Forestry and Natural Resources Articulation Committee Meeting

College of New Caledonia

June 5-6, 2018

June 5th

Attending:
Roy Rea – UNBC (Chair)
Rick Chester – BCIT
Greg Rose – CNC
Ed Morrice – CNC
Peter Marshall – UBC
Andres Enrich – VIU
Brendan Wilson – Selkirk College
Tom Willms – NVIT
Alex Drummond – UofA
Derrek Marcoux – College of Applied Biology
Marc Mayhew – NAIT
Anna Tikina – BCCAT
Casey Maculay – ABCFP
Tim Ewanchuk – Ministry of Advanced Education

Meeting called to order 8:30 (moved Ed Morrice)

Introductions

Finalized the Agenda (moved Alex D.; seconded Peter M.)

Approved last year's minutes (moved Brendan W.; seconded Andres E.)

Action from last year did not get addressed by Doug as far as we know, Andres agreed to look into it.

Action: Andres will follow up with letter to ABCFP about colleges signing letter (but see below)

Anna addressed some questions about BCCAT and its role

Rick, Peter, Tom, Alex, and Brendan start discussions around the Transfer Credit System and how agreements do or do not work between institutions. Some discussion around how to make it better (Rick will discuss later with his report). Also, Casey will bring some of these issues forward in his report.

SCHOOL REPORTS

CNC School Report (Ed Morrice)

- See attached

UBC School Report (Peter Marshall)

- See attached

Some discussion around the percentages of international vs domestic students and retention of 1st and 2nd year students.

Some discussions around field schools and in-class vs. field teaching.

BCIT School Report (Rick Chester)

- See attached

Tim Ewanchuk joins the discussion by phone from Vancouver

COLLEGE OF APPLIED BIOLOGY Presentation by Derek Marcoux

- See attached

How schools can get accredited with the CAB – easy process.

Group discussion on memberships with the CAB – RPBIO, RBtech, ABT, Student Biologist. Question arises: What do employers want?

ABCFP Presentation by Casey Maculay

- See attached

Discussion on how to get information to first year students is needed regarding the importance of joining professional associations, whether CAB or ABCFP

Some discussion on who should be delivering the message, the Association or its membership

Discussion on professional reliance review and how the government is wrapping it up

Perhaps an engineering like model for student cohorts should be used in Forestry

Big discussion on CTAB vs CFAB vs TAC and benefits and some difficulties in working with these accreditation bodies

Rick begins to discuss his course articulation matrix that had its roots in the Jasper Process

More discussion on CTAB vs CFAB. Group wonders if CFAB might work for all. References to the letter that Doug was going to draft begin to take shape

TAC enters the discussion. Which of the accrediting bodies is best suited for which situation.

Anna brings up Transfer Innovation Funding and encourages the development of a proposal by anyone interested in working on this.

SUGGESTION: Rick suggests that we go back to a two day meeting. We don't have time to discuss the things we need to discuss given the Agenda is full as is.

Discussion comes back around to CTAB vs. CFAB

Action (Draft see below): The Forestry Articulation Committee will prepare and submit a letter to the CEO of ABCFP and appropriate interested bodies that identify concerns with the current accreditation process and our interest in exploring alternative national college technology accreditation avenues by August 1, 2018 (signed by members of Forestry Articulation)

More discussion on why it needs to be ready by August. Casey is to meet with CFAPA in September and should have the letter to present. The matrix Rick discussed should also be presented at the same time if possible. More discussion on the matrix is moved to the following day.

U of A School Report (Alex Drummond)

- See attached

Ministry of Advance Education Report (Tim Ewanchuk)

- See attached

Tim discusses proposals and upcoming pilots designed around Forest Safety Fundamentals and Wood Product Growth/Innovation. The groups has questions around these pilots. Tim leaves the conversation at 4:00pm.

NVIT School Report (Tom Willms)

- See attached

Tom tells us about field schools and welcomes other schools to partner for field camps. Archaeology comes up as a topic of discussion and how more foresters are asking for Arch training.

A discussion on indigenization and how First Nation Communities are trying to build capacity to manage their traditional lands. This discussion will be continued the following day.

Meeting moved to adjourn for the day at 4:45 pm (Moved by Alex and Seconded by Andres)

June 6th

Opened meeting at 8:32 (Moved by Greg Rose, Seconded by Tom Willms)

Unfinished Business:

Ed Morrice picks up the discussion on indigenization and we discussed the importance of acknowledging when you are on indigenous territory. Roy acknowledges we are meeting on the unceded territory of Lheidli T'enneh now that it is apparent that it probably fits for this meeting

SUGGESTION: Articulation meetings should start with this acknowledgement.

Discussion on acknowledging FN territory when and where it is appropriate.

Ed presents shows Indigenization powerpoint

- See Moodle site

Ed gives an update on the status of the Career Zone Pamphlet produced by the Ministry of Advanced Education.

The Forestry Career Zone has been in draft over a year.

There is discussion mostly amongst Ed, Roy and Anna around why this cannot be completed given that Ed, Roy, Mike Jull and Anna put in a lot of effort to make document happen. It is the only one still in draft while all the others are complete. Will it ever be completed? Anna is going to look into it and follow up.

CIF Report (Alex Drummond)

- See attached

Alex discusses the September CIF meeting and encourages all to attend.

Casey suggests that student presentations at these conferences to attract more students.

Will social media help attract young folks? Should we be using Instagram, facebook, linkedin, twitter?

Social media may not be the answer. Rick suggests get them to Quiz Bowls and Chili cook-offs – this is what we bring them out.

More discussions about getting and retaining students. Students ask what does the CIF do for us?

Should CIF consider lowering costs for membership for students and new grads?

More Unfinished Business

Roy asks Ed if folks have had a chance to think about yesterday's action item and if Ed was able to incorporate comments. Ed presents:

Action: The Forestry and Sustainable Resources Management Articulation Committee will prepare and submit a letter to the CEO of ABCFP and appropriate interested bodies that identify concerns with the current technology accreditation processes and our interest in exploring alternative national accreditation avenues by August 1, 2018 (to be signed by members of Forestry Articulation). Ed will

forward an outline of the letter to Brendan who will pen a draft of the letter that will be distributed to the committee for comment in the next few weeks.

BCCAT Report (Anna Tikina)

http://www.bccat.ca/pubs/AC%20Update%202018%20Spring.pdf

Anna introduced BCCAT and articulation committee work in the province, and showed how to look up transfer agreements in some sections of BC Transfer Guide. Rick shows how he uses the on-line services.

Anna provided a brief overview of BCCAT activities. Joint Annual Meeting (JAM) for Chairs and SLPs is held on November 16 in Downtown Vancouver. Transfer Awards are given out at JAM, and the nominations for the awards are open until June 29.

Anna pointed to the Ministry of Education update on the high school curriculum reform, available on the BCCAT website: http://www.bccat.ca/pubs/MOE%20Background%20for%20ACs.pdf. Committee entered a discussion on how high school curricula and expectations are changing and how that will impact colleges and universities.

Anna presented several BCCAT publications, all of which are found on line. The report on indigenizing education pathways was funded by contemporary issues funding. There will be an upcoming call for proposals in the summer, which is open to BC faculty, staff and students for projects that fall under the Council mandate.

The Committee discussed the use of a Moodle site for committee documents. The instructions on setting up and managing a Moodle site can be found on the BCCAT website.

Action: Ed will investigate sharing items from this meeting on Moodle

More Unfinished Business

We project Rick's spreadsheet/matrix onto screen for Rick to present. Some discussion around how we need to populate this matrix at least every other year at these meetings. Rick suggests why the Jasper Process should be rejuvenated. Rick promotes keeping the matrix up-to-date.

More discussion on CTAB and core competencies and how this is relevant for various programs.

MOTION (Moved Rick and Seconded Brendan): Each technical and university program to complete the matrix (provided by Rick) and fill out and send to committee chair two weeks prior to the next articulation meeting.

Discussion: Should universities participate in this?

ACTION: Rick sends out matrix to committee members and Ed puts it on the Moodle site.

Let's do this as soon as possible, but it won't happen during the summer.

We have run out of time so some school reports will need to be read by committee members. Brendan says a few things about Selkirk, but not the whole report. Selkirk, UNBC, NAIT, and VIU reports will need to be read at home.

Discussions around the next meeting:

The next meeting will be held at Selkirk in Castlegar in early June?

Ed nominates Roy to be chair, Alex seconds. Roy agrees to be chair for the year but may not be able to chair the meeting if away at a Moose conference.

Meeting Adjourned at 12:12pm (Moved by Greg R. and Seconded by Andres E.)

REPORT TO THE FORESTRY AND SUSTAINABLE RESOURCES MANAGEMENT ARTICULATION COMMITTEE
2017/18
UNIVERSITY OF NORTHERN BRITISH COLUMBIA
BSC NATURAL RESOURCE MANAGEMENT – FOREST ECOLOGY AND MANAGEMENT, WILDLIFE AND FISHERIES (MAJORS)

Adapted by: Roy V. Rea, UNBC (reav@unbc.ca)

1. Introductory Overview

1.1. Institutional Snapshot

The University of Northern British Columbia (UNBC) is a "primarily undergraduate university" with a diverse set of undergraduate degrees that range from the health sciences to natural resources management. The university offers a number of graduate degrees (MEd, MScN, MSW, MBA, MA, MSc, MNRES (Master of Natural Resources in Environmental Studies), PhD NRES, PhD Psychology, PhD Health Sciences). In September 2017, there was a total of 3,353 students in academic programs ("Fall Headcount": Undergraduate Programs = 82%, Graduate Programs = 18%). These programs and courses were supported by approximately 164 full-time tenured and tenure-track faculty, along with 24 full-time annual, sessional, and definitive term instructors.

1.2. Program offerings overview

The Ecosystem Science and Management (ESM) Program offers a BSc degree in Natural Resources Management. Within this degree, students choose a Major in Forest Ecology and Management, Wildlife and Fisheries, or Outdoor Recreation and Conservation. The degree is supported primarily by courses administered by the ESM program, but other programs from across UNBC's two colleges offer core curriculum for the three majors. Students completing the Forest Ecology and Management major can seek admission as Registered Professional Forester with the ABCFP. The Wildlife and Fisheries Major (as well as Biology) is accredited as meeting the College of Applied Biology's education requirement for enrollment as a Registered Professional Biologist in BC. Both the Wildlife and Fisheries and Outdoor Recreation and Conservation majors meet the requirements of the ABCFP's Natural Resource Professional designation. There are a number of options for students pursuing graduate studies in natural resources management. This includes the MSc Natural Resources and Environmental Studies (NRES; focal areas include Biology and Forestry). The Master of Natural Resources and Environmental Studies (MNRES) and PhD in NRES provide students with a more interdisciplinary perspective. These degrees are housed in the NRES Graduate Program.

2. Enrollment/Graduation Summary (Tables 1&2) for 2017/2018 Year

Institution: University of Northern British Columbia

Program Name: BSc Natural Resource Management – **Forest Ecology and Management**
Capacity: none
Accreditation: Registered Professional Forester; may meet the education requirements of the College of Applied Biology if student chooses appropriate Minor and electives.

Table 1	Academic Year					
	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018
Enrollment	43	52	50	51	71	93
Graduates	6	10	11	9	8	9

Note: Autumn headcount; does not include 1st year students or transfer students with <30 credit hours

Program Name: BSc Natural Resource Management – **Wildlife and Fisheries**
Capacity: none
Accreditation: Registered Professional Biologist and Natural Resource Professional.

Table 2	Academic Year					
	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018
Enrollment	63	67	61	76	89	93
Graduates	8	13	8	13	13	9

Note: Autumn headcount; does not include 1st year students or transfer students with <30 credit hours

3. Institutional Activities

3.1. Significant Curricular Changes

Forest Ecology and Management

In 2008, the UNBC senate approved significant revisions to the UNBC Forestry major, including renaming the major to Forest Ecology and Management. The revised major was structured so that it meets the core competencies, as defined by the CFAB, as well as providing students with a choice of a minimum of one of 13 approved minors. Each minor was designed or selected so that it complemented the core and met the disciplinary needs of professionals choosing to specialize in a particular area of forestry. Currently, minors in Natural Resources Planning and Operations as well as Environmental Science, and Biology and Conservation are most often chosen by students pursuing the Major in Forest Ecology and Management (Table 3). The large number of enrollments in the Planning and Operations minor represents the easiest transition (i.e., fewest credits) for students that had partially completed the degree requirements of the former Forestry major.

Table 3. Declared minors for the major in Forest Ecology and Management (BSc Natural Resources Management) for 2016-17 and 2017-18.

