

BC GRADUATES



ARE GOOD
FOR BUSINESS

*A hiring guide for
employers in the
environmental
industry*



BC graduates have skills and knowledge to offer

This guide has been produced to help employers find the graduates they need to get the job done. Our graduates are part of a long tradition of caring and concern for the environment. They know our province's forests, our lakes and streams, our wildlife, our ocean.

British Columbia has a long history of concern for the environment. Our Forest Practices Code, Forest Renewal BC, Resources Inventory Committee and other standards are recognized internationally. The colleges, university colleges, universities and institutes of British Columbia are at the forefront of educating and training people to meet these high environmental standards. Our graduates are well-trained in using technologies and interdisciplinary approaches to protecting and restoring the environment.

Most courses include practical examples and case studies. Many of BC's environmental programs also include work experience where students take a hands-on approach. This can be in the form of a co-op education work term or a practicum.

Have a look at the directory of environmental programs contained in this booklet. You will be amazed at the breadth of offerings. From process technologies to sewage treatment, from impact assessment to environmentally responsible resource extraction—it's all here.

Co-op work experience

If you need an employee for a short period, why not consider hiring a student on a co-op education work term? If you're interested in sponsoring a practicum or hiring a co-op student, contact the environmental program at an institution near you.

Restoring riparian habitat next to a stream



We offer broad technical training in the physical, chemical and natural sciences and apply it to environmental management and understanding the effects of human activity on natural systems and the health of living organisms.

—Royal Roads University

What BC's environmental graduates can do for you

BC's environmental programs cover all areas of the environmental industry.

The categories in this booklet are used by the Canadian Council for Human Resources in the Environment Industry (CCHREI). There are three general areas: Environmental Protection (EP), Natural Resources Conservation (NRC), and Environmental Education, Communications and Research (EE/CR). There are two levels of graduates—technician/technologist and university-trained professional. The next section "Credentials of BC's environmental graduates" links credential type with level. For typical job titles, occupational profiles and national occupational standards, please consult CCHREI's website at <http://www.cchrei.ca/>

Environmental Protection (EP)

- Human and Environmental Health and Safety
- Air Quality Protection
- Water Quality Protection
- Land Quality Protection
- Integrated Environmental Management

Conservation and Preservation of Natural Resources (NRC)

- Fisheries and Wildlife Management
- Parks and Outdoor Recreation
- Forestry
- Agriculture
- Mining and Energy
- Integrated Natural Resources Management

Environmental Education, Communications and Research (CR)

- Environmental Education
- Environmental Communications
- Environmental Research
- Integrated Management for Environmental Education, Communications and Research



Monitoring dissolved oxygen levels in a creek

Graduates will be well-prepared to function as members of a multi-disciplinary team addressing environmental challenges faced by industry.

—British Columbia Institute of Technology

Credentials of BC's environmental graduates

ACADEMIC CREDENTIALS

The table on pages 4-10 identifies the level of education usually attached to the credentials for the various programs. For more information see the Ministry of Advanced Education and Training website. The graduates of BC's institutions offer a wide range of credentials to the workplace. The following list provides credential name, requirements, and level as well as some examples of academic degrees. Some programs do not receive funding from the province and are offered in response to local demand through continuing education departments (noted as CE in the table).

Certificate

One year post-secondary credit courses, or one year or less continuing education
Technician

Advanced Certificate

One year post-secondary prerequisites plus one year
Technician or Technologist

Diploma

Two years post-secondary credit courses
Technician or Technologist

Advanced Diploma

One year after a diploma
Technician or Technologist

University Transfer

Credit towards a Bachelor's degree
Pre-professional

Associate Degree

Two years post-secondary credit courses, university transfer
Pre-professional

Bachelor's Degree

Four years of post-secondary credit courses
Professional

Examples: Bachelor of Arts (B.A.), Bachelor of Science (B.Sc.), Bachelor of Applied Science (B.A.Sc.), Bachelor of Science in Forestry (B.S.F.), Bachelor of Technology (B.Tech.)

Post-Baccalaureate Certificate

One year after a degree
Professional

Post-Baccalaureate Diploma

Two years after a degree
Professional

Master's Degree

Two years after a Bachelor's degree
Professional

Examples: Master of Arts (M.A.), Master of Science (M.Sc.), Master of Science in Agriculture (M.Sc.Ag.), Master of Landscape Architecture (M.L.A.), Master of Resources Management (M.R.M.)

