ENVIRONMENTAL AND WILDLIFE MANAGEMENT
145-C0
Starting Fall 2007

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Background Information

In 1974 Vanier introduced the Natural Science Technology Program. It included two options, Aménagement de la Faune (Wildlife & Fisheries Management), and Santé Animale (Animal Health). Students took two years of common courses, and specialized in their third year. A minor grid revision was done in 1978 (grid shown in Appendix 1), and the first major Program revision was implemented in 1988 (grid shown in Appendix 2). It was clear that the "tronc commun" of the original grid was not working well for either option. Some common courses were useful to only one of the two groups, and students needed to start their specialization earlier than third year. Accordingly, the two options were split into two Programs, Ecologie Appliquée (Applied Ecology, later renamed Ecological Technology, 145.01) and Santé Animale (Animal Health, 145.03). Animal Health has since undergone one major revision in 1998, and a minor one more recently. Ecological Technology has made several curriculum revisions which moved the curriculum more toward environmental assessment and kept pace with changes in technology (grid shown in Appendix 3), but has not had a complete revision since 1988.

The major technological changes in the field make the opportunity to develop a new curriculum very welcome. Also, past curricula were not developed under the concept of competencies, so that maintaining academic flexibility to meet the job requirements of our graduates was sometimes difficult. Members of the Ecological Technology Program have been anticipating this curriculum revision for several years, and we are very enthusiastic about the opportunity to meet our graduates' curriculum needs.

Overall, the basic sciences (biology, chemistry and math) have not changed a lot, although the way we are organizing and presenting the information has changed. A general trend has been to use more computer applications in various courses. In the more specialized areas, the biggest changes are in the additional environmental assessment, including Ecotoxicology, and in Geographic Information Systems (GIS). In terms of the competencies, the radical change is the amalgamation of 145.01, which was intended for field biologists, and 145.02, which was intended for laboratory biology technicians. Analysis of our graduates' job placement indicates that graduates of both 145.01 and 145.02 are working in the same sectors of the environmental industry. Therefore the relevant competencies of 145.01 and 145.02 have been amalgamated in the new Program 145.CO. Unfortunately for our curriculum development, 145.02 had six fewer contact hours than 145.01, and the new 145.CO is a compromise, with three fewer contact hours than the old 145.01 and three more contact hours than the old 145.02. Since we have an extensive list of competencies, it has been a challenge to develop a new curriculum to meet all the competencies in the contact hours available.

New Program Name

Since 1988, when the Program changed from Aménagement de la Faune to Ecologie Appliqué, we have had difficulties with an appropriate English translation of the French name. Our advisory committee, our employers, and our graduates have all recommended that we find a more informative name. After extensive discussion and consultation we developed the new name "Environmental and Wildlife Management". The new name has been approved by MELS.

New Curriculum

The new course grid, with ponderations and credits, is attached. The Grid Revision committee membership included representatives from English, Humanities, Physical Education, and Academic Advising, plus all disciplines represented in the specific competencies. Attention was paid to the workload the students would experience in each semester, and the proper distribution of General Studies courses. Our students do all of their third year courses at our Field Station, which means that all General Studies courses must be completed in the first two years. Block B courses are in the appropriate semesters.

SOBEC

The SOBEC list of competencies and courses is complete. When we first developed the courses in May, in line with the competencies, we were overly ambitious in identifying every course that covered any aspect of a competency. We have pared the courses listed for each competency somewhat since then; however, every competency is met in at least one course, and some are met in several. This is partly a function of the way the competencies were prepared. A competency such as "To describe the biotic components of a terrestrial environment" is very broad and applies to a variety of situations, so is covered in several courses.

Course Numbers

The unifying theme in the course numbers is identification by semester. The first digit of the middle three is the semester number, and the others follow in sequence. Numbers for courses in Biology, Chemistry, Math and Computer Science were developed in consultation with the Departments, to ensure no duplication of other course numbers. In the 1988 grid there were courses in the 230 discipline. Since the replacement courses are now in the 145.CO competencies, these have been changed to 145 numbers on the recommendation of the Registrar's Office.

