



a place of mind

THE UNIVERSITY OF BRITISH COLUMBIA

# **UBC Vancouver**

# **ACADEMIC**

# **CALENDAR**

**2018/19**

[www.calendar.ubc.ca/vancouver](http://www.calendar.ubc.ca/vancouver)



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a place of mind

THE UNIVERSITY OF BRITISH COLUMBIA

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## Introduction

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The Faculty of Forestry offers four-year degree programs leading to the Bachelor of Science in Forestry with Forest Resources Management and Forest Operations Majors, Bachelor of Science in Natural Resources Conservation with Science and Management and Global Perspectives Majors, Bachelor of Science in Wood Products Processing, and the Bachelor of Science in Forest Sciences. The Faculty offers elective Co-operative Education Programs to students in these programs. An international specialization option is available in the Forest Resources Management and Forest Sciences programs. The Faculty's graduate degrees include **Master of Forestry**, Master of Science, Master of Applied Science, and Doctor of Philosophy (see graduate [Degree Programs](#)).

The Faculty is favourably situated for educating men and women as conservation scientists and biologists, natural resource planners and managers, wood product specialists, foresters, forest scientists and biologists, and forest business administrators. It enjoys the benefits of a large university with good libraries and other facilities for study. The Faculty is based in a state-of-the-art 15,000 square metre building. In addition to the lecture and laboratory classrooms, the Faculty supports three research forests in the southcoast, north and central interior regions, totalling almost 25,000 hectares. Formal field classes, special studies, and professional exercises are conducted by students at all of these forests. The Faculty also supports the Centre for Applied Conservation Research, a specialized research centre. The Forest Engineering Research Institute of Canada and the Western Laboratory of FPInnovations - Forintek are on-campus facilities which cooperate in teaching and research in engineering and forest products. The Centre for Advanced Wood Processing, located adjacent to the Forest Sciences Centre, provides a direct link between the wood processing industry and the University.

## Admission

Application for admission to the Faculty of Forestry must be made through Enrolment Services. Procedures, policies and admission requirements for the University of British Columbia and the Faculty of Forestry are specified in the Admissions (Calendar page <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=2,27,0,0#15>) section of the Calendar. Admission requirements specific to each degree program are provided in the section describing the specific degree.

### *UBC Langara Aboriginal Transfer Partnership*

To be eligible to transfer to UBC into the Faculty of Forestry through this partnership (<http://transfer.aboriginal.ubc.ca/admissions/>), Aboriginal students must meet the general requirements for admission as a post-secondary transfer student (<http://you.ubc.ca/applying-ubc/canadian-highschools#basic>) as well as the following specific requirements:

- Successful completion of at least 24 transferable credits.
- An academic average of 2.0 or greater on the most recent 30 credits of transferable courses attempted, including failed and retaken courses.



- Completion of required high school academic prerequisites. In some cases, university transferable coursework may satisfy these prerequisites.
- Successful completion of the Transition Plan offered by Langara in collaboration with UBC.

Applicants who do not meet these requirements may be considered for admission as a general you.ubc.ca/applying-ubc/canadian-highschools#basic (<http://you.ubc.ca/applying-ubc/canadian-highschools#basic>) and can be considered through UBC's Aboriginal Admissions Policy (Calendar page: <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=2,14,0#49>).

For more information about the UBC Langara Partnership, please visit the website (<http://transfer.aboriginal.ubc.ca/admissions/>)

## Program Approval and Advising

As part of the registration procedure each student must select a program of courses within the limitations of the requirements for the degree and course schedules. All new students are advised to contact the Director of Student Services ([chiara.longhi@ubc.ca](mailto:chiara.longhi@ubc.ca)), 604.822.9187, for program advising. Returning students should contact their program advisor for program approval. In case of conflicts between individual students and their faculty advisors, the student may appeal to the Associate Dean, Undergraduate Studies. It is the student's responsibility to select a schedule that allows attendance of all regularly scheduled lectures and laboratories

### Advising Office

The Faculty of Forestry offers academic advising in its Student Services Centre, located in room 2609, Forest Sciences Centre, 2424 Main Mall. Office hours are 9:00 am to 4:00 pm Monday to Friday. The office can be reached by telephone at 604.822.1834 (toll-free at 1.888.933.9663) or by email ([forestry.undergrad@ubc.ca](mailto:forestry.undergrad@ubc.ca)).

## First Year Options

The Faculty of Forestry offers two options for enrolment in the first year:

1. The standard program in which students admitted to the Faculty design their own program according to Degree Requirements, selecting both the courses and the sections they wish to attend.
2. The Land One cohort option. Land One cohort option is jointly offered by the Faculty of Land and Food Systems and the Faculty of Forestry. In this limited-enrolment option, students admitted to their respective Faculty and degree programs enroll in a standard timetable of 15 core credits as a cohort. The standard timetable includes BIOL 121, MATH 102, LFS/FRST 101, LFS/FRST 110, and LFS/FRST 150. Additionally, students register for the remaining first-year credits according to their Degree Requirements.

### *Land One Cohort Option for the Faculty of Forestry*

Land One is a unique way for first-year Forestry students to begin their degrees. Students with a passion for learning in an integrated format will benefit from the program's cohort model, where complex issues related to food security, climate change, land use, forest management, and sustainability are explored through a coordinated curriculum offered in a small learning community.

Jointly offered by the Faculty of Land and Food Systems (LFS) and the Faculty of Forestry (FRST), the option integrates required



first-year subjects (BIOL 121, MATH 102, FRST 101, FRST 150 and FRST 110) within the context of real-world cases from both Indigenous and Western perspectives.

It facilitates students' transition to university and enhances the connections to their home Faculty by creating a learning community centred on collaborative engagement and learning with their peers and instructors

Students register in a 15-credit standard timetable (STT) that consists of designated sections of BIOL 121, MATH 102, FRST 101 (all taught in the first term), FRST 150 (taught in the second term) and FRST 110 (taught over both terms).

Land One instructors teach the same course content as the standard program using examples, approaches, and case studies that relate to current issues in Land and Food Systems and Forestry through lectures, tutorials, and peer-to-peer engagement. All Land One students attend their lectures together and have access to a designated study space, creating a smaller social and learning community.

FRST 110 is an integrative seminar that discusses the connections between courses in Land One and current issues. Each week, students meet for a one-hour lecture and a one-hour tutorial session throughout both terms 1 and 2. Students work in groups to explore disciplinary and integrative approaches to cases involving both Indigenous and Western perspectives. Students also participate in field trips (e.g. to UBC farm, Malcolm Knapp Research Forest, and Museum of Anthropology) and engage in various hands-on activities.

All majors/programs in FRST allow for the Land One standard timetable to meet first-year degree requirements, however, students are responsible for meeting all remaining degree requirements in their respective program. The Land One cohort option is best suited to students in the Natural Resources Conservation and Forest Resources Management programs. The 15-credit standard timetable leaves space for students to take other courses in first-year and build their own program path within FRST, and across campus. Students who plan to transfer out of FRST after first-year should consult with the Faculty Advising Office responsible for the program they are interested in.

### Application Process

The Land One program is limited to direct-entry students in their first-year of study in FRST. Students must be admitted to FRST in order to be eligible for the Land One cohort option. Students should consult the Admission (<http://www.calendar.ubc.ca/vancouver/index>; <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,203,907>) section for details on applying to the Faculty of Forestry at UBC. As Land One integrates five courses, in addition to the Faculty's admission requirements, students must meet the pre-requisites of these courses as listed below (or the equivalent in the students' home curriculum):

- BIOL 121: Biology 11 or 12, or BIOL 111
- MATH 102: High-school calculus and one of (a) a grade of 80% or higher in BC Principles of Mathematics 12 or Pre-calculus 12, or (b) a satisfactory score in the UBC Mathematics Basic Skills Test.
- FRST/LFS 101: No pre-requisites
- FRST/LFS 150: Enrolment limited to FRST students with first year status and a minimum Language Proficiency Index (LPI) of 4 or equivalent. Because writing will be a significant part of the Land One option, proficiency in English is strongly recommended.
- FRST/LFS 110: No pre-requisites

Students must submit a separate application for the Land One program, via an online application by May 31. Students are required to submit a Letter of Intent (500 word maximum) addressing why they would like to join Land One.

Additional information about the Land One cohort option and the application process are available on the Land One website (<http://landone.ubc.ca>).



## Haida Gwaii Semesters

Two term-long educational opportunities are offered by the Haida Gwaii Higher Education Society. They each comprise five courses (HGSE 355 through HGSE 359 for the September to December term and HGSE 350 through HGSE 354 for the January to April term) taken on-site in Haida Gwaii in any given year. More details on the Haida Gwaii Semesters and their constituent courses are available on the Faculty of Forestry website (<http://www.forestry.ubc.ca>).

## B.Sc. in Forest Sciences

### B.Sc. in Forest Sciences > Introduction

The Bachelor of Science in Forest Sciences (B.Sc. (Forest Sciences)) is an academically challenging program for students interested in the biology and dynamics of forest ecosystems. The objective of the program is to develop professionals who understand the dynamics of, and conduct research in, forested ecosystems. The program provides a strong foundation for careers involving the biological and environmental aspects of forestry, forest conservation, research, and teaching.

The program consists of a minimum of 128 credits of course work.

The first two years of the program have a strong core of foundation courses to ensure scientific breadth. No later than the start of third year, students must select an area of concentration, such as forest ecology, forest entomology or pathology, forest fire science, forest genetics or biotechnology, forest hydrology and aquatic sciences, forest soils, tree physiology, silviculture, conservation biology, or wildlife ecology. Each area of concentration consists of 12 credits of course work. It is expected that the 6 credit thesis be in the area of concentration. Students must also select 18 credits from a pool of Forestry Electives. Specific academic packages to suit the interests and needs of individual students can be designed. All Forest Science Majors must have their program of study approved by the Forest Sciences Program Director.

The recommended program of studies is given below. Part-time students or students with advanced credit should consult the Forest Sciences Program Director before registering in an amended program

### B.Sc. in Forest Sciences > Admission

Students entering from secondary school must have met the general University entrance requirements (see [Admission](#)) and have completed Principles of Mathematics 12 or Pre-Calculus 12. They must also complete one of Biology 12, Chemistry 12, or Physics 12, as well as two of Biology 11, Chemistry 11, and Physics 11.

To be eligible for second year of the Forest Science Major, students must have completed 6 credits of first-year English; BIOL 121 and 140 and one of BIOL 111 or Biology 12; MATH 100 and 101 (or 102 or 103); and CHEM 111 and 113 or 121 and 123. The program is designed to allow completion in three years following at least one year (30 credits) of university-level work.

See also [Program Approval and Advising](#).

### B.Sc. in Forest Sciences > Academic Regulations

See [Academic Regulations](#).



## B.Sc. in Forest Sciences > Degree Requirements

### Forest Sciences

#### First Year

*Either*

ENGL 100-level	6
<i>or</i>	
ENGL 100-level	3
<i>plus</i> FRST 150	3
BIOL 111, 121, and 140 <sup>1</sup>	8
CHEM 121 (111) and 123	8
MATH 100 and 101 or MATH 102 and 103 <sup>2</sup>	6
CONS 101 (FRST 100)	1(3)
APBI 200	3
Total Credits	32(34)

#### Second Year

APBI 244 (or GEOB 204)	3
BIOL 200	3
BIOL 201	3
CHEM 233 and 235	4
FRST 200	3
FRST 201	3
FRST 210	3
FRST 211	3
FRST 231 (or BIOL 300)	3
Elective <sup>3</sup>	3
Total Credits	31
FRST 350 <sup>4,5</sup> or FRST 351 <sup>4,5</sup> immediately preceding third year	2

#### Third and Fourth Years

FRST 302	3
FRST 307	3
FRST 395	3
FRST 399	3
FRST 430	3
FRST 495 or BIOL 416	3
FRST 498 <sup>6</sup>	6
Area of Concentration <sup>7</sup>	12
General electives	9
Forestry electives <sup>8</sup>	18
Total Credits	63
Plus FRST 351 immediately preceding third year	2

<sup>1</sup> Students with Biology 12 should replace BIOL 111 with BIOL 112.





<sup>2</sup> Students may take MATH 180, 184 (4 credits) or MATH 110 (6 credits) instead of MATH 100 or 102 (3 credits), but the credit difference cannot be applied towards program elective requirements.

<sup>3</sup> PHYS 100 is suggested for students who do not have credit for Physics 12.

<sup>4</sup> Credit will be given for only one of FRST 350 or FRST 351.

<sup>5</sup> Students will be assigned to the most appropriate course based on their levels of forestry and field experience as determined by the course instructors.

<sup>6</sup> A 6-credit B.Sc. thesis will be completed in fourth year.

<sup>7</sup> An area of concentration must be declared before the start of third year. Courses should be selected in consultation with the Forest Science Program Director.

<sup>8</sup> All 300- and 400-level FRST and CONS courses that are not specifically required for the program are eligible as Forestry electives as long as students have the necessary prerequisites.