Doctorate

Three or four years after a Master's degree
Professional

PROFESSIONAL CREDENTIALS

Various professional associations grant credentials to individuals who have a combination of education and experience. A partial list follows.

Applied Science Technologist, **AScT**
Appraiser, **AACI**
BC Land Surveyor, **BCLS**
Registered Professional Biologist, **RPBio**
Canada Lands Surveyor, **CLS**
Certified Technician, **CTech**
Professional Agrologist, **P.Ag.**
Professional Engineer, **P.Eng.**
Professional Geologist, **P.Geo.**
Professional Quantity Surveyor, **P.Q.S.**
Registered Architect, **MAIBC**
Registered Professional Forester, **R.P.F.**

BC Environmental Programs

Related to Primary Specialty

British Columbia Institute of Technology

Credential	Program	EP	NRC	CR
Advanced Certificate	Environmental Management			▲
B.Tech.	Environmental Engineering Technology	▲		
B.Tech.	Environmental Health Technology	▲		
Diploma	Biological Sciences Technology: Food Technology	▲		
Diploma	Chemical Sciences Technology: Pulp and Paper Technology; Environmental Chemistry; Industrial Chemistry	▲		
Diploma	Civil and Structural Technology	▲		
Diploma	Mining Technology	▲		
Diploma	Renewable Resources Technology: Forest Technology (Forestry; Forest Engineering); Fish, Wildlife and Recreation		▲	

Camosun College

Credential	Program	EP	NRC	CR
Associate Degree	Arts—Geography		▲	
Associate Degree	Science—Biology		▲	
Certificate	Horticulture Technician		▲	
Certificate, Diploma	Civil Engineering Technology	▲		
Diploma	Applied Chemistry and Biochemistry	▲		
Diploma	Civil and Mining/Mineral Process Engineering Bridge	▲		
Diploma	Environmental Technology	▲		

Capilano College

Credential	Program	EP	NRC	CR
Certificate	Fish Culture Technician	▲		
Certificate	Fisheries Technician: Stream Rehabilitation	▲		
Certificate	Landscape Horticulture	▲		
Diploma	Outdoor Recreation Management		▲	
Post-Bacc. Diploma	Environmental Science		▲	
Post-Bacc. Diploma	Fisheries Science	▲		

College of New Caledonia

Credential	Program	EP	NRC	CR
Advanced Diploma	Geographic Information Systems Technology		▲	
Certificate	Renewable Resources Technical Assistant (CE)		▲	
Diploma	Forest Resource Technology		▲	
University Transfer	Forestry		▲	

EP=Environmental Protection; NRC=Natural Resources Conservation; CR=Environmental Education, Communications and Research

BC Environmental Programs

Related to Primary Specialty

College of the Rockies

Credential	Program	EP	NRC	CR
Certificate	Horticulture Technician—Fruit Crops		▲	

Douglas College

Credential	Program	EP	NRC	CR
Advanced Certificate	Habitat Restoration		▲	
Associate Degree	Arts—Environmental Studies			▲
Associate Degree	Science—Environmental Science		▲	

Kwantlen University College

Credential	Program	EP	NRC	CR
Apprenticeship	Practical Horticulture: Landscape; Production, Arboriculture/Urban Forestry		▲	
Certificate	Commercial Floristry		▲	
Certificate	Horticulture Technician: Greenhouse Vegetable Production; Landscape Maintenance; Garden Centre Retail		▲	
Diploma	Environmental Protection Technology	▲		
Diploma	Horticulture Technology: Landscape; Greenhouse and Nursery Production; Turf Management; General Horticultural Studies		▲	



Cleaning a settling pond at an aggregate mining operation

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BC Environmental Programs

Related to Primary Specialty

Langara College

Credential	Program	EP	NRC	CR
Associate Degree	Science—Ecology		▲	
Diploma	Arts and Science—Environmental Studies (interdisciplinary)			▲

