**REPORT OF THE ACADEMIC PLANNING COMMITTEE**

**TO THE REGULAR October 2018 SENATE**

**FOR DISCUSSION**

**QUALITY ASSURANCE – CYCLICAL PROGRAM REVIEW OF LAURENTIAN UNIVERSITY’S**

**LIBERAL SCIENCE**

**FINAL ASSESSMENT REPORT & IMPLEMENTATION PLAN**

**September 2018**

In accordance with the Laurentian University’s Institutional Quality Assurance Process (IQAP), this Final Assessment Report has been prepared to provide a synthesis of the external evaluation and Laurentian’s response and action plan. The report identifies the significant strengths of the program, opportunities for program improvement and enhancement, and sets out and prioritizes the recommendations that have been selected for implementation.

The report includes an Implementation plan that identifies who will be responsible for approving the recommendations set out in the Final Assessment Report; who will be responsible for providing any resources made necessary by those recommendations; any changes in organization, policy or governance that will be necessary to meet the recommendations; who will be responsible for acting on those recommendations; and timelines for acting on and monitoring the implementation of those recommendations.

**SUMMARY OF THE CYCLICAL PROGRAM REVIEW OF THE BSc. IN LIBERAL SCIENCE**

The program is not attached to a particular unit since it is situated directly under the Dean of Science, Engineering and Architecture (SEA). The program coordinator position changes over time, but always comes from a SEA faculty member.

There are three programs listed under this denomination:

“Bachelor of Science (3 year) in Liberal Science”

“Beccalauréat ès sciences (3 ans) en Sciences libérale”

“Bachelor of Science (4 year) in Liberal Science”

The three-year degree is offered in both languages, whereas the four-year degree is only available in English. The three-year degree in French is designed to be available completely in French, but in practice it has been challenging to find enough upper year courses due to availability and cycling. In principle, the three-year degree is available via distance education; however, upper year courses are also a challenge for this option.

The objective of the Liberal Science program is to provide a broad-based, flexible science degree for students that would like to have a foundation in multiple disciplines. It also acts as a feeder program to Laurentian’s Masters in Science Communication program, teachers college, and various health professions.

The Liberal Science program relies on courses from other departments, such as Biology, Chemistry/Biochemistry, Computer Science, Environment, Geology/Earth Science, Math and Physics. Therefore the program coordinator (currently Dr. F. Caron) is the only faculty member of the program. The main role of the coordinator is to advise the students on the selection of courses available that best suit their career goals. The coordinator works closely with the departments and the students to achieve this.

In March 2017, the program submitted its self-study to the Vice President Academic and Provost.

The self-study presented an overview of program options and then set out the objectives of the program and its mission statement, followed by the program’s learning objectives and learning outcomes based on degree level expectations. The self-study then addressed the major recommendations in ACAPLAN’s 2009 review of the program and identified follow-up actions taken by the program. Seven recommendations were not achieved and four of them are still relevant: to form a program-oriented student association; to build an “executive” committee and faculty list for the program; to increase offerings in distance education; and to introduce additional concentrations/streams.

The self-study continued with a summary of an interim internal review in 2015/2016 to look at progress and then it described the strength and uniqueness of the program, outlining areas to be developed. This was followed with information about the program coordinator and support staff and a discussion of how courses are taught and the resources available to the students.

The next chapter analyzed student enrollments and graduation statistics and supplied projections for the next five years. It discussed transitions from college and set out employment profiles as well as GPA profiles of students in the program.

The following chapters listed the regulations and program information available on the Laurentian University webpage and included outlines of courses and a discussion of delivery methods and the program’s fit with the University’s mission statement. The self-study concluded by describing the program’s strength and weaknesses and offered suggestions how to address weaknesses. It ended with a comparison of the program to other interdisciplinary science programs elsewhere.

