**Curriculum Renewal:**

**Analysis and Action Plan Template 2014/15**

| **Program Coordinator:**  | **Sara Kelly** | **School:** | **SENRS** |
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| **Program Code:** | **SAG** | **Date Completed:** | **May 14, 2015** |
| **Program Name:**  | **Sustainable Agriculture Co-op** |

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| **A. Analysis of Indicators**Note: data is **not** recorded in this section of the template.**Reflect on, and discuss, the following indicators in the context of the curriculum and program:**   |
| 1. **Industry / Sector Trends**
	1. Identify any new or emergent *industry or sector* related issues and trends over the past year that will impact your program?

**Increasing demand for local and sustainable food**Price of food, especially fresh produce, for North Americans is predicted to go up and stay up. The era of cheap food (Canadians typically spend a smaller portion of their earnings on food than any other people in the world) is drawing to a close, precipitated by environmental stresses resulting in historically productive regions such as California becoming inhospitable to agriculture. Depletion of groundwater resources by intense agricultural use is one of the driving factors for the decline of production in California. This is having and will continue to have impacts on agriculture and food prices throughout North America. One of the impacts is the move of some agriculture eastward on the continent. In other words, new opportunities are opening up for agriculture in Ontario. Ontario has begun to experience some water quantity issues in recent years, “Local water shortages are already occurring in Ontario and water shortage problems in Ontario are likely to increase over time due to a combination of demographic and environmental factors.” (OFA, 2015 <http://www.ofa.on.ca/issues/overview/water-issues.aspx>). In addition to these environmental pushes, there is growing public awareness and support for local and sustainable agriculture which is translating into growing consumer demand for agricultural products from farms that use sustainable agricultural principles and practices (<http://www.conferenceboard.ca/press/newsrelease/13-08-20/canadians_have_growing_appetite_for_local_food.aspx>.). These realities help to make small-scale diversified sustainable agricultural operations increasingly financially viable and environmentally necessary. **Shifts in Farm Hiring and Training Practices**With growing consumer demand and improved market opportunities, some farmers see multiple benefits in creating longer term, more permanent positions and providing their employees with training opportunities. This is helping to create some stable careers in farming on small scaled diversified farms. While these farms will likely always need to hire short term seasonal labourers, these longer term stable positions for skilled employees are a signal that this industry is maturing. These longer term stable positions allow farmers to invest in increased training for these employees as the return on investment is tangible in increased efficiency and increased opportunities for diversification in farm operations.In the past 4 months, I have had two farmers contact me to inquire about Fleming’s Sustainable Ag. program, indicating to me that they are considering paying for part of the tuition costs for one of their employees to take the program. In addition to private farm operations providing these career opportunities, there are also similar opportunities opening up with demonstration farms and farm cooperatives. (See Appendix A attached for a Farm Team Leader position with the YMCA of Greater Toronto).* 1. What are the Advisory Committee recommendations from the past year that will affect the positioning, nature, or scope of your program?

Overall the PAC’s recommendations focused on continued efforts to promote the program to increase student enrollment. PAC members indicated that they feel there could be 75 students in this program within a few years!**Promote Fleming’s SAG program in eastern Ontario**PAC members recommended that Fleming actively promote the SAG program in eastern Ontario in recognition of the new enrollment opportunities opening up for the program as a result of the closure of Kemptville College, “On March 12, 2014, the University of Guelph (U of G) announced that it would be suspending the delivery of academic and research programs at the Kemptville Campus in Spring 2014 except for currently registered students.” (Vanclief, 2014). Kemptville College, located south of Ottawa and 3 ½ hours from Lindsay, was an agricultural college run by OMAFRA from 1917 to 1997 when it was taken over by U of G. It was the primary agricultural college for eastern Ontario and had a typical enrollment of 37 – 57 students in its first year agricultural programs.\*Note: For the first time, we did host a SAG program information booth ($250.00 booth fee) in February at the Eco Farm Day in Cornwall ON. It was a well-attended event with numerous young people present. Ideally we would be present again in future years.**Continue to promote Fleming’s SAG program to the Trent SAFS students**There were 2 Trent SAFS students in the 2014 class and there is currently 1 SAFS student in the 2015 class. Continue to promote the program at Trent through Tom Hutchinson, through our current Trent student, and through a SAG program information session at Trent. Would like to see stronger numbers of students coming from Trent to Fleming through the agreement.**Use Social Media to promote SAG program**Recommendation to continue and enhance our use of social media to get the word out about this program. **Students from the local community?**There were questions from the PAC in 2015 as to the number of local students in the program. To date we have had low numbers of students from the local community in the program (2 students in the 2012 class). This is fairly typical of all programs at the Frost Campus (ie. that the majority of our students come from outside of our catchment area). Recognition that it will take time and effort to build the SAG program’s credibility locally.* 1. What information / observations have been generated via faculty and staff professional development, engagement in sectoral and profession associations, or involvement in community and employer networks connected to the field?

