



The Environmental Technician Certificate Program (ETCP) is designed to be delivered directly within communities, utilizing local environmental sites and conditions as the “classroom”. The ETCP courses and program are highly applied ‘hands-on’ training sessions, with field work, demonstrations, and/or field training taking place most days. The ETCP program has been accredited by the [College of Applied Biology](#), making it easier for students to obtain their ABT (Accredited Biological Technician) Designation. Vancouver Island University was one of the first ETCP programs developed in B.C. and provides the Full credentials for the ABT accreditation as other providers require supplementary training at an added cost to course participants or funding partners.

Class vs Field:

Will vary course-by-course. Approximately 3/4's of each course is field-based, 'hands on' training (weather dependent).

Objective:

The ETCP is designed to address the nation-wide need for certified, skilled aboriginal environmental field technicians. The ETCP will train practitioners in in-demand environmental monitoring skills and abilities required to assist: biologists, environmental technicians, engineers, hydrologists, and site restoration and environmental monitoring professionals.

The ETCP series is comprised of a series of 1-week courses:

- Land Monitoring Skills (5 days)
- Water Monitoring Skills (5 days)
- Construction Site Monitoring Skills (5 days)
- Fish and Fish Habitat Monitoring Skills (5 days)
- Essential Environmental Skills (5 days)

The daily delivery format is typically an 8-hour session, with most days involving field training sessions. Classroom and field sessions typically run from 9am -5pm respectively. Longer field sessions are common when extensive travel to field sites is involved.



The five (5) week modules are summarized below:

Essential Environmental Skills

An applied review of key or 'core' environmental employment skills. Upon successful completion, students will be able to:

- Identify roles and responsibilities for environmental monitoring crews
- Conduct standard safety operations and procedures
- Identify and compare environmental monitoring field activities
- Identify personal traits of an environmental monitor
- Conduct effective journal entry, data recording, and data management
- Design, set-up and manage a photo point monitoring station
- Design and conduct effective data recording techniques
- Conduct standard use of key field equipment: Elson tape, clinometers, Abney level, laser range finder, electronic scale
- Identify and conduct standard measuring and sampling techniques
- Navigate using standard navigation tools (compass, GPS, maps)
- Map and interpret project data
- Identify Project Planning phases
- Design and budget for environmental field programs
- Identify standards for Professional conduct
- Conduct field communication procedures

Land Monitoring Skills

An applied review of standard vegetation, soil, and wildlife sampling and monitoring field skills. Upon successful completion, students will be able to:

- Identify and conduct standard measuring and sampling techniques
- Navigate using standard navigation tools (compass, GPS, maps)
- Map and interpret project data
- Conduct standard safety operations and procedures
- Compare types of vegetation surveys
- Identify vegetation types (e.g., plants, trees) in the field
- Conduct vegetation survey methods
- Describe the purpose for collecting soil samples
- Identify soil sampling sites in the field
- Record accurate site information to assist with soil sampling
- Classify soil through observation and field procedures
- Identify the purpose of wildlife surveys
- Identify and describe wildlife survey sites in the field
- Record accurate site information to assist with wildlife surveys
- Describe wildlife survey methods
- Design and conduct a wildlife survey



Water Monitoring Skills

An applied review of standard stream habitat measurement and assessment, water quality surveying, sediment and invertebrate sampling field procedures. Upon successful completion, students will be able to:

- Define the main principles in monitoring freshwater habitats
- Identify standard water quality parameters
- Identify and operate freshwater sampling equipment
- Conduct proper calibration methods of sampling equipment
- Sample effluents, streams and lakes safely and accurately
- Record water quality data precisely and accurately
- Define and contrast types of water sampling field equipment
- Maintain and operate water quality sampling equipment
- Define safety considerations
- Conduct standard field sampling methods
- Demonstrate proper use of field measurement equipment
- Conduct standard stream measurement field procedures
- Maintain and operate stream measurement sampling equipment
- Conduct safe wading procedures
- Conduct water velocity and stream discharge procedures
- Identify and describe lake and stream bottom sediment sampling sites
- Record accurate site information to assist with interpreting sample data
- Operate and maintain lake and stream bottom sediment samplers
- Collect lake and stream bottom sediment samples
- Identify and compare aquatic insects and their lifecycle
- Maintain and operate aquatic sampling equipment
- Conduct an invertebrate sampling program
- Design an invertebrate sampling program
- Collect, interpret and manage field data



