

**Curriculum Renewal and Program Review**

**Annual Summary Report**

**School of Environmental and Natural Resource Sciences**

**(SENRS)**

Prepared by:

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for Linda Skilton, Dean SENRS

The following section highlights the common themes that emerged as a result of this process and the actions that will be taken to address these issues.

**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It was identified that some of the protocols and procedures used, and the supporting materials, are outdated.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.

**Fish and Wildlife Technician/Technology**

**Program Strengths**

 The Fish and Wildlife program is the most popular program at the Frost Campus with approximately 160 students in semester 1; 170 students in semester 3; and 30 students in semester 5. Strengths identified as a result of the review:

* The one week fisheries fall camp doing lake survey exercises and fish sampling on Lower Buckhorn Lake is a highlight.
* Hands-on training in Fisheries and Wildlife management practices working to Provincial and industry standards.
* Strong technical component reinforced by applied lab work.
* Strong steady enrolment with strong KPIs.
* Good contribution to college overhead.
* Experienced and dedicated faculty and staff with close ties to the industry.
* An active advisory committee.
* Two week long camps in the third year and 2 work/field placements enhance graduate hands on skills and knowledge of the workplace
* The capstone research project in semester 6 utilizes industry data and prepares students both for the workplace and transfer into university
* Third year program courses are integrated and build on previous knowledge resulting in a holistic view of the overall educational experience

**Program Challenges**

* Insufficient class time to cover all of the technical material appropriate to program. This

 is particularly true of the:

* terrestrial wildlife assessment protocols and sampling techniques required for green energy employment and,
* soils and the basic environmental measurements component of habitat classification.
* Increased number of students entering the third semester of the program are lacking the skill set required to progress successfully to semester 4. This is evident with math, which affects the student’s success in limnology in semester 3.
* Hiring consistent qualified contract professors for the Vertebrate Biology, Limnology 1 and the Wildlife courses is a challenge.
* There are limited funds available to hire full time professors combined with the difficulty

in recruiting and retaining contract faculty is an issue. 5. First semester students need to have a clearer understanding of the expectations of the Fish and Wildlife Program.

o Students progressing from common semester with a course failure or a low GPA are going to find F&W very challenging.

o There is a lot of identification skills expected and of out-of-class work necessary to be successful in the F&W program

o Finding employment in the F&W field is very competitive. Students need to be very good academically, willing to relocate to find work and willing to start in contract positions. Finding related work is by no means guaranteed.

* Students do not feel that the Chemistry and Statistics courses have relevance to their

program of study.

* Program needs to include job search and interview skills to assist students with

finding employment to increase overall and related employment rates.

* Admission into the Technology program in semester one has created challenges

related to progression into semester 5 and the direct entry process for applicants.

**Summary Recommendations**

Recommendations Building on Program Strengths:

1) Hire a full time position for the wildlife portion of the program and an additional position

to deliver the advanced and research related courses in third year.

2) Provide more certification opportunities for students including replacing Big Game and

Fur 1 with an advanced Habitat Assessment course to allow wetland certification.

3) Consistent service course faculty or embed the courses in SENRS to ensure

relevance and application to the program.

Recommendations Developed to Address Gaps Identified:

1) Redesign appropriate course content to include the wildlife component required by the Green Energy Market.

2) Improve applied learning opportunities by using technology and blended learning strategies.

3) Include a Career Advancement techniques, portfolio development and interview skills course to better prepare students for the workplace.