

**Curriculum Renewal and Program Review**

**Annual Summary Report**

**School of Environmental and Natural Resource Sciences**

**(SENRS)**

### Ecological Restoration

Prepared by:

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for Linda Skilton, Dean SENRS

### Ecological Restoration

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| **Program:** Ecological Restoration **Co-ordinator:** Eric Sager **Date:** March 12, 2012 |
| **B. Curriculum Strengths and Challenges**  Summarize the curriculum strengths and challenges identified by the team. |
| **We are still a very young program and will be graduating our first class at the end of this academic year. Thus we have a small data set from which to draw any conclusions, but we do see some commonalities for each of the four cohorts in our program:**   * Between 40-50% of our students are successful in meeting the academic requirements (minimum 65 in SCIE118) to progress from Semester 1 to Semester 2. This past year we have included this same requirement in our Critical Reading and Writing course to broaden out the evaluation process and help us deal with those special instances where students are on the bubble. * We have assembled an excellent team of instructors from multiple programs and disciplines to deliver our curriculum and have received excellent feedback from students. Since many of the same courses are being offered at the university we are fortunate to have attracted some of those same individuals to offer their course with us (i.e. Dr. Julie Kapyrka (Indigenous Environmental Studies), Dr. Mark Dzurko (a SENRS faculty teaching chemistry), Dr. David Woodfine (Summer Field Camp), Dr. Peter Lapp (from the School of General Arts and Sciences who teaches the 1st eyar Critical Reading and Writing and Readings in Restoration courses), Dr. Gord Balch (Senior Scientist in the CAWT and co-instructor of our Methods in Environmental Science course), and Kaukab Kamran (who teaches our Introduction to Math courses as well as the same courses at Trent) . As well, we’ve been fortunate to take advantage of the excellent curriculum already being delivered by Brian Gerry, Karen Whillans-Browning, Stewart O’brien, and Barb Elliot in their home programs, as well as some of the curriculum of the common 1st and 2nd Semester courses at SENRS. We have also been exceptionally pleased with the efforts of our technical staff – specifically Mark Newell and Scott Miles. * Through connections of our faculty, we are exposing our students to many on-going and applied research and restoration projects. Examples include the work underway in the Sudbury region of Ontario following decades of mining activities, Kawartha Lakes planning initiatives being carried out by Kawartha Conservation, stream and wetland restorations being carried out by OFAH, Tall grass prairie restoration at the Alderville Black Oak Savannah, sustainable forest management activities at the Haliburton Forest and Wildlife Reserve, long-term watershed monitoring at the Dorset MOE site, and many more. * We now have two cohorts enrolled at the University and they are adjusting extremely well. We routinely get comments from university faculty that the ERJ students are confident in their contributions to class discussions, incredibly comfortable in field settings, and have a very solid foundation in communication skills with respect to their writing abilities and oral presentation skills. * Challenges that we are faced with are related to space at the FROST campus for storage of field samples, equipment, and program resources. Currently some of this is stored in the office of the coordinator and program technician. In addition, since Scott Miles primary responsibilities are to the ET program here at SENRS, he has graciously carved out some space in his lab/office. Our long-term hope would be to have our own prep space – similar to that provided to the other SENRS programs. * Additional challenges are the unknowns around curriculum delivery since we depend upon so many part-time instructors. Many of those individuals will eventually be offered full-time employment opportunities and it would be nice to attract such talented individuals with new opportunities here at the college. |
| **C. Action Plan**  **Identify priority actions for the next year and the rationale for their inclusions.** |
| * We will continue to work with our partners at the university to gain feedback from students that are exiting the program * We will continue to create opportunities where our third and fourth year students can mentor and interact with our first and second year students. This past summer, two of our fourth year students completed a community-based education course centered around the creation of an outdoor classroom. We then had the outdoor classroom “assembled” by our second year students during their summer field camp. We are also having those students that are completing a fourth-year honour’s thesis at Trent provide an overview of their research to the first and second year students as a way of providing some context to the opportunities that await them at the university. * As with many applied environmental programs, excellent summer job opportunities in the field are an essential component for our students in terms of applying classroom knowledge and skills and the creation of an individual’s network. We continue to try and secure funding to create those opportunities through individual faculty research, but also are trying to establish connections with local government agencies and communities. |
| **D. Deferred Actions**  Record any issues that will need to bemonitored, researched, or deferred for future action. |
| * We will hold off on further changes to specific course curriculum until we can get more feedback from our graduating students. |

**Common Themes**

1. **Infrastructure Needs**

All programs indicated there is a need to update existing equipment and facilities. Several programs share equipment and with the increased use and demand for these pieces, there is extensive wear and tear on most of the equipment. The cost to repair a lot of the equipment is expensive. Storage space also continues to be an issue.

***Action:***

Continue to advocate for capital equipment and a space plan that includes a designed area to store, sign out, monitor and maintain existing equipment.

1. **Industry Support**

Various members of the Advisory Committees have requested lists of needed equipment to see if they could donate any of their surplus pieces.

***Action:***

Coordinators have to be proactive to make the requests for donations.

1. **Program Quality**

It was identified that some of the protocols and procedures used, and the supporting materials, are outdated. There is the challenge to find time to update curriculum at the same time as moving forward to adopt corporate initiatives such as blending learning. There is also a need to develop new skills around assessment and evaluation, and the use of new technology in the learning environment.

***Action:***

Faculty are making a conscious effort to ensure relevance and currency in their curriculum, but they need professional development to incorporate different learning methods. There needs to be more support for individual assistance to redesign curriculum and its assessment, to embrace the advancement of technology, and to learn how and where to use technology.

1. **Human Resources**

There has been an increased use of contract faculty, primarily due to enrollment growth, which can potentially compromise program content as the faculty may change from semester to semester. There have also been several retirements, whose specialized skill sets needs to be replaced.

***Action:***

Develop a hiring plan to replace the skill sets required as SENRS moves forward to start new programs and update existing ones. Five fulltime faculty and one full time instructor are in the approved plan for 2012/13.

1. **Articulation/Transfer Agreements**

Program coordinators continue to be active in engaging in opportunities to create articulation agreements across colleges and universities. With increased competition for a shrinking student population, and the desire of employers to have graduates with both technical, applied skills as well as advanced learning, the environment is favourable to create more pathways for learning.

***Action:***

Coordinators identify potential articulation opportunities to the Chair, who will make the connections and initiate dialogue to establish agreements. Once established, a clear visual aid for marketing these opportunities to students needs to be created.