



FOR INFORMATION

PUBLIC

OPEN SESSION

TO: UTSC Academic Affairs Committee

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DATE: February 6, 2018 for February 13, 2018

AGENDA ITEM: 9

ITEM IDENTIFICATION:

Minor Graduate Curricular Modifications [for information]

JURISDICTIONAL INFORMATION:

University of Toronto Scarborough Academic Affairs Committee (AAC) “is concerned with matters affecting the teaching, learning and research functions of the Campus (AAC *Terms of Reference, Section 4*).” Under section 5.7 of its Terms of Reference, the Committee “receives annually from its assessors, reports on matters within its areas of responsibility.”

GOVERNANCE PATH:

1. UTSC Academic Affairs Committee [For Information] (February 13, 2018)

PREVIOUS ACTION TAKEN:

No previous action in governance has been taken on this item.

HIGHLIGHTS:

The Office of the Vice-Principal Academic and Dean reports, for information, all curricular changes that do not impact program and course learning outcomes or mode of delivery. These include, but are not limited to:

- Adding, deleting or moving an optional course in a program;
- Adding, deleting or moving a required course in a program, as long the change does not alter the nature of the program;

- All course deletions; and
- Changes to course level and/or designator, requisites, enrolment limits and breadth requirement categories.

Graduate Minor Curriculum Modifications for Information, Report 1 includes changes submitted by:

- The Graduate Department of Physical and Environmental Sciences
 - 2 course changes

FINANCIAL IMPLICATIONS:

There are no net financial implications to the campus operating budget.

RECOMMENDATION:

Presented for information.

DOCUMENTATION PROVIDED:

1. 2018-19 Curriculum Cycle: Graduate Minor Curriculum Modifications for Information Report 1, dated January 25, 2018.



2018-19 Curriculum Cycle

Graduate Minor Curriculum Modifications for Information

Report 1

January 25, 2018

Graduate Department of Physical and Environmental Sciences

2 Course Modifications:

EES1106H: Environmental Challenges in Urban Areas

Title:

Previous: Environmental Challenges in Urban Areas

New: Geological Evolution and Environmental History of North America

Abbreviated Title:

Previous: ENVIRONMENT OF URBAN AREAS

New: Geology of North America

Description:

Previous: The course will deal with specifically environmental geology and geophysics of urban areas especially the Greater Toronto Area. Emphasis will be on waste management, contaminant migration and site assessments. The course will emphasize specific case histories and the various geological and geophysical methods used in field investigations in the special conditions found in urban areas. Some field work will be involved.

New: This course reviews the geological and environmental evolution of the North American continent over the past 4 billion years by exploring the range of plate tectonics involved in continental growth and how those processes continue today. The course will explore major changes in terrestrial and marine environments through geologic time and associated organisms and natural resources of economic importance. The course will conclude with an examination of recent human anthropogenic influences on our environment especially in regard to urban areas and associated problems of waste management, resource extraction, geological hazards, and the impacts of urbanization on watersheds and water resources. The course will include a weekend field trip to examine the geology and urban environmental problems of The Greater Toronto Area. This course will provide students in environmental science with a fundamental knowledge of the importance of environmental change on various timescales and the various field methods used to assess such changes.

Track Changes: This course reviews the geological and environmental evolution of the North American continent over the past 4 billion years by exploring the range of plate tectonics involved in continental growth and how those processes continue today. The course will explore major changes in terrestrial ~~deal with specifically environmental geology~~ and marine environments through geologic time and associated organisms and natural resources ~~geophysies~~ of economic importance ~~urban areas especially the Greater Toronto Area~~. The course ~~Emphasis~~ will conclude with an examination of recent human anthropogenic influences ~~be~~ on our environment especially in regard to urban areas and associated problems of waste management, resource extraction, geological hazards, ~~contaminant migration~~ and the impacts of urbanization on watersheds and water resources ~~site assessments~~. The course will include a weekend field trip to examine the geology ~~emphasize specific case histories~~ and urban environmental problems of The Greater Toronto Area. This course will provide students in environmental science with a fundamental knowledge of the importance of environmental change on various timescales ~~geological~~ and the various field ~~geophysical~~ methods used to assess such changes ~~in field investigations in the special conditions found in urban areas~~.

~~Some field work will be involved.~~

Rationale:

The title and description have been changed to allow for a broadening of the existing course material to outside of urban areas, but still to include urban areas.

Consultation:

Approved by DPES Graduate Program Committee: January 10, 2018

Resources:

None

EES1127H: Geomicrobiology and Biogeochemistry**Title:**

Previous: Geomicrobiology and Biogeochemistry

New: Biogeochemical Principles: Applications for Sustainable Ecosystem Restoration

Abbreviated Title:

Previous: GEOMICROBIOLOGY

New: Sustainable Ecosys Restoration

Description:

Previous: This graduate course will aim to provide an introduction to geomicrobiology and to describe how microbial communities have influenced biogeochemical and mineralogical processes through geologic time. Topics will include microbial properties and diversity; microbial metabolism, cell surface reactivity and metal sorption; biomineralization; microbial weathering; microbial zonation and early microbial life.

New: Most environments have experienced dramatic shifts in their functions due to anthropogenic pressure. Successful restoration techniques are based upon our knowledge of biogeochemical processes in ecosystems. In this course, the fundamental principles of biogeochemistry will be presented and discussed from a degradation and restoration perspective, and several case studies will be explored. Special focus will be placed on sustainable ecological technologies that aim to mimic natural phenomena, e.g., biomineralization.

Track Changes: Previous: This graduate course will aim to provide an introduction to geomicrobiology and to describe how microbial communities have influenced biogeochemical and mineralogical processes through geologic time . Topics will include microbial properties and diversity; microbial metabolism, cell surface reactivity and metal sorption; biomineralization; microbial weathering; microbial zonation and early microbial life.

New: Most environments have experienced dramatic shifts in their functions due to anthropogenic pressure . Successful restoration techniques are based upon our knowledge of biogeochemical processes in ecosystems. In this course, the fundamental principles of biogeochemistry will be presented and discussed from a degradation and restoration perspective, and several case studies will be explored. Special focus will be placed on sustainable ecological technologies that aim to mimic natural phenomena, e.g., biomineralization . < / p>

Rationale:

The course has been revised to include more recent development in the field of Applied Biogeochemistry. The course title has been modified to include these recent developments.

Consultation:

Approved by DPES Graduate Program Committee: January 10, 2018

Resources:

None