Minor Code	Minor Description	2016-17	2017-18
(blank)	None	49	48
BICO	Biology and Conservation	5	10
BIOL	Biology	1	
ENST	Environmental Studies		2
EVSC	Environmental Science	3	10
FORE	Forest Recreation	1	2
GBUS	General Business	8	5
GIS	Geographic Information Systems	2	8
IEK	Indigenous Ecologicl Knowledge		2
NRPO	Nat Res Planning & Operations	11	14
PLAN	Planning		1
SDNR	Soc Dimensions of Nat Res Mgmt	1	
SOEN	Soils & the Environment	2	2
Total Forest Ecology and Management		**71**	**93**

The Forestry Curriculum Committee administers a comprehensive exit survey to students graduating from the Major. Survey data allow us to monitor the new course offerings, general acceptance of the Major by students, as well as issues of course scheduling and overlap. Students have consistently requested additional exposure and/or course work in operational forestry. Although the degree is compliant with the standards set by the Canadian Forestry Accreditation Board, some members of the UNBC Forestry Advisory Committee have also suggested that students would benefit from additional exposure to the practice (not just theory) of active forest management. Canfor has recently partnered with UNBC to offer a 4th year course in forest operations. The course is coordinated by a faculty member at UNBC (Kathy Lewis), but mostly taught by Canfor employees. Students are required to participate in field trips to working forest locations in the region as well as local mills.

Table 4. Course requirements and example progression (2017-2018) for students pursuing a Major in Forest Ecology and Management (BSc NRM).

First Year	
Fall	Winter
Introductory Biology I (BIOL 103-3)	Introductory Biology II (BIOL 104-3)
Introductory Biology II Lab (BIOL 123-1)	Introductory Biology II Lab (BIOL 124-1)
General Chemistry I (CHEM 100-3)	General Chemistry II (CHEM 101-3)
General Chemistry Lab I (CHEM 120-1)	General Chemistry Lab II (CHEM 121-1)
Field Skills (NREM 100-3)	Introduction to Natural Resources Management and Conservation (NREM 101-3)
Calculus for Nonmajors (MATH 152-3)	Communications in Natural Resources and Environmental Studies (NRES 100-3)
	Microeconomics (ECON 100-3)
Elective Credits: 3	Elective Credits: 0
Total Credits: 17	**Total Credits: 17**
Second Year	
Fall	Winter
Ecology (BIOL 201-3)	Weather and Climate (ENSC 201-3)
Forest Plant Systems (FSTY 201-3)	Forest Biology and Silvics (FSTY 209-4)
Introduction to Soil Science (FSTY 205-3)	Basic Statistics (MATH 240-3)
Terrestrial Ecological Classification (FSTY 207-1)	Cartography and Geomatics (GEOG 205-3) or
Geomorphology (GEOG 210-3)	Geographic Information Systems (GEOG 300-3)
Resource Inventories and Measures (NREM 203-3)	
Elective Credits: 3	Elective Credits: 3
Total Credits: 19	**Total Credits: 15**
Third Year	
Fall	Winter/Summer
Silviculture (FSTY 305-4)	Forest Economics (FSTY 310-3) or Society, Policy, and Administration (NREM 306-3)
Disturbance Ecology/Forest Health (FSTY 307-3)	Field Applications in Resource Management (NREM 333-3; Summer)
Forest Disturbance Agents (FSTY 317-1)	Natural Resources, Environmental Issues and Public Engagement (ENVS 326-3)
First Nations Approaches to Natural Resource Management (NREM 303-3)	
Elective Credits: 4	Elective Credits: 6
Total Credits: 15	**Total Credits: 15**
Fourth Year	
Fall	Winter
Forest Practices and Management (FSTY 408-3)	Natural Resources Planning (NREM 400-4)
Professional Writing (NRES 421-1)	Forest Ecosystem Modelling (FSTY 405-3)
	Environmental and Professional Ethics (NREM 411-3)
	Undergraduate Report (NRES 422-2) or Undergraduate Thesis (NRES 430-6)
Elective Credits: 12	Elective Credits: 6
Total Credits: 16	**Total Credits: 18**

Note: completion of the Major requires that students complete 1 of 13 identified complementary Minors: Biology and Conservation; Earth Sciences; Environmental Planning; Environmental Science; Environmental Studies; Forest Recreation; General Business; Geographic Information Systems; Global Environmental Change; Natural Resources Planning and Operations; Social Dimensions of Natural Resources Management; Indigenous Ecological Knowledge; Soils and the Environment.

Wildlife and Fisheries

The curriculum committee for the Wildlife and Fisheries major has not implemented any changes in course content over the past year. Exit surveys suggest that the degree is well received by the majority of students. One area of concern by faculty and students continues to be the difficulty in transferring from college programs into this major. The diploma programs often lack introductory biology, chemistry and math courses that articulate to the required first-year courses at UNBC. The Wildlife and Fisheries major is very prescriptive, and thus, students are often limited in their progression through the degree by a lack of prerequisites for upper-level courses as well as overlaps in course scheduling when attempting to complete upper-level and lower-level courses during the same year. Many students involved in the major are active participants in the UNBC Fish and Wildlife Student Chapter of The Wildlife Society. This includes Chapter-led research projects, field visits to UNBC Research Forests and fish and wildlife facilities such as local bird operations, fish hatcheries, and wildlife rehabilitation centres, as well as attendance at conferences.

Table 5. Course requirements and example progression (2017-2018) for students pursuing a Major in Wildlife and Fisheries (BSc NRM).

FIRST YEAR COURSES

FALL	WINTER
BIOL 103-3/123-1	BIOL 104-3/124-1
CHEM 100-3/120-1	CHEM 101-3/121-1
NREM 100-3	NREM 101-3
PHYS 115-4 or PHYS 100-4	NRES 100-3 or ENGL 170-3
	MATH 152-3 (F or W)
15 credit hours	**17 credit hours**

TOTAL 32 credit hours

SECOND YEAR COURSES

FALL	WINTER
SELECT 2 OF BIOL 204-3 or GEOG 210-3	or BIOL 202-3 or NREM 210-4
BIOL 201-3	CHEM 220-3
FSTY 205-3	BIOL 210-3
NREM 204-3	STAT 240 -3 (F or W)
FSTY 207-1	Elective-3
FSTY 201-3 or BIOL 301-3[1]	
16 credit hours	**15-16 credit hours**

TOTAL 31-32 credit hours

THIRD YEAR COURSES

FALL	WINTER
BIOL 307-3	BIOL 302-3
BIOL 308-3	BIOL 315-3
NREM 303-3 (F) or NREM 306-3 (W)	ENPL 305-3 or NREM 411-3 or ENVS 326-3
GEOG 300-3	BIOL 325-3
Elective-3	Elective -3
15 credit hours	**15 credit hours**

TOTAL 30 credit hours

FOURTH YEAR COURSES

FALL	WINTER
BIOL 402-3 or BIOL 404-3	BIOL 411-3
BIOL 406-3	BIOL 413-3
BIOL 410-3	BIOL 414-3
BIOL 412-3	NREM 400-4 or NREM 410-3 or NREM 333-3
Elective-3	Elective-3
15 credit hours	**15-16 credit hours**

TOTAL 30-31 credit hours

[1] Students electing to take Biol 301 in place of FSTY 201 should take an elective in Fall of second year.

3.2. Program Activity Highlights

There are changes in the faculty complement in the Ecosystem Science and Management Program that will have some bearing on the majors in Forest Ecology and Management and Wildlife and Fisheries. In 2014, the FRBC/Slocan Chair of Mixedwood Ecology was filled by Dr. Ché Elkin. Dr. Elkin's research is focused on how climate and landscape disturbances interact to influence forest dynamics, landscape connectivity, and the spatial distribution of forest ecosystem services. Dr. Staffan Lindgren, forest entomologist, retired in late 2015. That position has been filled recently (Eduardo Martins, Waterloo) with a tenure track position in Fish Ecology and Management. Dr. Oscar Garcia, FRBC/West Fraser Growth and Yield Chair in Forestry, retired in April 2014. That position was filled in November 2015 by Dr. Oscar Venter. Dr. Venter's research integrates the disciplines of conservation biology, forestry, economics and landscape design to understand the trade-offs and synergies among economic production, ecosystem services and conservation in forested ecosystems. He has a strong interest in forest management and conservation issues in the tropics, especially South East Asia, and BC-focused research is currently an emerging area of research for his group. Dr. Jane Young, plant biologist retired in the summer of 2017. A search is currently being conducted for her replacement.

4. Accreditation

In April 2015, the CFAB site team visited UNBC and reviewed the Forest Ecology and Management major for accreditation. Key recommendations included reducing the number of minors available to students and increasing the academic content focused on forest economics and fire ecology. Also, the site team recommended that UNBC appropriately manage the hiring of new faculty; succession planning was noted as a potential challenge for the program in its efforts to maintain qualified and invested instructors for the courses required by the major. As a result of a very positive review, the CFAB granted the major a full 6-year accreditation. The Wildlife and Fisheries Major (and BSc in Biology) was reviewed by the College of Applied Biology in 2013 and was accredited as meeting the education requirements of the College.

5. International Education/Exchanges

The Ecosystem Science and Management program has actively supported undergraduate students in their attendance of national and international forestry meetings. Five students attended the Canadian American Regional Meeting of the IFSA in Quebec in 2016 and 7 students attended the same meeting in 2017 in Seattle. Two students attended CARM in Michigan in February 2017. One student attended the Parks Conference in Banff in March 2017. One student attended the Forest Sector Innovator Conference in June 2017. Two students attended the American Ornithology Society Meeting in Michigan in June 2017. One student attended the IFSA meeting in South Africa in July 2017. One student attended the World Environmental Education Conference in Vancouver in September 2017. One student attended the Entomological Society AGM in Winnipeg in October 2017. Five UNBC students attended the IFSA West Coast Meet Up in March 2018. One student is scheduled to attend the IFSS in Mexico in 2018.

6. Facility Changes

The Aleza Lake Research Forest completed construction of their long planned Field Education Centre (celebratory opening was on May 16, 2016). The Centre is located in the ALRF approximately 60 km northeast of Prince George. This is a 1,200 square-foot interpretive building of log and timber construction, designed to host field courses, meetings, retreats, training, and community events (https://www.aleza.ca/)

7. Student Recruiting/Community Outreach

Various faculty support local natural resources management outreach efforts and requests from youth organizations and schools. For example, elementary, preschool and youth groups (e.g., Sparks and Brownies Girl Guides of Canada) often request visits to UNBC to visit labs and explore the natural sciences. These visits not only increase youths' interests in science and the environment, they also increase the University's exposure to teachers and parents. ESM often displays their exhibition booth at various student information sessions (e.g., the ESM sponsored "Learn more about your Major"), career and sustainability fairs (e.g., UNBC Green Day), industry conferences (e.g., Natural Resource Forum), and annual the meetings of professional associations (e.g., September 2016 CIF Demo Event in Vancouver).

8. Student Placement

There are no statistics reporting employment of UNBC graduates. However, the majority of the students in the Forest Ecology and Management Major are easily finding summer positions and full-time work upon graduation. The job market was also very healthy for students pursuing the Wildlife and Fisheries major.

SCHOOL OF APPLIED
SCIENCES AND TECHNOLOGY

May 29th, 2018

Forest Technology Program Report 2017/18

Forestry and Sustainable Resources Articulation Meeting

Student Registration and Enrollment

On August 14th and 21st of 2017 the FOT program welcomed **51** new registered first year students and **42** returning second year students for the 2017/18 academic term. In comparison, the August 2016 intake was 50 first year students and 38 second year students for the 2016/17 academic term.

Thus far, second year students have been successful in their studies this semester. Of 51 first year students, 3 international students have withdrawn due to program choice.

It is anticipated that 46 of the first year students will move on to their second year of studies within the program and that 39 second years will complete the program and graduate to become part of the industry work force this coming spring.

Curriculum

As part of NAIT's Curriculum Review and Renewal process, the program is currently developing an updated curriculum and new courses to align with NAIT's Credit Framework procedure. It is anticipated the program will deliver 18 credits per semester for a total of 72 credits and 23 courses starting in 2019/20. This compares with 91.5 credits and 28 courses under the program's current curriculum. Despite the reduced credits, no changes to student instructional hours are anticipated.

Employment

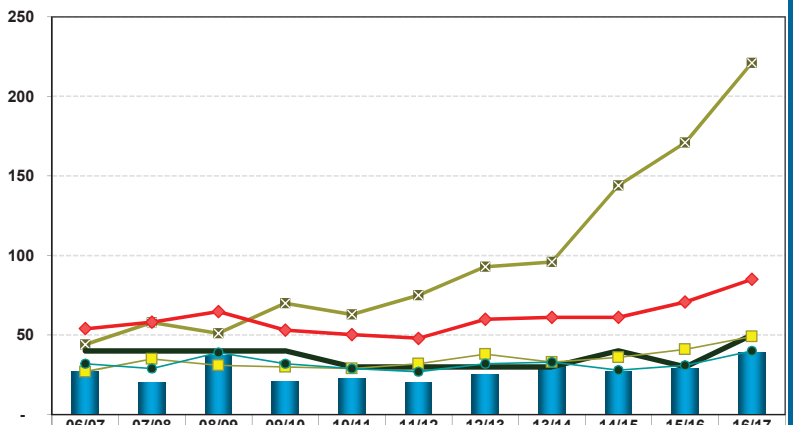
During the summer of 2017, **87%** of first year students found employment while **95%** of second year students found at least summer employment with eight individuals finding permanent positions. In comparison, 2016 saw 90% of first year students finding summer positions while 83% of second year students found at least summer employment.

