Student Skills and Abilities

	WORK TERMS 1 & 2	WORK TERM 3	WORK TERMS 4 & 5	GRAD
FORESTRY				
Use ecological principles of the Biogeoclimatic Ecological Classification System to describe and interpret forests and grasslands.	–	•	•	•
Assist in documenting site descriptions.	–	•	•	•
Propose management strategies which incorporate the impacts of recreation on ecosystems.	–	–	•	•
Assist in developing silvicultural prescriptions.	–	•	•	•
Describe how prescribed fire can be incorporated into a management plan.	–	•	•	•
Identify pests and diseases and methods of control in forest stands.	–	–	–	•
Describe the impacts of land use practices on erosion and water quality in watersheds.	–	–	•	•
Assist in habitat inventories and assessments.	–	•	•	•
LIMNOLOGY AND FISHERIES MANAGEMENT				
Assess the physical, chemical, and biological features of lakes and streams and determine their relationship to fish ecology and other uses.		•	•	•
Measure, age, sex, and identify important fish species.		•	•	•
Develop a sustainable, multiuser fisheries management strategy.		–	•	•
WILDLIFE MANAGEMENT				
Assist in developing wildlife management plans based on the biology of species.		–	•	•
Model population changes using computers.		•	•	•
RANGE MANAGEMENT				
Assess the physical and biological features of rangelands.		•	•	•
Assist in development of range management plans.		–	•	•
MEASUREMENTS				
Interpret topographic and forest cover maps.	•	•	•	•
Make basic mensurational measurements.	•	•	•	•
Establish and sample vegetation plots.	–	•	•	•
COMMUNICATION AND CONFLICT RESOLUTION				
Apply the principles of natural resource conflict resolution.		–	–	•
Communicate using written, verbal, and audiovisual techniques.	–	•	•	•
COMPUTING				
Use word processing, spread sheet, and graphics software.	•	•	•	•
Use the ArcInfo Geographic Information Systems software.	•	•	•	•
SOCIAL AND ECONOMIC				
Apply cost-benefit analysis and economic models to land use decisions.				•
Assess the impacts of resource extraction on recreation and tourism.		–	•	•
GENERAL SKILLS				
Determine optimum sampling designs for all resource sectors.		•	•	•
Apply statistical analysis to data sets.	–	•	•	•
Participate as a team member.	–	•	•	•

– Student has some familiarity with these skills • Student is proficient with skills.

The Faculty

Our current full-time faculty have expertise in the areas of forest ecology, silvics, silviculture, limnology, stream ecology, ichthyology, fisheries management, GIS, aerial photography, mensuration, population biology, wildlife management, dendrology, mycology, land use planning and modeling, and natural resource economics.

In addition, we draw extensively on local professionals to teach courses on a part-time basis and assist with field trips. Areas of expertise covered by part-time faculty include forest soils, climatology, range biology, and range management.

The Bachelor of Natural Resource Science Degree is offered by UCC in cooperation with the Open Learning Agency.

Placement Process

Employers participating in the program supply a job description to the Co-op Centre. The position is posted, and qualified students submit their resumés to the Co-operative Education Coordinator, who forwards them to employers and arranges interviews. Students are chosen for work placement by the employer, who sets the terms of employment, salary and benefits.

BNRS Admission Information

ADMISSION REQUIREMENTS

a) Minimum Academic Requirements

- B.C. Grade 12 or Mature student status or previous post secondary experience.
- B.C. Grade 12 English with minimum grade of B within the last 5 years.
- B.C. Biology 11, Chemistry 11, Math 12, with at least C+ and Physics 11. Students with Biology 12 and Chemistry 12 will be given preference.
- Canadian Citizenship or Landed Immigrant Status.

b) General Requirements

- Attendance at ONE general orientation session is required.
- An interview with the Department Chairperson or Program Coordinator is required, after notification of acceptance into the program.

c) Entry Levels and Advancement

Entry into the program can be at the first, second or third year level. Course equivalencies from other institutions will be based upon the British Columbia Transfer Guide or a review of course outlines for courses not included in the Guide.

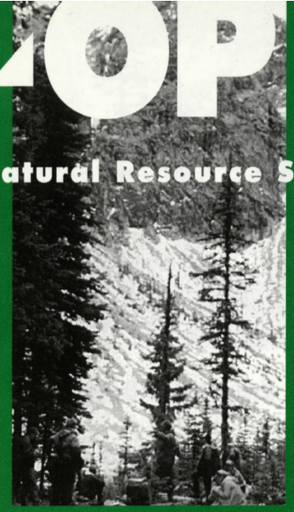
Entry into the program and advancement from year to year will require a minimum overall GPA of 2.5 and a minimum of C+ in all NRSC, FRST, ENGL and BIOL courses.

For Further Information

For specific information about the Co-op Ed program contact Jennifer Young, Co-operative Coordinator at 371-5680. Or contact the Co-operative Education Centre at:
Tel (604) 828-5276
Fax (604)828-5014

CO-OP ED

Bachelor of Natural Resource Science (BNRS)



The Program

In a world where specialization is the norm in university training for careers in the natural resource professions, the demand from industry and government agencies is increasingly for professionals who are generalists. The intent of the Bachelor of Natural Resource Science (BNRS) program is to provide students with a broad range of resource management skills supported with courses in basic sciences, the biology and ecology of various resource sectors, computing, and math. In addition, there is a strong emphasis on written and oral communication skills.

By understanding the scientific, economic, and social basis of natural resource issues, graduates of the program will be able to effectively interface between diverse interest groups, all having a stake in how our terrestrial and aquatic ecosystems are managed.

