

# Natural Resources Conservation

## Degree Requirements

### First Year

Required Courses	Credits	Done	Notes
APBI 200 Introduction to Soil Science	3	<input type="checkbox"/>	
BIOL 121 <sup>1</sup> Genetics, Evolution and Ecology	3	<input type="checkbox"/>	
CONS 101 Introduction to Conservation	3	<input type="checkbox"/>	
ECON 101 Principles of Microeconomics or FRST 101 <sup>2</sup> Principles of Microeconomics for Forestry and Land and Food Systems	3	<input type="checkbox"/>	
ECON 102 Principles of Macroeconomics	3	<input type="checkbox"/>	
Choose two of: ENGL 110, ENGL 111, ENGL 112 (or WRDS 150) and WOOD 225 or <i>Land One students take: FRST 150<sup>2</sup> plus one of ENGL 110, ENGL 111, or WOOD 225</i>	6	<input type="checkbox"/>	
GEOB 103 Our Changing Environment: Water and Landscapes	3	<input type="checkbox"/>	
MATH 100 Differential Calculus with Applications to Physical Sciences and engineering 102 Differential Calculus with Applications to Life Sciences 104 Differential Calculus with Applications to Commerce and Social Sciences 110 Differential Calculus 180 Differential Calculus with Physical Applications 184 Differential Calculus for Social Science and Commerce or 190 <sup>3</sup> Calculus Survey	3/4/6	<input type="checkbox"/>	
Electives	6	<input type="checkbox"/>	
<b>Total Credits</b>	<b>33/34/36</b>	<input type="checkbox"/>	

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

<sup>2</sup> Only Land One students are eligible to take FRST 150 and FRST 101.

<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. All students must choose one of these listed Math courses. MATH 190 is strongly encouraged for all students with or without Calculus 12 (or a previous calculus course). Please refer to "First Year Calculus Choices" on <https://www.math.ubc.ca/Ugrad/index.shtml> for more information.

## Second Year

Required Courses	Credits	Done	Notes
CONS 200 Foundations of Conservation	3	<input type="checkbox"/>	
CONS 210 Visualizing Climate Change	3	<input type="checkbox"/>	
FRST 200 Forest Plant Biology I	3	<input type="checkbox"/>	
FRST 201 Forest Ecology	3	<input type="checkbox"/>	
FRST 210 Forest Plant Biology II	3	<input type="checkbox"/>	
FRST 211 Forest Classification and Silvics	3	<input type="checkbox"/>	
FRST 231 Introduction to Biometrics or BIOL 300 Fundamentals of Biostatistics or STAT 200 Elementary Statistics for Applications	3	<input type="checkbox"/>	
FRST 232 Computer Applications in Forestry or CPSC 110 Computation, Programs, and Programming	3	<input type="checkbox"/>	
SOCI 101 or SOCI 102	3	<input type="checkbox"/>	
Elective	3	<input type="checkbox"/>	
Total Credits	30	<input type="checkbox"/>	

# Declaring your Major

At the start of your third year, you must choose between the Science and Management Major or the Global Perspectives Major. The Science and Management degree requirements are outlined below while the Global Perspectives degree requirements are outlined on the following page.

## Science and Management Major

### Third Year

Required Courses	Credits	Done	Notes
CONS 330 Conservation Science and Sustainability	3	<input type="checkbox"/>	
CONS 340 Introduction to Geographic Information Systems for Forestry and Conservation	3	<input type="checkbox"/>	
CONS 481 Conservation Planning & Wildland Recreation	3	<input type="checkbox"/>	
FRST 318 Forest and Conservation Economics or ECON 371 Economics of the Environment or ECON 374 Land Economics	3	<input type="checkbox"/>	
FRST 385 Watershed Hydrology or GEOB 305 Introduction to Hydrology	3	<input type="checkbox"/>	
FRST 386 Aquatic Ecosystems & Fish in Forested Watersheds	3	<input type="checkbox"/>	
FRST 395 Forest Wildlife Ecology and Management	3	<input type="checkbox"/>	
SOCI 360 Sociology and Natural Resources or GEOG 310 Environment and Sustainability	3	<input type="checkbox"/>	
Elective	3	<input type="checkbox"/>	
Elective (300/400 level) <sup>4</sup>	3	<input type="checkbox"/>	
<b>Total Credits</b>	<b>30</b>	<input type="checkbox"/>	