### ***Courses Toward Registration as a Professional Forester in BC***

Students who wish to work towards membership in the Association of BC Forest Professionals (ABCFP) are advised to contact the ABCFP or the Director of Student Services in the Faculty of Forestry for information on appropriate courses to add to their program.

### ***Courses Toward Registration as a Professional Biologist in BC***

Students who wish to work toward registration as a Registered Professional Biologist during their program should contact the College of Applied Biology of BC for course and other membership requirements.

## **B.Sc. in Forest Sciences > Forest Sciences (Specialization in International Forestry)**

The Forest Sciences (Specialization in International Forestry) program combines the biology and dynamics of forest ecosystems with developing a global perspective of forest issues increasingly required for careers in Forestry both in Canada and abroad. The objective of this program is to produce graduates who have a good science foundation, a second language, cultural sensitivity, and both academic and first hand knowledge of forestry abroad.

The emphasis of the Forest Science component is to provide education in the basic biological and environmental sciences, particularly with regard to the components and functioning of ecosystems. In addition, to fulfil the International Forestry Major, students must select a regional specialization. Students choose from either Asia Pacific, Europe, the Americas, or other regional specialization with the approval of a program advisor.

The first two years of the program have a strong core of basic sciences to ensure scientific breadth. After the completion of their first year, students would select International Forestry as their area of concentration. Within the regional specialization, the program requires 12 credits of relevant language other than English, a pre-approved study abroad exchange for a minimum of one term, or work experience for a minimum of 13 weeks and relevant course work in the economic, cultural, and political environment of the region selected.

Enrolment in the Forest Sciences (Specialization in International Forestry) program is restricted. To be considered for admission, students are required to have a minimum academic standing of 70%. Students can apply to the program after completing 21 credits from the first-year courses (or their equivalent). The program consists of a minimum of 133 credits of in-session and seven credits of extra-session course work. Students receive a B.Sc. Forest Sciences upon completion of the requirements. Application forms are available after January 15 from the Faculty's International Programs Advisor. Completed application forms and transcripts from all post-secondary institutions attended must be received by the International Programs office by May 15. Applicants will be notified by June 30 whether they have been accepted into the program.

### ***Forest Sciences/International Forestry***

#### **First Year**



ENGL 100-level	6
BIOL 111, 121 and 140 <sup>1</sup>	8
CHEM 121 (111) and 123	8
MATH 100 and 101 or MATH 102 and 103 <sup>2</sup>	6
CONS 101 or FRST 100	1 (3)
FRST 231	3
APBI 200	3
Total Credits	35 (37)

#### Second Year

Language <sup>3</sup>	6
FRST 200	3
FRST 201	3
FRST 210	3
FRST 211	3
BIOL 200 and BIOL 201	6
CHEM 233 and 235	6
Region-Specific Electives <sup>4,5</sup>	3
Total Credits	33

#### Third Year

FRST 302	3
FRST 305	3
FRST 307	3
FRST 320	3
FRST 385	3
FRST 386	3
FRST 395	3
FRST 430	3
Language <sup>3</sup>	6
Region-specific electives <sup>5,6</sup>	3
Total Credits	33
Plus FRST 351 immediately preceding third year	2

#### Fourth Year

FRST 311	4
FRST 399	4
FRST 439	3
FRST 495	3
FRST 498	6
APBI 403	3
Region-specific electives <sup>4,5</sup>	3
Region-specific Area of Concentration <sup>4,6</sup>	9
International experience <sup>7</sup>	
Total Credits	35



<sup>1</sup> Students with Biology 12 should replace BIOL 111 with BIOL 112.

<sup>2</sup> Students may take MATH 180, 184 (4 credits) or MATH 110 (6 credits) instead of MATH 100 or 102 (3 credits), but the credit difference cannot be applied towards program elective requirements.

<sup>3</sup> Students who pass an oral proficiency test for a language relevant to their regional specialization are exempt, and must choose 12 credits of program electives approved by a program advisor.

<sup>4</sup> Students may choose Asia-Pacific, Americas, or Europe as their region of specialization. Other regions can be considered with the approval of an advisor.

<sup>5</sup> Electives must be approved by a program advisor.

<sup>6</sup> 3 credits in each of anthropology or sociology; economics or commerce or law; geography or history or political science.

<sup>7</sup> Met by participation in one of the following: UBC's Education Abroad Program or Study abroad or work internship abroad designed by the student with pre-approval by a program adviser. The Faculty of Forestry cannot guarantee the placement of any student in a study abroad exchange program or an international work internship program. Selection is competitive and based on academic standing, merit and availability.

### ***Courses Toward Registration as a Professional Forester or a Professional Biologist in British Columbia***

Students who wish to work toward membership in the Association of BC Forest Professionals (ABCFP) are advised to contact the ABCFP or the Director of Student Services in the Faculty of Forestry for information on appropriate courses to add to their program.

Students who wish to work toward registration as a Registered Professional Biologist during their program should contact the College of Applied Biology for course and other membership requirements.

## **B.Sc. in Forest Sciences > Dual Degree Program in Forest Sciences and Education**

The Dual Degree program in Forestry and Education offers qualified students the opportunity to earn a B.Sc. in Forest Sciences and B.Ed. in Secondary Education (Biological Sciences Specialization), in five winter sessions with some academic requirements in some of the Summer sessions. After completing all the requirements, students are normally eligible for a British Columbia Professional Teaching Certificate.

### ***Admission***

Admission to the Dual Degree program requires application to the Forestry Student Services Office by the first week of February of second year with approval by April in order to undertake a teaching practicum at the end of second year.

Application for admission can be found online on the Faculty of Forestry website or at the Forestry Student Services Office. Students apply in early February of their second year and must receive approval from the Faculty of Forestry and the Faculty of Education. All students whose applications are successful will be admitted to the Faculty of Education beginning Summer Session, following Winter Session, Year 2. Continuation will require successful completion of both year two of the Forest Sciences and the in-school practicum in Summer following second year.

Admission at any time is conditional; maintenance of good academic standing and an average of at least 65% in each session are required throughout. In addition, students must participate in volunteer or work experience with youth aged 13-18 to meet the requirements of the Bachelor of Education program. Students must satisfy all of the degree and specialization requirements for both the Bachelor of Science in Forest Sciences and the Bachelor of Education Secondary program. Some individual courses may be considered to satisfy requirements for both degrees.

Students must communicate with an advisor in the Forestry Student Services Office or the Forest Sciences Program Director and the Teacher Education Office annually after admission to the program to discuss their progress.



First Year	
ENGL 100-level <sup>1</sup> or FRST 150	6
BIOL 111, 121, and 140 <sup>2</sup>	8
CHEM 121 (111) and 123	8
MATH 100 and 101 or MATH 102 and 103 <sup>3</sup>	6
CONS 101 (FRST 100)	1(3)
APBI 200	3
<b>Total Credits</b>	<b>32(34)</b>
Second Year	
APBI 244 (or GEOB 204)	3
BIOL 200	3
BIOL 201	3
CHEM 233 and 235	4
FRST 200	3
FRST 201	3
FRST 210	3
FRST 211	3
FRST 231 (or BIOL 300)	3
Elective <sup>4</sup>	3
<b>Total Credits</b>	<b>31</b>
Second Year (Summer)	
EDUC 319	1
EDUC 440	3
<b>Total Credits</b>	<b>4</b>
FRST 350 <sup>4, 5</sup> or FRST 351 <sup>5, 6</sup> immediately preceding third year	2
Third and Fourth Years	
EDCP 352A	3
EDST 401	3
EPSE 308	3
FRST 302	3
FRST 307	3
FRST 395	3
FRST 399	3
FRST 430	3
FRST 495 or BIOL 416	3
LLED 360	3
Area of Concentration	12
Forestry electives <sup>8</sup>	12
<b>Total Credits</b>	<b>54</b>
Third Year (Summer)	
EDUC 399	1
LLED 361	3



<b>Total Credits</b>	<b>4</b>
<b>Fourth Year (Summer)</b>	
EDST 403	1
EDST 404	1
EDUC 440	3
EPSE 317	3
<b>Total Credits</b>	<b>8</b>
<b>Fifth Year</b>	
EDUC 315	2
EDUC 421	12
EDUC 430	1
EDUC 450B	3
EDUC 451	3
EDUC 452B	3
EPSE 310	2
EPSE 311	1
EDCP 354	3
<b>Total Credits</b>	<b>30</b>
<b>Minimum Credits for Dual Degree</b>	<b>164</b>

<sup>1</sup> ENGL 100 level courses: students in the dual degree should choose courses in both Literature and Composition.

<sup>2</sup> Students with Biology 12 should replace BIOL 111 with BIOL 112.

<sup>3</sup> Students may take MATH 180, 184 (4 credits) or MATH 110 (6 credits) instead of MATH 100 or 102 (3 credits), but the credit difference cannot be applied towards program elective requirements.

<sup>4</sup> PHYS 100 is suggested for students who do not have credit for Physics 12.

<sup>5</sup> Credit will be given for only one of FRST 350 or FRST 351.

<sup>6</sup> Students will be assigned to the most appropriate course based on their levels of forestry and field experience as determined by the course instructors.

<sup>7</sup> Students will choose 12 credits from one of the groupings below for their Area of Concentration. Substitutions may be allowed at the discretion of the Director of the Forest Sciences Program. Plant genetics/genomics/physiology: CONS 302; FRST 311, 413, 432; APBI 318; BIOL 335, 338, 352. Forest ecology and management: FRST 305, 310, 320, 385, 408; APBI 401, 402. Biodiversity conservation and management: CONS 330, 481, 486, 495; FRST 386; APBI 416. International forestry/sustainability: FRST 411, 415, 439, 444; CONS 330, 425; WOOD 461. Geomatics/mensuration: CONS 340; FRST 232, 239, 339, 443 (or GEOB 373), 490; GEOB 370, 479.

<sup>8</sup> All 300- and 400-level APBI, CONS, FRST and UFOR courses that are not specifically required for the program are eligible as Forestry electives as long as students have the necessary prerequisites.

Please note that Education courses sequence may vary where necessary in order to accommodate students' Forest Sciences schedule when needed.

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## B.Sc. in Natural Resources Conservation

### B.Sc. in Natural Resources Conservation > Introduction

The Bachelor of Science in Natural Resources Conservation (B.Sc. (Natural Resources Conservation)) is an interdisciplinary program designed to prepare students for careers in the conservation of natural resources. The program provides students with a



solid foundation across several disciplines including the natural and social sciences underlying the conservation and management of natural resources, an appreciation for the political and socioeconomic contexts that affect the design and outcomes of conservation and management strategies, and a working knowledge of technologically advanced tools and quantitative techniques available to renewable resources planners and managers. Throughout the program, emphasis is placed on developing communication skills, both oral and written, including approaches to public participation in natural resources planning.

Students must select one of two majors upon completion of second year:

- Science and Management
- Global Perspectives

The **Science and Management Major** focuses on the conservation and management of renewable natural resources, and landscape and local level planning for both terrestrial and aquatic ecosystems. A notable feature of this major is the Integrated Field School, a semester-long course divided into modules, each concentrating on a particular component of B.C.'s environment.

The **Global Perspectives Major** focuses on the conservation and management of renewable and non-renewable resources, policy formation, and planning within a global context. Two notable features of the major are the international education that students receive through term-long study abroad or through an intensive short-term international field school, and the global issues capstone course which uses case studies and modeling approaches to explore the effects of decision-making on resource sustainability.

## B.Sc. in Natural Resources Conservation > Admission

The Faculty will accept applications from students with varying educational preparation:

- directly from secondary school graduation, or
- following completion of at least 24 credits at UBC or its equivalent at another post-secondary institution.

Students entering from secondary school must have met the general University entrance requirements (see Admissions (Calendar page:<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=2,13,0,0#41>)) and have completed Principles of Mathematics 12 or Pre-Calculus 12 and one of Biology 12, Chemistry 12, or Physics 12, as well as Chemistry 11 and one of Biology 11 and Physics 11.

Students who enter following completion of at least 24 credits of work at UBC or its equivalent at another post-secondary institution, must have attained an overall average of at least 60% in all credits attempted. In the case of transfer students, consideration will be given to individual cases of study in determining the transfer credit that may be applied to the natural resources conservation program. Graduates of a one- or two- year diploma program in a related discipline may be considered for course exemptions that may be applied towards the degree. Such students must have achieved an overall average of at least 65% in their diploma program, plus have the entrance requirements listed above.

Students may also apply for admission to Year 3 of the program under the terms of approved affiliation agreements between UBC and other academic institutions. Students who have met the minimum academic requirements for admission to Year 3 of the program under such agreements will be eligible for block transfer of credits upon admission.

See also [Program Approval and Advising](#).

## B.Sc. in Natural Resources Conservation > Academic Regulations

See [Academic Regulations](#).



## B.Sc. in Natural Resources Conservation > Degree Requirements

The program consists of a common first and second year consisting of 61 credits. Students apply to the program director for entry into one of the two majors upon completion of second year. Acceptance into the Global Perspectives major may be limited by demand, in which case acceptance will be based on academic standing at the completion of second year.

