**Program and Curriculum Review Template**

*Instructions: Review all information that is stored on your program and curriculum review web page.*

[***https://department.flemingcollege.ca/pcr***](https://department.flemingcollege.ca/pcr)

*On this template, enter Key Findings only, in brief point form. This is intended to be a reflective, continuous exercise and it is not expected that there will be a written response to every single question. You will work with this document and update it annually. The primary focus on an annual basis will be on the curriculum areas and at the 5 year interval, the document will be a more comprehensive representation of further depth of analysis within each of the sections. Add links to additional information only if you will find it to be helpful in the future use of this document.*

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| Program Coordinator: | |  | | Chair: |  |
| Program Review Facilitator: | | |  | Date Completed: | 2016 |
| Program Name: | Arboriculture | | | Program Code: |  |
| 1.0 Industry Trends and Employment | | | | Summary of Key Findings | |
| Review and discuss the following:   * Industry / sector changes or issues identified by the Program Advisory Committee * Recent labour market data or sector reports as provided by the Fleming Library Researchers. * Recent or anticipated changes in occupational standards, level of entry and credential and / or standards of accreditation * Based on the above, do these changes or issues necessitate changes to your program, either immediately, or in the next few years? | | | | The field of Arboriculture is a growing sector for employment. Multiple postings exist on the International Society of Arborists (ISA) Ontario Chapter website.  The Canadian Occupational Projection System states that job openings and job seekers are projected to be at relatively similar levels over the 2015-2024 period with supply and demand being much the same. (<http://occupations.esdc.gc.ca/sppc-cops/occupationsummarydetail.jsp?&tid=88>)  The sector requires college, vocational or apprenticeship training. The addition of the co-op program strengthens employability for Fleming graduates.  No changes are necessary to the program based on industry trends. The program coordinator will continue to scan the industry for changes and updates. | |
| 1.2 Labour Market and Employment Trends  Review and discuss the following:   * Graduate employment statistics over the last few years, including those of students employed in the field, in a related field, outside the field, or unemployed, and any emerging patterns in this data. * Emergent employment trends such as new types of positions, changing job market, regional distinctions, changing employer profile, or emerging skill shortages | | | | The graduates from Arboriculture filling the need in the industry as reflected by the excellent employment trends and graduate satisfaction with how the program prepared them for the field. Graduate satisfaction exceeds Fleming and MCTU as a whole at 90-100% satisfaction.  The graduate employment rate exceeded Fleming and MCU in both overall employment and in related employment both scoring 96% in 2015. The only dip occurred in 2013 when both scores were 86%. Graduates are working in the field. | |
| 2.0 Key Performance Indicators  Review and analyze the formal Key Performance Indicator (KPI) results for your program. | | | | Summary of Key Findings | |
| 2.1 Student Satisfaction  In addition to the formal Student Satisfaction KPI results, comment upon any other formal or informal discussions with students and graduates such as *student focus groups*, class councils, class representatives, individuals or delegations, or debriefing sessions following a field placement, clinical placement, or practical work integrated learning experience. | | | | The KPI data reflects the student satisfaction with what the students are saying in the focus groups below. Students are extremely satisfied with both the learning experience and the teachers.  Programs: Arboriculture and Urban Forestry  Summary of Strengths and Weaknesses Identified at Student Focus Group  March 24, 2016: A focus group was held with advanced students in both the arboriculture and urban forestry programs. 10 students attended. Students were given the opportunity to post their feedback on the flip chart paper. Following that, there was discussion and priority setting of points made. Not all students agreed on all points. Based on the results, below lists a summary of strengths and weaknesses they identified.  Strengths   * Physical experience outdoors including time spent tree climbing * Practical field work (climbing, pruning, removing trees) * Adequate number of techs to provide feedback while practicing outdoors. * Use of different equipment * Good demonstrations to visually understand the concepts * Variety of open information on D2L * Timing of learning well aligned * Layout of the week built for success. * Good balance between labs and lectures * Co-op good to learn in the field   Weaknesses   * Timing of feedback for co-op was too late to be useful * Co-op class lacks clarity and is too general. Does not match the transferable skills required. * Too much crammed into urban forestry business class to be useful * Some tests weighted too heavily * All the hardest courses are in the fall semester and the easier ones in the winter. * Knots experience needed on the ground first. * Not enough time available to improve tree climbing * Need dendrology before co-op | |
| 2.2 Retention Rate   * Use the IPP (Integrated Program Planning) data that focuses on Retention. * Review patterns of retention on a semester by semester basis over the last five years. * Comment on the effectiveness of any strategies adopted to improve student retention. | | | | Retention statistics in the IPP for this program have remained consistent between 2012 and 2016, hovering around 76%. Students are required to pass a climbing course to move on in the program. One way we have addressed this is by adding climbing courses in the spring for students to re-take. | |