Student Flow

Qualified applicants are those who have been verified as having the prerequisites to enter a program. Overall, the applicant-to-quota ratio for NAIT is approximately 2.1 to 1.

Peak enrolment is a headcount of all students who were registered in a program during the academic year. The FLE or Full Load Equivalent is a calculated measure based on the actual instructional load of a student compared to what would constitute a full load for that program for the year.

Note that NAIT's academic structure changed in 2013/14 where all Continuing Education credit instruction was moved to the Degree, Diploma, Certificate Programming (DDCP) academic career.



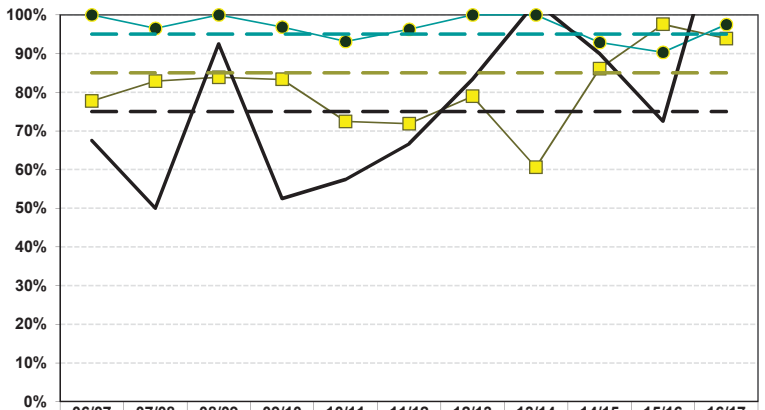
	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17
Graduates	27	20	37	21	23	20	25	31	27	29	39
Applications	44	58	51	70	63	75	93	96	144	171	221
Quota	40	40	40	40	30	30	30	30	40	30	50
Peak Enrolment, Year 1	27	35	31	30	29	32	38	33	36	41	49
Peak Enrolment, Year 2	32	29	39	32	29	27	32	33	28	31	40
Year 3 (Not applicable)											
Year 4 (Not applicable)											
Year ? (Not applicable)											
Total FLE	54	58	65	53	50	48	60	61	61	71	85

Year ? = Enrolment cannot be tied to a specific year

Student Retention

The student retention rate is the peak enrolment minus the number of withdrawals expressed as a percentage. There are two benchmarks for student retention: 85% for students in their first year of studies and 95% for students attending in each subsequent year.

The graduate-to-quota ratio approximates the completion rate by comparing the number of program graduates to the enrolment target that was established for the program in the graduate's first year of study.



	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17
Year 1 Retention Rate	78%	83%	84%	83%	72%	72%	79%	61%	86%	98%	94%
Year 2 Retention Rate	100%	97%	100%	97%	93%	96%	100%	100%	93%	90%	98%
Year 3 (Not applicable)											
Year 4 (Not applicable)											
Graduates/Quota Rate	68%	50%	93%	53%	58%	67%	83%	103%	90%	73%	130%
Year 1 Benchmark	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%
Years 2 to 4 Benchmark	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%
Grad/Quota Benchmark	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%

There are over 100 Degree, Diploma, and Certificate (DDCP) programs represented in NAIT's Program Summaries.

Note that any Program Summary that aggregate counts from multiple programs may be inflated due to students being enumerated for every program they are declared in during a single academic year.

The graduate-to-quota rate uses the current year quota for certificate programs, the previous year's quota for diploma programs, the quota from three years ago for applied degree programs, and the quota from four years ago for degree programs.

Due to recent changes to NAIT's Academic Model enabling flexible pathways, the compilation of student retention and completion figures are being reviewed. For example, stop-outs (students who don't return to complete the program) are now included in the program withdrawal counts.

BCCAT Your guide through post-secondary education.

Spring Update 2018

Elder Margaret George of the Tsleil-Waututh Nationprovides a welcoming prayer at the 2017 JAM

TRANSFER & ARTICULATION

JAM 2017!

BCCAT welcomed over 150 Articulation Committee Chairs, System Liaison Persons, Institutional representatives and Ministry personnel to the Joint Annual Meeting held at the Westin Wall Centre Airport Hotel in Richmond. Dr. Thomas Carey was keynote speaker on the subject of Teaching and Learning for the Modern Student and we were pleased to have a panel discussion on Indigenization in the BC Post-Secondary System. Details of presentations can be found on the JAM webpage.

NEW DOWNTOWN VENUE FOR JAM 2018!

SAVE the date - November 16, 2018 for this year's Joint Annual Meeting to be held at the **Pinnacle Harbourfront Hotel,** downtown Vancouver. Further details will be available in the summer.

CONGRATULATIONS TO COUNCIL AWARD WINNERS 2017

Awards were presented at the JAM in recognition of outstanding leadership and support of the BC Transfer System to the following individuals:

Brian Dick, Professor & Chair, Department of Physics, Engineering & Astronomy at Vancouver Island University: **Transfer & Articulation Community Leadership Award**

Brian Dick receives his award at the 2017 JAM

Tanis Sawkins, Associate Director, Partnership Development Office, Vancouver Community College: **Leadership Award** and **Steven Earle,** Instructor, Earth Sciences, Thompson Rivers University - Open Learning: **Transfer & Articulation Community Leadership Award.** For more information and for this year's nomination form, visit BCCAT Awards.

NEW AND IMPROVED TCS!

BCCAT launched a new version of the its Transfer Credit System (TCS) in February. This represents a total modernization of the technologies in support of transfer. The new TCS introduces new automations, data tools, and greater consistency between course agreements. The new TCS also, for the first time ever, allows institutions to manage articulations from outside of BC.

WELCOME TO MEG STAINSBY

BCCAT is pleased to welcome Meg Stainsby to the team in the role of Director, Transfer & Articulation. Meg has been Dean of the Faculty of Language, Literature and Performing Arts at Douglas College for the past seven years, and previously she served as chair of the English department. She has extensive experience with curriculum development and review, articulation and transfer, and with educational governance, policy development and administration.

SECONDARY TO POST-SECONDARY TRANSITIONS

A symposium entitled "Developing Minds - Critical Thinking in Curriculum Transfer" was held at Simon Fraser University on Friday, February 9th. This event provided an opportunity for dialogue between educational professionals and the public about the teaching of critical thinking as a core competency in the revised K-12 curriculum in BC. MoE representatives will be attendng many of the articulation committee meetings this spring.

TRANSFER INNOVATIONS PROJECTS

ADULT EDUCATION LEARNING OUTCOMES AND COURSE TRANSFER

This project, led by Dr. Seonaigh MacPherson (UFV), will identify core outcomes for facilitation and instructional skills, document current credit transfer agreements between programs, and show alignment between programs, in order to facilitate further transfer pathways within BC and across western Canada.

TOURISM/HOSPITALITY COMMON CORE

This project updates and aligns core learning outcomes with the current requirements of industry and employers. The report will be out this spring.

ENGINEERING FIRST YEAR COMMON CORE IMPLEMENTATION

This project is the next step in the implementation of the feasibility study which was completed by the Engineering Committee earlier this year. The first phase report will be completed by June 2018.

ESL ENGLISH FOR ACADEMIC PURPOSES

This project will update English for Academic Purposes (EAP) skills and learning outcomes in Levels I-IV. The project will be completed by September 2018.

RECENT PUBLICATIONS

OPTIONS FOR ENHANCED COORDINATION OF FIELD COURSES IN BC

Dr. Steven Earle (VIU) has completed his study into options for collaborating on, and sharing information about, field course opportunities across the system. The full report is available on the BCCAT website. BCCAT staff will share highlights of the study with articulation committees and deans' meetings this spring, as appropriate. See: FIELD COURSES.

INDIGENOUS EDUCATION PATHWAYS

A team led by Dr. Stephanie McKeown (UBC-Okanagan) investigates practices undertaken to support the persistence of indigenous students at public BC Transfer System institutions. This exploratory project also assesses data needs pertaining to the persistence and mobility of indigenous students. See REPORT.

ONGOING PROJECTS OF INTEREST

INTER-DISCIPLINARY COURSE & PROGRAM TRANSFER

This project identifies issues related to how interdisciplinary courses and programs are categorized and listed in the BC Transfer Guide. Research was conducted over the spring and summer with the report expected in March 2018.

TRENDS IN POST-DEGREE CREDENTIALS

The project will provide an environmental scan of post-baccalaureate programs offered in BC. The study will identify commonalities in the range of programming, analyze trends in program and student characteristics, and identify any related factors that influence transfer and student mobility.

ADMISSIONS PRACTICES FOR UNDER-REPRESENTED GROUPS

This research will assess policies and practices in the BC Transfer System institutions for admitting underrepresented (equity) groups of students. The project is also aimed at analyzing the sources and the availability of quantitative data on equity students, including for student transfer.

UNDERSTANDING ADVANCED PLACEMENT GRADING

This project draws from interviews with key institutional contacts and secondary and post-secondary institutions, and from post-secondary institutional data to better understand grading practices for high school Advanced Placement courses, and how these grades correlate with first year university performance.

INTERNATIONAL CREDIT TRANSFER PROCESSES

Contractor Joanne Duklas is researchiing current practices and criteria used in the processing of international credit transfer requests in post-secondary institutions, primarily in BC. The report will provide recommendations for collaboration and sharing best practices and is due for completion in April 2018.

MARKETING & COMMUNICATIONS

AD CAMPAIGN

As of this spring, the new BC Transfer Guide ads will be displayed on bus routes across the province, as well as SkyTrain, and Canada Line routes.

BCCAT WEBSITE

The BCCAT website will be refreshed over the coming months, and will incorporate changes such as improved searchability and the inclusion of a media and communications section.

EDUCATION & CAREER FAIRS

As in past years, BCCAT staff will attend career fairs in Vancouver, Victoria, Kelowna, Nanaimo and Abbotsford.

Published by BCCAT: March 2018

ABCFP UPDATE
2018 ARTICULATION

Casey Macaulay RPF

Registrar and Director of Act Compliance – Association of BC Forest Professionals

ASSOCIATION OF BC FOREST PROFESSIONALS

WHAT IS THE ABCFP MANDATE?

FROM THE *FORESTERS ACT*

PUBLIC INTEREST

Uphold the public interest by ensuring the competency, independence, conduct and integrity of members

Ensure person engaged in practice is accountable to the association

STEWARDSHIP ADVOCACY

Advocate for and uphold principles of stewardship of forests, forest lands, forest resources and ecosystems

GOVERN MEMBERS

In accordance with the ACT, bylaws and resolutions

REGISTRATION STANDARDS

Establish, monitor and enforce standards of education and qualifications for enrollment, registration and continued membership

CODES OF CONDUCT

Establish, monitor and enforce codes of conduct and standards of practice

CERTIFICATION SCHEMES

Establish and administer certification of technical occupations related to the practice

CURRENT MEMBERSHIP ROLL

- 5500 members: all categories
- 538 enrolled
- RPF stream: 61% (189) ASFIT, 39% (123) FIT
- RFT stream: 39% (88) ASTFT, 61% (136) TFT. As of May 2018: 41% (103) and 59% (147)
- Overall: 52% non-accredited
- Undergrad or diploma location: 70% BC, 15% Ont, 4% Alb, 2% NB, 2% QC, 1% USA, 5% Int’l
- 36% female, 64% male (80/20 RPF, 85/15 RFT)
- 211 members self-declared indigenous

THE FORESTRY TEAM

- Six classes of membership: **registered**, enrolled, retired, special permits, **associate members**, honorary members
- Registered members hold certificates of registration: RPF, RFT
  - requires degree or diploma
- Associate members hold certificates of accreditation: ATC, ATE
  - requires evidence of competency
  - need more employer / client recognition of these

THE FORESTRY TEAM

- Currently looking at other types of associate membership
  - forest technician recognition
  - GIS
- Limited licenses may be granted to practice forestry for a limited purpose (e.g. forest hydrology)
  - requires a related degree or diploma
- Many in the workforce lack degree / diploma but have experience
- Talk to the registration department about your options

SCHOOL ACCREDITATION

- CTAB, TAC
- CFAB
- Value proposition questions
- Options for going forward
  - CTAB, TAC working together
  - Include technology under CFAB
  - Alternatives?