First Year	
APBI 200	3
BIOL 111, 121 <sup>1</sup>	6
CONS 101	1
ECON 101 or FRST 101	3
ECON 102	3
<i>Either</i>	
ENGL 100-level	6
<i>or</i>	
ENGL 100-level	3
<i>plus</i> FRST 150	3
GEOB 103	3
MATH 100 or 102 or 104 or 190 <sup>2</sup>	3
Elective	3
<b>Total Credits</b>	<b>31</b>
Second Year	
CONS 200	3
CONS 210	3
FRST 200	3
FRST 201	3
FRST 210	3
FRST 211	3
FRST 231 <sup>3</sup>	3
FRST 232	3
SOCI 200-level <sup>4</sup>	3
Elective	3
<b>Total Credits</b>	<b>30</b>

<sup>1</sup> Students with Biology 12 should replace BIOL 111 with 3 credits of electives.

<sup>2</sup> Students may take MATH 180, 184, 190 (4 credits) or MATH 110 (6 credits) instead of MATH 100, 102, or 104 (3 credits), but the credit difference cannot be applied towards program elective requirements.

<sup>3</sup> Could be replaced with BIOL 300.

<sup>4</sup> SOCI 100A or B will also be accepted.

### Major in Science and Management

#### Third Year



CONS 330	3
CONS 340	3
CONS 481	3
FRST 318 <sup>1</sup>	3
FRST 385	3
FRST 386	3
FRST 395	3
SOCI 360	3
Elective	3
Elective <sup>4</sup>	3
Total Credits	30

#### Fourth Year

CONS 440	3
CONS 451 <sup>2</sup>	15
FRST 443	3
FRST 495	3
CONS 486	3
CONS 498 or elective <sup>3</sup>	3
Total Credits	30

<sup>1</sup> Could be replaced with ECON 371 or 374 (3 credits).

<sup>2</sup> An integrated course taught in Term 1. Registration is restricted to this course only during Term 1 and only to students in fourth year if NRC program.

<sup>3</sup> Must be a course numbered 300 or higher.

<sup>4</sup> Elective must be a course numbered 300 or higher. To be chosen in consultation with the program advisor.

### Major in Global Perspectives

Courses which meet the requirements in each of the following areas may be requested from the program administrators.

#### Third and Fourth Years

FRST 443	3
CONS 330	3
CONS 340 or GEOB 270	3
CONS 452	12
Core Areas <sup>1</sup>	15
Resources Systems <sup>2</sup>	9
Language Courses <sup>3</sup>	6
Electives <sup>4</sup>	9
International Experience <sup>5</sup>	
Total Credits	60

<sup>1</sup> One 3-credit course for each of the following topic areas: (i) resources and economics; (ii) resources and society; (iii) international policy/governance and resources; (iv) indigenous perspectives; and (v) globalization. Acceptable courses are listed on the Major's website.

<sup>2</sup> One 3-credit course in three out of the following four topic areas: (i) oceanography/fisheries/water systems; (ii) aquaculture/food systems; (iii) forestry systems; and (iv) energy/mineral systems. Acceptable courses are listed on the Major's website.





<sup>3</sup> Credits may be obtained in any non-English language courses, but students are encouraged to learn a language that would help them in their study abroad term. Students who can pass an oral proficiency test for a non-English language relevant to their study abroad term would be exempt from this requirement and the language credits will be replaced by 6 credits of electives. The NRC program director would coordinate the proficiency test and approve the electives.

<sup>4</sup> 3 credits of electives must be selected from the Resources Systems list. 6 credits of electives may be general, of which at least 3 credits must be at the 300-/400-level. An undergraduate thesis (CONS 498) may be taken in place of 3 credits of general electives.

<sup>5</sup> The international experience requirement may be met by a minimum of one term study abroad, a two-four week international field school, an international co-op placement, or by an international internship.

### *Courses Toward Registration as a Professional Forester in BC*

Students who wish to work toward membership in the Association of BC Forest Professionals (ABCFP) are advised to contact the ABCFP or the Director of Student Services in the Faculty of Forestry for information on appropriate courses to add to their program.

### *Courses Toward Registration as a Professional Biologist in BC*

Students who wish to work towards membership in the College of Applied Biology of BC (CABBC) should contact the College of Applied Biology for course and other membership requirements.

## **B.Sc. in Natural Resources Conservation > Dual Degree Program in Natural Resources Conservation and Education**

The Dual Degree program in Forestry and Education offers qualified students the opportunity to earn a B.Sc. in Natural Resources Conservation and B.Ed. in Secondary Education (Biological Sciences Specialization), in five winter sessions with some academic requirements in some of the Summer sessions. After completing all the requirements, students are normally eligible for a British Columbia Professional Teaching Certificate.

### *Admission*

Admission to the Dual Degree program requires application to the Forestry Student Services Office by the first week of February of second year with approval by April in order to undertake a teaching practicum at the end of second year.

Application for admission can be found online on the Faculty of Forestry website or at the Forestry Student Services Office. Students apply in early February of their second year and must receive approval from the Faculty of Forestry and the Faculty of Education. All students whose applications are successful will be admitted to the Faculty of Education beginning Summer Session, following Winter Session, Year 2. Continuation will require successful completion of both year two of the Forest Sciences and the in-school practicum in Summer following second year.

Admission at any time is conditional: maintenance of good academic standing and an average of at least 65% in each session are required throughout. In addition, students must participate in volunteer or work experience with youth aged 13-18 to meet the requirements of the Bachelor of Education program. Students must satisfy all of the degree and specialization requirements for both the Bachelor of Science in Forest Sciences and the Bachelor of Education Secondary program. Some individual courses may be considered to satisfy requirements for both degrees.

Students must communicate with an advisor in the Forestry Student Services Office or the Forest Sciences Program Director and the Teacher Education Office annually after admission to the program to discuss their progress.

## **First Year**



APBI 200	3
ENGL 100-level <sup>1</sup> or FRST 150	6
BIOL 121	3
CONS 101	1
ECON 101	3
ECON 102	3
GEOB 103	3
MATH 100 or 102 or 104 <sup>2</sup> or 190	3 (4)
Elective	3

**Total Credits** **28 (29)**

**Second Year**

CONS 200	3
CONS 210	3
FRST 200	3
FRST 201	3
FRST 210	3
FRST 211	3
FRST 231 (or STAT 200 or BIOL 300)	3
FRST 232	3
SOCI 101 or SOCI 102	3

**Total Credits** **27**

**Second Year (Summer)**

EDUC 319	1
EDUC 440	3

**Total Credits** **4**

**Third Year**

CONS 330	3
COND 340 or GEOB 270	3
CONS 481	3
EDST 401	3
FRST 318 or ECON 371 or ECON 374	3
FRST 385	3
FRST 386	3
FRST 395	3
LLED 360	3
SOCI 360	3

**Total Credits** **30**

**Third Year (Summer)**

EDUC 399	1
LLED 361	3

**Total Credits** **4**

**Fourth Year**



FRST 443	3
FRST 495	3
CONS 425 or CONS 440 or FRST 415	3
CONS 451	15
CONS 486	3
<b>Total Credits</b>	<b>27</b>

#### Fourth Year (Summer)

EDST 403	1
EDST 404	1
EDCP 328 or 4XX	3
EPSE 317	3
<b>Total Credits</b>	<b>8</b>

#### Fifth Year

EDUC 315	2
EDUC 421	12
EDUC 430	1
EDUC 450B	3
EDUC 451B	3
EDUC 452B	3
EPSE 310	3
EPSE 311	1
EDCP 352A	3
EDCP 354	3
EDSE 308	37
<b>Total Credits</b>	<b>37</b>

#### Minimum Credits for Dual Degree

<sup>1</sup> ENGL 100 level courses: students in the dual degree should choose courses in both Literature and Composition.

<sup>2</sup> Students may take MATH 180, 184 (4 credits) or MATH 110 (6 credits) instead of MATH 100 or 102 (3 credits), but the credit difference cannot be applied towards program elective.

Please note that Education courses sequence may vary where necessary in order to accommodate students' Forest Sciences schedule when needed.

## B.Sc. in Wood Products Processing

### B.Sc. in Wood Products Processing > Introduction

The Bachelor of Science in Wood Products Processing (B.Sc. (Wood Products Processing)) program will provide graduates with an understanding of wood as a material. Emphasis is placed on a basic understanding of engineering concepts, business, communication, and problem solving skills to produce graduates capable of managing a wood products manufacturing facility. Graduates will be expected to plan and construct production facilities, develop new methods and processes, and manage production control and co-ordinate personnel.



The program consists of a minimum of 135 credits in-session for all students. An additional 15 credits of extra-session work is required by students in the five-year co-operative Major.

Please visit the Department of Wood Science (<http://wood.ubc.ca>) for more information.

## B.Sc. in Wood Products Processing > Admission

The Faculty of Forestry will accept applications from students with varying educational preparation:

1. directly from secondary school graduation;
2. following completion of university-level work at UBC or the equivalent at another post-secondary institution; or
3. after the completion of a two-year wood products or engineering diploma program at a recognized college or institute of technology.

Achievement of the minimum academic requirements does not guarantee admission in the event that the number of applicants exceeds the number of available spaces. Students entering from secondary school must have met the general University entrance requirements (see Admissions (Calendar page <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=2,13,0,0#41>)), including Principles of Mathematics 12 or Pre-Calculus 12, Chemistry 11, Physics 11, and one of Biology 12, Chemistry, 12, or Physics 12. Students applying following the completion of at least 30 credits of university-level work must have attained an overall average of at least 60% in all credits attempted. Students applying with less than 30 credits must also meet the secondary school requirements listed above. Students applying from a completed two-year wood products or engineering diploma program must have attained an overall average of at least 65% on their completed diploma, plus have the required secondary school courses as outlined above.

See also [Program Approval and Advising](#).

Interested students may apply for the Bachelor of Science in Wood Products Processing - Master of Management Dual Degree Option. For details regarding this Dual Degree Option and application information see the [Faculty of Commerce and Business Administration](#) section of the Academic Calendar.

## B.Sc. in Wood Products Processing > Academic Regulations

See [Academic Regulations](#).

## B.Sc. in Wood Products Processing > Degree Requirements

### Students Entering from Secondary School

First Year	
One of ENGL 110, 111, 112, or FRST 150	3
CHEM 121 (111)	4
CHEM 123	4
MATH 100 or 102 or 104 (or MATH 180 or 184) <sup>1</sup>	3(4)
MATH 101 or 103 or 105	3
PHYS 101 (117) <sup>2</sup>	3
WOOD 120	3
Electives <sup>2</sup>	9



Total Credits 32(33)

**Second Year**

ECON 101 or FRST 101	3
FRST 231	3
WOOD 225	3
WOOD 244	3
WOOD 245	3
WOOD 249	1
WOOD 276	3
WOOD 280	3
WOOD 282	3
WOOD 290	3
WOOD 292	2
Total Credits	30
WOOD 305 <sup>3</sup>	3
WOOD 353 <sup>4</sup>	2

**Third Year**

COMM 204	3
WOOD 330	3
WOOD 335	3
WOOD 356	2
WOOD 373	3
WOOD 384	3
WOOD 386	3
WOOD 464	4
WOOD 465	3
WOOD 482	4
WOOD 487	3
Electives <sup>5</sup>	3
Total Credits	37

**Fourth Year**

COMM 457	3
WOOD 440	3
WOOD 461	3
WOOD 485	3
WOOD 491	3
WOOD 492	3
WOOD 494	3
WOOD 499	6
Electives <sup>5</sup>	6
Total Credits	33



<sup>1</sup> Students may take MATH 180 or 184 (4 credits) or MATH 110 (6 credits) instead of MATH 100, 102, or 104 (3 credits), but the credit difference cannot be applied towards program elective requirements.

<sup>2</sup> Students without Physics 12 must replace 3 credits of electives with PHYS 100 prior to taking PHYS 101 or PHYS 117.

<sup>3</sup> Practical woodworking course taken at the end of second year.

<sup>4</sup> Six working days of on-site study of wood products manufacturing plants immediately before or after WOOD 305.

<sup>5</sup> Elective courses are chosen in consultation with the Program Director, and must be numbered 300 or higher.

## B.Sc. in Wood Products Processing > Minor in Commerce

Enrolment in this program is limited. An application form may be obtained from the Dean's Office. The completed form must be returned no later than May 15. At the time of application, students must be eligible for third-year standing in the Wood Products Processing program with a cumulative average of at least 68% in the previous two years. Applicants must have successfully completed one of MATH 100, 102, 104, 180, or 184 and both of ECON 101/FRST 101 and 102 (or ECON 310/FRST 101 and 311). Meeting the stated requirements does not guarantee admission to the program.

The program consists of COMM 329, 457, 465, 473, 493; and one of COMM 398, 399, or 458. Upon successful completion of this Minor program, the notation "Minor in Commerce" will appear on the student's transcript.

The Commerce Minor is intended to be completed over two years.