After reviewing the self-study, the Review Team conducted a site visit on October 20, 2017. The external was Dr. Carolyn Eyles from the School of Interdisciplinary Science at McMaster University, Dr. Bernadette Schell, Faculty of Management, and Dr. Fabrice Colin, Math & Computer Science. Two students, Jana Freeman (4th year) and Julien Belanger (3rd year) were also included.

The review team began the site visit by meeting with Dr. Sheila Cote-Meek, Acting Vice-President Academic and Provost, and Dr. Osman Abou-Rabia, Dean of Faculty of Science, Engineering and Architecture, and then met with some faculty involved with the program: Dr. Azzouz (Physics), Drs. Dickinson and Sinclair (Psychology), Dr. Robinson (School of Northern & Community Studies). It also met with Dr. Caron and Suzanne Lamothe and then visited the Library for a meeting with Alain Lamothe, the librarian supporting the program and Mary Laur, an academic advisor attached to the Centre for Academic Excellence (also housed in the library building).

When the Review team submitted its report on November 6, 2017, it observed that the program offers a unique opportunity for students to study a range of science and non-science subjects in a flexible format, and it serves both as a stand-alone as well as safety net and stepping stone. A liberal science program also fits well into the growing global interest in interdisciplinary science programs and it has a great potential for enhancement and expansion. More specifically, the reviewers noted some of the program’s strengths:

* The Liberal Science Programs are consistent with Laurentian University’s mission and academic plans.
* The learning objectives and outcomes provided for students are in alignment with degree level expectations.
* The program coordinators worked hard

On the other hand, the reviewers observed that the program faced certain challenges:

* Students in the program could benefit from additional opportunities to develop their transferrable skills
* Additional efforts should be made to have courses available for distance education.
* Total enrolment has varied and decreased in the French program; in the meantime, more students seem to be interested in the four-year program
* “Liberal Science” is an unusual name, not used by other Universities.
* The program has more capacity and should be marketed.

On December 14, 2017 the program submitted its reaction to the report’s recommendations and on January 5, 2018, Dr. Osman Abou-Rabia, Dean of the Faculty of Science, Engineering and Architecture submitted his reaction to both the review team’s recommendation as well as the program’s response.

**SUMMARY OF THE REVIEW TEAM’S RECOMMENDATIONS (R) AND THE RESPONSES OF THE PROGRAM (P) AND OF THE DEAN OF SCIENCE, ENGINEERING, AND ARCHITECTURE (D)**

**R1. The Liberal Science Programs need to develop and greater sense of self-identity by creating a student society, hosting program-based events, and identifying a physical home base (office) for the program. The names of the programs need to be re-examined. Interdisciplinary Science (or Integrated Science) would more clearly communicate the aims and outcomes of the programs, and the French program could be better described as the Programme pluridisciplinaire en sciences or the Programme d’intégration des sciences**

**P1:** These recommendations were made in the previous review and pose a constant challenge. Proposed ways to create better self-identity include:

* **Creation of a student society**
* **Hosting of program-based events**
* **Identification of physical home base – library in collaboration with CAE would be ideal**
* **Renaming programs – should be explored**

**D1:** Agreed.

**R2. The Liberal Science Programs need to be marketed–externally and internally–as unique “niche” programs that offer a unique and very relevant experience for students.**

**P2:** Program is already linked to Liaison and has worked with a Web designer to update the webpage and with marketing to bring success stories, but more aggressive advertising will be explored immediately, especially if the programs are to be renamed.

**D2:** Agreed.

**R3. A “Program Advisory Board” consisting of faculty members from key departments/discipline areas, should be established to oversee program development and to guide, advise and contribute to the operation of the program.**

**P3**: An advisory board would help create a sense of community and teamwork, workload sharing and increased creativity. An ideal advisory board would need to be cross-disciplinary and report to the Dean. Ideally, the Coordinator plus three-four faculty members would form this board. Although the Program should remain under the SEA faculty, this advisory board may include up to two members from other faculties. This will be discussed at a SEA Faculty Council meeting.