CREDENTIAL ASSESSMENT PROCESS (CAP)

- Adoption of 2017 RPF certification standards
- Contextual competencies
- Process revisions for 2019
- Need better coordination
- Need full cost accounting
- Future trends: % accredited grads

CAP CHALLENGES

- Recognition of technology courses for RPF certification
- Importance of articulation!!
- Need for part time studies for certification and upgrading

REGISTRATION PROCESS

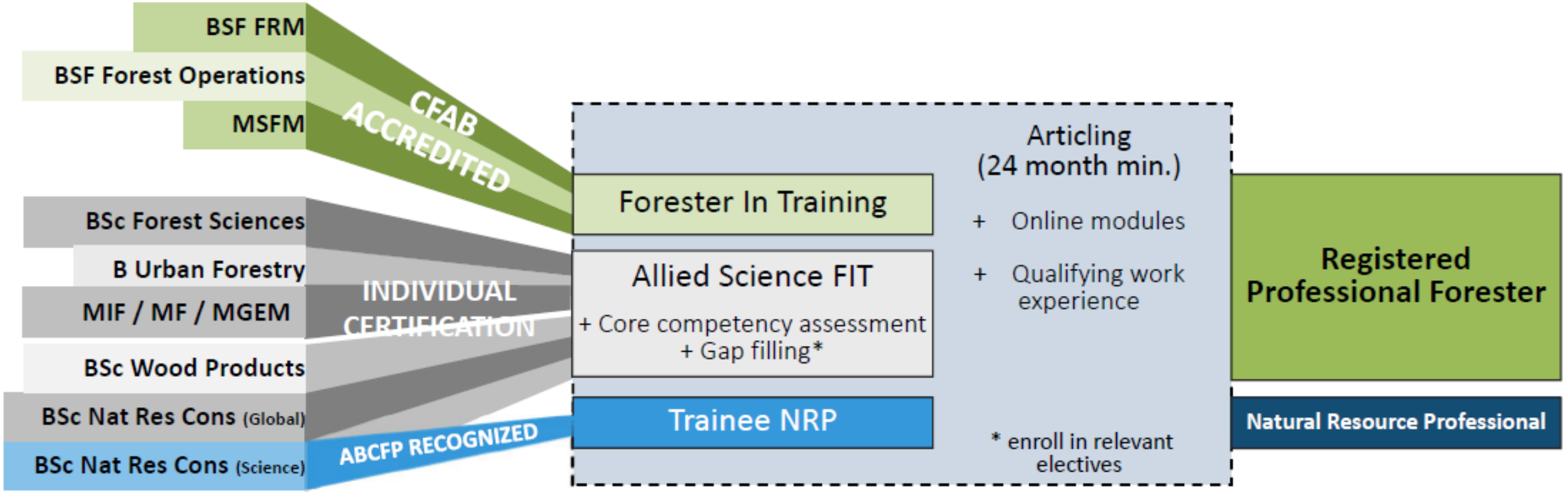
- Second anniversary of learning management system: online modules
- 564 enrolled as of April
- Record enrollments in 2018
- 380 sponsors
- Working on module revisions, new exams, supporting procedures and member support
- Sponsor survey and support tools

SCHOOL RELATIONSHIPS

- Student + school + association + employer chain broken
- Need to find ways to get us working together
- Students aren’t getting the right information at the right time
- Focusing on post-secondary rather than secondary
- New resources for faculties, departments and advisors
- Send out packages with webinar
- Suggestions?

UBC Faculty of Forestry

Program enrollment pathways with the ABCFP



THINKING ABOUT A CAREER IN FORESTRY

To protect the public's interest in BC's forests, provincial legislation requires those managing the forests to be registered with the Association of BC Forest Professionals (ABCFP). This ensures that these people have the proper educational credentials and can be held accountable for their work and conduct.

The simplest avenue to becoming a Registered Professional Forester (RPF) or Registered Forest Technologist (RFT) is to earn a degree or diploma from a nationally accredited program. Several BC and Canadian post-secondary institutions offer accredited forestry programs, however many other forestry-related programs are not accredited. Non-accredited programs may not provide the core knowledge you need to become a registered member of the ABCFP.

If you complete a program that is not accredited, you can still obtain ABCFP membership but you must undergo a thorough review of your educational background and work history, known as the Credential Assessment Process (CAP). The result of this assessment may require you to complete additional courses or prove your competency through professional experience.

The infographic inside this brochure describes the pathways into the forestry profession in BC, membership with the ABCFP, and the possible detours that may be required depending on your foundational education.

Ensuring BC's Forests Are in Good Hands

Learn More at **abcfp.ca/web**

ASSOCIATION OF BC FOREST PROFESSIONALS

NO

SCIENCE DEGREE (4 YEARS)

Is the degree from a program accredited by the Canadian Forestry Accreditation Board (CFAB)?

Visit the CFAB website for a list of current accredited programs.

www.cfab.ca/English/programs.html

YES

ENROL WITH THE ABCFP AS A FORESTER IN TRAINING (FIT)

If you're coming from an accredited program.

ARTICLING (APPROX. 2 TO 4 YEARS)

While gaining work experience, study and begin working through the first level online Learning Management System series of modules and exams. Note that you cannot complete the online courses and exams until you complete the Credential Assessment Process.

ENROL WITH THE ABCFP AS AN ALLIED SCIENCE FORESTER IN TRAINING (ASFIT).

You can still enrol with the ABCFP but since your program was not accredited, you will need to undergo the Credential Assessment Process (CAP) to assess your level of foundational forest education and work experience. Discuss this with the ABCFP Registration Department.

YES

ENROL WITH THE ABCFP AS A TRAINEE FOREST TECHNOLOGIST (TFT)

If you're coming from an accredited program.

TECHNOLOGY DIPLOMA (2 YEARS)

Is the technology program accredited and recognized by the ABCFP?

Visit our website for a list of current accredited and recognized programs.

www.abcfp.ca » Become a Member » Registered Forest Technologist

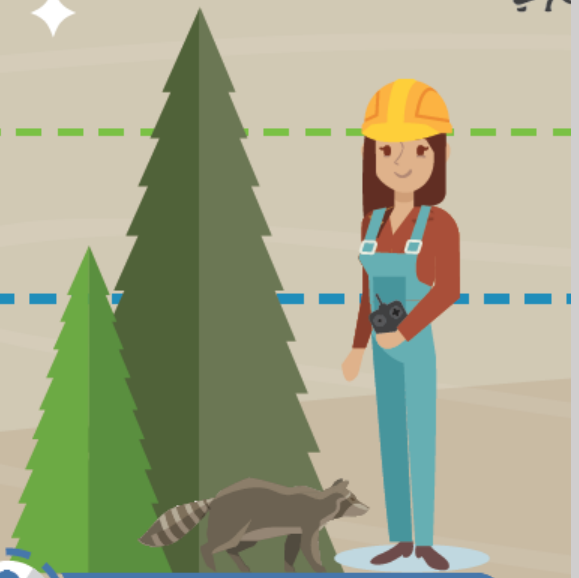
NO

ENROL WITH ABCFP AS AN ALLIED SCIENCE TRAINEE FOREST TECHNOLOGIST (ASTFT)

You can still enrol with the ABCFP but since your program was not accredited, you will need to undergo the Credential Assessment Process (CAP) to assess your level of foundational forest education. Discuss this with the ABCFP Registration Department.

ARTICLING (APPROX. 2 TO 4 YEARS)

While gaining work experience, study and begin working through the first level online Learning Management System series of modules and exams. Note that you cannot complete the online courses and exams until you complete the Credential Assessment Process.



STRATEGIC ISSUES / CHALLENGES

- Professional Reliance review – report pending
- Statutory vs Non-statutory
- Addressing practice infringement
- Culture shift – generational changes
- Diversification of profession
- Staff changes
- Member competency changes
- Changes to complaint process
- Need for options for Alternate Dispute Resolution

QUESTIONS?

cmacaulay@abcfp.ca

ASSOCIATION OF
BC FOREST PROFESSIONALS

June 5th Forestry Articulation Committee Meeting

Ministry of Advanced Education, Skills and Training (AEST) Report Notes – Tim Ewanchuk

1. **Update on Overall Government Priorities**

- Our Government has made three key commitments to British Columbians.
- The first commitment is to make life more affordable.
- The second commitment is to deliver the services that people count on. Together, we can ensure that children get access to the quality public education they need to succeed, that families can get timely medical attention, and that our senior citizens are able to live their final years with dignity.
- The third key commitment is to build a strong, sustainable, innovative economy that works for everyone. Together, we are going to tackle poverty and inequality, create good-paying jobs in every corner of the province, and ensure people from every background have the opportunity to reach their full potential.

2. Ministry Update on developing more degree and certificate programs to increase the number of skilled workers in B.C.'s forestry sector:

Summary:

- The Ministry of Advanced Education, Skills and Training (AEST) has a new mandate commitment to "Develop more degree and certificate programs to increase the number of skilled workers in B.C.'s forestry sector, focusing on growing innovation and the manufactured wood products sector."
- B.C.'s forestry sector has undergone a number of changes in the past decade, and continues to be an important employer in the province.
- 10,900 job openings are forecast for the sector to replace retiring workers over the next ten years.
- The Ministry is working to help support the economic development of rural communities and grow innovation in the forestry sector with new training programming options.
- We are talking to stakeholders now and anticipate announcing new programming shortly.

Background:

- The forest sector in BC supports more than 60,000 jobs with over half of the employment concentrated in wood product manufacturing.
- Eight public post-secondary institutions in BC regularly offer forestry-related programming, from certificate to doctorate levels (UBC, TRU, UNBC, VIU, CNC, BCIT, SEL, NIC).
- In addition, provincial labour market programs support sector workforce studies, industry-specific training, and a number of employment-ready short courses.

- Ministry staff are currently developing a stakeholder engagement plan, building on a number of recent and current Sector Labour Market Partnership projects, that will help identify areas of labour market need.
- Options for enhanced programming will be developed over the coming months.
- The Ministry is also engaging with the Ministry of Forests, Lands, Natural Resource Operations and Rural Development to ensure new training supports government's overall wood innovation strategy.
- In order to further support forestry industry companies and overall growth of the sector, the Ministry is working with the post-secondary institutions to help increase the number of skilled workers in B.C.'s forestry sector.

College of New Caledonia

Annual Report to the Forestry and Sustainable Resources Management Articulation Committee

Introductory Overview

1.1. Institutional Snapshot

CNC continues to offer one natural resources program through the Prince George Campus. That program was renamed last spring to Natural Resources and Forest Technology (NRFT). It is a two-year technology diploma program that carries national accreditation as a forest resource technology. The program is recognized by both of the Association of BC Forest Professionals and the College of Applied Biology.

The College has been developing its research initiatives through the College wide research Office of Applied Research and Innovation. Our research director, Hardy Griesbauer recently moved on to a new position and the office is currently held by Sorin Pasca in a temporary position. This initiative is intimately connected to the NRFT program and is providing opportunities to expose students and faculty to applied research projects and employment opportunities. The NRFT program is currently exploring new funding models to sustain our research as the grant we have been working under expires in spring 2019.

1.2. Program offerings overview

The Natural Resources and Forest Technology program is built on a core of forest based courses with a focus on harvesting/engineering, forest measurements, forest protection, silviculture and GIS. The program is intended to provide graduates with the skills required for work in various forest land-based natural resources sectors primarily for the forest sector but also with potential to support natural resource aspects of oil and gas exploration and mine exploration/development/operations.

Student employment is excellent with virtually 100 % placement in natural resources and mostly forest sector jobs. There are jobs still open if we had more students.

Enrollment

The student intake for NRFT continues to be capped at 22 students in each year. Intake into first year continues to be strong with a waitlist of 22 qualified applicants and an additional 24 applicants with outstanding requirements. Applications were cut off by the registrar's office in April. We expect 16 full time and 2 part time students returning to second year.

Current enrollment/Graduation Summary Table 1 with projections to next year.

Table 1. CNC Technical Programs Applications and Enrollment.

Institution: CNC			
		Academic Year	
Program Name: NRFT		**2017/18**	**2018/19 proj.**
RFT requirements	**Capacity 1st year**	**22**	**22**
	Capacity 2nd year	**22**	**22**
	Applicants	**75**	**69**
	1st year enrollments		
	full time	**22**	**22**
	part time	**1**	**1**
	2nd year enrollments		
	full time	**22**	**16**
	part time	**2**	**3**
	Graduates	**23**	**18**

The application trend for the NRFT program continues to be strong with many students left on a wait list. At this point it is not clear if those on the wait list reapply or try a different institution. There is some consideration being given to a selection process.

Program Activities

3.1. Program Highlights

Research activities are providing exciting developments at CNC. Faculty are directly involved with or leading projects with the community. This is building interesting connections with the natural resource sector and providing new opportunities for curriculum enhancement, real world research projects for students, student and graduate employment opportunities, and a higher profile for the NRFT program in the community.

3.2. Significant Curricular Changes

The heavily revised forest technology program launched in 2009 has graduated eight classes since its launch. We have gone through several accreditation reviews, have been able to survey students and graduates, consult with our advisory committee and observe outcomes for graduates. Based on this information we were able to move ahead with a few minor program changes that included a name change and some minor changes to the curriculum.

Curriculum changes implemented this year included eliminating the outdoor recreation course (we found it wasn't aligning with job placements), and moving the silvics course from 1st term (fall) into the 2nd term (winter). This reduced some workload for new students in their first term and allowed more time for math which continues to be a barrier for some students. We feel we did not see an improvement in retention as a result of these changes but it has been just one year. A study of entrance standards didn't seem to align with success either. A next step will be to deliver an information session on the program to applicants.