## B.Sc. in Wood Products Processing > Co-Operative Education Program

In addition to the four-year B.Sc. (Wood Products Processing) program, students can elect a five-year Co-operative Education Program with work term positions in industry. The Wood Products Processing Co-operative Education Program is designed to provide students with work experience integrated with their academic programs. The year-round program normally requires completion of five work terms of targeted employment in four-month co-operative work term sessions including one Winter and one Fall position. The five sessions are WOOD 300, 311, 312, 411 and 412. Successful completion of the Co-op Program requirements will also be acknowledged on the student's degree parchment. The Co-op program requires an additional year to complete the B.Sc. (Wood Products Processing) requirements.

Students in the program will register in and pay for the appropriate 3-credit Co-operative Education course for each work term once a suitable position is confirmed. See Program and Course Fees (Calendar page:[http://www.calendar.ubc.ca/vancouver/index.cfm?tree=14,296,0,0#18094](http://www.calendar.ubc.ca/vancouver/index.cfm?tree=http://www.calendar.ubc.ca/vancouver/index.cfm?tree=14,296,0,0#18094))

Students in the B.Sc. (Wood Products Processing) who wish to be considered for the Co-operative Education Program must apply in the fall term of their second year. To be able to participate in the job search process for the first co-op term, the student needs to have a 64% minimum cumulative average in required Wood Products Processing courses taken at UBC in first and second year, complete the required application, and have a successful interview with the Co-op Coordinator. Specific deadlines are available from the co-op office. In addition, students must attend Co-operative Education Program workshops and successfully complete WOOD 305 prior to their first work term. To be accepted into WOOD 311, students must have an average of 68% minimum in required Wood Products Processing courses taken at UBC in first and second year and maintain that average to stay in the Co-op Program.

To graduate from the Co-operative Education Program a student must complete the required number of work terms along with the normal academic requirements.

For more information please contact the Co-op Office ([wood.co-op@ubc.ca](mailto:wood.co-op@ubc.ca)).

### Co-operative Education Program



First Year	
Same as above	32
Second Year	
Same as above	30 +5
Plus WOOD 300 <sup>1</sup>	3
Third Year	
WOOD 330	3
WOOD 335	3
WOOD 356	2
WOOD 373	3
WOOD 384	3
WOOD 386	3
Total Credits	17
WOOD 311 <sup>1</sup>	3
WOOD 312 <sup>1</sup>	3
Fourth Year	
COMM 204	3
COMM 457	3
WOOD 440	3
WOOD 464	4
WOOD 465	3
WOOD 482	4
WOOD 485	3
WOOD 487	3
WOOD 492	3
WOOD 494	3
Electives <sup>2</sup>	3-6
Total Credits	35-38
WOOD 411 <sup>1</sup>	3
Fifth Year	
WOOD 461	3
WOOD 491	3
WOOD 499	6
Electives <sup>2</sup>	3-6
Total Credits	15-18
WOOD 412 <sup>1</sup>	3

<sup>1</sup> Co-operative work term.

<sup>2</sup> Electives must be courses numbered 300 or above. To be chosen in consultation with the Program Director.



## B.S.F. (Bachelor of Science in Forestry)

### B.S.F. (Bachelor of Science in Forestry) > Introduction

The Bachelor of Science in Forestry (B.S.F.) program provides the foundation for the professional management of stands and forests for a broad array of uses and purposes. Forests grow in a wide range of environments and are managed under a variety of arrangements globally. The program provides a strong background in the biological, physical, and social fundamentals of forestry that are relevant in any ecosystem and political jurisdiction. Consequently, graduates of this program may be found working in different regions of Canada and in many other countries.

The B.S.F. program offers two majors, both of which are accredited by the Canadian Forestry Accreditation Board as providing the academic requirements for becoming a professional forester in the eight Canadian provinces that have professional forestry organizations.

The Forest Resources Management major covers the biological, physical, and social sciences upon which forest resource management is based, and provides a working knowledge of the characteristics of forest resources, their interactions, and the ways in which they can be managed to yield a socially desirable mix of goods and services. This major has three specializations that allow students to concentrate on integrated resource management, community and aboriginal forestry (including a Minor in Commerce), or international forestry.

The Forest Operations major also provides broad coverage of the biological, physical, and social sciences upon which forest resource management is based, but places additional emphasis on the operational aspects of forestry. This major has two specializations that allow students to specialize in Harvest Planning and Engineering or Commerce (Minor in Commerce).

Students select a major upon initial registration in the B.S.F. program. Switching between the majors is possible with little academic penalty within the first year of either of the majors. Switching majors at a later point may require more than the standard number of credits to be completed in order to meet all of the requirements of the new major.

The B.S.F. program contains several integrated courses and labs requiring fieldwork and three extra-session field courses. Students must be prepared to participate in field trips off-campus (including some weekends and evenings) and to pay the extra costs associated with these field trips. It is each student's responsibility to make the necessary arrangements regarding employment, extra-curricular activities, personal commitments, and so on, so that they are able to participate fully in required field trips.

### B.S.F. (Bachelor of Science in Forestry) > Program Approval and Advising

See and [Program Approval and Advising](#).

### B.S.F. (Bachelor of Science in Forestry) > Admission

Students may apply to enter the B.S.F. program with varying educational preparation:

1. directly from secondary school graduation;
2. following completion of university-level work at UBC or the equivalent at another post-secondary institution;
3. after the completion of a two-year forestry diploma program at a recognized college or institute of technology;
4. from an approved one- or two-year forestry transfer program at a BC college; or
5. following completion of a specified suite of courses at Nanjing Forestry University.<sup>1</sup>





<sup>1</sup>Details regarding which courses offered by Nanjing Forestry University constitute this suite may be found on the Faculty of Forestry's website. The number of applicants accepted through this application route will be limited to five per year for each of the two program majors. All university requirements for international applicants must be met. See Admissions (Calendar page <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=2,13,0,0#41>).

Students entering from secondary school must have met the general University entrance requirements (see Admissions (Calendar page: <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=2,13,0,0#41>)) and have completed Principles of Mathematics 12 or Pre-Calculus 12. They must also complete one of Biology 12, Chemistry 12, or Physics 12, as well as two of Biology 11, Chemistry 11, and Physics 11. Students that have completed more than one Grade 12 science course will have extra elective options in first year. It is recommended that students intending to enrol in the Forest Operations Major, Harvest Planning and Engineering Option, have Physics 12 and Calculus 12.

Meeting the minimum academic requirements outlined in this chapter and in Admissions (Calendar page: <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=2,13,0,0#41>) does not guarantee admission to these programs. Due to limited enrolment, the admission of applicants will be determined competitively on the basis of admission average; however, preference may be given to those applicants who have indicated the Faculty of Forestry as their faculty of first choice.

Application for admission by students or graduates of other universities, colleges, or other faculties will be reviewed individually. It may be possible to design study programs for such applicants that meet Forestry degree requirements in less than the full four years. Transfer students may be required to validate advanced standing in a given subject by passing an examination.

Students who enter the B.S.F. program following the completion of at least 24 credits of work at UBC, or its equivalent at another post-secondary institution, must have attained an overall average of at least 60% in all credits attempted. Students entering with less than 24 credits of university-level work must also meet the secondary school requirements outlined above.

Applicants graduating from a two-year forestry technology diploma program must have achieved an overall average of at least 65% in their program, plus have the required secondary school courses as outlined above. Consideration will be given to individual cases of study in determining the exemptions that may be applied to the B.S.F. program.

Students must select one of two Major programs: Forest Resources Management or Forest Operations. Applicants who are uncertain about the selection of a Major, and those who lack some of the required courses but may have other advance credit, are urged to consult the Director of Student Services in the Faculty of Forestry.

To be eligible for the second year of Forest Resources Management or Forest Operations majors, students must have completed 30 credits or more of university-level work, including BIOL 121; MATH 100 and 101 (or [102 or 180] and 103 for the Forest Resources Management Major); and 18 credits selected from the following courses: 3 credits from 100-level English (ENGL 112 recommended); either CHEM (111 OR 123) or PHYS (100 or 101) or an equivalent; ECON 101 and 102; FRST 231; FRST 232; APBI 200; APBI 244 (or GEOB 204); PHYS 170 (Forest Operations Major only) or up to 6 credits of social science electives.

Students who complete the above courses will be placed in second year. Students who enter with less than 30 credits will normally take two additional years to reach third year.

## **B.S.F. (Bachelor of Science in Forestry) > Academic Regulations**

See [Academic Regulations](#).

## **B.S.F. (Bachelor of Science in Forestry) > Forest Resources Management Major (Specialization in Integrated Resource Management)**



The Specialization in Integrated Resource Management is designed to educate adaptable professionals with a comprehensive understanding of the discipline, an ability to acquire specific knowledge and skills as required, and the confidence to play a decision-making role in a wide variety of resource management situations.

Students are provided with an introduction to the biological, physical, and social sciences upon which forest resource management is based, and a working knowledge of the characteristics of forest resources, their interactions, and the ways in which they can be managed to yield a socially desirable mix of goods and services. Students will also gain an understanding of the political and socio-economic environment in which forestry is practiced, and an appreciation for the historical and ethical foundations of the profession.

### Students Entering from Secondary School

First Year	
APBI 200	3
ENGL 100-level or FRST 150	3
BIOL 111 and 121 <sup>1</sup>	6
CHEM 121 (111) or PHYS 101 (100) <sup>2</sup>	4/3
ECON 101 or FRST 101	3
FRST 100	3
FRST 232 <sup>3</sup>	3
MATH 100 or 102 or 104 or 190 <sup>4</sup>	3
Electives	3
Total Credits	30/31
Second Year	
CONS 200	3
FOPR 264	4
FRST 200	3
FRST 201	3
FRST 210	3
FRST 211	3
FRST 231	3
FRST 239	3
Electives	6
Total Credits	31
FRST 350 <sup>5, 6</sup> or FRST 351 <sup>5, 6</sup> immediately preceding third year	2
Third Year	
FRST 305	3
FRST 307	3
FRST 318	3
FRST 320	3
FRST 339	3
FRST 385	3
FRST 386	3
FRST 395	3



FRST 452	2
WOOD 461	3
Specialization-specific elective <sup>7</sup>	3
Total Credits	32

#### Fourth Year

FRST 415	3
FRST 424	10
FRST 497	2
WOOD 465	3
Specialization-specific electives <sup>7</sup>	6
Electives	6
Total Credits	30

<sup>1</sup> Students with Biology 12 should replace BIOL 111 with 3 credits of electives.

<sup>2</sup> CHEM 111 and PHYS 100 are intended for students without CHEM 12 and PHYS 12, respectively. If students do not have Grade 12 level in both sciences, they are encouraged to select a science not taken at the Grade 12 level.

<sup>3</sup> Students with strong computing skills, especially in the use of spreadsheets, can replace FRST 232 with 3 credits of electives, upon approval by the program director.

<sup>4</sup> Students may take MATH 180, 184, 190 (4 credits) or MATH 110 (6 credits) instead of MATH 100, 102, or 104 (3 credits), but the credit difference cannot be applied towards program elective requirements.

<sup>5</sup> Credit will be given for only one of FRST 350 or FRST 351.

<sup>6</sup> Students will be assigned to the most appropriate course based on their levels of forestry and field experience as determined by the course instructors.

<sup>7</sup> Specialization-specific electives are to be chosen from the Specialization-specific Elective pool: APBI 244/GEOB 204 (3); CONS 340 (3), 370 (3), 415 (3), 481 (3); FOPR 362 (3); FRST 270 (3), 302 (3), 404 (4), 427 (3), 439 (3), 443 (3), 491 (3); WOOD 474 (2), 492 (3).

### Transfer Students

Students entering from first-year university or equivalent must complete all required first and second year courses that were not completed at their previous institution(s) before entering third year. The third and fourth year requirements are the same as listed above.

### BC Forestry Technology Graduates

Students entering after graduating with a two-year Forestry Technical Diploma from an approved BC college or institute of technology will receive a one-year exemption. They will enter a special second year program before proceeding to the regular program in Years Three and Four.

#### Second Year

APBI 200	3
ENGL 100-level or FRST 150	3
BIOL 111 and 121 <sup>1</sup>	6
CHEM 111 or 121 or PHYS 100 or 101 <sup>2</sup>	4/3
ECON 101 or FRST 101	3
MATH 100 or 102 or 104 or 190 <sup>3</sup>	3
FRST 200	3
FRST 210	3
FRST 231	3



Total Credits	30/31
FRST 351 immediately preceding third year	2
<b>Third Year</b>	
CONS 200	3
FRST 305	3
FRST 318	3
FRST 339	3
FRST 385	3
FRST 386	3
FRST 395	3
WOOD 461	3
Elective	3
Specialization-specific elective <sup>4</sup>	3
Total Credits	30
FRST 452 immediately following third year	2
<b>Fourth Year</b>	
FRST 415	3
FRST 424	10
FRST 497	2
WOOD 465	3
Specialization-specific electives <sup>4</sup>	6
Electives	6
Total Credits	30

<sup>1</sup> Students with Biology 12 should replace BIOL 111 with 3 credits of electives.

<sup>2</sup> CHEM 111 and PHYS 100 are intended for students without CHEM 12 and PHYS 12, respectively. If students do not have Grade 12 level in both sciences, they are encouraged to select a science not taken at the Grade 12 level.

