounding of environmental thinking (outcomes iii and iv). A core course titled "Introduction to Environmental Studies" will bring the students together in an early cohort experience, at the same time as they are building their foundation through a number of introductory, first-year courses carefully designed to introduce the fundamental principles of management, development, economics, biology, and environmental sciences. This course also aims to foster interdisciplinary environmental thinking through experiential learning. Throughout the program special emphasis is placed on the integration of assessment tools that test problem-solving, action-oriented research skills. This feature will offer the proper foundation to successfully undertake the upper year environmental studies courses, which are extensively characterized by problem-solving orientation with the use of case studies, team-based projects and individual research (outcome v).

5. Program Structure and Degree Level Expectations

Degree Level Expectations	**How developed within the program**
How does the program link with scholarship and rigour in the discipline? Does it address the current state of the area of study?	It provides courses in key areas taught by experts in the disparate fields. It also offers students some courses perfectly tailored to demonstrate how to address the intricate nature of the major environmental problems. We have meticulously reviewed the course offerings and the degree level expectations from similar Environmental studies programs in almost all the Universities in Ontario and several prominent U.S. institutions (Yale, Brown, Dartmouth, University of Michigan, University of Pennsylvania, University of Southern California). We are confident that the proposed program offers the rigour and breadth needed to objectively deliver the current state of knowledge in the field.
How does the structure of the program ensure that depth is achieved in the subject?	The most distinct feature of the proposed program is the classification of the courses offered into *Foundation & Skills* and *Capstone & Applications*. The former group aims to build the foundation of the prospective students on different topics related to socioeconomics and environmental science, while the latter group consists of courses that integrate insights from different disciplines and nurture an interdisciplinary way of thinking. These courses also include many opportunities for experiential learning through problem-solving case studies, team-based projects and individual research. Relative to other Environmental Studies programs in Canada, a careful examination of their structure and offerings also suggests that our proposal provides a substantially higher number of cohort courses as well as a very wide range of courses in environmental science, anthropology, sociology, geography, and political sciences. In this regard, we believe that the revised proposal effectively balances between the need for a strong foundation on the basic principles characterizing a typical program in Environmental Studies and the importance of building bridges among the various disciplines involved.
How will students gain a knowledge of methodologies?	From individual course materials (for example Statistics, GIS, Introduction to Environmental Sciences) and from the Seminar course which will expose students to science study methods and to methods of social inquiry.
Will students completing the program be able to frame relevant questions for further inquiry? Will they be able to seek the tools through which they can effectively address	Students will be exposed to different view points on similar topics and will become aware of significant differences in approaches embraced by various disciplines. This critical approach is likely to nurture their ability

Degree Level Expectations	How developed within the program
such questions? Please elaborate.	to question the methods typically used in specific disciplines, and to obtain the foundation for developing new strategies to solving environmental problems. Importantly, the Department of Physical & Environmental Sciences has long history in experiential learning with a substantial number of courses based on labs, tutorials, and field trips. Yet, the Department has recently been involved in a major revaluation exercise of its contemporary practices of experiential learning, whereby the main goals are to conduct a reflective pedagogical scan of the related activities to clearly identify what is currently done that fits within this label; and to consider how to enhance the experiential offerings both in quality and quantity. The benefits from this exercise will be highly relevant to the proposed Environmental Studies program.
What are the connections, if any, with activities outside the classroom?	Two courses, one at the C-level and one at the D-level are project-based courses that will require students to interact with the community on an environmental issue as well as to interact with each other during the execution of their work and writing their report.
What skills, competencies or expertise will students completing the program have gained?	A familiarity with basic science of common environmental problems, team work, project management, report writing, presentation skills, problem solving, listening.
Will the program prepare students for further study? Please elaborate.	This is a Major program that will provide students with a basic understanding of environmental issues as viewed from different perspectives and disciplines. The Environmental Studies Major program is expected to be combined with a separate Major drawn from another discipline (any type of science, politics, economics, management etc). The second major will primarily determine students' suitability for graduate work, although they will have sufficient training to take on graduate studies in environmental studies.