Malaspina University College

Credential	Program	EP	NRC	CR
B.Sc.	Biology (Ecology)		▲	
B.Sc.	Fisheries and Aquaculture		▲	
Certificate	Horticulture Technician		▲	
Diploma	Fisheries and Aquaculture Technology		▲	
Diploma	Forestry Resource Technology		▲	
Diploma	Resource Management Officer Training		▲	
Individual Assessment	Aquaculture Extension Program (CE)		▲	

Nicola Valley Institute of Technology

Credential	Program	EP	NRC	CR
Certificate, Diploma	Natural Resource Technologies—Forestry		▲	
Certificate, Diploma	Natural Resource Technologies—Wildlife, Fisheries, Grasslands, Timber, Recreation Management (optional 3rd year)		▲	

North Island College

Credential	Program	EP	NRC	CR
Associate Degree	Arts—Environmental Studies			▲
Associate Degree	Science—Environmental Science			▲
Certificate	Aquaculture and Fisheries Technician		▲	
Certificate	Salmon Farm Technician		▲	
Diploma	Environmental Assessment Technology	▲		

Northern Lights College

Credential	Program	EP	NRC	CR
Certificate	Forestry Crew Person		▲	
Diploma	Forestry Technology (new for 2000/2001)		▲	
Diploma	Land and Resource Management (oil and gas)		▲	

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BC Environmental Programs

Related to Primary Specialty

Northwest Community College

Credential	Program	EP	NRC	CR
Associate Degree	Environmental Sciences			▲
Certificate	Natural Resources Program—Natural Resources Certificate		▲	
Certificate	Wilderness Guide		▲	
Diploma (Post Certificate)	Natural Resources Program: Coastal Integrated Resources Management; Forest Technology; Integrated Resources Management		▲	

Increasing biodiversity through plantings of native vegetation in logged areas



BC Environmental Programs

Related to Primary Specialty

Okanagan University College

Credential	Program	EP	NRC	CR
B.Sc.	Chemistry/Environmental Chemistry/Biology/Mathematical Sciences/Physics (Thematic Options)	▲		
B.Sc.	Freshwater Science		▲	
Diploma	Civil Engineering Technology	▲		
Diploma	Water Quality Technology: Waste and Waste Water Management; Environmental Monitoring	▲		

Open Learning Agency

Credential	Program	EP	NRC	CR
B.Sc.	Biology (Environmental Focus)		▲	

Royal Roads University

Credential	Program	EP	NRC	CR
B.Sc.	Environmental Science		▲	
M.A., M.Sc.	Environment and Management		▲	

Selkirk College

Credential	Program	EP	NRC	CR
Diploma	Integrated Environmental Planning Technology		▲	
Diploma	Renewable Resources Technology: Forestry; Recreation, Fish and Wildlife Technology		▲	

Simon Fraser University

Credential	Program	EP	NRC	CR
B.A.	Environmental Specialty (Joint Major with Economics)			▲
B.A.	Environmental Specialty (Major)			▲
B.A.	Geography			▲
B.Sc.	Earth Sciences		▲	
B.Sc.	Environmental Chemistry Minor	▲		
B.Sc.	Environmental Science: Biology; Chemistry; Environmetrics; Physical Geography; Pollutant Transport; Quantitative Techniques for Resource Management	▲	▲	
B.Sc.	Environmental Toxicology Minor	▲		
M.E.T.	Environmental Toxicology	▲		
M.R.M., M.R.M./ M.B.A Ph.D	Resources Management		▲	
M.Sc. (M.P.M.), Ph.D.	Pest Management		▲	
Post-Bacc. Diploma	Environmental Toxicology	▲		

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BC Environmental Programs

Related to Primary Specialty

UBC/Malaspina University College

Credential	Program	EP	NRC	CR
Post-Bacc. Diploma	Management of Aquaculture Systems		▲	