 Basically same as above two responses. |
| **2. Curriculum Development*** 1. Identify any curriculum changes in the last year such as changes in course content and course materials, course / program outcomes, innovative delivery approaches, and/or assessment practices.

**AGRI 1 Module 3**We lost our original faculty member for this module. In 2014 we basically had a year’s “gap” where we pieced curriculum together as best we could. In 2015 we secured a new faculty member (Barb Heidenreich) for this module and we also brought in a guest speaker (James Whetung). In 2015 this Module was a 6 hour module though in the program proposal it was intended to be a 15 hour module. We intend to work with our new faculty member to continue to enhance this curriculum going forward. In 2015 our new faculty added the farm business case study to this module. **AGRI 2 Module 5**In 2015 we included more in the field time and additional soil samples in this module.**AGRI 2 Module 7,8**Our faculty member has indicated that she has taken a more hands-on, interactive approach, using group activities and that lectures have been shortened and a more interactive approach has been implemented.**AGRI 3 Modules 11, 12**Daily 'greenhouse sessions' - previously, this mainly involved helping the students make management decisions in the growing of cut salad greens in the greenhouse. This area of learning has been improved (in my opinion anyways!) by adding some longer-term monitoring projects and establishing 'best practice' protocols for greenhouse seeding/tray growing.Change in assessment practice; the main assignment for this module is the creation of a crop plan (called the 'focus farm project'). This was previously assessed only at the end of the module, but I have added a 'half-way' check-in assessment which I have found has helped the students focus in a bt better and make for stronger finished product." **AGRI 4 Modules 14,15,16** In March 2014 we made some changes in how Modules 14,15,16 were delivered. We are again making some  additional changes to the delivery model of these Modules in 2015 in order to enhance the applied hands-on  nature of the learning. In 2015, for the first time, we have incorporated a 3 day on-farm field experience at our  faculty member’s farm which will enable her to demonstrate hands-on work with livestock and allow the  students to acquire some basic familiarity with handling livestock. We intend to keep this 3 day on-farm field  experience in our curriculum for these Modules going forward and have incorporated the associated costs into  the student ancillary fees for 2016. Previously our curriculum lacked any opportunities for students to physically  work with livestock. This was a significant gap in our students’ experience. This 3 day on-farm experience  helps to fill this gap and sets our students up for greater success in their Semester 2 COOP experience.  **AGRI 5 and AGRI 11** There has not been any curriculum developed for these “courses” and no course outline or faculty assigned. In March 2015 Sag program Coordinator (Sara Kelly) met with Academic Chair (Mary Ann Fader) and CLT  Curriculum Consultant (Kris McBride) and agreed upon a plan for this course going forward. AGRI 5 has been  removed from the program. AGRI 11 has been made a full year course (to cover both AGRI 5 and 11) and a  course outline has been generated for use in Sem 3 2015 (to pilot our new approach, for full launch in Jan  2016).**APST 90 and 91** No changes.**AGRI 12** In 2015 we have added a new community partner, Abbey Gardens. We are continuing to work with our original partner as well, the Lindsay Community Gardeners (LCG). We have also made some modifications to the project that the students undertake with LCG. Previously small teams of students created a planting plan for a specific scenario to go along with the “starts” growing project. In 2015 we have “opened” up the written project so that student teams can now present an idea for a written document that they think would be of use to the LCG (eg. brochure on native bees and pollination services they provide). We have continued on with the “starts” project as per usual.**AGRI 6 Module 21**In 2014 we took the students on-farm for the one day organic certification module for the first time. Previously this had been a classroom based module. Our intent with moving the module on-farm was to enhance the applied nature of this module by being able to take the students around a farm and look at how organic certification applies to particular aspects of a farm operation. We intend to continue to deliver this module on farm going forward as we had improved student feedback with this new delivery mode.**AGRI 7 Module 23 and AGRI 8 Module 24** For the last 2 yrs, I have been teaching both 'Farm Diversification' and "Marketing, distribution and sales strategies for small farm viability". I have found better fluidity by combining these two modules as the concept of small-to-medium-scale farm diversification dovetails nicely into the concept of market diversification for small to medium scale farms.* 1. Does the current curriculum align with the college’s e-learning strategy which strives to have all Fleming graduates experience technology enhanced learning in each semester of their program? Identify courses where possible.