3.3. Faculty

This past year the program was delivered by 6 full time faculty and 1 full time laboratory tech support position. Not all faculty are teaching full time in the NRFT program as they have release for research projects. Several courses including English, Math and Aboriginal Studies were delivered as service courses by other departments.

One faculty member was on Education Leave this year. Four local industry professionals stepped in to cover the instructor's workload in aerial photography, engineering, earth science and geomatics.

Continuing Initiatives

4.1. Research

Students and faculty worked on a number of research projects through the school year starting with data collection in the fall, analysis and report preparation through the winter term. The preparation of the report is done in concert with the English department through two courses, ENGL 229 and ENGL 252. One of our current NSERC grant will expire in March 2019 so faculty are actively engaged in developing a replacement proposal this time as an Applied Research and Development (ARD) grant that will require a financial commitment from one or more companies.

Students worked in groups to collect data but reports focused on different aspects of data sets. A faculty member worked with each student as an advisor on their projects. A sample of projects undertaken follows:

- Review of the effects of soil compaction mitigation treatments on tree growth.
- Use of bioengineering restoration techniques to facilitate natural successional processes to restore a functioning riparian zone by planting live willow and

cottonwood staking of the river banks, live gravel bar staking, and installation of large woody debris features.

- Evaluation of the effect of adjacent vegetation on the efficacy of funnel traps to capture spruce beetles.
- The effect of weather variables, elevation, slope and aspect on the spread of comandra and stalactiform blister rusts.
- Silviculture projects including efficacy of aspen girdling treatments by season, the efficacy of naturally occurring fungus to control cut aspen resprouting, the impact of glyphosate on non-target blueberry plants and an updated evaluation on an industry established western larch migration trial.

4.2. Tablets and technology

Implementation of student use of tablets following in the footsteps of VIU's initiative has been stalled due to funding allocation. Faculty have however been working with tablets (iPads specifically) gaining familiarity and determining utility. We will reinvigorate the adoption of tablets for students again this fall with both some funding and programming support. We don't see going 100% to tablets at this time but expect field work to become increasingly dominated by this tool. As usual it will be important to consider the pedagogical aspects of adopting this new tool.

Last year we acquired a 3-D photo viewing system for the program in recognition of the move by the sector to digital imagery and remote sensing. Faculty were able to work with the software to some degree but the focus was more on UAV deployment and digital photo/point cloud analysis and capability. Going forward we expect research to focus on capture and analysis of data using UAV equipment. One faculty member has applied for release to work on updating the program airphotos course to address adoption of digital imagery capture and viewing capability. This work will ensure that course material better aligns with industry application of this technology.

Accreditation

The program underwent a full accreditation paper review process with CTAB this year and is awaiting results. A site visit is anticipated but not scheduled. We were accredited for 2 years to April 2018 under our last review.

International Education/Exchanges

The Natural Resource Field School and Cultural Exchange course was delivered again this year with a trip to Costa Rica. Six students from our program were able to participate with funding support from the Research Forest Society of $2500/student and an additional bursary new this year of $2000/student, kicked in from CNC. The experience continues to be excellent and ties in with a number of ecological studies and land policy studies in the NRFT program.

Students

7.1. Recruiting

The NRFT program continues to be very involved with the Council of Forest Industries (COFI) under the banner of their forest education program. Not only have there been opportunities to recruit new students but it has been a conduit for connecting with the forest sector and local communities. In addition, we present to the local Rotary service club's "Adventures in Forestry" program as part of our recruiting efforts. Enrollment in our program is currently high but looming issues of a softwood lumber trade, a significant reduction in AAC, and mill closures that will follow are all risk to continued enrollment.

7.2. Student Placement

Student employment has had another stellar year. Employment is all but guaranteed for students and graduates in the current market. Most students are employed in the forest sector as accessing non-forestry opportunities continues to be challenging. Competition for non-forestry jobs is high, with a large number of very qualified applicants applying for those few positions. Graduates and students seeking employment in the forest sector are being hired with little competition. Both BCTS and FLNRORD are attracting students to positions especially in more remote locations.

We continue to work with the Wildfire Services Branch and have had success in placing students with them. We continue to have a number of fire fighters attending our program as a route to obtaining an RFT credential. This helps with their goal of enhancing their opportunities for full time employment with the Wildfire Services Branch.

a place of mind
THE UNIVERSITY OF BRITISH COLUMBIA

The University of British Columbia
Faculty of Forestry
Dean's Office
2005 – 2424 Main Mall
Vancouver, BC, V6T 1Z4
Phone 604 822 2727
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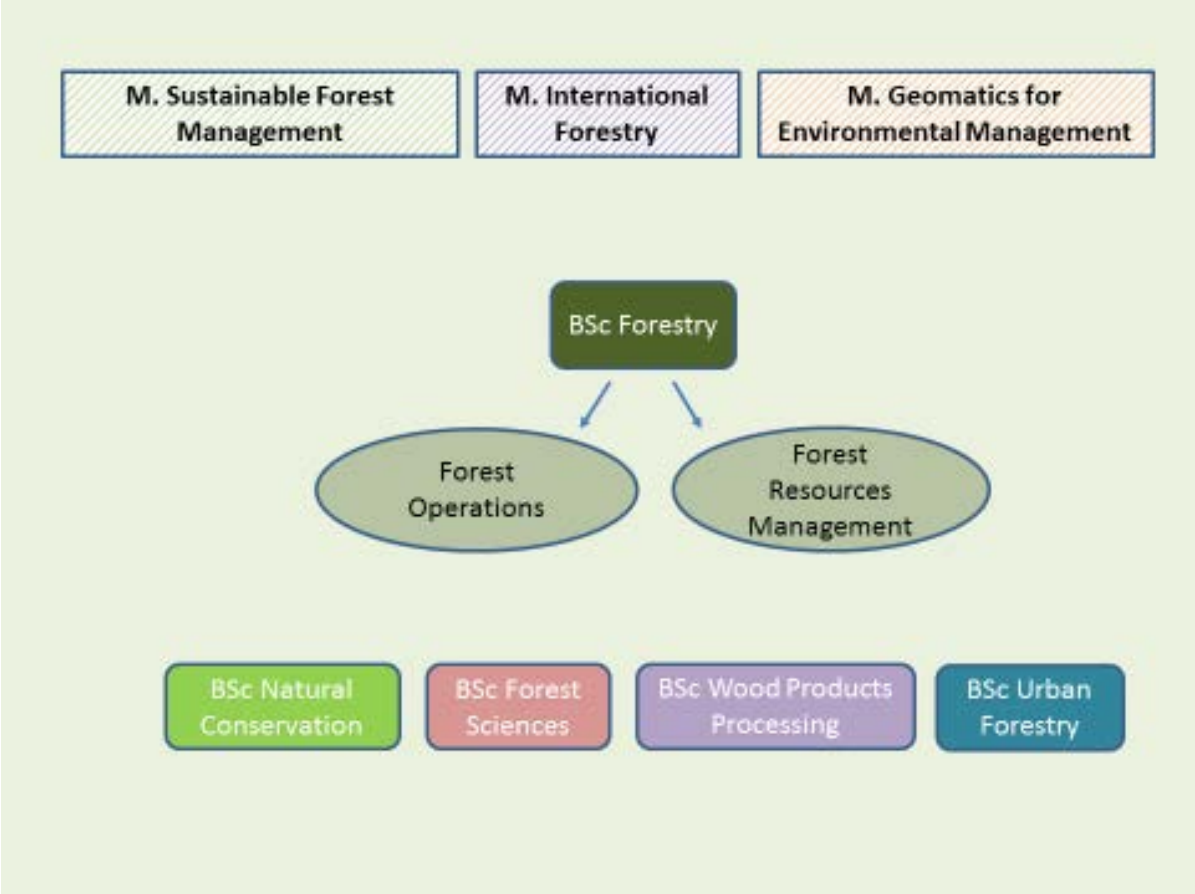
www.forestry.ubc.ca

2017-2018 Institution Report - UBC

Dr. Peter Marshall
Professor and Forest Resources Management Program Director
Forest Resources Management Department
Faculty of Forestry, University of British Columbia
2424 Main Mall, Vancouver, BC V6T 1Z4

Undergraduate Degree and Course-Based Master Programs Offered by the Faculty of Forestry



- There will be a fourth course-based master program (in Urban Forestry Leadership) added in August, 2019.

Enrolment

Program	2016-17 (% Int.)	2017-18 (% Int.)
Undergraduate		
BSF – FOPR (For. Oper.) *	***65 (16.9)***	***66 (21.2)***
BSF – FORM (For. Res. Mgmt.) *	***223 (31.8)***	***216 (35.6)***
BSCN (Nat. Res. Cons.)	352 (33.5)	366 (33.9)
BSFS (For. Sci.)	110 (37.2)	145 (52.4)
BSCW (Wood Prod. Proc.)	172 (51.7)	190 (56.8)
BUF (Urban For.)	101 (37.6)	149 (38.9)
Total	**1023 (35.9)**	**1132 (40.3)**
Course-based Graduate		
MSFM (Sus. For. Mgmt.) *	***20 (35.0)***	***25 (25.0)***
MIF (Int. For.)	8 (87.5)	15 (80.0)
MGEM (Geom. Envirn. Mgmt.)	--	29 (41.4)
Total	**28 (50.0)**	**69 (43.8)**
Total From CFAB-Accredited Programs	***308 (28.9)***	***307 (31.6)***

**** CFAB-Accredited Programs***

Comments:

- Overall student numbers and the percentage of international students within our undergraduate programs have continued to rise over the last decade.
- This brings with it both challenges (principally English language skills for non-native English speakers and large class sizes) and benefits (an increasingly diverse student body, significant budget increases, happy central administrators).
- Tuition fees are $176.45 per credit for domestic students and $1,256.33 per credit for incoming international students (7.12 times higher).
- The percentage of international students in the CFAB-accredited programs are lower than the overall average.
- A significantly smaller proportion of the graduating international undergraduate students in the CFAB-accredited programs choose to work in forestry in Canada than do graduating domestic students. (I *estimate* about 10% for the international students versus about 80% for the domestic students.)
- Increasing numbers of undergraduate students continue to create class-size issues in a number of key courses shared among serveral of the undergraduate programs. This has resulted in changing the pedogy in some courses. We are also offering multiple sections of certain courses, including offering a few of them, starting this summer, in the summer session.
- I expect our undergraduate student numbers to remain relatively constant for the coming year.

Personnel Changes Impacting on Forestry Programs

Reductions:

- Dr. Kevin Lyons (Forest Operations) resigned (took a position at Oregon State University).
- Dr. Steve Mitchell (Silviculture) will retire at the end of June.
- Dr. Bruce Larson (Silviculture) will retire at the end of June, 2019.

Additions:

- Dr. Holgar Griess, Lecturer, Forest Operations
- Dr. Dominik Roesler, Associate Professor, Forest Operations
- Dr. Andrés Varhola, Lecturer, Forest Resources Management
- Searches for a junior position (assistant professor) and a senior position (associate or full professor) in silviculture have been completed and negotiations with the selected candidates are ongoing.

Other Faculty Member Additions

- Dr. Intu Boedhihartono, Associate Professor, Tropical Landscapes and Livelihoods
- Dr. Jonathan Davies, Associate Professor, Ecology (joint with Botany Dept.)
- Dr. Feng Jiang, Assistant Professor, Sustainable Biomaterials
- Dr. Jeff Sayer, Professor of Tropical Forest Conservation
- Dr. Terry Sunderland, Professor, Tropical Forestry and Food Security
- Dr. Elizabeth Wolkovich, Associate Professor, Global Change Ecology
- A search for a senior position (associate or full professor) in Urban Forestry has been completed and negotiations with the selected candidate are ongoing.
- A search for one (or two depending on the outcome of current negotiations) junior postions in Urban Forestry has recently started. We hope to be interviewing in later summer or early fall.

2018 Annual Report to the Forestry and Sustainable Resources Management Articulation Committee

1. Introductory Overview
   1.1. Institutional Snapshot

   VIU has more than 18,000 students and offers a diverse selection of applied trades, technical diplomas and degree programs. The main campus is located in Nanaimo, with satellite campuses in Duncan, Parksville and Powell River.

   1.2. Program offerings overview
   - 2-year Forest Resources Technology diploma program
   - 1 year bridging program to allow entry into 3rd year Forestry at UBC

2. Enrollment/Graduation Summary Table for 2018/19 Academic Year

Technical Programs 2013/4

Institution:			
		Academic Year	
Program Name:		**2017/18**	**2018/19 proj.**
RFT registerable	**Capacity 1st year**	28	**28**
	Capacity 2nd year	26	**26**
	Applicants (as of this report date)	42	**80**
	1st year enrollments		
	full time	28	**28**
	part time	2	**3**
	2nd year enrollments		
	full time	26	**26**
	part time	2	
	Graduates	25	**26**

Program Activities

2.1. Program Highlights

The biggest change is not to our program itself, but the loss of the private land portion of the woodlot. We still maintain the Crown portion and therefore can practice operational forestry and have a convenient place for outdoor labs.