| 2.3 Graduate Rate   * Review patterns of graduation rates on a semester by semester basis over the last five years. | | | | The graduation rate is consistent with the MCU and Fleming at 66-74%. | |
| 2.4 Graduate Satisfaction   * Review patterns of graduate satisfaction and provide comment. | | | | Graduate satisfaction exceeded the college and MCU in all years ranging from 90-100%. | |
| 2.5 Enrolment Trends and Demand   * Your team will review and analyze the patterns in the number of program applicants, confirmations and actual registrants over the past 5 years. You will also examine changes, if any, in the student demographic profile and the impact, if any, of this changing student profile on program curriculum. * Assess whether the program curriculum needs to change based on the above analysis. * Use the FDR excel spreadsheet that provides Day 10 enrolment numbers for Fleming for the last 10 years, to assist you with your analysis. * Please review the IPP (Integrated Program Planning) data that focuses on trends related to student demand, and the related ‘Situational Analysis’ information included for your program – select the  Demand Trending Tab and Situational Analysis Tab. | | | | All semester enrolment from fiscal 2013-2015 was 128-141 students. The conversion factor from application to enrolment was 23-28%. Of note is that the reduction occurred in 2015 with 128 students enrolled which is 23% of applicants. | |
| 3.0 Program Curriculum | | | | Summary of Key Findings | |
| 3.1 Program Learning Outcomes and/or Sector Standards   * Review program level learning outcomes in preparation for curriculum mapping (vocational, essential employability skills, general education) * Where applicable review sector standards to ensure program is keeping up with new trends, developments and requirements. | | | | There is no need to change the Program Learning Outcomes. | |
| 3.2 Program of Study, Course Outlines, Delivery and Program Map   * Review the feedback and suggestions received from Course-level survey completed by faculty at the end of each semester. * Review the balance and frequency of assessment types across the curriculum and their appropriateness to learning outcomes for the course and program level outcomes. * Collect a cross section of samples of student work as evidence of achievement of learning outcomes. * Reflect and comment upon the variety of methods used to demonstrate program outcomes. * Reflect and comment upon the degree of technology-enhanced delivery of the program outcomes. * Discuss the degree and depth to which the program is providing work integrated learning experiences. * Record the course in the curriculum that covers the college-wide sustainability learning outcome * Review (or create) Program Curriculum Map(s) to ensure that there is alignment of current courses to the overall program outcomes, including the Vocational Learning Outcomes, the Essential Employability Skills, and adherence to the General Education Policy. * Make recommendations to address any gaps identified or improvements required. * Review the program’s current admission requirements and their suitability in relation to program rigour and student preparedness. * Include an updated program curriculum map on your program and curriculum review web page. | | | | Most faculty, according to the course level survey results, suggest only minor or no revision to individual courses. The two courses that require major revision are as follows:  APST89 Co-op Preparation: suggests a major revision in sequencing to have the student’s job ready earlier in the semester. Work is in progress.  SOCI59 Social Psychology: With a new text book and a review of resource links, the learning outcomes require major revision. Work is in progress.  There is no need to change the admission requirements. | |
| 4.0 Strategic Positioning and New Opportunities | | | | Summary of Key Findings | |
| 4.1 College and School Alignment   * Review program alignment with college priorities such as vision, mission, values, strategic plan, academic plan and the educational mandate, and / or academic priorities of the School. | | | | The academic plan calls for Fleming as a Centre of Excellence for Environmental and Natural Resources. Arboriculture falls in line with this mandate in the following ways:   * The high employment rate illustrates that it is responsive to student and employer needs. * The strengths outlined by the students reveals applied work and integrated learning. * The program is financially viable.   An area that requires more focus is the need to increase aboriginal content. GNED offers several opportunities to study the aboriginal culture. | |
| 4.2 Competitor Programs   * Analyze key parallels and differences between this program and those of its closest competitors, where applicable. * Comment on the ’Value-added’ program distinctions and their attractiveness to prospective students. | | | | Humber College oversees the 24 week pre-apprenticeship program in arboriculture. Humber also offers an Urban Arboriculture Certificate which includes a paid work placement from April until December. | |
| 4.3 Learning Pathways   * Comment on recent or anticipated initiatives that promote student pathways including secondary school partnerships, dual credits, program laddering, dual diplomas, and university transfer, articulations, and partnerships. * Identify any new pathways that could be developed. | | | | Some students complete Arboriculture and then continue on into the Urban Forestry Technician program. It was suggested by one student that it would be good to make it a smooth transition in the direction from Urban Forestry to Arboriculture also. | |
| 4.4 New Program or Redesign Ideas   * Are there opportunities for new program initiatives based on Program, School, or community strengths and alliances? | | | | Arboriculture is a good fit with the Urban Forestry Technician Program and University of New Brunswick for students who want to continue their education in this field. | |