### Fourth Year

Required Courses	Credits	Done	Notes
CONS 440 Conservation Policy or CONS 425 Sustainable Energy or FRST 415 Sustainable Forest Policy	3	<input type="checkbox"/>	
CONS 451 <sup>5</sup> Integrated Field School	15	<input type="checkbox"/>	
FRST 443 Remote Sensing for Ecosystem Management	3	<input type="checkbox"/>	
FRST 495 Biological Diversity & Forest Management	3	<input type="checkbox"/>	
CONS 486 Fish Conservation and Management	3	<input type="checkbox"/>	
CONS 498 Thesis or Special Project or Elective (300/400 level)	3	<input type="checkbox"/>	
<b>Total Credits</b>	<b>30</b>	<input type="checkbox"/>	

<sup>4</sup> To be chosen in consultation with the program advisor.

<sup>5</sup> An integrated field course taught in the Term 1. Registration is restricted to this course only during Term 1 and only to students in fourth year of NRC program.

# Global Perspectives Major

## Third and Fourth Year

Required Courses	Credits	Done	Notes
CONS 340 Introduction to Geographic Information Systems for Forestry and Conservation or GEOB 270 Geographic Information Science	3	<input type="checkbox"/>	Commonly taken in 3 <sup>rd</sup> yr T1
FRST 443 Remote Sensing for Ecosystem Management	3	<input type="checkbox"/>	Commonly taken in 4 <sup>th</sup> yr T2
CONS 330 Conservation Science & Sustainability	3	<input type="checkbox"/>	Commonly taken in 3 <sup>rd</sup> yr T2
Core Courses (see below)	15	<input type="checkbox"/>	
Resource Systems Courses (see below)	9	<input type="checkbox"/>	
Language Courses <sup>6</sup>	6	<input type="checkbox"/>	Often taken on EXCH
Resource Systems Elective	3	<input type="checkbox"/>	
Elective (300/400 level)	3	<input type="checkbox"/>	
Elective	3	<input type="checkbox"/>	
CONS 452 <sup>7</sup> Global Perspectives Capstone	12	<input type="checkbox"/>	Taken in 4 <sup>th</sup> yr Offered in T2
International Experience <sup>8</sup>	0	<input type="checkbox"/>	Prerequisite for CONS 452
<b>Total Credits</b>	<b>60</b>	<input type="checkbox"/>	

<sup>6</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>7</sup> Students are required to have the International Experience prior to taking CONS452 and completed a Geographic Information Systems course (e.g. **CONS 340**).

<sup>8</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. International Experience should be determined in consultation with the program director.

**Core Courses - choose one course from each category (bolded courses are recommended but the others are acceptable)**

Category	Course Choices
Resources and Economics	ECON 234, ECON 335, ECON 371, ECON 374, ECON 472, <b>FRST 318</b> or GEOG 361
Resources and Society	GEOG 310, GEOG 410, HGSE 358 or SOCI 360B
International Policy / Governance and Resources	CONS 440, <b>FRST 370</b> , <b>FRST 415</b>
Indigenous Perspectives	ANTH 220, ANTH 304A, <b>CONS 370</b> , FNIS 210, FNIS 220, HGSE 352 or HIST 302
Globalization	ECON 255, GEOG 121, GEOG 122, GEOG 211, or <b>WOOD 461</b>

Resource Systems Courses - choose one course from three out of the following four categories (**bolded** courses are recommended but all are acceptable; Resource Systems Electives are selected from this list of courses)

Category	Course Choices
Oceanography / Fisheries / Water Systems	EOSC 270, EOSC 314, EOSC 315, EOSC 478, <b>FRST 385</b> , <b>FRST 386</b> or GEOB 305
Agriculture / Food/Range Systems	APBI 260, APBI 265, <b>APBI 360</b> , APBI 401, APBI 402, FRE 306, <b>FNH 200</b> , FNH 355, FRE 340, or <b>FRST 444</b>
Forestry Systems	FRST 305, FRST 351, <b>FRST 439</b> , HGSE 353 or HGSE 354
Energy / Mineral Systems	<b>CONS 425</b> , EOSC 210, or EOSC 311

# Co-op Option:

The co-operative education (co-op) option within Natural Resources Conservation is a highly competitive program which increases your chances of working in your chosen field. As a co-op student you gain up to 20 months of paid, relevant and invaluable work experience while earning an average of \$60,000 during your work terms.