2.2. Significant Curricular Changes

- No significant changes this year.

2.3. Faculty Changes

- No significant changes this year.

3. Accreditation

Currently accredited with CTAB & ABCFP. Currently renewing CTAB accreditation 😐

4. International Education/Exchanges

- Developed a school to school international academic mobility agreement with the University of the Highlands (UoH) -3 VIU students will attend UoH for the 2018 Fall semester.

5. Students

5.1. Recruiting

Enrollments are strong – we have 28 students registered with 80 on a waitlist (we stopped accepting applications at this point).

5.2. Student Placement

To our knowledge, nearly all students got either summer or full time employment in the forestry sector.

Annual Report to the Forestry and Sustainable Resources Management Articulation Committee, June 5th & 6th, 2018

Program offerings overview

The School of Environment and Geomatics (SEG) is home to three nationally accredited programs: Forestry Technology, Recreation Fish & Wildlife Technology, and Integrated Environmental Planning Technology. The School also delivers an Advanced Diploma (ADGIS) and a Bachelor Degree (BGIS) in Geographic Information Systems, and now an online Geomatics Certificate.

Additionally, SEG is home to the Selkirk Geospatial Research Centre (SGRC). Founded through an Institutional Canada Foundation for Innovation (CFI) grant, the SGRC is a leading-edge research centre specializing in geospatial technologies aimed at solving critical issues pertaining to environmental and socio-economic problems. Both faculty and students carry out the research in this facility.

SEG strives to provide the most comprehensive and flexible mix of environmental science training in Canada. Students complete a common first year curriculum that leads to all three technical diploma specializations in second year. Following this, students have a choice of pursuing advanced training in GIS.

Facilities

Our School is located on the Castlegar campus of Selkirk College, which is situated on 88 hectares of mostly forested land at the confluence of the Columbia and Kootenay Rivers. The School also is responsible for another approximately 800 ha. of nearby forest in the Scattebo educational forest, and woodlot 400. All of these properties are frequently used by School programs for a variety of different course labs and applied research projects.

As the renovation of our (Nelson) Silver King trades facilities nears completion, plans are being considered for updated the Castlegar campus. In particular, there has been conceptual drawings made for the renovation of Granite Wing, where many of our SEG classes and indoor labs are held.

This is the third year of operation for the Applied Research and Innovation Centre (ARIC) up at the Castlegar Airport Complex, which is adjacent to the main campus area. Notably, our higher level GIS programs and courses are taught here. The ARIC building also houses our Selkirk Geospatial Research Centre, and the College's Rural Development Institute.

Senior Leadership

There are now three new Vice Presidents at the College: John Kincaid, Vice President Student Advancement/Registrar; Kerry Clarke, Vice President, College Services, CFO; and Rhys Andrews, RPF, who will be starting as the new Vice President, Education, next month. Tiffany Snauwaert remains the Dean for the School of Business, School of Environment and Geomatics, and Community Education and Workplace Training.

Enrollment info

Currently, all of our programs are full with either short waitlists, or slightly longer ones (Table 1). We accept 30 up to a maximum of 30 students in second year Forestry, Recreation, Fish and Wildlife, and 25

in Integrated Environmental Planning. We only have 24 computers in our GIS labs, so we accept a combined number of 24 between students wanting to take either our Advanced diploma or 3rd year of our Bachelors degree in GIS. Currently the these are the same courses, with the degree students adding on an extra year of 30 credits.

Table 1: Application trends in SEG. Conditional waitlist numbers not Shown.

Program	Fall 2015	Fall 2016	Fall 2017	Fall 2018
ADGIS	**14**	**19**	**15**	**16**
Accepted	11	17	14	15
Conditionally accepted	3	2	1	1
BGIS	**4**	**2**	**2**	**8**
Accepted	3	2	2	4
Conditionally accepted	1			4
FOR	**29**	**36**	**45**	**45**
Accepted	17	18	23	16
Conditionally accepted	12	10	6	14
Waitlist - Accepted		8	15	15
IEP	**17**	**19**	**26**	**20**
Accepted	13	13	17	14
Conditionally accepted	4	4	5	6
Waitlist - Accepted		2	4	
RFW	**26**	**33**	**31**	**39**
Accepted	20	18	21	16
Conditionally accepted	6	8	7	9
Waitlist - Accepted		7	3	14
Grand Total	**90**	**109**	**119**	**128**

School news and activities

Selkirk College's Applied Research & Innovation Centre (ARIC) has been successful in securing $2 million in funding over 5 years from the Natural Science & Engineering Council of Canada (NSERC). One of only 10 post-secondary institutions across Canada to receive an Innovation Enhancement Grant this year, the funding will support research designed to advance the region's forestry economy. The program focus areas are on remote sensing technology (UAVs, LiDAR, hyperspectral), 3D visualisations and virtual reality, and Advanced computing.

This grant comes at the right time to get students excited about their use of new technology in the classroom. All second years students this past year came with iPad to use in the class and field. The really significant learning experience was the connect of their applied research projects and their exposure to Avenza Maps and ArcMap Desktop. Over a several week period, the students collected spatial attribute data in field and returned to the lab to build geodatabases for their research projects. After having learned the basics in labs, the students found having to apply the concepts, in their own research project for analysis and presentation, illuminating. Also, all SEG faculty were offered a one day

tablet training course that focused on the most common apps and how to transfer data between apps that the lab desktops.

Our Advisory members continue to recommend increasing exposure to GIS techniques and products from LiDAR data and HD imagery from UAV flights. So, this coming year some new introductory classes on generating and using layers from local LiDAR data and UAV flights.

Forestry field school this year focused on fire, and urban/wildland interface. The program worked with the City of Castlegar and the Columbia Basin Trust for funding to educate residents (fire Smart) and work on treatment areas close to town. Forest fire threats last year kept the students out of the Darkwoods property.

Online GIS certificate

In response to our advisory committee, this year we launched the pilot of our online Geomatics in the Workplace Certificate. This credential provides a basic level of geomatics certification for people currently employed in sectors such as forestry, planning, or business. It will provide standalone courses for innovative in-demand skills in geomatics technologies, including unmanned aerial vehicles (UAVs, also known as drones) and LiDAR; and will enable learners to complete introductory courses required in Selkirk's Advanced Diploma in GIS and Bachelor of BIS programs.

Nicola Valley Institute of Technology
Environmental Resources Technology (ENRT) Program

Forestry and Sustainable Resource Management Articulation Committee Meeting (June 5 and 6th, 2018)

Program Overview

The ENRT program continues to offer an Environmental Resources Technology **Certificate** following student's successful completion of Year 1 (54 credits) of the Program, and an Environmental Resources Technology **Diploma** following successful completion of Year 2 (56 credits) of the program. The structure of the diploma program is designed to meet the core skills required of Forest Technologists, but has been integrated to include essential skills in biological sciences, policy and planning, and Indigenous Knowledge. The faculty of the ENRT program work hard to provide quality education from perspectives that are relevant to Indigenous learners.

Environmental Resources Technology Certificate and Diploma Programs

Certificate Completion Plan

Year 1 Fall		**Credits**	
STSC 101	Strategies for Success[1]	3	
ENRT 110	Introduction to Natural Resources	3	
ENRT 141	Aboriginal People and the Land	5	
ENRT 150	Silvics and Dendrology	5	
ENRT 155	Soil Science	5	
ENRT 160	Field Surveys I	5	
Math 140	Technical Mathematics	3	
Total Credits		26	
Year 1 Spring			
COMM 140	Technical Writing	3	
COMP 140	Geographic Information Systems	5	
ENRT 145	Fire Ecology	5	
ENRT 165	Field Surveys II	5	
ENRT 170	Principles of Ecology	5	
SCIE 140	Ethnoscience	5	
Total Credits		28	54

[1] STSC 101 is an institutional requirement, and is not a core ENRT course.

Diploma Competition Plan

Year 2 Fall		Credits	
COMM 145	Public Relations and Communications	3	
ENRT 250	Silviculture	5	
ENRT 255	Timber Development I	5	
ENRT 260	Forest Surveys	5	
ENRT 270	Fisheries Ecology	5	
ENRT 271	Grasslands Ecology	5	
Total Credits		28	
Year 2 Spring			
ENRT 240	Environmental Planning	5	
ENRT 245	Watershed Hydrology	3	
ENRT 257	Timber Development II	5	
ENRT 265	Environmental Assessment Survey	5	
ENRT 272	Forest Health	5	
ENRT 273	Wildlife Ecology	5	
ENRT 280	Coastal Resources Field School[2]	3	
Total Credits		31	59
			113

Enrolment

Enrolment in the ENRT program has been strong and is expected to be at capacity for the 2018/2019 academic year. Retention between Year One and Year Two of the program has been improving from previous years. In addition to the on-campus enrolment, included in the table below, 48 students were enrolled in Year One ENRT courses as part of Community Education deliveries.

On-Campus Enrolment						Diplomas and Certificates Awarded in 2018	
This Year			Last Year				
Year 1	Year 2	Total	Year 1	Year 2	Total	Certificates	Diplomas
20	17	37	23	9	32	10	12

Program Activities

The 2017/2018 academic year was very successful. Students were able to participate in some excellent field labs and there were no major health and safety incidents. NVIT continues to deliver the ENRT Program in a way that is grounded in Indigenous Knowledge and culture. Elders are often invited to spend time in the classrooms and to come on field trips. The ENRT program also saw a dramatic increase

[2] ENRT 280 is a new, credited course, but is not required for graduation.

in Community Education deliveries last year, including: Prince George Nechako Aboriginal Employment and Training Association (PGNAETA), Lake Babine Nation, Kitimat Valley Institute, and Penticton Band.

Program Highlights

Some ENRT highlights from this year include the following;

- Joint *Grasslands Ecology* and Traditional Ecological Knowledge field trip with Selkirk College in the Nicola Valley;
- *Silvics and Dendrology* field trip to Hope, BC and Manning Park;
- Snow measurement field trip to Falls Lake;
- *Silviculture* field trip to the Kalamalka Research Station and PRT's nursery in Vernon;
- *Principles of Ecology* field trip to UBC's Malcolm Knapp Research Forest;
- Construction of NVIT's new *Center for Excellence in Sustainability*. This ten million dollar building includes a built-in greenhouse laboratory, two green energy technology training labs, a training kitchen for a Culinary Arts program, and sports facilities; and
- *Coastal Resources Field School* in Haida Gwaii.

Current Program Faculty and Staff

Dr. John Chenoweth – Program Dean
Darrell Eustache – Fulltime Instructor
Tom Willms. – Department Head/Fulltime Instructor
Chris Lepsoe – Part-time Instructor
Ellen Simmons – Part-time Instructor
Kent Watson – Part-time Instructor
Shawn Larson – Sessional Instructor
Tracy Thomas – Sessional Instructor
Don Parno – Sessional Instructor
Ed Nedokus – Sessional Instructor

The ENRT program has been approved for an additional full-time faculty position. Interview are scheduled for June 12, 2018 and the successful candidate will start on August 1, 2018.

Accreditation

NVIT's ENRT program is continuing to work towards national accreditation through the Canadian Technology Accreditation Board (CTAB). A site visit was conducted in November of 2017, however, CTAB failed to provide a national assessor, which has held up the process for NVIT. Barry Ostrand (former VIU instructor) did attend the site visit and completed the technical assessment according to the core competencies and relevant National Technology Board benchmarks. According to his report, NVIT was found to be meeting the benchmarks. One issue that we are presently dealing with is better defining the Capstone component of our program. Presently, our Capstone is not set-up as its own course, but is completed as the final project for *ENRT 265 – Environmental Assessment Surveys*.

The ENRT program began planning for a second accreditation option in 2017 with the College of Applied Biology (CAB), for those students wishing to pursue careers as Biology Technologists. NVIT was successful in this process and was accredited on January 9, 2018. ENRT diploma graduates are now recognized as meeting the credentials requirements to become Registered Biological Technologists (R.B.Tech.) with CAB.

University Transfer Agreements

The ENRT program signed four new university transfer agreements in 2017, including the following:

- UNBC Natural Resource Management (Forest Ecology and Management major);
- UNBC Natural Resource Management (Wildlife and Fisheries major);
- UBC Forest Resources Management; and
- UBC Natural Resources Conservation.

Student Employment

ENRT graduates continue to have high job placement. All first year students had relevant summer employment secured prior to the end of the spring semester, and diploma graduates were typically moving to fulltime positions with their previous employers. NVIT receives regular requests from employers looking for qualified Aboriginal technologists.

Closure

This report was intended to provide a general update regarding NVIT's ENRT program. If you have any questions, please feel free to contact me directly at (250) 378-3328 or by email at twillms@nvit.bc.ca . Feedback regarding our program is always appreciated!

