



## MEMORANDUM

**To:** Executive Committee of Faculty Council

**From:** Dr. Graeme Norval  
Chair, Undergraduate Curriculum Committee

**Date:** March 15, 2012 for April 26, 2012 Faculty Council Meeting

**Re:** **Creation of a Natural Sciences Elective Web Page**

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## REPORT CLASSIFICATION

This is *Minor Policy Matter* that will be considered by the Executive Committee for approving and forwarding to Faculty Council for information.

## BACKGROUND

Several programs have a “Natural Science Elective” in their curriculum. The set of courses listed is indeed short. Natural Sciences are defined (CEAB) as “The natural sciences component of the curriculum must include elements of physics and chemistry; elements of life sciences and earth sciences may also be included in this category. These subjects are intended to impart an understanding of natural phenomena and relationships through the use of analytical and/or experimental techniques.” There is interest from students to expand the list of Natural Sciences electives, and such a broadening is consistent with all requirements. Currently, programs can approve such courses on an individual (by request) basis.

## STRUCTURE

The Registrar’s Office maintains webpages that advertises acceptable courses that meet the requirements of Humanities and Social Sciences (HSS) Electives as well as Complementary Studies (CS) Electives, and there is an established process to update the list.

It is proposed to create a similar webpage to define a broader set of acceptable Natural Science (NS) Electives. The information would presented would include things such as that presented below.

It is noted that courses that are described as “targeted for students in the Humanities” will be excluded.

## General Notes on Natural Science Elective

A) The Faculty of Arts and Science uses Distribution requirements (for students pre-2010), and Breadth requirements for students post-2010. The Breadths are:

- 1) Creative and Cultural Representations
- 2) Thought, Belief and Behaviour
- 3) Society and Its Institutions
- 4) Living Things and Their Environment
- 5) The Physical and Mathematical Universes

Courses with a Breadth, BR = 1, 2 and 3 are not acceptable, regardless of program or prefix. Also, Mathematics courses are not acceptable as NS electives

B) The student is responsible to ensure they meet the pre-requisites (if any)

C) Programs that work, and courses

| Program  | Prefix        | Possible Courses       |
|--|---------------|------------------------|
| Anatomy  | ANA           | 300Y; 301H1;           |
| Astronomy & Astrophysics<br>(AST101, AST201, – excluded)     | AST           | 121; 120; 221, 251     |
| Biochemistry (BCB – excluded)                                | BCH           | any                    |
| Biology<br>(BIO130 – excluded by BME205/CHE353)              | BIO           | 230                    |
| Chemistry<br>(CHM139 – excluded by APS104 or CHE112)         | CHM           | 138, 210               |
| Ecology and Evolutionary Biology<br>(exclusion 202, 204 214) | JEP, JMB, EEB | 216, 234, 255          |
| Centre for the Environment                                   | ENV           | all 2nd year but 200   |
| Geography  | GGR           | 100, & 200 SCI courses |
| Geology  | GLG           | 200 level SCI courses  |
| Human Biology  | HMB           | 200 level SCI courses  |
| Immunology   | IMM           | 250                    |
| Nutritional Sciences   | NFS           | 284                    |
| Physics  | PHY           | 231, 256               |
| Physiology   | PSL           | 201, 280               |
| Psychology<br>(excluded for Industrial)                      | PSY           | 100                    |

D) Add a set of engineering courses to this, such as CHE230S, CHE353F, etc.

## **PROCESS**

The Undergraduate Curriculum Committee is composed of representatives from each program; the Vice-Dean, Undergraduate Studies; the Chair, First Year; the Associate Dean, Cross-Disciplinary Programs; and the Registrar's Office. The Committee meets regularly, and reviews changes to the curriculum.

## **PROGRAM**

All programs are involved in these changes, and the impact on students in the various programs has been considered.

## **PROPOSAL/MOTION**

For Information.