



Program Review Quality Assurance Plan

Quality Assurance Plan for: Environmental Protection

Date submitted to SSCPR: April 2016

Date Self-Study Report approved by SSCPR: January 2017

Date of External Review: Oct 20/2016

SUMMARY

Summarize what the program has determined - through evidence - about program quality (e.g. strengths, challenges, opportunities for improvement, potential threats, etc.)

The EPT program is unique in BC. It delivers a mix of general education, including a thorough grounding in science basics, and hands-on skills designed to produce graduates ready for the needs of the environmental employment sector.

Among the challenges are the difficulty of getting the word out and becoming well known in the community (this includes challenges for recruiting students as well as contract faculty with industry experience); integrating the delivery of fundamental science with practical skills; reducing attrition without sacrificing on learning outcomes. Addressing these challenges provide opportunities to improve the program.

One key threat to the program would be losing its accreditation status. Accordingly, some of the recommendations are made with an eye to strengthen the match between the program learning outcomes and those of the accreditation agency against which the program is evaluated.

QUALITY ASSURANCE GOALS

List the program’s Quality Assurance Goals (broad statements about what the program intends to accomplish to ensure program quality). Identify the Recommendation(s) – drawn from the Self-Study Report and External Review Report - each Goal addresses. Provide a brief Rationale for each Goal (see the Quality Assurance Plan Guidelines for instructions). Add or remove rows as necessary.

GOAL 1: A new course where project management, ethics, and professional concerns specific to the environmental industry can be addressed, in parallel to the current co-op course.

RATIONALE FOR THIS GOAL: a) Providing such learning outcomes is expected of all technology program; b) this creates a forum to create a sense of identity and belonging for the EPT students

Recommendation(s) this Goal Addresses	Report (page number)
Incorporate project management topics into curriculum	20, 26
Explore ways to foster a sense of identity and integrate experiential learning from co-op	20

GOAL 2: modify curriculum in two key service courses (Ecology and Physics)

RATIONALE FOR THIS GOAL: a) Create a better match with accreditation outcomes; b) address student attrition by reducing non-essential content

Recommendation(s) this Goal Addresses	Report (page number)
Repatriate key courses	20, 27

GOAL 3: Create block registration for incoming first year students

RATIONALE FOR THIS GOAL: improve sense of identity by creating a true cohort; ensure that students select appropriate sections (for schedule management as well as appropriate course focus)

Recommendation(s) this Goal Addresses	Report (page number)
Create block registration	20

GOAL 4: Improve communication within KPU

RATIONALE FOR THIS GOAL: a) Improve understanding by all instructors of the general learning outcomes of the program; b) create research opportunities for all instructors; c) identify opportunities for partnering with other programs and create new avenues for students wishing to pursue a degree

Recommendation(s) this Goal Addresses	Report (page number)
Invite instructors to advisory committee meetings	Pg 20
Liaise with programs such as Geography, Urban Ecosystems, Policy Studies, Sustainable Agriculture	Pg 20

GOAL 5: Improve communication with the outside community

RATIONALE FOR THIS GOAL: a) Improve student recruitment; b) raise profile in the community, especially to identify possible community research partners and other opportunities for experiential learning; c) increase awareness of our program among sister institutions; d) facilitate student mobility between institutions

Recommendation(s) this Goal Addresses	Report (page number)
Continue community outreach and increase social media presence	Pg 20
Submit appropriate courses for transfer credits	Pg 20

RECOMMENDATIONS THE QUALITY ASSURANCE PLAN DOES NOT ADDRESS

List the Recommendations from the Self-Study and External Review this Plan does not address. Provide a brief explanation why these Recommendations cannot be addressed. Add or remove rows as necessary.

Recommendations	Report (page number)	Explanation
Goal 3 (block registration)	Pg 20	While we will try to get this implemented, the control of this does not reside within FSH; we will simply ask the Registrar's Office to consider our initiative

QUALITY ASSURANCE FIVE-YEAR ACTION PLAN

Describe the program’s Quality Assurance Objectives (specific and demonstrable milestones the program must achieve to attain its Goals). Detail the actions the program will take to achieve each Objective.

List the objectives the program expects to achieve in Year One following the submission of the Quality Assurance Plan. Add or remove rows or tables as needed.

OBJECTIVE: Creation of a course about the Environmental Industry

GOAL(S) THIS OBJECTIVE SUPPORTS: GOAL 1 entails the creation of a new course where project management, ethics, and professional concerns specific to the environmental industry can be addressed, in parallel to the current co-op course.