<sup>3</sup> Students may take MATH 180, 184, 190 (4 credits) or MATH 110 (6 credits) instead of MATH 100, 102, or 104 (3 credits), but the credit difference cannot be applied towards program elective requirements.

<sup>4</sup> Specialization-specific electives are to be chosen from the following: APBI 244/GEOB 204 (3); CONS 340 (3), 370 (3), 481 (3); FOPR 362 (3); FRST 302 (3), 404 (4), 427 (3), 439 (3), 443 (3), 491 (3); WOOD 474 (2), 492 (3).

## B.S.F. (Bachelor of Science in Forestry) > Forest Resources Management Major (Specialization in Community and Aboriginal Forestry)

The Specialization in Community and Aboriginal Forestry is designed to educate adaptable professionals with a comprehensive understanding of the discipline of forest management, an ability to acquire specific knowledge and skills as required, and the confidence to play a decision-making role in a wide variety of resource management situations with an emphasis on community forestry and working with Aboriginal peoples.

Students are provided with an introduction to the biological, physical, and social sciences upon which forest resource management is based, and a working knowledge of the characteristics of forest resources, their interactions, and the ways in which they can be managed to yield a socially desirable mix of goods and services. Students will also gain an understanding of the political and socio-economic environment in which forestry is practiced; and an appreciation for the historical and ethical foundations of the profession.



Students Entering from Secondary School

First Year	
ENGL 100-level or FRST 150	3
BIOL 111 and 121 <sup>1</sup>	6
CHEM 121 (111) or PHYS 101 (100) <sup>2</sup>	4/3
ECON 101 or FRST 101	3
FRST 100	3
FRST 232 <sup>3</sup>	3
MATH 100 or 102 or 104 or 190 <sup>4</sup>	3
APBI 200	3
Electives	3
Total Credits	30/31
Second Year	
FOPR 264	4
FRST 370	3
FRST 200	3
FRST 201	3
FRST 210	3
FRST 211	3
FRST 231	3
FRST 239	3
Specialization-specific Elective <sup>5</sup>	3
Elective	3
Total Credits	31
FRST 350 <sup>6,7</sup> or FRST 351 <sup>6,7</sup> immediately preceding third year	2
Third Year	
COMM 457	3
CONS 370	3
FRST 305	3
FRST 307	3
FRST 318	3
FRST 320	3
FRST 385	3
FRST 395	3
FRST 444	3
FRST 452	2
WOOD 461	3
Total Credits	32
Fourth Year	
COMM 329	3
FRST 415	3
FRST 424	10



FRST 497	2
WOOD 465	3
Specialization-specific Electives <sup>5</sup>	9
<b>Total Credits</b>	<b>32</b>

<sup>1</sup> Students with Biology 12 should replace BIOL 111 with 3 credits of electives.

<sup>2</sup> CHEM 111 and PHYS 100 are intended for students without CHEM 12 and PHYS 12, respectively. If students do not have Grade 12 level in both sciences, they are encouraged to select a science not taken at the Grade 12 level.

<sup>3</sup> Students with strong computing skills, especially in the use of spreadsheets, can replace FRST 232 with 3 credits of electives, upon approval by the program director.

<sup>4</sup> Students take MATH 180, 184, 190 (4 credits) or MATH 110 (6 credits) instead of MATH 100, 102, or 104 (3 credits), but the credit difference cannot be applied towards program elective requirements.

<sup>5</sup> Specialization-specific electives are to be chosen from the following: ANTH 201A (3), ANTH 220 (3), CONS 340 (3), CONS 481 (3), FNLG 101B (3), FNSP 210 (3), FRST 339 (3), FRST 386 (3), FRST 439 (3), FRST 470 (3), FRST 490 (3), LAW 200 (3), LAW 395A (2), POLI 316A (3), SOCI 201A (3), SOCI 220 (3), SOCI 360A (3), WOOD 474 (2).

<sup>6</sup> Credit will be given for only one of FRST 350 or FRST 351.

<sup>7</sup> Students will be assigned to the most appropriate course based on their levels of forestry and field experience as determined by the course instructors.

### Transfer Students

Students entering from first-year university or equivalent must complete all required first- and second-year courses that were not completed at their previous institution(s) before entering third year. The third- and fourth-year requirements are the same as listed above.

### BC Forestry Technology Graduates

Students entering after graduating with a two-year Forestry Technical Diploma from an approved BC college or institute of technology will receive a one-year exemption. They will enter a special second-year program before proceeding to the regular program in Years Three and Four.

Second Year	
ENGL 100-level or FRST 150	3
BIOL 111 and 121 <sup>1</sup>	6
CHEM 111 or 121 or PHYS 100 or 101 <sup>2</sup>	4/3
ECON 101 or FRST 101	3
MATH 100 or 102 or 104 or 190 <sup>3</sup>	3
FRST 200	3
FRST 210	3
FRST 270	3
Elective	3
<b>Total Credits</b>	<b>30/31</b>
FRST 351 immediately preceding third year	2
Third Year	
COMM 457	3
CONS 370	3
FRST 231	3
FRST 305	3
FRST 318	3
FRST 385	3



FRST 395	3
FRST 444	3
WOOD 461	3
Total Credits	30
FRST 452 immediately following third year	2

#### Fourth Year

COMM 329	3
FRST 415	3
FRST 424	10
FRST 497	2
WOOD 465	3
Specialization-specific Electives <sup>4</sup>	9
Total Credits	30

<sup>1</sup> Students with Biology 12 should replace BIOL 111 with 3 credits of electives.

<sup>2</sup> CHEM 111 and PHYS 100 are intended for students without CHEM 12 and PHYS 12, respectively. If students do not have Grade 12 level in both sciences, they are encouraged to select a science not taken at the Grade 12 level.

<sup>3</sup> Students may take MATH 180, 184, 190 (4 credits) or MATH 110 (6 credits) instead of MATH 100, 102, or 104 (3 credits), but the credit difference cannot be applied towards program elective requirements.

<sup>4</sup> Specialization specific electives are to be chosen from following: ANTH 201A (3), ANTH 220 (3), CONS 340 (3), CONS 481 (3), FNLP 101B (3), FNLP 210 (3), FRST 339 (3), FRST 386 (3), FRST 439 (3), FRST 470 (3), FRST 490 (3), LAW 200 (3), LAW 395A (2), POLI 316A (3) SOCI 201A (3), SOCI 220 (3), SOCI 360A (3), WOOD 474 (2).

### Minor in Commerce

Students who desire a stronger foundation in business may consider the Minor in Commerce. Upon successful completion of this minor program, the notation "Minor in Commerce" will be placed on the student's transcript.

Enrolment in this program is limited. Applications for admission can be obtained from the Faculty of Forestry Student Services and must be submitted by May 15. For an application to be considered, the student must be eligible for at least third-year standing in the Faculty (B.S.F. Forest Resources Management Major) with a cumulative average of at least 68% in the previous two years. Completion of ECON 101 (or ECON 310) and ECON 102 (or ECON 311) plus MATH 100 or 102 or 104 before applying. Meeting the stated minimum requirement does not guarantee admission into the Minor.

Students may require an additional term to complete the Minor in Commerce, although it is intended to be completed over two years.

For students entering the Faculty from secondary school, the program consists of 136 credits taken over four years. For those students entering the Faculty from first-year university (or its equivalent), or with a two-year Forestry Technical Diploma from a BC college or institute of technology, the program consists of 107 credits normally taken over a three-year period.

#### Students Entering from Secondary School

##### First Year

ENGL 100-level or FRST 150	3
BIOL 111 and 121 <sup>1</sup>	6
CHEM 121 (111) or PHYS 101 (100) <sup>2</sup>	4/3
ECON 101 or FRST 101	3
ECON 102	3



FRST 100	3
FRST 232	3
MATH 100 or 102 or 104 <sup>3</sup>	3
Electives	3
Total Credits	30/31
FOPR 261 immediately preceding second year	2

**Second Year**

FOPR 262	3
FRST 270	3
FRST 200	3
FRST 201	3
FRST 210	3
FRST 211	3
FRST 231	3
FRST 239	3
Specialization-specific Elective <sup>4</sup>	3
Elective	3
Total Credits	30
FRST 351 immediately preceding third year	2

**Third Year**

COMM 329	3
COMM 398 or 458	3
COMM 457	3
COMM 465	3
CONS 370	3
FRST 305	3
FRST 307	3
FRST 318	3
FRST 320	3
FRST 385	3
FRST 395	3
WOOD 461	3
Total Credits	36
FRST 452 immediately following third year	2

**Fourth Year**

COMM 473	3
COMM 493	3
FRST 415	3
FRST 424	10
FRST 444	3
FRST 497	2
WOOD 465	3





Specialization-specific Electives <sup>4</sup>	6
<b>Total Credits</b>	<b>33</b>

<sup>1</sup> Students with Biology 12 should replace BIOL 111 with 3 credits of electives.

<sup>2</sup> CHEM 111 and PHYS 100 are intended for students without CHEM 12 and PHYS 12, respectively. If students do not have Grade 12 level in both sciences, they are encouraged to select a science not taken at the Grade 12 level.

<sup>3</sup> Students may take MATH 180, 184 (4 credits) or MATH 110 (6 credits) instead of MATH 100, 102 or 104 (3 credits), but the credit difference cannot be applied towards program elective requirements.

<sup>4</sup> Specialization specific electives are to be chosen from following: ANTH 201A (3), ANTH 220 (3), CONS 340 (3), CONS 481 (3), FNLG 101B (3), FNPS 210 (3), FRST 339 (3), FRST 386 (3), FRST 439 (3), FRST 470 (3), FRST 490 (3), LAW 200 (3), LAW 395A (2), POLI 316A (3), SOCI 201A (3), SOCI 220 (3), SOCI 360A (3), WOOD 474 (2).

### Transfer Students

Students entering from first-year university or equivalent must complete all required first- and second-year courses that were not completed at their previous institution(s) before entering third year. The third- and fourth-year requirements are the same as listed above.

### BC Forestry Technology Graduates

Students entering after graduating with a two-year Forestry Technical Diploma from an approved BC college or institute of technology will receive a one-year exemption. They will enter a special second year program before proceeding to the regular program in Years Three and Four.

Second Year	
ENGL 100-level or FRST 150	3
BIOL 111 and 121 <sup>1</sup>	6
CHEM 111 or 121 or PHYS 100 or 101 <sup>2</sup>	4/3
ECON 101 or FRST 101	3
ECON 102	3
MATH 100 or 102 or 104 <sup>3</sup>	3
FRST 200	3
FRST 210	3
FRST 270	3
<b>Total Credits</b>	<b>30/31</b>

Third Year	
COMM 329	3
COMM 398 or 458	3
COMM 457	3
COMM 465	3
CONS 200	3
CONS 370	3
FRST 231	3
FRST 305	3
FRST 318	3
FRST 385	3
FRST 395	3



FRST 444	3
WOOD 461	3
Total Credits	36
FRST 452 immediately following third year	2

#### Fourth Year

COMM 473	3
COMM 493	3
FRST 415	3
FRST 424	10
FRST 497	2
WOOD 465	3
Specialization-specific Electives <sup>4</sup>	9
Total Credits	33

<sup>1</sup> Students with Biology 12 should replace BIOL 111 with 3 credits of electives.

<sup>2</sup> CHEM 111 and PHYS 100 are intended for students without CHEM 12 and PHYS 12, respectively. If students do not have Grade 12 level in both sciences, they are encouraged to select a science not taken at the Grade 12 level.

<sup>3</sup> Students may take MATH 180, 184 (4 credits) or MATH 110 (6 credits) instead of MATH 100, 102 or 104 (3 credits), but the credit difference cannot be applied towards program elective requirements.

<sup>4</sup> Specialization specific electives are to be chosen from following: ANTH 201A (3), ANTH 220 (3), CONS 340 (3), CONS 481 (3), FNLG 101B (3), FNPS 210 (3), FRST 339 (3), FRST 386 (3), FRST 439 (3), FRST 470 (3), FRST 490 (3), LAW 200 (3), LAW 395A (2), POLI 316A (3) SOCI 201A (3), SOCI 220 (3), SOCI 360A (3), WOOD 474 (2).

## B.S.F. (Bachelor of Science in Forestry) > Forest Resources Management Major (Specialization in International Forestry)

The Specialization in International Forestry program combines aspects of forest resources biology and management with developing a global perspective of forest management issues increasingly required for careers in Forestry both in Canada and abroad. The objective of this program is to produce graduates who have a good science foundation, a second language, cultural sensitivity, and both academic and first-hand knowledge of forestry abroad.

The program includes core courses in forest ecology, stand management, silvicultural systems, forest protection, fisheries, hydrology and integrated resource management that are common to the other specializations in this major. In addition, to fulfill the International Forestry component, students must select a regional specialization. Students choose from Asia Pacific, Europe, the Americas, or other region with the approval of a program advisor.

