

Northern Natural Resources Technician

The Northern Natural Resources Technician program is designed to produce competent technicians for various wildlife, forestry and fisheries agencies with major emphasis on working in northern ecosystems. The concept of proper management of our natural resources using the principles of sustainable development, integrated resource policy for ecosystem based management has become the norm in our global community. Industries and all levels of government around the world are beginning to apply these principles to the management, protection and utilization of our existing and changing environment and its resources. The program provides a balance of field and classroom experiences that includes significant computer based data collection and analysis component.

EMPLOYMENT OPPORTUNITIES

Graduates of this program are qualified for employment throughout Canada with federal and provincial governments and with private industry. Government agencies may include the Department of Fisheries and Oceans, Parks Canada, and the Department of Forestry, Resources, and Agrifoods. Typical job duties might include protection and enforcement, resource inventory, site classification, habitat protection and improvement, environmental impact assessments, parks programs, providing technical support and environmental education programs.

OBJECTIVES

1. To train students in the field of Natural Resources to the technician level.
2. To provide knowledge and skills related to all aspects to Northern Natural resources.
3. To provide knowledge and experience in working with specialized equipment and techniques used in the field.
4. To provide knowledge and experience with a wide range of office equipment and techniques associated with the assessment and analysis of natural resources data.
5. To foster positive attitudes toward forestry, wildlife and fisheries ecosystems and to deal effectively with challenges and problems that impact negatively on our environment.
6. To provide an understanding of the interaction between northern ecosystems and the native peoples living in them.
7. To provide the foundation for continued learning experiences.

ENTRANCE REQUIREMENTS

Academic:

Eligibility for admission to the program requires the applicant to meet one of the following four academic criteria:

1. High School

High School Graduation Certificate with a 60% overall average in the following (or equivalent):

- i. English (2 credits) (minimum 60%) from: 3201 or 3202
- ii. Mathematics (4 credits) chosen from:
 - Advanced: 2205, 3205 (50% minimum in each course)
 - OR
 - Academic: 2204 (50% minimum), 3204 (60% minimum)
- iii. Science - (4 credits) two of which must be chosen from:
 - Biology: 3201
 - Physics: 3204
 - Chemistry: 3202
 - Earth Systems: 3209
 - Environmental Science 3205

2. Comprehensive Arts and Science (CAS) Transition

Comprehensive Arts and Science (Transition) Certificate with the following courses:

- i. Math : MA1040, MA1041
- ii. Two Science courses chosen from two of the following three combinations:
 - a. Biology: BL1020, BL1021
 - b. Chemistry: CH1030, CH1031
 - c. Physics: PH1050, PH1051

Note: It is strongly recommended that CAS students who intend to enroll in the Fish and Wildlife, Forest Resources Technician, Natural Resources Technician or Northern Natural Resources Technician program complete BL1020 and BL1021. In addition, it is recommended that students who intend to enroll in the Environmental Technology program complete CH1030 and CH1031.

3. Adult Basic Education (ABE)

Adult Basic Education (Level III) Graduation with Degree and Technical Profile including the following courses (or equivalent):

- i. English 3101A, 3101B, 3101C or 3102A, 3102B, 3102C
- ii. Mathematics 1104A, 1104B, 1104C, 2104A, 2104B, 2104C, 3104A, 3104B, 3104C
- iii. Science from one of the following sections:
 - a. Biology 1101, 2101A, 2101B, 2101C, 3101A, 3101B, 3101C
 - b. Chemistry 1102, 2102A, 2102B, 2102C, 3102A, 3102B, 3102C
 - c. Physics 1104, 2104A, 2104B, 2104C, 3104A, 3104B, 3104C

Applicants with Adult Basic Education (Level III) Graduation with a different Profile (and appropriate grades) may be eligible for admission to the program provided the appropriate selection of courses including those outlined above have been completed.

4. Mature Student Status

Applicants who do not meet the entrance requirements, are 19 years of age or older, and have been out of school for at least one year may be considered on an individual basis under the Mature Student Clause.

SPECIAL REQUIREMENTS

Because of the extensive field exposure incorporated in this program, students will be required to obtain the following items: navigation compass, quality safety/hiking boots, rainwear, backpack, and other clothing and footwear appropriate for outdoor work in various seasonal conditions. Students will also be required to obtain a scientific calculator.

DIPLOMA

- Two years
- September 2012 start
- Happy Valley-Goose Bay Campus

COURSES

CODE	TITLE	Hrs/wk		
		Cr	Le	La
Semester 1				
BL1120	Biology I	3	2	3
CM1400	Technical Report Writing I	3	3	0
MA1000	Essential Mathematics	0	3	0
MC1150	Productivity Tools	4	3	2
SU1150	Field Navigation	3	2	3
EY2110	Basic Ecology	3	2	3
Semester 2				
BL1400	Fish and Wildlife Biology	4	3	2
CS2630	Wilderness Survival	1	1	1
EY1420	Northern Ecosystems	4	3	3
MA1100	Mathematics	5	4	2
SU1550	Remote Sensing	3	2	3
EN2120	Environmental Citizenship	3	3	0
Semester 3 (Intersession I)				
FR1330	Natural Resource Measurements I	3	2	3
RM1400	Wildlife Techniques I	4	3	2
AT1550	Wilderness Travel	3	2	2
OJ1180	On-the-job-training	3 wks		

The Course and Lab hours per week are based on a 15 week semester. In intersession, the Course and Lab hours will be adjusted to reflect the shorter semester length. Refer to course outline.

CODE	TITLE	Cr	Le	La
Semester 4				
CM1401	Technical Report Writing II	3	3	0
MA1670	Statistics	4	4	1
GE1120	Geology	3	2	3
RM1401	Wildlife Techniques II	3	2	2
RM1500	Fisheries Techniques I	4	3	2
EY1440	Traditional Ecology Knowledge	4	4	0
LW2210	Natural Resources Policy and Law	4	4	0

CODE	TITLE	Cr	Le	La
Semester 5				
FR1550	Environmental Impacts of Timber Harvesting	4	3	2
FR2350	Entomology/Pathology	3	2	3
GE1300	Soil Fundamentals	3	2	3
LW2211	Law Enforcement	4	3	2
SU3210	Geographic Information Systems	2	1	3
HR2200	Human Relations	2	1	2

CODE	TITLE	Cr	Le	La
Semester 6				
EY2200	Forest Ecology	3	2	3
RM1501	Fisheries Techniques II	3	2	2
RM2420	Habitat Management	3	2	2
OJ1181	On-the-job-training	3 wks		

The Course and Lab hours per week are based on a 15 week semester. In intersession, the Course and Lab hours will be adjusted to reflect the shorter semester length. Refer to course outline.

CERTIFICATIONS

In addition to the formal semester courses listed in the program of studies, students in the Northern Natural Resources Technician program are required to obtain certification in the following areas over the two-year period:

Canadian Firearm Safety Course/Hunter Education
 Pleasure Craft Operators Card
 Restricted Operators Certificate (Maritime) DSC Endorsement WHMIS/OHS
 Paddle Canada (Introduction to Lake Canoeing)
 Standard First Aid & CPR/AED
 Wilderness First Aid

Note: Students should be aware that additional fees and expenses apply for some of these certifications and for field camps, tours, and On-the-Job Training.