Course Frameworks

Course frameworks are complete. Our grid, which has been approved by SOBEC, had undergone several changes since its first version, and so some frameworks also required extensive revisions. At this point each course framework has been reviewed to ensure that the competencies listed in the SOBEC document are in fact covered, and each competency has been checked to ensure that all performance criteria are covered in at least one course. A table showing the links between courses has been developed

Admissions Criteria

As shown in the extract of the competencies from the Ministry, the Physics prerequisite has been dropped. The Chemistry and Math prerequisites have not changed, since incoming students need a strong background in these areas. We have always required mature students to upgrade their science courses if they are weak or out-of-date, and this will continue. We have always had some second language students in the Program, and have not required any special English entrance requirements above the College norms.

Unless we have difficulties in this area we do not foresee any changes. At this point we do not require a letter of intent.

Critical Path

In early Winter 2007 the course frameworks have been finalized, and the links between courses, the prerequisites, and the equivalences between old and new courses have all been identified. As well, in conjunction with the Program, a new Standing and Advancement Additional Requirements Policy is being developed.

Program Activities in Winter 2007 in conjunction with the New Grid development

Renovations and Capital Equipment

With the new competencies come new requirements for facilities and equipment. Members of the Ecological Technology Program (faculty and technicians) met with Sam Kay and Yvan Bergeron last spring to discuss necessary renovations to the N415/419/421 lab areas. From these discussions Yvan submitted a budget proposal to MELS; as of March 2007 we have a renovations budget of $535,000. The main changes include improved ventilation, and the creation of a controlled environment animal room and work area (Competency 044J: To culture and maintain organisms). The renovations will be planned this spring, the details developed in the fall of 2007, and the work will go to tender in winter 2008 for completion during the summer of 2008.The capital budget for new equipment will be spread out over the three years for a variety of equipment. Since there is increased computer use over the whole curriculum, and especially in the new Environmental GIS course, Cheryl Holmes had suggested that some of the capital budget go to help fund a new computer lab in the N Building that would have Environmental and Wildlife Management and Animal Health as the first priority users. However, upon examination of our computer needs, we decided that it was a better use of our equipment budget to help upgrade facilities we are already using, since our use is not heavy enough to justify a dedicated lab.

Technical Support

The present Ecological Technology Program has a full time technician for the third year courses, and a part-time technician for the first two years. The Program coordinator is discussing with the College the anticipated increase in workload for the part-time technician with the new courses.

Épreuve Synthèse

The present Épreuve Synthèse model works well. We do not plan any changes in the next few years. Once the new grid has been fully implemented we plan to re-examine the Program's Épreuve Synthèse format.

Articulation with Universities

This has been an ongoing activity in the Program for several years now, and is also a major discussion topic at the Canadian College Environmental Network meetings of which Vanier is an active member (Vanier is hosting the May 2007 meeting of CCEN).

Acknowledgements

Many people have been involved with the preparation of the new curriculum. Our Dean, George Archer, has supported our activities throughout the process. Pit Lan-Chow-Wing started us off with the guidelines for Program Revision, and Diane Nyisztor has given me feedback and support throughout the process. Louise Gauthier (Computer Science), Fred Mayer and Anna Krasowska (Math), and Hermine Janjanian, Keith Fern, and Maria Panzuto (Biology) have all been very supportive of the grid development. The Ecological Technology faculty, Quentin vanGinhoven, Bhuvan Pant, Robert Holmes, David Oxley and Brian Scully have borne the brunt of my requests for frameworks, framework clarification, and more. Dave and Brian, especially, have had many courses to consider, at a time when Dave was nearing retirement and Brian was immersed in GIS courses of his own so that he will be ready for the new grid.

My skills as a typist are rudimentary. Nora Soukiassian has taken my rough drafts and edited them to a high standard of clarity.

My heartfelt thanks to you all.

Patricia Duffy
"Responsable" for implementation of the new Environmental and Wildlife Management 145-CO grid
April 4, 2007