6. Assessment of Teaching and Learning

Methods of assessment:
Normal grading procedures will be used for the written reports, assignments, midterm and final exams, especially for the courses taken in the first two years. In upper year courses, the assessment of the progress of our students will not solely rely upon "conventional" types of examination, but also involves team projects, essays, and oral presentations of issues often considered core, or cutting-edge in environmental studies. Students will also be encouraged to self-evaluate teamwork and oral communication skills through reflective analysis of the experiential components of the program.

How level of student performance will be documented and demonstrated:
The Grade Point Average (GPA) will be the main measure to assess how well students are doing in their academic studies in the first two years. In the upper years, in addition to this measure, feedback will also be sought for those involved in the community projects course, both instructors and community participants.

7. Need and Demand

Student interest:
We expect numbers from 50-100, which is probably a conservative estimate, given the typical enrolment of several of our programs. For example, our Environmental Science Major program consistently received more than 50 students during the 2004-2009 period, while the Program in Human and Physical Geography demonstrates a distinctly increasing trend over the last 4-5 years.

Social need:
Solutions to environmental challenges are complex and require a broad based education in the natural and social sciences. This program integrates environmental perspectives from both science realms to provide students with the tools to understand the complexity and potential solutions to environmental challenges. The program is delivered in a distinctly experiential manner, culminating in a cohort capstone project in the final year.

Employment opportunities for prospective graduates:
This is dependent on the second major, but students could find employment with environmental non-governmental organizations, environmental consulting, policy setting government departments, public relations, journalism, international bodies, banks etc.

Interest expressed by potential employers, professional associations, government agencies or policy bodies:
ECO Canada as identified the environmental field as one of the fast growing sectors.

Table 1: Undergraduate Enrolment Projections

Level of study	*Academic year 2012-2013*	*Academic year 2013-2014*	*Academic year 2014-2015*	*Academic year 2015-2016*	*Academic year 2016-2017*	*Academic year 2017-2018*
*1st year**						
2nd year	*20*	*25*	*25*	*25*	*25*	*25*
3rd year	*7*	*20*	*25*	*25*	*25*	*25*
4th year	*3*	*8*	*20*	*25*	*25*	*25*
Totals	*30*	*53*	*70*	*75*	*75*	*75*

**Students choose their major/minor/specialist program after first year*

We anticipate that students will transfer into the program in the first year of the program, 2012-13. Most students do not formally choose their Major(s) until the end of the first and thus we leave the 1st year blank. We anticipate a steady state by year 2015-2016. If the program becomes more popular than anticipated we are contemplating imposing GPA restrictions on program admission to ensure that the capstone cohort experience is both manageable and meaningful.

8. Admission Requirements

Admission requirements including how they are appropriately aligned with the learning outcomes established for the program:
Students enter the program after first year. There are no admission requirements.

Enrolment limit for the program:
Not at present. If enrolment exceeds that which is anticipated, a GPA requirement will be contemplated for admission to the program.

Is the program direct entry?
No, we are not proposing direct entry for this program.

9. Resources:

Brief statement re: number and quality of faculty who will actively participate in the delivery of the program:
Includes nine research active tenured or tenured stream faculty members with a variety of environmental teaching and research interests (see *Table 2* below).

Role of adjunct and contractual faculty:
No new sessional or adjunct faculty will be required to mount the program. The four new courses will be taught by new and existing faculty.

Provision of supervision of experiential learning opportunities:
The upper year experiential learning opportunities will be managed by the course instructor (EESC34H, EESD16H, EESD17H).

Plan re: additional faculty resources if any:
A new faculty position is being sought to support the program.

Will it require part-time or sessional faculty on an ongoing basis?
No new sessional or part-time faculty will be required to mount the program.

Permanent faculty prepared to act as program supervisor:
All the permanent faculty have enthusiastically embraced this program and eagerly anticipate its approval. A program supervisor will not be difficult to find among this group.