Yes I believe that the current curriculum aligns with the college’s e-learning strategy. While we do not have any blended learning courses, we do use various technologies including Skype, Google Docs, Google Drive, D2L, on-line videos, etc. to deliver and enhance student learning.* 1. Does the current curriculum align with the College’s Strategic Plan to *“infuse sustainability across the curriculum and across the student experience so that graduates understand and address sustainability issues.” (Goal 3.3)* Please identify which courses/experiences in the students’ program that sustainability issues are addressed.

Addressed in all courses within this program as sustainability is at the core of the curriculum and the field.* 1. Identify any recent or anticipated initiatives that promote student pathways including partnerships with high schools, program laddering, university transfer / articulations, or continuing education?

**Fleming, Trent, Durham** Two meetings with Trent University Sustainable Agriculture and Food Systems program chair and Durham College’s School of Science and Engineering Technology Dean (Food and Farming program is within this School) have taken place. In addition to the formal agreement between Trent and Fleming’s Sustainable Ag. programs, there is an informal agreement between the three institutions to promote each other’s programs in recognition of the fact that the programs are complimentary rather than competitive.**INACAP**INACAP is a university in Chile. INACAP has contacted Fleming’s Continuing Education office to express interest in having Fleming develop and host a 2 week intensive experience in Sustainable Agriculture for its students. SAG is currently working with Fleming’s Con-Ed on developing this experience and looking at a possible pathway for an INACAP student to enter into the SAG program.* 1. Identify any new competitor programs and/or re-positioning of existing programs?

**Kwantlen Polytechnical University in British Columbia** offers a Bachelor of Applied Science in Sustainable Agriculture. This program was launched in Sept. 2012 and is quite similar in intent to that our the Fleming SAg program. <http://www.kpu.ca/calendar/2014-15/science-hort/sustainableagriculture-deg.html>**UBC Practicum in Sustainable Agriculture** is similar to the Fleming SAg program in terms of duration and cost. Importantly it differs from the Fleming program in that there is significantly less curriculum focused on business and operational planning and in that there is no academic credential granted.<http://ubcfarm.ubc.ca/community/practicum-in-sustainable-agriculture/>* 1. Identify if there are any new or changing provincial standards, standards for accreditation, credentials, and / or industry or sector certifications over the past year?

Unable to comment. It seems to me like there may well be some new or changing provincial standards but I simply do not know this part of the sector well enough to comment. |
| **3. Applied Learning*** 1. Does the current program contain a discrete Applied Learning opportunity for students? If yes, which category of Applied Learning is fulfilled?

\_\_\_ Field Work (Indirect Supervision)\_\_\_ Field Work (Direct Supervision)\_X\_ Co-op\_\_\_ Applied Project / Applied Research Project * 1. If the answer to 3.1 is no, are there plans to create a discrete Applied Learning opportunity for students within this program? Why or why not?
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| **4. Student and Graduate Satisfaction**4.1 Comment upon this year’s Key performance indicators (KPI # 4, 8, 9, and 11) regarding student and graduate satisfaction (\*reference Fleming Data Research website)

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| **KPI**  | **Program** | **College** | **System** |
| **KPI # 4 Graduate Satisfaction with Generic and Vocational Learning Outcomes – 2012/2013** | 6(N), 76.54(%) | 925(N), 86.07(%) | 925(N), 86.07(%) |
| **KPI # 8 Student Satisfaction with Learning Experience – Winter 2014** | - | - | - |
| **KPI # 9 Student Satisfaction with Teachers – Winter 2014** | - | - | - |
| **KPI # 11 Graduate Satisfaction with Program - 2012/2013** | 6(N), 86.11(%) | 1513(N), 82.66(%) | 1513(N), 82.66(%) |