RATIONALE FOR THIS OBJECTIVE: a) Providing such learning outcomes is expected of all technology program; b) this creates a forum to create a sense of identity and belonging for the EPT students

Action(s) Required to Achieve this Objective	To be Led by	To Begin on (M/YY)	To be Completed By (M/YY)	Notes
Submit a course outline, program change, and develop course material	Chair	Feb 17	May 18	
Request funding for course, identify or hire contract instructor (NR1)	Dean	Sept 17	ongoing	
Launch course	Dean	Sept 18	ongoing	

OBJECTIVE: modify curriculum in Physics, Ecology courses

GOAL(S) THIS OBJECTIVE SUPPORTS: GOAL 2, which was originally stated as the “patriation” of two key service courses (Ecology and Physics) into ENVI courses so as to be able to modify their learning objectives and approaches. This has been modified to rather work with faculty and staff from both department to achieve the required outcomes without changing the course numbers or the structure of the program.

RATIONALE FOR THIS GOAL: There were two main reasons for this goal: create a better match with accreditation outcomes, and reduce student attrition by reducing content considered of low importance for accreditation. The proposed strategy is different from the stated goal in the self-study report. It was determined that an easier path may be to modify existing courses rather than create new ones. This effectiveness of this strategy is to be re-assessed after two years.

Action(s) Required to Achieve this Objective	To be Led by	To Begin on (M/YY)	To be Completed By (M/YY)	Notes
Initiate consultations with Physics and Biology chairs and instructors	Dean & Chair	Jan 17	May 17	Completed, but discussions on-going
Launch modified courses	Biology and Physics	Sep 17	Dec 18	

OBJECTIVE: Community liaison

GOAL(S) THIS OBJECTIVE SUPPORTS: GOAL 5, Improve communication with the outside community (including sister institutions)

RATIONALE FOR THIS OBJECTIVE: a) Improve student recruitment; b) raise profile in the community, especially to identify possible community research partners and other opportunities for experiential learning; c) increase awareness of our program among sister institutions; d) facilitate student mobility between institutions

Action(s) Required to Achieve this Goal/Objective	To be Led by	To Begin on (M/YY)	To be Completed By (M/YY)	Notes
Launch an advertising campaign on social media, develop video material for website in consultation with FSO and Marketing	Communication specialist	April 17		ongoing
Increase awareness of program in environmental industry through industry-led student project partnerships	Chair & co-op coordinator	Sept 18		Guest speakers in new course; press releases for specialized outlets
Submit courses for transfer credit evaluation	Chair	Sept 18	Sept 21	Current course outlines to be updated first

OBJECTIVE: Invite instructors to advisory committee meeting, other meetings

Improve communication within KPU

GOAL(S) THIS OBJECTIVE SUPPORTS: Goal 4, which is to improve EPT-relevant communication within KPU

RATIONALE FOR THIS OBJECTIVE: It is desirable to improve all instructors' understanding of the general learning outcomes of the program; this may also create opportunities for research partnership for all instructors and foster synergy of complementary expertise and interests.

Action(s) Required to Achieve this Goal/Objective	To be Led by	To Begin on (M/YY)	To be Completed By (M/YY)	Notes
Identify suitable time for an initial special meeting at upcoming advisory committee meeting	Chair	April 17	Sept 17	
Schedule larger advisory/instructors meeting	Chair	Oct 17	ongoing	May require postponing to May 2018 (instructors time conflicts may be more easily avoided)
Create an appropriate forum for annual meetings	Chair, Co-op	Sept 19	ongoing	Could be equivalent of career day

YEARS THREE TO FIVE: Sept 19 to Sept 22

List the objectives the program expects to achieve in Years Three to Five following the submission of the Quality Assurance Plan. Add or remove rows or tables as needed.

OBJECTIVE: patriate service courses in Biology and Physics – if necessary

GOAL(S) THIS OBJECTIVE SUPPORTS: Goal 2, which is to modify curriculum in two key service courses (Ecology and Physics)

RATIONALE FOR THIS OBJECTIVE: It remains possible that the course contents and learning objectives of these two service courses, BIOL 2322 and PHYS 1140, cannot be modified suitably to address the program’s needs (there may be limited flexibility, especially in the case of BIOL 2322 which already has transfer status to other institutions). The overall rationale for the requested changes is to create a better match with required accreditation outcomes, while also addressing student attrition by reducing content and outcomes not considered essential.