New courses proposed:
Details of these courses are provided in Section 3
(i) ESTB01H Introduction to Environmental Studies
(ii) ESTC34H Sustainability in Practice
(iii) ESTD16H Project Management in Environmental Studies
(iv) ESTD17Y Cohort Capstone Course in Environmental Studies- team project (full year)
(v) ESTD18H Environmental Studies Seminar Series

Table 2: Detailed listing of committed faculty

Faculty name and rank	*Home unit*	*Area(s) of Specialization*
George Arhonditsis, Associate Professor	Environmental Science, Geography	Ecosystem modelling
John Hannigan, Professor	Sociology	Environmental sociology
Matt Hoffmann, Associate Professor	Political Science	Environmental policy
Marney Isaac, Assistant Professor	Environmental Science, IDS	Soil science and social-ecological systems
Thembela Kepe, Associate Professor	Geography	Environmental conservation
Ken MacDonald, Assistant Professor	Geography, International Development	Sustainable development
Carl Mitchell, Assistant Professor	Environmental Science, Geography	Hydrology
William Gough, Associate Professor	Environmental Science, Geography	Climatology
Roberta Fulthorpe, Professor	Environmental Science	Microbiology
Raj Narayanareddy, Assistant Professor	Geography	Urban ecology and geographies of waste and labour
Susannah Bunce, Assistant Professor	Geography, Environmental Studies	Urban sustainability

Notes:

i. The Chairs of Physical and Environmental Science and Social Sciences are committed to support the success and further growth of this program.

T.A. support:
Teaching Assistant support will be required for all the new courses and will be directly proportional to the enrolment. Other courses already have requisite TA support based on enrolment and course design.

Reference Appendices:
- Library statement attached
- Support services statement attached

Space requirements:
Courses will be taught in the existing UTSC room inventory. One hire is anticipated for the program and an office and graduate student space will be provided out of the UTSC space inventory.

Equipment requirements:
None.

10. Quality and other indicators

Most of the courses are taught by tenure track Assistant Professors or tenured Professors with expertise in the topics covered. Both the Departments of Physical &Environmental Sciences and Social Sciences have a long tradition of high quality teaching as indicated by the course evaluations and teaching awards. All committed faculty are research active bringing in research support and supervising graduate students. It is anticipated that these graduate students will serve as teaching assistants for the program.

11. Consultation

Departmental/Divisional:
The program draws courses from the Department of Physical & Environmental Sciences and from the Department of Social Science at UTSC. Both Department Chairs have agreed.

UTSC:
See above. The program was approved by Academic Committee on April 17, 2012.

Tri-Campus:
There are similar programs at St. George and UTM. The program at the St. George campus is administered by the Centre for the Environment. It requires seven (7) FCEs and is not direct entry. Two (2) FCEs are prescribed, while the others are drawn from a choice of 15 courses. A course in biology is required. A capstone seminar course is also required. UTM does not offer an environmental studies program, only environmental science of which half (0.5) FCE must provide a social perspective.

This proposed program has the students sharing more courses, and does not require that they take biology (the content of which is becoming increasingly molecular and less environmental). The science in this program adopts a system perspective that encompasses a wide array of sciences. This program provides a greater cohort experience and does also provide a community experiential capstone seminar course.

Key individuals from both programs (Professors Lino Grima and Tenley Conway) have reviewed our proposal. They both enthusiastically support this initiative. In particular, Professor Grima (Centre for the Environment, FAS) praised the form and the rationale of the program. He also added that the proposed coupling of this major with a major in the disciplines that offer the courses is a significant innovation.

Beyond UofT (where appropriate):
N/A

12. Governance Process:

Levels of Approval Required
Provostial Sign Off
Faculty/Divisional Council Academic Committee approval: December 7, 2010
Submission to Provost's Office
AP&P
Academic Board (if a new degree)
Executive Committee of Governing Council (if a new degree)
Ontario Quality Council
Submitted to MTCU (in case of new degree)

UNIVERSITY OF
TORONTO
SCARBOROUGH

OFFICE OF THE DEAN &
VICE-PRINCIPAL (ACADEMIC)

Office of the Dean & Vice-Principal (Academic)

11 April 2012

Professor Cheryl Regehr
Vice-Provost, Academic Programs
Office of the Vice-President and Provost
Simcoe Hall
University of Toronto