Sincerely,

Tom Willms

CIF Report to BC Forestry Articulation Meeting

Alex Drummond (CIF-IFC President)

- CIF working on internal issues including Governance
    - Have hired a consultant to guide the process
    - Hoping to engage Board more directly in governance
- Financial situation of the institute is stable.
    - No use of Line-of Credit and Reserve Fund continues to grow towards recommended level
- Membership Committee continues work with a particular focus on membership for young/new members
    - Retention of student membership is very low
    - Demographics of membership are not good with a large proportion of membership in later professional years
- We are currently in review of Exec. Director's compensation and job responsibilities
- Forests Without Borders is the charitable arm of the CIF. Currently reviewing relationship and looking to ensure full compliance and formalizing relationship
- Encourage participation in CIF-IFC AGM and Conference Sept 18-2. There will be a Quiz Bowl and a student program. Hopefully will see attendance from BC Schools.
    - Still looking for host of 2019 conference
    - Cariboo Section (Prince George) is looking to host in 2020.

COLLEGE OF
APPLIED BIOLOGY
Professional Accountability

CAB & Accreditation Update

Derek Marcoux, RPBio, Registrar
College of Applied Biology

Outline

1. What is the College of Applied Biology?
2. Accreditation categories
3. Current accredited programs
4. Advantages (no disadvantages!)
5. Next steps

What is the College of Applied Biology?

→ Protect the Public Interest

College of Applied Biologists Act (2003)

- Only legislation of its kind in North America for Applied Biology
- **Self-regulating** professional organization
- Approx **2300 members** BC/ Canada/ Global

COLLEGE OF APPLIED BIOLOGY
Professional Accountability

College of Applied Biology Act

Applied biology is defined in the College of Applied Biology Act as

"...the application of the applied biological sciences, including collecting or analyzing inventories or other data or carrying out of research or assessments, to design, evaluate, advise on, direct or otherwise provide professional or technical support to projects, works, undertakings or field practices on public or private lands, but does not include

(a) pure scientific research or

(b) teaching;

College of Applied Biology Act

"...applied *biological science*, including botany, zoology, ecology, biochemistry and microbiology, if the *biological science* is applied to the management, use, conservation, protection, restoration, or enhancement of

(a) aquatic or terrestrial ecosystems, or

(b) biological resources within these ecosystems;"

What is a Biology Professional?

Conduct field assessments in Biological Sciences including:

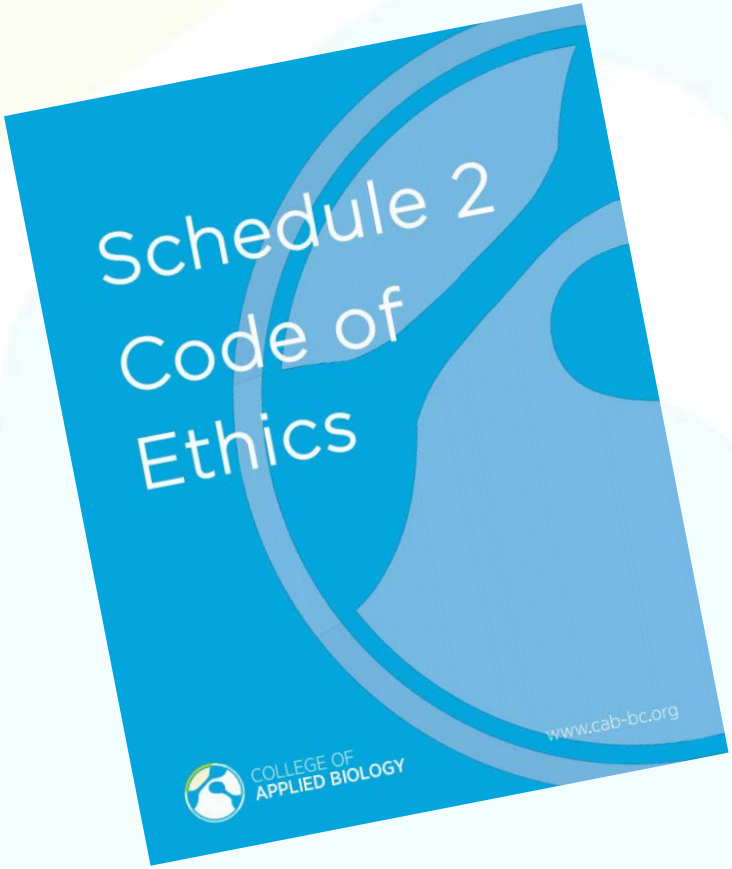
- Wildlife and Fisheries
- Vegetation
- Contaminated sites
- Aquaculture
- Conservation planning
- …and others….

What is the College of Applied Biology?

→ Ethics and Stewardship

The College *Code of Ethics* outlines requirements for:

- Objectivity
- Competency
- Due Diligence and Standard of Care
- Professionalism
- Health and Safety
- Workplace conduct
- Malice and Negligence

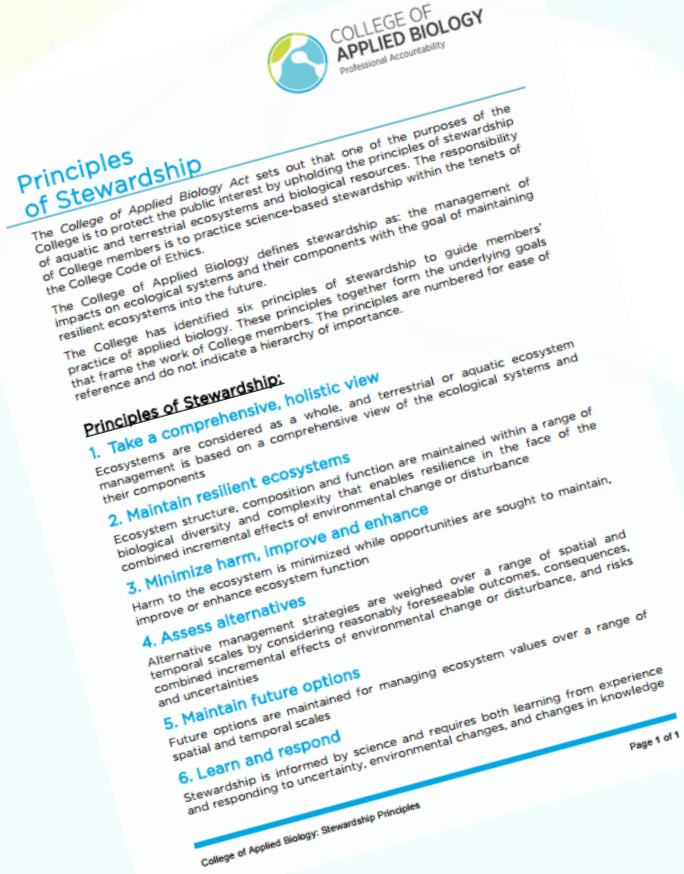


What is the College of Applied Biology?

→ Ethics and Stewardship

The College *Principles of Stewardship* outlines guidance:

- View projects holistically
- Maintain resiliency
- Minimize harm
- Assess alternatives
- Maintain future options
- Learn and respond to uncertainty



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Principles of Stewardship

The *College of Applied Biology Act* sets out that one of the purposes of the College is to protect the public interest by upholding the principles of stewardship of aquatic and terrestrial ecosystems and biological resources. The responsibility of College members is to practice science-based stewardship within the tenets of the College Code of Ethics.

The College of Applied Biology defines stewardship as: the management of impacts on ecological systems and their components with the goal of maintaining resilient ecosystems into the future.

The College has identified six principles of stewardship to guide members' practice of applied biology. These principles together form the underlying goals that frame the work of College members. The principles are numbered for ease of reference and do not indicate a hierarchy of importance.

Principles of Stewardship:

1. Take a comprehensive, holistic view
Ecosystems are considered as a whole, and terrestrial or aquatic ecosystem management is based on a comprehensive view of the ecological systems and their components

2. Maintain resilient ecosystems
Ecosystem structure, composition and function are maintained within a range of biological diversity and complexity that enables resilience in the face of the combined incremental effects of environmental change or disturbance

3. Minimize harm, improve and enhance
Harm to the ecosystem is minimized while opportunities are sought to maintain, improve or enhance ecosystem function

4. Assess alternatives
Alternative management strategies are weighed over a range of spatial and temporal scales by considering reasonably foreseeable outcomes, consequences, combined incremental effects of environmental change or disturbance, and risks and uncertainties

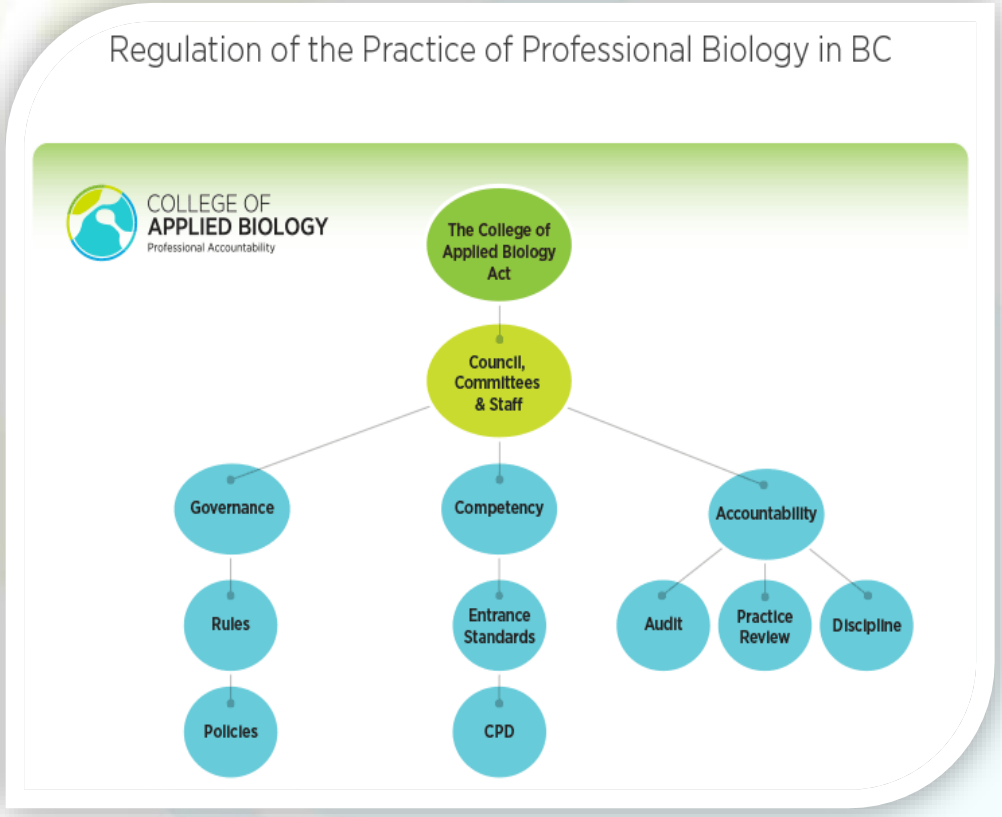
5. Maintain future options
Future options are maintained for managing ecosystem values over a range of spatial and temporal scales

6. Learn and respond
Stewardship is informed by science and requires both learning from experience and responding to uncertainty, environmental changes, and changes in knowledge

What is the College of Applied Biology?

→ Professional Accountability

- Admission standards for education
- Accountable for the professional conduct through **audits and investigations**
- Adhere to the College *Code of Ethics*



What is the College of Applied Biology?