University of British Columbia

Credential	Program	EP	NRC	CR
B.A.	Environmental Studies (Honours)			▲
B.A.	Geography			▲
B.A.Sc.	Applied Science: Bio-Resource Engineering; Chemical Engineering; Civil Engineering (Environmental Option); Geological Engineering; Mining and Mineral Process Engineering	▲	▲	
B.E.D., B.H.E.	Community and the Environment			▲
B.S.F.	Forestry		▲	
B.Sc.	Biology: General Biology; Conservation Biology; Marine Biology; Plant Biology; Ecology and Environmental Biology; Animal Biology			▲
B.Sc.	Environmental Sciences (Honours)		▲	
B.Sc.	Forestry; Agriculture; Geography; Natural Resources Conservation; Wood Products Processing		▲	
B.Sc.Ag.	Global Resource Systems			▲
B.Sc.Ag., B.Sc.N.Sc.	Food, Nutrition and Health			▲
B.Sc.Ag., M.Sc.Ag., Ph.D.Ag	Agro-Ecology			▲
Certificate	Terrain Mapping (CE)		▲	
Certificate	Turfgrass Management (CE)		▲	
Certificate	Watershed Management (CE)		▲	
Diploma	Advanced Silviculture		▲	
Diploma	Forest Engineering		▲	
M.A.S.L.A.	Advanced Studies in Landscape Architecture			▲
M.Arch.	Architecture (Environmental)			▲
M.L.A.	Landscape Architecture; Community and the Environment			▲

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BC Environmental Programs

Related to Primary Specialty

University of Northern British Columbia

Credential	Program	EP	NRC	CR
B.A.	Environmental Studies			▲
B.Sc.	Environmental Planning			▲
B.Sc.	Environmental Science		▲	
B.Sc.	Natural Resources Management		▲	
M.Sc., M.A., M.N.R.E.S., Ph.D	Natural Resources and Environmental Studies		▲	

University of Victoria

Credential	Program	EP	NRC	CR
B.A., B.Sc., M.A.	Environmental Studies			▲
B.A., B.Sc., M.A., M.Sc., Ph.D.	Geography		▲	
B.Sc., M.Sc., Ph.D.	Biology		▲	
B.Sc., M.Sc., Ph.D.	Earth and Ocean Sciences		▲	
Certificate	Occupational and Environmental Health (CE)	▲		
Certificate, Diploma	Restoration of Natural Systems (CE)		▲	

University College of the Cariboo

Credential	Program	EP	NRC	CR
B.A.	Geography			▲
B.N.R.S.	Natural Resource Science		▲	
B.Sc.	Ecology and Environmental Biology; Animal Biology; General Biology; Environmental Chemistry; Chemistry		▲	
Certificate	Environmental Studies			▲
Certificate	Horticulture Technician		▲	
Diploma	Horticulture/Business		▲	
University Transfer	Forestry		▲	

University College of the Fraser Valley

Credential	Program	EP	NRC	CR
Certificate	Integrated Pest Management Technician		▲	
Certificate	Ornamental Horticulture Technician		▲	
Diploma	Agriculture Technology: Animal Production; Crop Production		▲	

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Yes, I would like to hire a BC environmental program graduate!

For more information about BC's post-secondary education system

- BC Council on Admissions and Transfer (BCCAT) <http://www.bccat.bc.ca/>
- BC Ministry of Advanced Education, Training and Technology (MAETT) <http://www.aett.gov.bc.ca/>

For more information about job titles and skills

- Canadian Council for Human Resources in the Environment Industry (CCHREI) <http://www.cchrei.ca/>

For more information about credentials

- BC Ministry of Advanced Education, Training and Technology (MAETT) <http://www.aett.gov.bc.ca/postsecguide/creden.htm>

For more information about the environmental programs offered by BC institutions

- Centre for Education Information, Opening Doors <http://www.openingdoorsbc.com/>

For information about college and institute students' outcomes

- Centre for Education Information <http://www.ceiss.org/>

For phone numbers and addresses of a particular institution

- BC Council on Admissions and Transfer <http://www.bccat.bc.ca/syst/systfs.htm>
- The Post-Secondary Application Service of BC http://www.pas.bc.ca/about_pse/links.htm

For more information about the environmental industry in British Columbia

- The Canadian Environmental Industry Association—BC Chapter <http://www.ceia-bc.com/>
- BC Ministry of Finance and Corporate Relations <http://www.fin.gov.bc.ca/>

To access an electronic version plus updates to this booklet

- Douglas College Centre for Environmental Studies and Urban Ecology <http://www.douglas.bc.ca/envcentre/index.html>
- Centre for Curriculum, Transfer and Technology <http://www.ctt.bc.ca>

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