Dear Cheryl,

Administrative Response, External Review of the Proposed Environmental Studies Program

We have received the report of the external reviewer, Professor Ben Cashore, of the proposed new undergraduate major program in Environmental Studies. We are grateful to him for his very encouraging and supportive report. He writes, "I have carefully read the undergraduate proposal and find it to be highly sophisticated in identifying and addressing the key pedagogical needs facing environmental studies." "I think this is a superior effort and well done. Clearly great care has gone into developing an environmental studies program that draws on the best of other programs, while advancing the key tools needed to address actual environmental problems in ways that incorporate, rather than bypass, societal values, power, and change."

We have considered carefully the comments and recommendations in the report and offer the following in response:

- We appreciate the report's main recommendation to create a physical space for students in the program, because we understand the important role this can play in building a sense of community among students in an interdisciplinary program. Unfortunately, currently there is limited space available for such purposes; however, the University of Toronto Scarborough has ambitious plans to continue to expand its physical resources in the coming years. As space becomes available we will plan to set some aside for students in Environmental Studies. In the meantime we will encourage students in the program to create a student association and will help them to organize regular events outside the classroom.

- The reviewer asks whether we have considered using the term "Environmental Management" instead of "Environmental Studies" as the name for the program, although the reviewer himself is ambivalent about the appropriate name. We have given this question serious consideration and it is the general consensus that Environmental Studies is more appropriate, because it is thought to be more representative of the perspective of the program. This point is further emphasized by

our wholehearted agreement with the reviewer's general recommendation that we emphasize more strongly the "power" side of social science analysis. Faculty in the program agree that the program and individual courses should not just be about problem solving but that there also must be a critical component in them. If the focus were mainly on problem solving, then the rubric of Environmental Management would be more appropriate. In this instance, colleagues will keep this suggestion in mind as the courses are developed.

- The faculty who have designed the program have considered the suggestion to separate out "Foundations" from "Skills" in the headings of the calendar listing of the program. They are reluctant to do so because this would reduce flexibility in course selection. As well, they do not wish to change "Skills" in this heading to "Management Skills" because some of the courses, such as Geographic Information Systems, would not fit well under this rubric.

- We will change the title of the course ESTD16 to "Topics in Environmental Management", as suggested.

By way of conclusion, we would like to reiterate our sincere gratitude to Professor Cashore for his affirmation of the excellence of the Environmental Studies program and his constructive recommendations.

Sincerely yours,

John Scherk

John Scherk
Acting Dean and Vice-Principal (Academic)

UNIVERSITY OF TORONTO

OFFICE OF THE VICE-PROVOST,
ACADEMIC PROGRAMS

April 17, 2012

Rick Halpern
Dean and Vice-Principal Academic
University of Toronto Scarborough

Re: Appraisal Report, Proposed new B.A.Honours Major in Environmental Studies

Dear Rick,

I am very pleased by the extremely positive appraisal of the proposed B.A. Honours Major in Environmental Studies. John Scherk's administrative response to the appraisal written on your behalf nicely summarizes the report and highlights the specific suggestions made by the reviewer for consideration. I note that Professor Cashore of Yale University has suggested incorporating the term "management" in a number of ways in the structure and title of the proposed program. I am pleased to see that these various suggestions were carefully considered by the program faculty who have made the following decisions:

- To continue unanimously to feel that the original proposed program name better reflects the program's perspective;
- To follow Dr. Cashore's advice to rename the upper level Capstone course "Project Management in Environmental Studies," "Topics in Environmental Management;" and
- To have rejected the suggestion to label the "Foundations and Skills" component of the program "Foundations" and "Management" on the grounds that the current structure supports flexibility for students and better describes the scope of the recommended courses.

The reviewer described the proposal as a "superior effort" which was "highly sophisticated in identifying and addressing the key pedagogical needs facing environmental studies." I will be very pleased to recommend this new B.A. Honours Major to governance for approval, following approval at the Divisional level.

Sincerely,

Cheryl Regehr
Vice-Provost, Academic Programs

cc. John Scherk, Lesley Lewis, Annette Knox, Jane Harrison

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