**D3:** Agreed.

**R4.** **Thematic areas should be identified within the programs to guide students in their selection of Major and Minor subject areas and to identify post-graduate options. These thematic areas will help students identify more strongly with each other and the programs, and should be identified on the student transcript in or after second year**.

**P4:** The self-review report suggested the degree should take advantage of Majors and Minors and gave examples. The mechanics of this structure needs to be discussed at the Advisory Board, once formed.

**D4:** Agreed.

**R5. Discussions should occur between faculty members involved in the Liberal Science Programs and new Master’s in Science Communication and Master’s of Environment (Fall 2018) degree programs hosted in the School of the Environment. These discussions should focus on exploitation of the synergies that exist between these interdisciplinary programs**.

**P5:** The Master’s in Science Communication does not have a feeder program. There are already synergies, but additional synergies will be formalized in the coming year.

**D5:** Agreed.

**R6. An additional ‘communication’ course should be introduced and offered at the third-year level to focus specifically on interdisciplinary scientific issues and team work. Students in the Liberal Science Programs would benefit from additional opportunities to develop their transferrable skills in scientific communication.**

**P6:** The first step is to investigate the existing mix of courses, as many would likely fulfil the function. Whether a new course is developed or an existing course with team teaching is adapted, the focus should be on skill development. Ideas to explore would be outside the traditional areas already covered, e.g.: technical writing skills, debunking and using straight-up style. This would be a good complement to the Literacy courses mentioned above. The concept and/or course syllabus should be developed in the New Year for discussion.

**D6**: Agreed.

**R7. The LIBS 4006 course is an important ‘capstone’ course and should continue to be delivered primarily through face-to-face interactions with the course instructor. However, additional efforts should be made to develop this course appropriately for distance education students.**

**P7:** A pilot course was given with mixed class/face-to-face/computer aided interfacing (Skype or Zoom). This depends in a part upon technology, but there are other models. For example, class “discussions” in D2L/Brightspace are used in lieu of face-to-face in some MBA distance education courses. Full Skype/Zoom classes could be explored, even for a mix of on- and off-campus students taking the course. The course LIBS 4006 is expected to be given next Term, in the New Year. Modes of delivery will be explored.

**D7:** Agreed.

**ACAPLAN’S RESPONSE**

ACAPLAN’S recommendations, in priority order, are as follows:

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| **Recommendation** | **Proposed Follow-up** | **Responsibility** | **Timeline** |
| **1. Self-identify, name change** | i. create student societyii. hosting of program-based eventiii. Relocation to the School of the Environment as a home baseiv. renaming of programs  | CoordinatorCoordinator Dean Coordinator, Dean, ACAPLAN | October 2018 |
| **2. Marketing** | i. work with Liaisonii. work on webpage | CoordinatorCoordinator | December 2018 and ongoing |
| **3. Program Advisory Board** | i. identify membersii. determine function | DeanCoordinator, Dean | July 2018 |
| **4. Establish themes/streams** | i. review existing optionsii. develop plan, discuss structure iii. implement | Advisory BoardAdvisory BoardCoordinator | January 2019 and ongoing |
| **5. Links with Science Communication M.Sc.** | Explore additional options | Coordinator | December 2018 |
| **6. Science communication course 3rd year** | i. review existing courses to determine if there is a fitii. if needed develop course iii. implement | Advisory BoardAdvisory BoardCoordinator | December 2018 |
| **7. LIBS 4006 delivery methods** | i. explore options | Coordinator | June 2019 |

The Dean of Faculty of Science, Engineering and Architecture shall be responsible for monitoring the implementation plan. The details of progress made shall be presented in the Dean’s Annual Report and filed with the Vice-President Academic and Provost. The Executive Summary and the monitoring reports will be posted on Laurentian University’s web site.

**CONCLUSION**

Laurentian’s Liberal Science Program is approved to continue, and it will be reviewed in the fall of 2025.