### Forest Resources Management/ International Forestry

#### First Year

ENGL 100-level or FRST 150	3
Language <sup>5</sup>	6
BIOL 111 <sup>1</sup> and 121	6
CHEM 111 or 121 or PHYS 100 or 101 <sup>2</sup>	3/4
ECON 101 or FRST 101	3
MATH 100 or 102 or 104 or 190 <sup>3</sup>	3
FRST 100	3
FRST 232 <sup>4</sup>	3



APBI 200	3
Total Credits	33/34
<b>Second Year</b>	
Language <sup>5</sup>	6
CONS 200	3
FRST 200	3
FRST 201	3
FRST 210	3
FRST 211	3
FRST 231	3
FRST 239	3
FOPR 264	4
Regional specialization elective <sup>6</sup>	3
Total Credits	34
FRST 351 immediately preceding third year	2
<b>Third Year</b>	
FRST 305	3
FRST 307	3
FRST 318	3
FRST 320	3
FRST 339	3
FRST 385	3
FRST 386	3
FRST 395	3
FRST 439	3
WOOD 461	3
Regional Specializaion <sup>6</sup>	3
Total Credits	33
FRST 452 immediately following third year International Experience <sup>7</sup>	2
<b>Fourth Year</b>	
FRST 415	3
FRST 424	10
FRST 497	2
WOOD 465	3
Regional specialization <sup>6</sup>	6
Electives	6
Total Credits	30

<sup>1</sup> Students with Biology 12 should replace BIOL 111 with 3 credits of electives.

<sup>2</sup> Select the subject not taken at the Grade 12 level.

<sup>3</sup> Students may take MATH 180, 184, 190 (4 credits) or MATH 110 (6 credits) instead of MATH 100, 102, or 104 (3 credits), but the credit difference cannot be applied towards program elective requirements.

<sup>4</sup> Students with strong computing skills, especially in the use of spreadsheets, can replace FRST 232 with 3 credits of electives upon approval by the program director.



<sup>5</sup> Students who pass an oral proficiency test for a language relevant to their regional specialization are required to choose 12 additional credits of program electives approved by a program advisor.

<sup>6</sup> Students may choose Asia-Pacific, America, or Europe as their region of specialization. Other regions can be considered with the approval of an advisor. Electives within the regional specialization must be approved by a program advisor.

<sup>7</sup> Met by participation in one of the following: UBC's Education Abroad Program or a study abroad or work internship abroad designed by the student with pre-approval by a program advisor. The Faculty cannot guarantee the placement of any student in a study abroad exchange program or an international work internship program. Selection is competitive and based on academic standing, merit, and availability.

## B.S.F. (Bachelor of Science in Forestry) > Forest Operations Major

The Forest Operations Major prepares the graduate for a full range of professional responsibilities associated with forest land use. The program includes core courses in forest ecology, stand management, silvicultural systems, forest protection, fisheries, hydrology, wildlife, and integrated resource management that are common to the Forest Resources Management Major.

The major is divided into two main specialization options:

1. Harvest Planning & Engineering
2. Commerce (Minor in Commerce)

### *Harvest Planning and Engineering Specialization (HP&E)*

The Harvest Planning and Engineering Specialization offers courses in geotechnical engineering, forest road design and location, planning of forest operations at the stand and landscape levels, engineering and economic analysis of logging systems, and forest transportation systems. Graduates of this specialization have the unique skills that are needed to analyze, plan, and implement a wide range of silviculture, logging, and transportation systems which are key elements in forest management. Some graduates of this specialization choose to take additional courses in mathematics and applied science to obtain eligibility for registration as a professional engineer (P.Eng.) in addition to registration as a professional forester (R.P.F.). Physics 12 would be helpful for students considering this specialization.

### *Students Entering From Secondary School (HP&E)*

First Year	
APBI 200	3
ENGL 100-level <sup>1</sup> or FRST 150	3
BIOL 111, 121 <sup>2</sup>	6
ECON 101 or FRST 101	3
MATH 100 <sup>3</sup>	3
MATH 101	3
FRST 100	3
FRST 231	3
FRST 232	3
PHYS 170	3
Total Credits	33
Second Year	
FRST 200	3
FRST 201	3
FRST 210	3



FRST 211	3
FRST 239	3
FOPR 264	4
FOPR 388	3
CONS 200 (or 370)	3
Electives	6
Total Credits	31
Plus FRST 350 <sup>4, 5</sup> or FRST 351 <sup>4, 5</sup> immediately preceding third year	2

### Third Year

FRST 305	3
FRST 307	3
FRST 318	3
FRST 320	3
FRST 339	3
FRST 395	3
FRST 452	2
FOPR 362	3
CIVL 210	4
WOOD 276	3
Restricted elective <sup>6</sup>	3
Total Credits	32

### Fourth Year

FRST 415	3
FRST 424	10
FRST 497	2
WOOD 465	3
WOOD 474	2
WOOD 492	3
FOPR 459	3
FOPR 464	3
Restricted elective <sup>6</sup>	3
Total Credits	32

<sup>1</sup> ENGL 112 recommended.

<sup>2</sup> Students with Biology 12 are exempt from BIOL 111. Substitute PHYS 100 if needed (exempt with PHYS 12) or CHEM 111 (exempt with CHEM 12). If none of these courses are needed, an elective may be substituted.

<sup>3</sup> Students may take MATH 180 (4 credits) or MATH 110 (6 credits) instead of MATH 100 (3 credits), but the credit difference cannot be applied towards program elective requirements. Students planning to obtain a P.Eng. after graduating require MATH 100 and 101.

<sup>4</sup> Credit will be given for only one of FRST 350 or FRST 351.

<sup>5</sup> Students will be assigned to the most appropriate course based on their levels of forestry and field experience as determined by the course instructors.

<sup>6</sup> Restricted electives are courses within the Faculty of Applied Sciences. See your Program Director for a current list of accepted courses.

**Note:** Some elective or specialization courses may carry credits in addition to the above table.



### Transfer Students (HP&E)

Students entering from first-year university or equivalent must complete all first and second year courses not completed during their previous studies before entering third year. The third and fourth year requirements are the same as listed above.

### BC Forestry Technology Graduates (HP&E)

Students entering after graduating with a two year Forestry Technical Diploma from an approved BC college or institute of technology receive exemptions from several first, second, and third year courses. Students enter directly into second year and follow a modified second and third year program. The fourth year program is identical to that specified for students entering directly from secondary school.

Second Year	
APBI 200	3
ECON 101 or FRST 101	3
ENGL 100-level <sup>1</sup> or FRST 150	3
PHYS 100 or BIOL 111 or CHEM 111 <sup>2</sup>	3
MATH 100 <sup>3</sup>	3
MATH 101	3
FRST 200	3
FRST 210	3
FRST 231	3
PHYS 170	3
Total Credits	30
Plus FRST 351 immediately preceding third year	2
Third Year	
FRST 305	3
FRST 318	3
FRST 339	3
FRST 395	3
FOPR 362	3
CIVL 210	4
CONS 200 or 370	3
FOPR 388	3
WOOD 276	3
Restricted elective <sup>4</sup>	3
Total Credits	31
Plus FRST 452 immediately following third year	2

<sup>1</sup> ENGL 112 is recommended.

<sup>2</sup> Select a science subject not taken at the Grade 12 level. Students that require PHYS 170 for their specialization who do not have Physics 12 or its equivalent must complete PHYS 100 prior to completing PHYS 170. If none of these courses are needed, an elective may be substituted.

<sup>3</sup> Students may take MATH 180 (4 credits) or MATH 110 (6 credits) instead of MATH 100 (3 credits), but the credit difference cannot be applied toward program elective requirements. Students planning to pursue registration as a professional engineer (P.Eng.) require MATH 100 and 101.

<sup>4</sup> Restricted electives are courses within the Faculty of Applied Sciences. See your Program Director for a current list of accepted courses.



### Commerce Specialization (Minor in Commerce)

The Commerce Specialization (Minor in Commerce) is intended for students who desire a stronger foundation in the business side of forestry than is available in other specializations within the B.S.F. degree program.

Enrolment in this specialization is limited. Applications for admission can be obtained from the Faculty Student Services and must be submitted by May 15. For an application to be considered, the student must be eligible for at least third-year standing in the Forest Operations Major with a cumulative average of at least 68% and have completed introductory courses in microeconomics (ECON 101 or ECON 310 or their equivalents) and macroeconomics (ECON 102 or ECON 311 or their equivalents).

Students may require an additional term to complete the Minor in Commerce.

#### Students Entering From Secondary School (Commerce Option)

First Year	
APBI 200	3
ENGL 100-level <sup>1</sup> or FRST 150	3
BIOL 111, 121 <sup>2</sup>	6
ECON 101 or FRST 101	3
ECON 102	3
MATH 100 <sup>3</sup> or 104 <sup>3</sup>	3
MATH 101 or 105 or elective <sup>4</sup>	3
FRST 100	3
FRST 231	3
FRST 232	3
Total Credits	33
Second Year	
FRST 200	3
FRST 201	3
FRST 210	3
FRST 211	3
FRST 239	3
FRST 318	3
FOPR 264	4
FOPR 388	3
CONS 200 (or 370)	3
Elective	3
Total Credits	31
Plus FRST 351 immediately preceding third year	2
Third Year	
FRST 305	3
FRST 307	3
FRST 320	3



FRST 339	3
FRST 395	3
FOPR 362	3
COMM 457	3
COMM 329	3
COMM 465	3
COMM 398 or 458	3
Total Credits	30
Plus FRST 452 immediately following third year	2

#### Fourth Year

FRST 415	3
FRST 424	10
FRST 497	2
WOOD 465	3
WOOD 474	2
WOOD 492	3
FOPR 459	3
COMM 473	3
COMM 493	3
Total Credits	32

<sup>1</sup> ENGL 112 recommended.

<sup>2</sup> Students with Biology 12 are exempt from BIOL 111. Substitute PHYS 100 if needed (exempt with PHYS 12) or CHEM 111 (exempt with CHEM 12). If none of these courses are needed, an elective may be substituted.

<sup>3</sup> Students may take MATH 180 or 184 (4 credits) or MATH 110 (6 credits) instead of MATH 100 or 104 (3 credits), but the credit difference cannot be applied towards program elective requirements.

<sup>4</sup> Although recommended, MATH 101/105 is not a prerequisite for other courses listed in this option.

**Note:** Some elective or specialization courses may carry credits in addition to the above table.

#### Transfer Students (Commerce Option)

Students entering from first year university or equivalent must complete all first and second year courses not completed during their previous studies before entering third year. The third and fourth year requirements are the same as listed above.

#### BC Forestry Technology Graduates (Commerce Option)

Students entering after graduating with a two year Forestry Technical Diploma from an approved BC college or institute of technology receive exemptions from several first, second, and third year courses. Students enter directly into second year and follow a modified second and third year program. The fourth year program is identical to that specified for students entering directly from secondary school.

#### Second Year

APBI 200	3
ENGL 100-level <sup>1</sup> or FRST 150	3
ECON 101 or FRST 101	3





ECON 102	3
PHYS 100 or BIOL 111 or CHEM 111 <sup>2</sup>	3
MATH 100 or 104 <sup>3</sup>	3
FRST 200	3
FRST 210	3
FRST 231	3
FRST 318	3
Total Credits	30
Plus FRST 351 immediately preceding third year	2
<b>Third Year</b>	
FRST 305	3
FRST 339	3
FRST 395	3
FOPR 362	3
FOPR 388	3
CONS 200 or 370	3
COMM 457	3
COMM 329	3
COMM 465	3
COMM 398 or 458	3
Total Credits	30
Plus FRST 452 immediately following third year	2

<sup>1</sup> ENGL 112 is recommended.

<sup>2</sup> Select a science subject not taken at the Grade 12 level. If none of these courses are needed, an elective may be substituted.

<sup>3</sup> Students take MATH 180 or 184 (4 credits) or MATH 110 (6 credits) instead of MATH 100 or 104 (3 credits), but the credit difference cannot be applied toward program elective requirements.

## B.U.F. (Bachelor of Urban Forestry)

### B.U.F. (Bachelor of Urban Forestry) > Introduction

The Bachelor of Urban Forestry (B.U.F.) degree is a four-year program featuring a holistic urban forestry curriculum, focusing on planning and management of forest and green-space systems in urban, peri-urban, and rural communities.

Students are provided with competencies in four core themes: climate change and sustainability, forest health and management, urban ecology, and recreation and human wellbeing. Students learn strong skills in management, data acquisition and analysis, planning, policy, and communications.

The curriculum leads to a Bachelor of Urban Forestry degree with optional specialization in one of two minors: (1) Urban Greenspace Management or (2) Landscape and Recreation Planning. The program consists of 90-93 credits of core courses, an optional choice of a minor (18 credits), restricted electives (9 credits) and free electives (3-6 credits). Students who choose not to select a minor will make up the 18 credits that comprise a minor through a selection of courses from both minor pools. Students apply to the program director for entry into one of the two minors upon completion of Second Year. Acceptance may be limited by demand, in which case acceptance will be based on academic standing at the completion of Second Year.



## B.U.F. (Bachelor of Urban Forestry) > Admission

The Faculty will accept applications from students with varying educational preparation: (1) following graduation from secondary school or (2) following completion of at least 24 credits at UBC or its equivalent at another post-secondary institution.