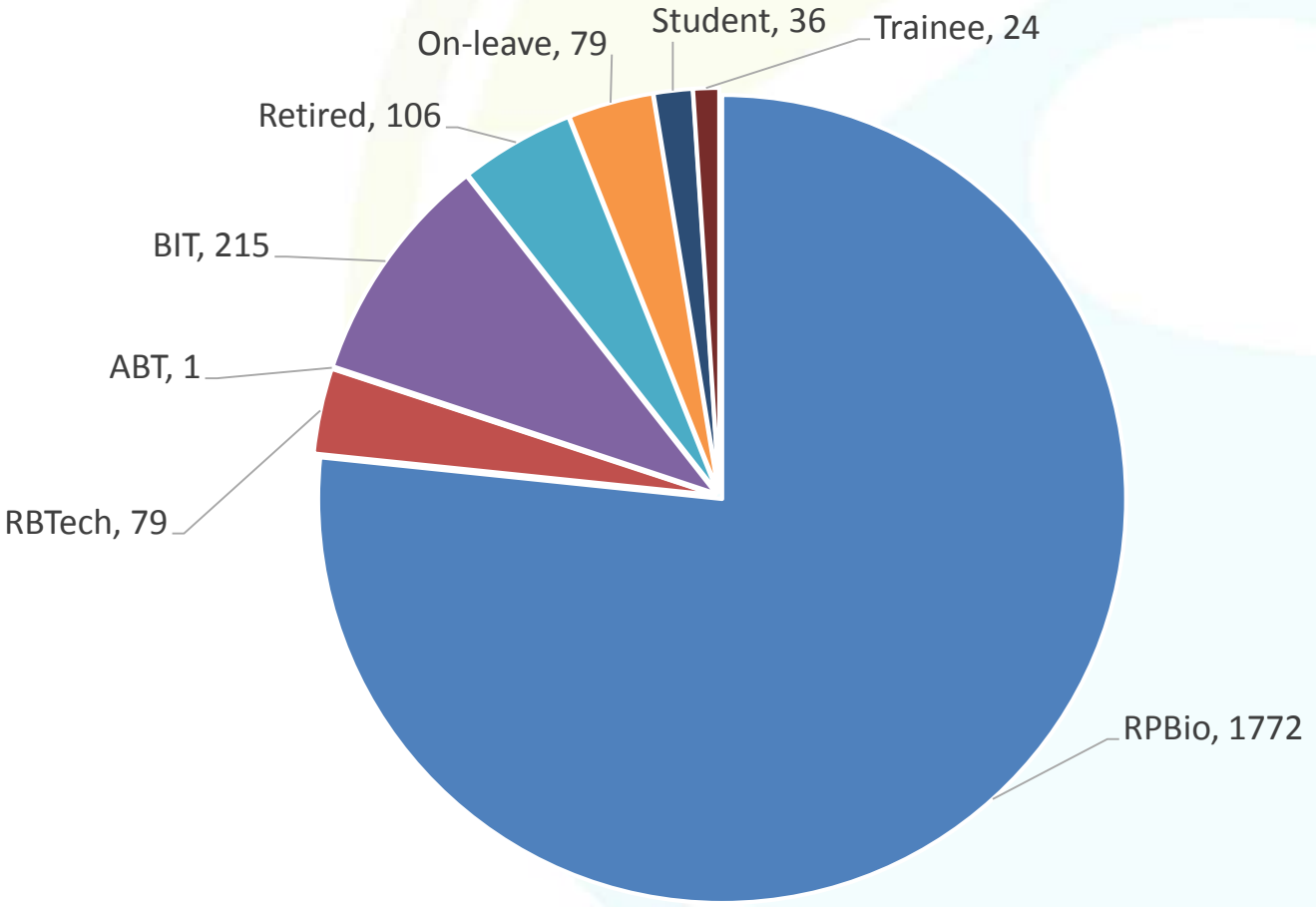
→ Continuing Professional Development

- Mandatory Continuing professional Development (CPD) is a requirement of membership in the College
- Members must maintain **100 CPD hours over 3 years**

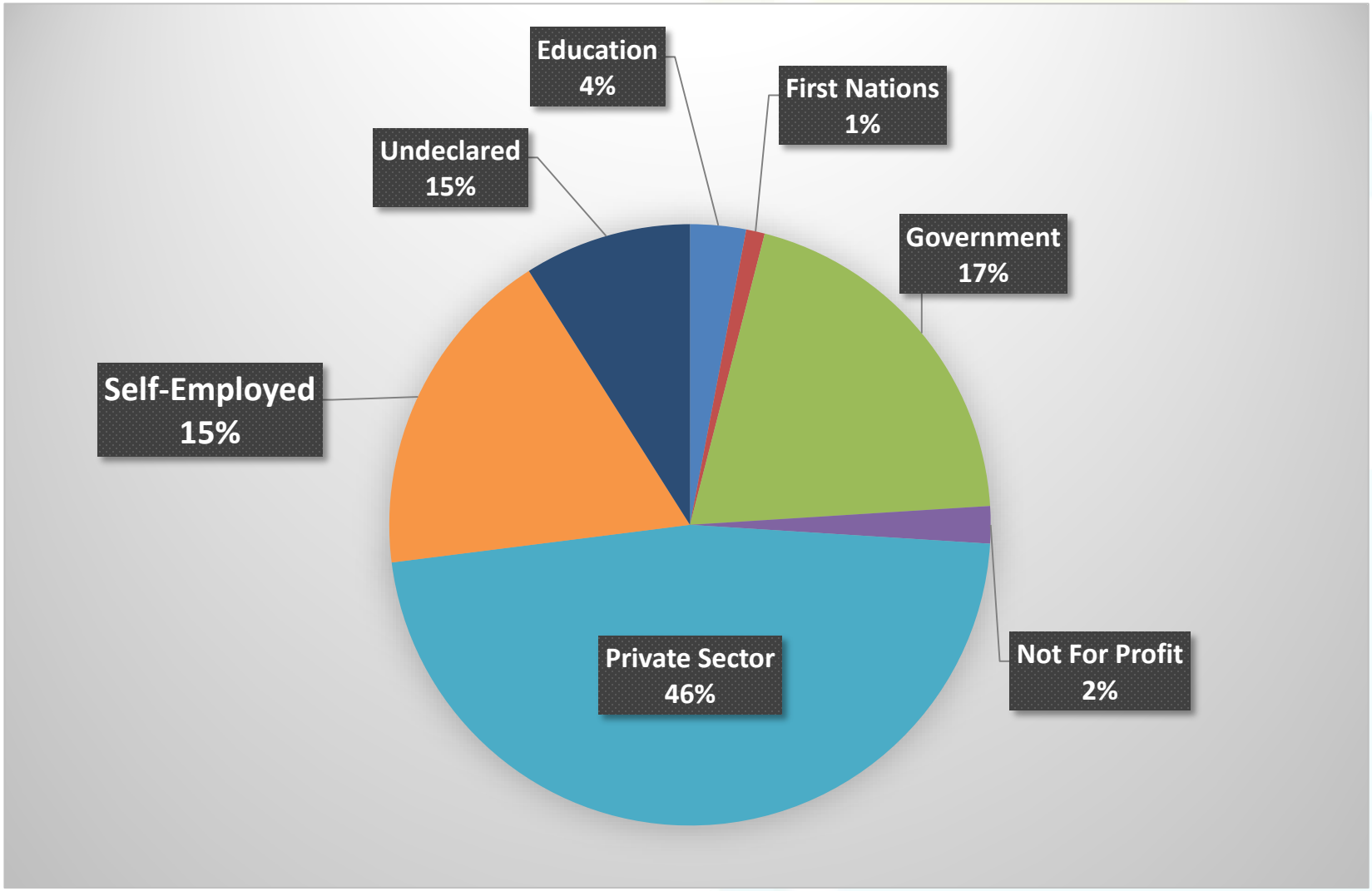
COLLEGE OF APPLIED BIOLOGY
Professional Accountability

Membership snapshot

- Membership numbers approx. 2,300



Where we work…



Accreditation Categories

- **Registered Professional Biologist** (RPBio.)
- **Registered Biology Technologist** (RBTech.)
- **Applied Biology Technician** (ABT)

Registered Professional Biologist (RPBio)

RPBio:

Bachelor's degree from a recognized post-secondary institution in biology or biological science

- 25 science credits (13 must be in biology)

Membership Requirements - Academic

RPBio:

Bachelor's degree from a recognized post-secondary institution in biology or biological science

- 25 science credits (13 must be in biology)

Courses competencies needed:

25 Science courses including:

13 Biology courses:

1st year
- Communications
- Math
- Chemistry

2nd year
- Applied Biology
- Ecology
- Statistics

2nd year, two of:
- Cellular biology
- Physiology
- Systematics (Classification)

Plus additional biology courses = 13

Membership Requirements - Academic

RPBio:

Bachelor's degree from a recognized post-secondary institution in biology or biological science

- 25 science credits (13 must be in biology)

Work experience

- Three years post degree

Professional report

- Design and implement a project
- Analyze and interpret data
- Develop and discuss conclusions
- Make management recommendations

Registered Biology Technologist (RBTech)

RBTech:

Diploma or Degree or accumulated 20 courses:

- Communications
- Applied Math
- Applied Biology
- Applied Science
- Project Management

Work experience

- Two years post diploma or degree

Professional report

1. Data collection
2. Data analysis
3. Data presentation

Applied Biology Technician (ABT)

ABT:

- 200 hours of training accredited certificate or accumulated experience

Competencies:

- Applied Math
- Communications/Note taking
- Field ID of fish/ wildlife/ vegetation

Work experience

- One year post training or 10 years cumulative

Professional report

- None

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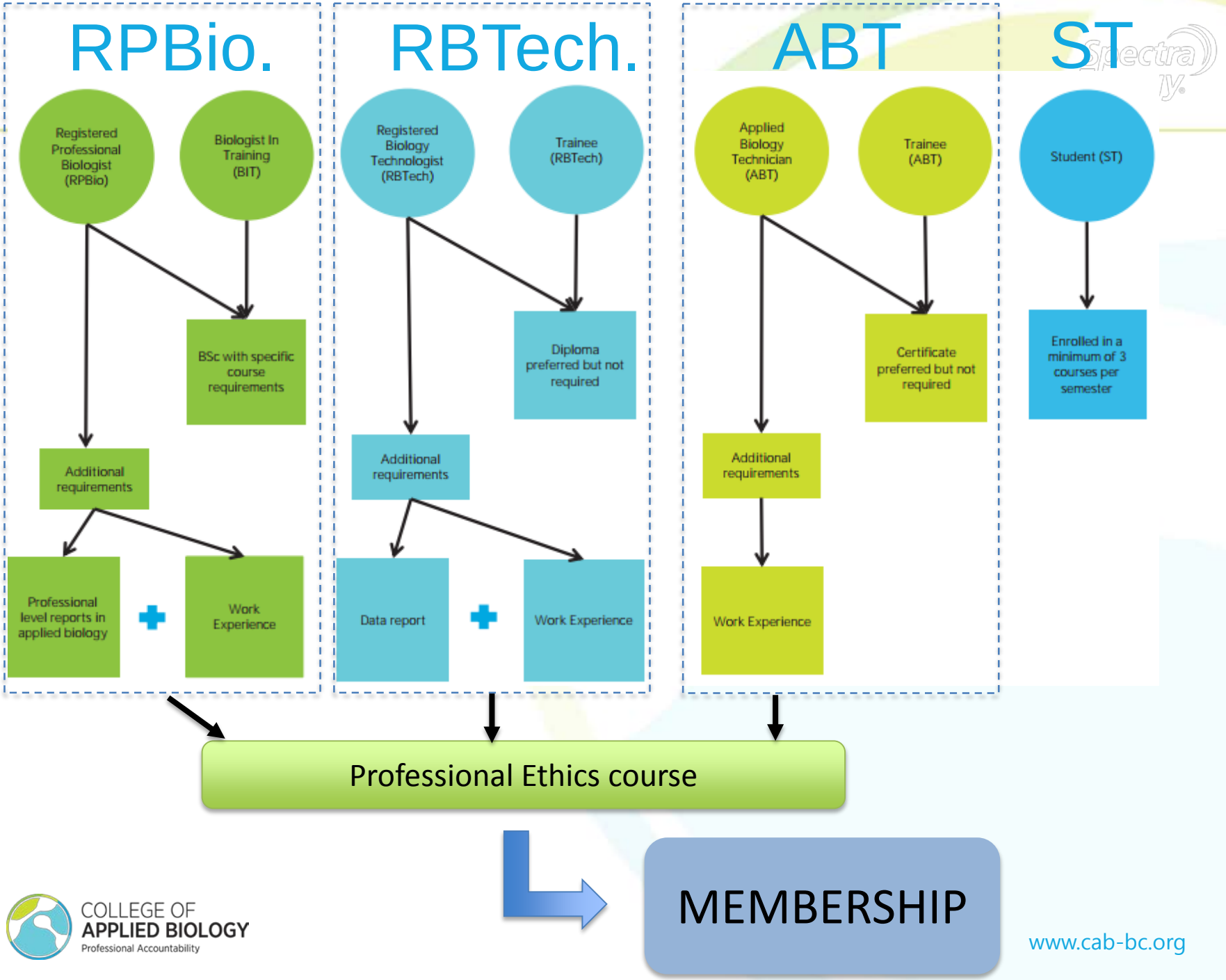
www.cab-bc.org



COLLEGE OF APPLIED BIOLOGY
Professional Accountability

www.cab-bc.org

Current RPBio accredited programs

UBC (2013)
- Nat Res & Cons

UBCO (2014)
- Zoology
- Microbiology
- Ecol. & Evol
- Biology

TRU (2014)
- Nat Res Sci

UNBC (2014)
- Biology
- Nat. Res. Mgt.

SFU (2017)
- Ecol. Evol. & Cons.

UVIC (2017)
- Biology

Lethbridge College (2017)
- Ecosystem Mgt.

VIU (2018)
- Biology

Current RBTech accredited programs

NVIT (2017)

- Environmental Resources Technology diploma

Selkirk College (2018)

- Recreation, Fish & Wildlife Technology diploma

College of New Caledonia (2018)

- Natural Resources and Forest Technology diploma

Curren ABT accredited programs

VIU (2018)

- Natural Resources Extension Program - Environmental Technician Certificate Program (200 hrs)

Coast Mountain College (Pending)

[aka: Northwest Community College]

- Environmental Monitoring Assistant Program (100 hrs)

UNBC (Pending)

- Environmental Monitoring Certificate (330 hrs)

Advantages (no disadvantages!)

Clarity

- students and graduates (program + electives)

FTE's

- attract professional-oriented students

Efficiency

- application processing

Next Steps

- Broaden ABT accreditation
- Work with AVED and employers to promote ABT category
- Initiate review process for agreements >3yrs since acceptance

Spectra Energy

Thank you for your time!