The BNRS program is unique in its scope and purpose. The science offerings are highly interdisciplinary and include such diverse topics as forestry, rangelands, fisheries, and wildlife. By combining a general bachelors degree curriculum in the first two years with a broad spectrum of upper level natural resource courses, we have developed an academic program that is unique in North America.

UCC is seeking accreditation for selected specific courses from the British Columbia Associations of Professional Foresters, Professional Agrologists and Professional Biologists.

What is Co-operative Education?

Co-op Education is the integration of theory and practical experience. Students alternate between specific periods of paid employment (Work Terms) and periods of on-campus study (Academic Semesters).

THE UNIVERSITY COLLEGE OF THE CARIBOO

Bachelor of Natural Resource Science

Employer Benefits

TIME SAVER

We pre-screen Co-op students to meet your needs.

SKILLED EMPLOYEES

Co-op students are skilled and ready to contribute to the day-to-day operation of your organization.

TEMPORARY SUPPORT

Co-op students provide temporary help during peak periods and can assist permanent personnel to concentrate on other tasks.

TEAM BUILDING

Co-op students are motivated, capable individuals with new ideas that can have a positive effect on permanent staff.

COST EFFECTIVE

Co-op affords you a low-risk opportunity to recruit permanent employees. You can select from a group of Co-op students who have demonstrated competence and interest in your organization.

UP-TO-DATE PROGRAMS

Co-op gives you an opportunity to provide feedback to UCC and help keep programs and courses relevant to your needs.

Co-op Time Pattern

	Year 1	Year 2	Year 3	Year 4	Year 5
SEPT-DEC	ACADEMIC SEMESTER 1	ACADEMIC SEMESTER 3	CO-OP WORK TERM 2	ACADEMIC SEMESTER 6	ACADEMIC SEMESTER 7
JAN-APRIL	ACADEMIC SEMESTER 2	ACADEMIC SEMESTER 4	ACADEMIC SEMESTER 5	CO-OP WORK TERM 4	ACADEMIC SEMESTER 8
MAY- AUG		CO-OP WORK TERM 1	CO-OP WORK TERM 3	CO-OP WORK TERM 5	

Program Outline

Many of the courses include consideration of issues from a variety of perspectives such as development versus environment, government versus non-government, and First Nations concerns.

ACADEMIC SEMESTER 1
September to December (4 months)

Principles of Biology 1
Principles of Chemistry 1
Computer Applications in Forestry
English Composition
Dendrology 1
Calculus 1

ACADEMIC SEMESTER 2
January to April (4 months)

Principles of Biology 2
Principles of Chemistry 2
Introduction to Prose Fiction
Dendrology 2
Introduction to Statistics

CO-OP WORK TERM 1
May to August (4 months)

CO-OP WORK TERM 2
September to December (4 months)

ACADEMIC SEMESTER 5
January to April (4 months)

Population Biology
Range Communities
Limnology and Ichthyology
Current Topics in Natural Resource Management
*2 electives from the approved list

ACADEMIC SEMESTER 3
September to December (4 months)

Principles of Microeconomics
Natural Resource Ecology 1
Measurements and Photogrammetry 1
*2 electives from the approved list

ACADEMIC SEMESTER 4
January to April (4 months)

Organizational Behaviour
Introduction to Soils
Natural Resource Ecology 2
Measurements 2
Geographic Information Systems (GIS)
*1 elective from the approved list

CO-OP WORK TERM 3
May to August (4 months)

ACADEMIC SEMESTER 6
September to December (4 months)

Silviculture
Range Management
Wildlife Management
Fisheries Management
Wildland Recreation Management
Natural Resource Management 1 (field studies)

CO-OP WORK TERM 4
January to April (4 months)

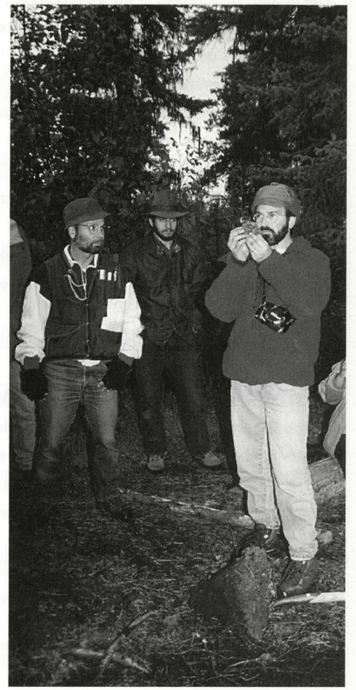
CO-OP WORK TERM 5
May to August (4 months)

ACADEMIC SEMESTER 7
September to December (4 months)

Timber Management & Harvesting
Watershed Management
Entomology & Pathology
Fire Ecology & Management
Benefit Cost Analysis
Natural Resource Management 2 (field studies)

ACADEMIC SEMESTER 8
January to April (4 months)

Recreation & Tourism Management
Natural Resource Conflict Resolution
Economics of the Environment
Land Use
Natural Resource Management 3 (case studies)
*1 elective from the approved list



FIRST AID TRAINING

Before Work Term 1, all co-op students will have completed Occupational First Aid Level 1 (formerly called Survival First Aid) .

*Note: The approved list of electives includes courses from 3 academic streams: Science; Social Science and Business; and Humanities. Students must take 6 credits from each stream. The subject areas in each stream are: Biology, Chemistry, Forestry, Geography, Geology and Physics (Science); Business, Economics and Geography (Social Science and Business); Anthropology, English, Philosophy and Sociology (Humanities).