Co-op students will extend their degree by one year, completing eight academic terms and five work terms over a five-year period. Below is the standard Natural Resources Conservation program map for those in co-op:

	<b>Term 1 Sep – Dec</b>	<b>Term 2 Jan – Apr</b>	<b>Summer May – Aug</b>
<b>Year 1</b>	Basic Sciences, English, Math, Soil Science, and Sociology		Summer
<b>Year 2</b>	Forest biology and ecology, Intro to Conservation, Intro to Biometrics and Computer Applications.		<b>Co-op 1</b> (Junior)
<b>Year 3</b>	Resource economics, conservation of water, wildlife, fish and recreation, and planning		<b>Co-op 2</b> (Intermediate)
<b>Year 4</b>	Integrated Field Course	<b>Co-op 3</b> (Intermediate)	<b>Co-op 4</b> (Intermediate)
<b>Year 5</b>	<b>Co-op 5</b> (Senior)	Conservation policy, remote sensing and fisheries management	

## Good to know:

- Undergraduate students must apply to co-op in September of their second year
- You should acquire a driver's license if you do not already have one
- Work in British Columbia, across Canada and around the world
- Be supported by our Co-op Coordinators every step of the way

To learn more about the Co-op Program and how you can apply, contact the Natural Resources Conservation Co-op Coordinator:

**Nazlyn Pirani**  
 Co-op Coordinator  
 604-827-5196  
 nazlyn.pirani@ubc.ca  
 FSC 2615

# How to successfully complete first year:

1. You must follow your program closely – take the appropriate classes outlined for your degree. The most up-to-date program requirements are always listed on the UBC Calendar at [www.students.ubc.ca/calendar](http://www.students.ubc.ca/calendar) (click on 'Faculties, Colleges, and Schools' and then on 'Forestry').
2. You must pass at least 60% of the total number of credits attempted in both Terms 1 and 2 (summer classes are not included).
3. You must also obtain an average grade of at least 60% in both Terms 1 and 2, including any failed courses (summer classes are not included). If your average for Terms 1 and 2 is at least 55%, but less than 60%, you will be placed on academic probation and will be sent a letter outlining additional steps you must take in order to remain in your program. If you do not meet the criteria noted above, you will be asked to leave UBC for at least one year. Following this probationary period, you may re-apply to UBC but you must complete at least 12 credits at a college during your time away.

## Professional Designations

### Courses toward Registration as a BC Professional Forester

Students who wish to work towards membership in the Associations of BC Forest Professionals (ABCFP) are advised to contact Forestry Student Services. The information is also available on the ABCFP website at [www.abcfp.ca](http://www.abcfp.ca). There are also information sessions held throughout the academic year in the Faculty of Forestry – please contact Forestry Student Services for this schedule.

### Courses toward Registration as a BC Professional Biologist

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 at their website, [www.cab-bc.org](http://www.cab-bc.org). There are also information sessions held throughout the academic year in the Faculty of Forestry – please contact Forestry Student Services for this schedule.

## Contacts:

### **Dr. Scott Hinch**

Program Director  
604-822-9377  
[scott.hinch@ubc.ca](mailto:scott.hinch@ubc.ca)  
FSC 3022

### **Forestry Student Services**

Advising Office  
604-822-1834  
[forestry.undergrad@ubc.ca](mailto:forestry.undergrad@ubc.ca)  
FSC 2609

### **Nazlyn Pirani**

Co-op Coordinator  
604-827-5196  
[nazlyn.pirani@ubc.ca](mailto:nazlyn.pirani@ubc.ca)  
FSC 2615

*The UBC Calendar is always the most up-to-date resource for degree requirements, <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,203,0,0>.*