| 5.0 External Relations | | | | Summary of Key Findings | |
| 5.1 Community Partnerships   * Does your program have significant partnerships, relationships, connections, or offers of support from the community that help to enrich the program and the student experience? * Are faculty, staff, and student involved in volunteer projects and events? | | | | We have significant industry partnerships with several organizations in the urban forestry / arboriculture / utility arboriculture disciplines. Hydro One and the City of Kawartha Lakes to name a couple.  We have engaged in various research projects with Hydro One and the Ontario Arborist Safe Work Practice committee. | |
| 5.2 Program Advisory Committee   * Comment on the distribution of Committee membership by constituency, sector, and / or region. * Comment on the vitality of the Committee (frequency of meetings, members’ level of participation, engagement, and turnover.) | | | | Meeting March 22, 2016: 11 professionals from the industry attended the joint Program Advisory Committee meeting Arboriculture and Urban Forestry programs. The advisory council represents many aspects of the industry with the members sharing a great deal of interest in the programs and the graduates. Some of the key points made by the members regarding how best to prepare our graduates for the workplace follow:   * Technical skills in the field are essential and the members agreed that the program prepares the graduates well in the technical skills. * The job field is changing in that there are fewer jobs with large employers and many jobs are seasonal or temporary with smaller businesses. The change requires the graduate to possess many advanced skills in communication including interacting with the public, technical report writing, assertiveness skills related to their own safety. One challenge lies in convincing students of the value of such skills in their career. * The co-op program adds value in that the students experience the job and may realize the need for the variety of skills in the process. * Extra certificates also contribute to the graduates employability, e.g. DZ driver’s license, pesticide certificate * A respect for cultural diversity plays an important role on the job. In particular is the need to understand the perspective indigenous people and their relation to trees. * Recent efforts to promote gender equality in the field were commended such as the special event, “Women in Trees”. | |
| 5.3 Alumni Relations   * Describe the type and range of alumnae involvement in the program. * Current and future strategies to engage alumnae in the program. | | | | Alumni Relations spoke at the recent PAC meeting to explain the work of the Alumni Office and the fundraising projects completed and in progress. There are two major projects slated for Frost Campus. There are strategies in place to engage alumnae. | |
| 6.0 Program Resources | | | | Summary of Key Findings | |
| 6.1 Program Revenue and Expenses   * Please review Integrated Program Planning (IPP) information for your program. * Are program resources adequate, in the context of program currency and student numbers? (e.g. laboratory equipment, software, library holdings, or tools essential to program delivery and student learning. * Are there opportunities for further program specific external revenue such as sponsorship, grants, donations or gifts-in-kind? * Review the existing revenue and expenses associated with your program using the IPP tool and provide comments below. | | | | The revenue, cost and net income for Arboriculture shows an increase in cost in 2014 and 2015 over 2013. Delivery costs account for the largest increase. The program percentile score for finance was 49%. The CTO dropped from 31% in 2013 to 25% in 2014 and 2015.  With the addition of the summer climbing incentive these numbers should show substantial improvement.  Secure storage space is seriously lacking for the large amount of valuable equipment used by the program. | |
| 6.2 Faculty and Staff Resources  Please comment on:   * The number and distribution of all faculty, technicians, and technologists associated with the program including full-time, part-time, sessional, and cross-appointments. * Profile of the faculty, and staff associated with the program including cumulative credentials, scholarship, work-related and teaching experience, and expertise in education. * Significant faculty or staff accomplishments such as professional recognition and awards, achievement of credentials, and appointments. * Hiring priorities over the next few years based on the above. | | | | More full time faculty would be a great asset to this program. Our technical support team is currently very good. | |

**Program Improvement Plan**

Based on the analysis of your key findings, identify areas that require attention and action in the next 1-3 year timeframe. Ensure that you only recommend actions that reflect the program’s priorities and its capacity to achieve them, and record the success of any changes implemented and the means by which they are being evaluated.

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| Recommended Improvements: | Timeframe | Person(s) Responsible | Action Taken  Proceeding = P  Completed = C  Not Feasible = NF |
| **Research projects for industry:** Seek additional  research grants to contribute to applied projects. | May-June 2017 | Joe Outram | P |
| **Working at Heights Research**  Ontario Ministry of Labour Safety standards are being enhanced for working at heights. The  program will seek opportunities to be involved  in research and implementation. | May-June 2017 | Joe Outram | P |
| **Online Learning:** Strive to provide more  e-learning opportunities for all types of students and learners especially for continuing education for workers in the industry. Such a project requires additional resources for development. |  |  | NF |
| **Common First Semester:**  Develop a common first semester for Arboriculture, Urban Forestry Technician, and Urban Forestry Technology. | Sept 2017 | Joe Outram and Tom Mikel | P |