Students entering from secondary school must have met the general University entrance requirements and have completed Principles of Mathematics 12 or Pre-Calculus 12 and one of Biology 12, Chemistry 12, or Physics 12, as well as Chemistry 11 and one of Biology 11 or Physics 11. See **Specific Program Requirements for Applicants Following the BC/Yukon Secondary School Curriculum (reference not found)**.

Applicants who apply to enter following completion of at least 24 credits of work at UBC or its equivalent at another post-secondary institution must have attained an overall average of at least 60% in all credits attempted. In the case of transfer students, consideration will be given to individual program of study in determining the transfer credit that may be applied to the Bachelor of Urban Forestry program. Graduates of a one-or two-year diploma program in forestry or urban forestry may be considered for course exemptions that may be applied towards the degree. Such students must have achieved an overall average of at least 65% in their diploma program, plus have the entrance requirements listed in the paragraph above.

Meeting the minimum academic requirements does not guarantee admission in the event that the number of applicants exceeds the number of available spaces.

## B.U.F. (Bachelor of Urban Forestry) > Academic Regulations

See [Academic Regulations](#).

## B.U.F. (Bachelor of Urban Forestry) > Degree Requirements

First Year	
APBI 200	3
BIOL 121 <sup>1</sup>	3
CONS 200	3
ECON 101 or FRST 101	3
ENGL 110, 111, 112, or FRST 150	3
SOCI 101 or 102	3
UFOR 100	3
UFOR 101	3
Restricted Electives <sup>2</sup>	6
Total Credits	30
Second Year	
CONS 210	3
ENDS 221	3
FRST 200	3
FRST 201	3



FRST 210	3
FRST 211	3
UFOR 200	3
WOOD 225	3
UFOR 201	3
Total Credits	30

### Third Year and Fourth Year

CONS 340	3
CONS 481	3
CONS 491	3
FRST 320	3
FRST 370	3
FRST 443	3
SOCI 360	3
LARC 316 or UFOR 316	3
LARC 444	3
UFOR 300	3
UFOR 401	6
UFOR 402	3
UFOR 495	3
Electives <sup>4</sup>	6
Minor Course Pool <sup>3</sup>	18
Total Credits	63
UFOR 400 Immediately following third year	3

<sup>1</sup> Students without Biology 11 or 12 should take BIOL 111 as one of their restricted electives in order to take BIOL 121, a required course for all 1st year BUF students.

<sup>2</sup> Restricted elective courses must be chosen from: APBI 244/GEOB 204 (3), BIOL 111 (3), FOPR 264 (4), FRST 100 (3), FRST 231 (3), FRST 232 (3), FRST 351(2), GEOB 102 (3), GEOB 103 (3), GEOG 250 (3), MATH 100 (3) or MATH 102 (3) or MATH 104 (3) or MATH 190 (3), or other MATH 100 level course.

<sup>3</sup> Students wishing to complete a minor must take all of the courses from one of the two minor pools listed below. Students who do not wish to select a minor must select 6 courses from either of the pools.

<sup>4</sup> Recommended electives: APBI 402 (3), COMM 306, COMM 388 (3), CONS 330 (3), CONS 370 (3), ENDS 220 (3), ENDS 231 (3), ENDS 440 (3), FRST 239 (3) (pre-reqs FRST 231 and FRST 232), FRST 318 (3), FRST 410 (3), FRST444 (3), GEOG 311, PLAN 425 (3) (pre-req one of URST 200, GEOG 350).

### Minor in Urban Greenspace Management

FRST 305<sup>1</sup> (3), FRST 307 (3), FRST 385(3), FRST 395 (3), FRST 411(3), UFOR 403 (3)

<sup>1</sup>Prerequisite 201 (3) and one of FRST 351 (3) and UFOR 400 (3)

<sup>2</sup>Prerequisite FRST 350 or FRST 351 (2). Credit will be given for only one of FRST 350 or FRST 351. Students will be assigned to the most appropriate course based on their levels of forestry and field experience as determined by the course instructors.

### Minor in Landscape and Recreation Planning

ENDS 110 or equivalent (3), FRST 490 (3), FRST 492 (3), LARC 415 (3), LARC 510 or equivalent (3), one of ENDS 440, PLAN 221, PLAN 321, PLAN 425, and GEOG 311 .



## Academic Regulations

### *Graduation Requirements*

In order to graduate, students must meet the course requirements for their major. This requires a minimum of four years of university study.

### *Examinations and Advancement*

The University regulations concerning examination and advancement apply. See Academic Assessment (Calendar page: <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,41,88,0#195>) and Advancement Regulations (Calendar page: <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,43,0,0#234>). In addition, the Faculty of Forestry sets the following requirements:

1. Only those students who have completed at least 27 credits towards the required in-session program will be considered for awards. The standing of students taking more than 27 credits will be determined on the basis of 27 credits required, chosen in a manner most advantageous to the student.
2. Students who wish to drop courses may do so within two weeks of the start of the course for one-term courses and three weeks for two-term courses, by obtaining permission from the appropriate undergraduate advisor. After this deadline courses may only be dropped under exceptional circumstances and with the approval of the Associate Dean. Those who fail to write the final examination or who do not complete other course requirements and when circumstances do not warrant deferred standing, will be assigned an 'F' standing.
3. Honours standing upon graduation will be granted to those students who have obtained at least an overall average of 82% in all 300- and 400-level credits taken within their program, with no failures. "With Honours" will be noted on their transcript and degree certificate.
4. The passing mark in Forestry is 50%. In subjects comprising both lecture and laboratory or problem sessions, the candidate must pass both. If a candidate fails to obtain 50% the faculty may, at its discretion, award a pass in that subject on the basis of a good aggregate standing. Such a pass will be entered on the record of the candidate as an adjudicated pass.
5. If a student fails a course and is required to take it again, exemption from the laboratory or problem session portion of such a course may be granted.
6. All students must pass at least 60% of credits undertaken, achieve an overall average grade of at least 60%, and follow their required program, or be required to withdraw from the Faculty for at least one year. Students who do not complete all required courses for their program year will not be promoted to the next program year, but may register in a subsequent session.
7. Students registered in any year who attain a Winter Session average of at least 55%, but less than 60% may, at the discretion of the Adjudication, Advancement and Scholarship Committee, be placed on Academic Probation. Students assigned Academic Probation in one session will be removed from Academic Probation if, in a following Winter Session, they pass all courses and attain an average of at least 60% on a minimum of 24 credits. Students who do not achieve an average high enough to be removed from academic probation will be required to withdraw from the Faculty for at least a year.
8. A candidate who does not complete requirements for graduation in May following fourth year, will be required to register for all incomplete courses, in a subsequent session (summer or winter), and will be assessed the prescribed fees for these courses. Students who do not complete FRST 497 (B.S.F. Essay), FRST 498 (B.Sc. Thesis), WOOD 493 (Wood Processing Project), CONS 498 (Thesis or Special Project) in their fourth year must complete these requirements in time for graduation in the fall of the following year. Students who do not complete these requirements within the specified period of time must formally register in a subsequent session and may be required to take additional courses related to the thesis or project topic.
9. Students who have not achieved a Language Proficiency Index (LPI) score of 5 or 6 prior to completing 30 credits of Forestry-eligible courses taken at UBC, will normally be required to withdraw from the Faculty of Forestry. See [LPI Examination Exemptions](#).
10. Students who have not completed at least 3 credits in each of first-year English and mathematics (calculus) by the time they have completed 60 credits will be required to withdraw from the Faculty, unless there are sufficient extenuating circumstances.



11. Students who are required to withdraw from the Faculty for academic reasons may apply for readmission to the University following at least one year away. During this year, these students are normally required to satisfactorily complete at least 12 credits of UBC-transferable post-secondary courses at some other institution, provided there are sufficient credits of available courses remaining in their programs. Exceptional circumstances that might preclude this should be brought to the Faculty's attention as soon as possible. Related work or volunteer experience that demonstrates maturity and an ability to succeed academically will also be considered in the readmission decision.

### *Dean's Honour Roll*

Any student who achieves 82% on their best 27 credits in the current session with no failed courses taken will receive the notation "Dean's Honour Roll" on their transcript. Students must have taken a minimum of 27 credits in the current session to qualify. Grades obtained by students registered in a Study Abroad and Exchange Program during the Winter Session will be considered. Students in a Cooperative Education program, who are registered at UBC for only one term in Winter Session because of a co-op placement, are eligible if they take at least 15 credits, with no failed courses for that term.

### *Courses*

Students from other faculties may take the courses offered in Forestry provided they have the necessary prerequisites. Permission of the instructor may be required in some cases.

### *Courses for Graduate Students*

Formal lecture courses or seminars are indicated by a single credit value assigned to them. In all problem and research courses, as indicated by a variable number of credits, individual laboratory or field investigations or reviews of literature are usually planned to serve the special interests of individual students. When several students have a similar interest in advanced study, formal lectures or seminars may be given. Staff members other than those directing graduate programs may direct studies in specialized topics for interested students, on the recommendation of the students' program supervisors.

Undergraduate students with the necessary background and permission of the instructor may be allowed by the Dean to register in a regularly-scheduled graduate lecture course in Forestry.

## **Co-operative Education Option**

Students in any of the baccalaureate programs offered by the Faculty of Forestry can apply to follow a Co-operative Education (Co-op) option. This option provides interested and qualified students with paid employment experience that is directly related to their academic program and future career. Apart from the normal academic requirements, a minimum of four work terms must be completed. Students following the co-op option generally require an additional year to complete degree requirements.

Work placements are graded Pass or Fail. Students must attend co-operative education workshops. An academic evaluation component is required at the end of each work term. Successful completion of the Co-op option requirements will be acknowledged on the student's degree parchment. Students wishing to enrol in the option must apply in the fall term of their second year. Selection criteria for admission vary for each degree program, but are based on academic performance and employment suitability. Total enrolment is subject to the availability of appropriate work placements. Acceptance into the co-op option does not guarantee work opportunities in every work term. Once a suitable work opportunity is confirmed, students must register in and pay for the appropriate session. See Program and Course Fees (<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=14,296,0,0#1818093>)

Contact the Cooperative Education Coordinators for the Faculty of Forestry, or the Bachelor of Science in Wood Products Processing if you are in that degree program, for further information, including special application forms, specific deadlines, and the



appropriate sequence of academic and work terms.

More details are available on the Co-op website (<http://www.forestry.ubc.ca/students/co-op/>) for the Faculty of Forestry

## Exchange Programs

The Faculty actively participates in the formal university-wide exchange programs. Undergraduate students who earn a 70% average over 27 credits in the year prior to their exchange are eligible to travel to one of the international or Canadian exchange partner institutions to study for up to one year. Graduate students are also eligible and can transfer up to 12 credits towards their UBC degree. Interested students should see Alternative Study Options (Calendar page <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=4,228,549,735#>) for further information or contact the Faculty directly.

### *Canadian Exchanges*

Opportunities for students exist at the University of Alberta, the University of Quebec, the University of Toronto, and Université Laval. These universities participate with UBC in the Canadian Scholars Exchange Program (CANEX). There are also opportunities for exchange with the University of New Brunswick, which has an exchange agreement with the Faculty.

### *International Exchanges*

UBC's Go Global (<http://students.ubc.ca/about/go-global>) offers eligible students the opportunity to spend one or two semesters at partner universities throughout the world. Partner universities with programs specific to UBC's Faculty of Forestry include the Universities of the Philippines; Melbourne (Australia); Canterbury (New Zealand); Maine (USA); Wales (UK); Aberdeen (UK), Australia National University; Oregon State University (USA); Swedish University of Agricultural Sciences; Albert-Ludwig University Freiburg (Germany); the Instituto Tecnológico de Costa Rica; and the University of Chile.

## Awards and Financial Assistance

Undergraduate Forestry students are eligible for a range of assistance including prizes, scholarships, bursaries, and loans. Prizes and scholarships are awarded on the basis of academic standing although other factors may also be considered. Many scholarships are awarded on the recommendation of the Faculty, while others are assigned by Enrolment Services.

The University also offers bursaries to students demonstrating financial need. These awards are assigned by Enrolment Services and students are required to submit a detailed application outlining their financial circumstances. Bursaries to Forestry students amount to about half the value of scholarships and prizes. The major source of financial assistance is available through the British Columbia Student Assistance Program, which combines a Canada Student Loan and a BC Student Loan. Details on these programs and information on financial assistance can be found at [students.ubc.ca](http://students.ubc.ca) (<http://students.ubc.ca>).

## Lectureships

### **T. E. Burgess and D. E. Lane Memorial Lectureship in Forestry**

In memory of Thomas E. Burgess and David E. Lane, vice-presidents of long standing with BC Forest Products Limited, a fund has been established by Mrs. Dorothy Burgess and Mrs. Evelyn Lane and Fletcher Challenge Canada Ltd., to provide for the presentation and publication of special lectures in forestry by outstanding authorities in forestry or the forest industry.