 I believe our graduates can relate to the idea of KPI #11 “satisfaction with the program” more easily than they can with KPI #4 “satisfaction with generic and vocational learning outcomes”. Regardless, I believe that SAg student and graduate satisfaction with this program will remain strong and perhaps become even stronger than it already is in the coming years. This speculation is based on the maturing of the program and curriculum and the smoothing out of the program delivery.4.2 Review and discuss student retention on a semester by semester basis over the past year.  Typically if we lose students in the SAg program it is at one of two times in the course of the program:  either right at the beginning of Semester 1 or at the end of Semester 2. We lost 2 students in January 2014  during the first week of the program. The students did not leave because they were dissatisfied with their  experience in the program, but rather because of health issues (1 case) and financial issues (1 case). We  also lost 2 students in Sept 2014. 1 decided not to return after his coop semester (ie. Sem 2) and the other  was not eligible to return as he had not accumulated sufficient coop hours and had also failed a course in  Sem 1. I think that one retention strategy to mitigate students deciding to not return after coop is to increase the  College’s communication with the students during the COOP semester. The involvement of the new  Applied Learning Liaison position will play an important role in implementing this strategy. |
| **B. Curriculum Strengths and Challenges** Summarize the curriculum strengths and challenges identified by the team.  |
| * Strengths of the program stem mainly from its original design combined with the high quality of the faculty associated with the program and from the high quality of students that register for the program. The Vocational Learning Outcomes are well thought-out and provide a good guide/foundation for the course learning outcomes. Overall this means that for a one-year post-graduate certificate program we feel that we are teaching what should be taught. Foundational learning takes place in Sem 1, followed by hands-on learning and opportunities to apply knowledge from Sem 1 during the Sem 2 COOP experience. Sem 3 provides the opportunity to take Sem 1 and 2 learning and bring it together in the culminating work of writing a business and operational plan in Sem 3. This sequence of learning in combination with the quality of our instructors and the highly applied nature of the curriculum yields an academically solid experience.
* Challenges encountered in this program mainly stem from its modular format. This format is unfamiliar to the College and many of the College’s systems are not designed to support modular delivery. This results in a heavier than normal load for the Program Tech and Program Coordinator. For example, Fleming’s Course and Faculty Evaluation tool and timeframe does not work for the SAg program. Similarly, the College’s contract generation process is not smooth for hiring faculty for modules. Creating the Student Schedule is done manually by the Coordinator and Tech by mapping out our entire Sem 1 and Sem 3 on a day by day basis. In addition to these “system” issues, the modular format creates some challenges in the classroom for both faculty and students in terms of insuring there is good connection between all the parts and that the curriculum flows well from day to day and faculty to faculty.

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| **C. Action Plan**Identify priority actions for the next year and the rationale for their inclusion. For each, indicate the project lead, and the proposed timelines for completion. **What resources are required to complete the action plan, i.e., software, equipment, and training?**  |
| * We will continue to “build” the Frost Farm. **Our Vision for 2020 is to have a working farm on campus that acts as a learning and teaching and working farm.** It acts as a primary "classroom" for our SAg students and as an incubator farm for some of our grads. It also provides coop employment for 1 - 3 of our students and food produced on the farm is sold to our campus food services provider and also sold to students and employees. Project Lead is the program Tech and Coordinator with support from enthusiastic faculty and students. We are cognizant of financial constraints and seek to implement farm components that require little to no funding OR that we seek external funding and partnerships to help make this vision a reality.
	+ In 2015 we will partner with a local honey producer and have some of his bee hives on campus. This will be another “piece” of the Frost Farm puzzle that we are putting together.
	+ Other pieces already underway include the Local Food Box Project launched in Jan 2015 and the working of two parcels of campus land (the 1 acre Smith parcel, and the small parcel adjacent to the Community Garden) to enhance soil fertility.
	+ In the summer of 2015 we plan to work the small parcel and produce vegetables for sale.
* Information gathered from the curriculum mapping survey conducted in April 2015 will be used to align and sequence assessments within the program.
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| **D. Deferred Actions**Record any issues that will need to bemonitored, researched, or deferred for future action. |
| * **An alternate strategy to completing Program Faculty Evaluations will need to be developed and implemented in order to capture the information required for curriculum improvement.**
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| **E. Attach an updated Program Curriculum Map to your report**  |
| Please file an updated Program Curriculum Map in folder named Program Curriculum Map.: **S:\shared data\CLT\School Name\Program Name\Program Curriculum Map** |