FOR INFORMATION **PUBLIC** **OPEN SESSION**

TO: UTSC Academic Affairs Committee

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DATE: May 27, 2019 for May 29, 2019

AGENDA ITEM: 5

ITEM IDENTIFICATION:

Minor Undergraduate Modifications, Department of Physical and Environmental Sciences

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] (May 29, 2019)**

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.

This package includes minor modifications to undergraduate curriculum, submitted by the academic unit identified below. The change will be in effect as of Fall 2019, for the 2019-20 academic year.

The Department of Physical and Environmental Sciences (Report: Department of Physical and Environmental Sciences)

- 1 program change
  - Specialist in Environmental Physics

FINANCIAL IMPLICATIONS:

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

RECOMMENDATION:

Presented for information.

DOCUMENTATION PROVIDED:

1. 2019-20 Curriculum Cycle: Undergraduate Minor Curriculum Modifications for Information Report: Department of Physical and Environmental Sciences, dated May 27, 2019.

UNIVERSITY OF TORONTO SCARBOROUGH

2019-20 Curriculum Cycle
Undergraduate Minor Curriculum Modifications for Information Report: Department of Physical & Environmental Sciences

May 27, 2019

Physical & Environmental Sciences (UTSC), Department of

1 Minor Program Modifications:

SPECIALIST PROGRAM IN ENVIRONMENTAL PHYSICS (SCIENCE)

Completion Requirements:

Program Requirements
Total Requirements: 15.5 credits

First Year (4.0 credits):
PHYA10H3 Physics I for the Physical Sciences
PHYA21H3 Physics II for the Physical Sciences
MATA30H3 Calculus I for Physical Sciences
MATA36H3 Calculus II for Physical Sciences
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms
EESA06H3 Introduction to Planet Earth
MATA23H3 Linear Algebra I

Second Year (4.5 credits):
PHYB10H3 Intermediate Physics Laboratory I
PHYB21H3 Electricity and Magnetism
PHYB52H3 Thermal Physics
PHYB54H3 Mechanics: From Oscillations to Chaos
MATB41H3 Techniques of Calculus of Several Variables I
MATB42H3 Techniques of Calculus of Several Variables II
MATB44H3 Differential Equations I
and
1.0 credit from the following:
EESB02H3 Principles of Geomorphology
EESB03H3 Principles of Climatology
EESB04H3 Principles of Hydrology
EESB05H3 Principles of Soil Science
EESB15H3 Earth History

Third Year (4.0 credits):
PHYB56H3 Introduction to Quantum Physics

PHYC11H3 Intermediate Physics Laboratory II
PSCB57H3 Introduction to Scientific Computing
MATC46H3 Differential Equations II
STAB22H3 Statistics I
and
0.5 credit from the following:
~~EESB26H3 Introduction to Global Geophysics~~
PHYC50H3 Electromagnetic Theory
PHYC54H3 Classical Mechanics
and
1.0 credit from the following:
CHMB55H3 Environmental Chemistry
EESB26H3 Introduction to Global Geophysics
EESC07H3 Groundwater
EESC18H3 Limnology
EESC19H3 Oceanography
EESC20H3 Geochemistry
EESC31H3 Glacial Geology

Fourth Year (3.0 credits):
PHYD37H3 Introduction to Fluid Mechanics
PHYD38H3 Nonlinear Systems and Chaos
and
2.0 credits from the following:
ASTC25H3 Astrophysics of Planetary Systems
EESC03H3 Geographic Information Systems and Remote Sensing
EESD02H3 Contaminant Hydrogeology
EESD06H3 Climate Change Impact Assessment
EESD09H3 Research Project in Environmental Science *
EESD10Y3 Research Project in Environmental Science*
EESD13H3 Environmental Law, Policy and Ethics
ESD33H3 Field Techniques
PHYC50H3 Electromagnetic Theory
PHYC54H3 Classical Mechanics
PHYD01H3 Research Project in Physics and Astrophysics*
PHYD26H3 Planetary Geophysics
PHYD72H3 Supervised Reading in Physics and Astrophysics*

*no more than two of EESD09H3, EESD10Y3, PHYD01H3, and PHYD72H3 may be counted as fulfilling the program requirements.

Note: Where any course appears on more than one option list, it may only be counted as fulfilling the requirements for one of those lists of options.

Description of Proposed Changes:
Third Year requirement: EESB26H3 is being moved as an option course from the list of 0.5 credit bin to the list of 1.0 credit bin.

Rationale:
Third Year requirement: The department had originally intended to add EESB26H3 to the 1.0 credit bin rather than the 0.5 credit bin, this change is to correct an error and to ensure students are able to meet the learning outcomes for the program.

Impact: None

Consultation: DCC/Deans Office Approval: May 27, 2019

Resource Implications: None