### **Leslie L. Schaffer Lectureship in Forest Science**



In memory of Leslie L. Schaffer, D.Sc., former executive vice-president of Western Plywood Co. Ltd., a fund has been established by Mrs. Leslie L. Schaffer to finance lectures and publications by visiting forest scientists.

### The Namkoong Family Lectureship

This endowed lectureship was established by the late professor Gene Namkoong, former Head of Forest Sciences at UBC, and his wife Carol, to promote the study and development of science or philosophy pertaining to the sustainability and conservation of forests.

## Academic Staff

### Academic Staff > Department of Forest Resources Management

**G. Bull**, Head

#### Professors

**Y. Alila**, B.A.Sc., M.A.Sc., Ph.D. (Ott.), P.Eng.  
**G. Bull**, B.S.F., M.F. (Br.Col.), Ph.D. (Tor.)  
**N. Coops**, B.A.Sc., Ph.D. (R.M.I.T.)  
**J. L. Innes (Dean)**, B.A., M.A., Ph.D. (Camb.), MIEEM, RPF (Australia)  
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**B. C. Larson**, A.B. (Harv.), M.F.S. (Yale), Ph.D. (Wash.)  
**V. LeMay**, B.Sc., M.Sc. (Alta.), Ph.D. (Br.Col.), RPF  
**P. L. Marshall**, B.Sc.F., M.Sc.F. (Tor.), Ph.D. (Br.Col.), RPF  
**S. J. R. Sheppard**, B.A. (Oxf.), M.Sc. (Br.Col.), M.A. (Oxf.), Ph.D. (Calif., Berkeley), ASLA

#### Professor Emeritus

**J. D. Nelson**, B.S.F., M.B.A. (Br.Col.), Ph.D. (Oregon), RPF

#### Associate Professors

**K. Lyons**, B.S.F., M.S.F. (Br.Col.), Ph.D. (Oregon)  
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**H. Zerriffi**, B.A. (Oberlin), M.Sc., Ph.D. (Carnegie Mellon)

#### Assistant Professors

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**V. C. Griess**, Dipl. For Eng, M.Sc., Ph.D. (Munche)  
**S. Hagerman**, B.Sc., M.Sc., Ph.D. (Br.Col.)  
**H. Nelson**, B.A. (Carl.), M.A.(Br.Col.), M.P.P. (Harv.), Ph.D. (Br.Col.)

#### Assistant Professor Emeritus

**D. E. N. Tait**, B.Sc., M.Sc., Ph.D. (Br.Col.)

#### Associate Professor Emeritus

**P. M. Wood**, B.Sc., Ph.D. (Br.Col.), RPF, RPB

#### Senior Instructor Emeritus

**D. Bendickson**, B.S.F. (Br.Col.), RPF





### Adjunct Professors

**D. Andison**, B.Sc. (Tor.), B.A. Architecture, Ph.D. (Br.Col.)  
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**M. Boyland**, B.Sc., Ph.D. (Br.Col.)  
**P. Caldwell**, B.S., Ph.D. (UNC)  
**S. Cohen**, B.Sc. (McG.), M.Sc. (Alta.), Ph.D. (Ill.)  
**I. de la Roche**, B.Sc. (McG.), M.Sc. (Mass.), Ph.D. (Illinois)  
**L. DeMontigny**, B.Sc. (Br.Col.), M.F.Sc. (Yale), Ph.D. (Br.Col.)  
**H. El-Lakany**, B.Sc., M.Sc. (Alexandria), Ph.D. (Br.Col.)  
**C. Elliott**, B.Sc. (Lond.), M.E.S. (Yale), Ph.D. (Fed.Inst.Tech. CH)  
**R. Falls**, B.Sc., R.P.Bio., Ph.D. (Br.Col.)  
**C. Farnden**, B.Sc., Dipl, Ph.D. (Br.Col.), R.P.F.  
**K. Green**, B.Sc.F., Ph.D. (Br.Col.)  
**P. Hoi**, B.Sc., M.Sc. (NU Malaysia), Ph.D. (Aston)  
**D. Konkin**, B.Sc. (Alta.), Dipl (Br.Col.IT)  
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**S. Magnussen**, M.Sc. (Copenhagen), Ph.D. (Gottingen)  
**E. J. B. McIntire**, B.Sc. (McG.), M.Sc. (Tor.), Ph.D. (Br.Col.)  
**I. Moss**, B.Sc. (Br.Col.), M.Sc. (Georgia), Ph.D. (Br.Col.)  
**S. Northway**, B.Sc., M.F., Ph.D. (Br.Col.), R.P.F.  
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**T. Williamson**, B.Sc., M.Sc., Ph.D. (Alta.)  
**R. Winkler**, B.S.F. (Br.Col.), M.Sc. (Alta.), Ph.D. (Br.Col.)  
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### Lecturer

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**T. Jones**, B.A., M.A. (Clark), Ph.D. (Br.Col.)  
**W. Nikolakis**, B.Bus., L.L.B., Ph.D., G.D.L.P.

## Academic Staff > Department of Forest and Conservation Sciences

**R. D. Guy**, Head

### Professors

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**A. L. Carroll**, B.Sc. (S.Fraser), Ph.D. (New Bruns.)  
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**K. M. Martin**, B.Sc. (P.E.I.), M.Sc. (Alta.), Ph.D. (Qu.)  
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**K. Ritland**, B.Sc. (Wash.), Ph.D. (Calif., Davis)





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#### Professors Emeriti

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**T. Sullivan**, B.Sc., M.Sc., Ph.D. (Br.Col.)  
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**G. F. Weetman**, B.Sc.F. (Tor.), M.F., Ph.D. (Yale), RPF, F.Eng.

#### Associate Professors

**S. Gergel**, (Associate Dean, Equity and Inclusion) B.Sc. (Flor.), M.Sc., Ph.D. (Wisc.)  
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**S. Mitchell**, B.S.F., Ph.D. (Br.Col.), RPF

#### Associate Professors Emeriti

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#### Assistant Professors

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**M. van den Bosch**, M.D. (Uppsala), Ph.D. (Swed. U.A.C.)  
**T. Wang**, M.Sc., Ph.D. (Helsinki)

#### Senior Instructors

**S. Lavallee**, B.Sc., M.Sc., Ph.D. (Br.Col.)  
Instructor  
**P. Culbert**, B.Sc., Ph.D. (Wisc.-Mad.)

#### Lecturer

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**C. E. Bulmer**, B.Sc., M.Sc. (Alta.), Ph.D. (Br.Col.), RPF  
**D. K. Coates**, B.S.F. (Br.Col.), M.Sc. (Oregon), Ph.D. (Br.Col.)  
**K. Cockle**, B.Sc. (Br.Col.), M.Sc. (Dal.), Ph.D. (Br.Col.)  
**M. C. Drever**, B. Sc. (Tor.), M.P.M. (S.Fraser), Ph.D. (Guelph)  
**R. Krishnamurthy**, M.Sc. (Bharathidasan), Ph.D. (W.I.I.F.R.I.)  
**T. Martin**, B.Sc. (Griffith), Ph.D. (Queensland)  
**K. M. Miller**, B.Sc. (Calif.), M.Sc. (Br.Col.), Ph.D. (Stanf.)  
**R. F. Newman**, B.Sc., B.S.F. (Br.Col), Ph.D. (Alta.)  
**M. Stoehr**, B.Sc., M.Sc. (Lakehead), Ph.D. (Tor.)  
**A. Yanchuk**, B.Sc., M.Sc., Ph.D. (Alta.)

#### Affiliate Professors

**S. Cao**, B.Sc., M.S. (Nanjing Fr.), Ph.D. (Br.Col.)  
**S.J. Cooke**, B.Es., M.S. (Wat.), Ph.D. (Ill.U.C.)  
**G.T. Crossin**, B.Sc. (NH), M.Sc., Ph.D. (Br.Col.)  
**B.J. Pickles**, B.Sc. (Edin.), M.Sc., Ph.D. (Aberd.)

## Academic Staff > Department of Wood Science



**S. Avramidis**, Head

**Professors**

**S. Avramidis**, B.S.F. (Thessaloniki), M.S., Ph.D. (N.Y., Syracuse), FIAWS, FIMMM  
**D. Cohen**, Dip For Tech (Selkirk), B.Sc. (Idaho), Ph.D. (Virginia Polytech)  
**P. Evans**, B.Sc., Ph.D. (Wales), FIAWS, FIMMM  
**R. Kozak**, B.Sc., Ph.D. (Br.Col.), Associate Dean Academic  
**F. Lam**, B.A.Sc., M.A.Sc., Ph.D. (Br.Col.), P.Eng., FIMMM  
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**J. N. Saddler**, B.Sc. (Edin.), Ph.D. (Glas.), FIAWS  
**G. Smith**, B.A.Sc. (Br.Col.), M.A.Sc., P.Eng, D.Sc.T. (E.P.F.L., CH)  
**T. Sowlati**, B.Sc. (Sharif Tech.), M.A.Sc. (Tarbiat Modares), Ph.D. (Tor.)  
Professor Emeritus  
**P. McFarlane**, B.Tech., Ph.D. (Massey), FIAWS, FIWS

**Honorary Associate Professor**

**C. Gaston**, B.Sc. (Br.Col.), M.Sc. (Guelph), Ph.D. (Br.Col.)

**Associate Professors**

**S. C. Ellis**, B.Sc. (N.Wales), M.Sc., Ph.D. (Br.Col.), FIMMM  
**S. Renneckar**, B.Sc. (Virginia), M.Sc. (Calif., Berkeley), Ph.D. (Virginia)  
**T. Tannert**, Dipl.-Ing. (BUW), M.Sc. (Concepcion), Ph.D. (Br.Col.) - on leave until December 2017

**Assistant Professor**

**J. Cool**, B.Sc., M.Sc., Ph.D. (Laval)

**Senior Instructors**

**R. Furst**, Master Dip. (Germany)

**Instructors**

**V. Leung**, B.Sc. (Br.Col.)

**Adjunct Professors**

**R. Beatson**, B.Sc. (Exe.), Ph.D. (Ont.)  
**C. Dai**, B.Sc., M.Sc. (Nanjing Forestry), Ph.D. (Br.Col.)  
**C. Dean**, B.Sc. (Flin.), Ph.D. (Qld.)  
**P. Morris**, B.Sc., Ph.D. (Lond.)  
**L. Oliveira**, B.Sc., (Mackenzie), M.Sc., Ph.D. (V.A.Tech.)  
**M. Popoyski**, B.Eng., MTSc. (SCMUS), Ph.D. (Br.Col.)  
**A. Potter**, B.Sc.(St And.), MBA (Br. Col.), Ph.D (St And.)  
**R. Stirling**, B.Sc. (Vic. (B.C.)), Ph.D. (Br.Col.)  
**T. Stuthridge**, B.Sc., M.Sc., Ph.D. (Waik.)

## Academic Staff > Student Services

**L. Braam**, B.A., Student Engagement Officer  
**A. Curcin**, B.A. (Br.Col.), M.A. (Vic.(B.C.)), International Student Recruiter/Advisor  
**J. Kellett**, B.A., Student Academic Advisor  
**G. Kosh**, Dip.T. (Calg.), Manager, Graduate Programs  
**C. Longhi**, B.A., M.A. (Pisa), Director of Student Services



**T. Loring**, B.F.A (C'dia), Co-operative Education Coordinator  
**R. Poirier-Vasic**, B.A.A. (Ryerson), Graduate Admissions Coordinator  
**S. Sivic**, B.B.A. (S.Fraser), Co-Operative Education Coordinator and Recruitment Officer  
**I. Takahashi**, B.Sc., MFRE (Br.Col.), Senior Awards and Records Clerk  
**T. Wong**, B.A. (McG.), Graduate Admissions Coordinator, Professional Master's Programs  
**X. Zhu**, B.Sc. (Ocean), M.F. (Br.Col.), Program Coordinator

## Academic Staff > University Research Forests

### Malcolm Knapp Research Forest (MKRF)

**P. Lawson**, B.S.F., M.B.A. (Br.Col.), RPF, Director UBC Research Forests, Maple Ridge  
**C. Power**, B.S.F., Dipl.For. Advanced Silviculture (Br.Col.), RPF, Assistant Manager, Malcolm Knapp Research Forest, Maple Ridge  
**I. Aron**, B.S.F., M.F., Research Coordinator, Malcolm Knapp Research Forest, Maple Ridge  
**S. Panagiotou**, Manager of Administration, Malcolm Knapp Research Forest, Maple Ridge  
**J. Watkins**, B.Sc., Assistant Operations Manager, Malcolm Knapp Research Forest, Maple Ridge

### Alex Fraser Research Forest (AFRF)

**C. Koot**, B.Sc. (Guelph), R.P.Bio., Research Coordinator, Alex Fraser Research Forest, Williams Lake  
**D. Skea**, RFT, Forest Operations Supervisor, Alex Fraser Research Forest, Williams Lake  
**K. Green**, B.A. (Guelph), Manager of Administration, Alex Fraser Research Forest, Williams Lake  
**K. Day**, B.Sc.F. (Lake.), M.F. (Br.Col.), RPF, Manager Alex Fraser Research Forest, Williams Lake