Action(s) Required to Achieve this Goal/Objective	To be Led by	To Begin on (M/YY)	To be Completed By (M/YY)	Notes
Submit new course outlines (and program change), if necessary after a two-year pilot	Chair	Sept 2019	Feb 2020	To be performed only if strategy of modifying current courses ineffective
Create course material	Chair	Sept 2019	Sept 2020	“
Identify instructors as appropriate	Dean	Mar 2020	Sept 2020	“

April 26, 2017

Senate Standing Committee on Program Review

Institutional Response: Environmental Protection Technology (EPT) Diploma

I would like to extend congratulations to Dr. Paul Richard (EPT Department Chair) for singlehandedly compiling a comprehensive and honest review of a long-standing, successful program which has not been previously internally reviewed. I would like to point out that this review was the first in KPU to coincide with the submission of an extensive report to the external accreditation body, Technology Accreditation Canada (TAC) and I commend Dr. Richard on being the guinea-pig in participating in this internal/external joint review. The external review culminated in the EPT program being the first program in British Columbia to receive TAC Accreditation.

Dr. Richard outlines five (5) Quality Assurance Goals, based on recommendations outlined in the Self-Study and found in the TAC Accreditation Audit Report. In consultation with Dr. Salvador Ferreras, Provost and Vice-President Academic, I approved of the goals and steps outlined to achieve said goals. This program epitomizes both Vision 2018 and the Academic Plan 2018 and the successful achievement of these goals will ensure that the program evolves to continue to fit the needs of students and the industry.

Goal 1: Incorporate project management topics into the curriculum. This is a very important goal and one that also has been suggested by the members of the EPT Advisory Council. The plan to develop and launch a new course in September 2018 is very doable and is already underway. I support this goal and will seek funds from the Provost to hire an external industry expert to teach this course (NR1), not unlike what is presently being done with a few of the other highly industry-specific ENVI courses.

Goal 2: Modify curriculum in Ecology and Physics service courses. Again, this recommendation also came from the EPT Advisory Council. This recommendation reflects what is desirable in job-ready EPT graduates and will be required to maintain future TAC accreditation. Dr. Richard and I have already met with the key instructors of the two courses and come to an amiable agreement to pilot substantive changes in primarily the laboratory component of both courses to reflect the learning outcomes needs. This was a very positive experience with the instructors in each case excited to incorporate more relevant content in their existing courses. These changes will be implemented for September 2017 and will run as pilot for two years, then reassessed and a decision will be made as to whether or not new stand-alone courses should be developed or to retain the current EPT-focussed courses.

Goal 3: Block registration for incoming students. This goal seeks to identify a process whereby a true cohort nature of the program be introduced. Presently, students have several options for service courses and more often than not do not register in courses in a lock-step fashion. This results in some students falling out of sync with classmates and having to wait an

extra year to get key courses. We would like to work with the Registrar Office to find a mechanism that once a student is admitted into the EPT program they are automatically registered in all the courses in Year 1 and then Year 2. Although not identified as a major goal it is one that I support and hope to see implemented in the near future.

Goal 4: Improve internal communication and liaisons. A good proportion of courses making up the EPT Diploma are taught by instructors from other FSH Departments (Biology, Chemistry, Physics, Mathematics) and Faculties (Arts, Business) thus removing any control EPT has over who is chosen to teach EPT students. This can, and periodically has, resulted in non-ideal selections of instructors. Regardless, this goal highlights the need for the EPT Chair to, on a yearly basis, facilitate the interactions of all instructors teaching EPT courses by meeting to share curricular ideas, pedagogies, research interests and expertise. We suggest that this also extends to inviting faculty from related disciplines such as Horticulture, Brewing, Design, and Sustainable Agriculture to join in what could be an annual forum. I strongly support any and all forms of collaboration and encourage Dr. Richard to initiate the planning for an inaugural gathering to take place no later than Spring 2018. As Dean, I would be happy to dedicate funds for refreshments for a yearly event.

Goal 5: Improve external communications and liaisons. This goal is multifaceted and covers recruitment, community awareness and experiential learning opportunities. Although the EPT Program is well respected both internally and externally there is always room for improvement. Dr. Richard has already met with FSH Communications and Events Specialist Triona King to devise a marketing and recruitment strategy. Dr. Richard plans to involve more guest speakers in key courses and seek out more industry partners for student research projects and co-op placements. Inviting instructors to meet with the EPT Advisory Council is a quick win and will be actioned for the Fall 2017 Advisory Council meeting. Until the proposed B.Sc. in Environmental Geography degree is launched we need to ensure EPT graduates can bridge into advanced programs offered by other institutions. To enable this Dr. Richard will systematically update all relevant ENVI courses and submit to BCCAT for transfer credit evaluation. I support all of these initiatives and will provide resources on an 'as-needed' basis.

In summary, in consultation with Provost Dr. Sal Ferreras, I am fully supportive of the goals and timelines outlined by Dr. Richard and pleased to see that many are already well on their way to fruition. In addition, I congratulate Dr. Richard for an exemplary program review and look forward to seeing the above goals implemented.

Respectfully yours,



Elizabeth (Betty) Worobec, Ph.D.
Dean, Faculty of Science and Horticulture