Fish and Fish Habitat Monitoring Skills

An applied review of standard fisheries field monitoring skills, including electrofishing, fish habitat assessment, water quality sampling, fish inventory methods, and fish population monitoring. Upon successful completion, students will be able to:

- Conduct standard safety operations and procedures
- Identify fish habitat requirements
- Identify fish habitats in the field
- Conduct fish identification using fish identification guides and keys
- Identify freshwater fishes (varies by course location)
- Conduct biological sampling
- Maintain and operate biological sampling equipment
- Collect and record biological data
- Define and compare juvenile fish inventory methods
- Conduct standard minnow trapping procedures
- Conduct standard pole seining procedures
- Conduct standard electrofishing procedures
- Conduct fish population estimation procedures
- Calculate basic population estimates
- Complete fish collection data requirements
- Conduct and practice safe wading procedures
- Respond appropriately to a potentially dangerous electrofishing incident
- Conduct a safe and efficient electrofishing session



Construction Site Monitoring Skills

An applied review of standard environmental monitoring field skills, including site planning, erosion control, in-water construction and environmental project field skills. Upon successful completion, students will be able to:

- Conduct standard safety operations and procedures
- Contrast phases of environmental construction projects
- Compare phases of monitoring environmental construction projects
- Conduct standard environmental planning field measurements
- Identify key environmental legislation
- Conduct water quality sampling techniques
- Read and interpret Engineering and environmental construction plans
- Identify and compare standard Erosion Control techniques and procedures
- Install temporary and permanent erosion control structures
- Identify and conduct Dry Worksite Isolation Techniques
- Identify, select, and operate pumps
- Determine pump size, total head required
- Identify In-stream sediment control techniques
- Manage and plan timing windows and construction schedule requirements
- Report for environmental monitoring programs
- Maintain and operate on-site equipment
- Install temporary and permanent erosion control structures
- Identify spill response procedures
- Design communication plans and protocols, reports, and
- Identify and conduct key project management and safety procedures



Student Equipment

NREP provides all field and classroom-related supplies and equipment including course manuals, electrofisher unit(s) and accessories, dip-nets, linesman gloves, biological sampling and fish inventory equipment, and associated field equipment.

Participants must supply their own personal field gear and clothing. Equipment required will vary course-by course:

Mandatory items include:

- appropriate field work clothing (note: Please avoid tight-fitting jeans and consider bringing extra socks and a second pair of pants)
- sturdy footwear,
- raingear,
- work gloves,
- Field vest/ Hi-vis vest,
- Bag lunch and beverage (each day)

For the 'Fish and Fish Habitat Assessment' and/or 'Water Monitoring' Skills module(s):

- leak-proof chest waders (rubber, nylon, or neoprene) with non-slip footwear (e.g., felt or cleated soles),
- brimmed hat (e.g., baseball hat),
- Wading belt and polarized sunglasses

Quote

This budget quote is based on a delivery model of 5 consecutive weeks. Our costs include: student manuals, course equipment, instructor costs (wage, travel, accommodations, etc...)

NREP is not responsible for venue booking or student transportation to field sites.

Cohort Size	Cost per Student	Total Program Cost
Minimum 8 students	\$5,000.00	\$40,000.00
Maximum 14 students	\$5,000.00	\$70,000.00

We always work towards delivering the course to the Full Cohort of 14 individuals but will work with the community to fill seats should the number be lower than the anticipated 14 students.





TESTIMONIALS

NREP instructors are very knowledgeable and experienced and go above and beyond to ensure their students receive the best education. The Environmental Monitoring program left a great impression on our clients.

Frances Campbell, PTP ASEP Training Society, Terrace, BC

I thoroughly loved the course where we had hands on outside in the field! The instruction was excellent too. I really would like to take more short NREP courses that will enhance my employment position.

Cindy Collins, First Nation Referral Officer, Matsqui, BC

I attended the ETCP in 2014. This training was a wonderful learning experience that greatly benefited both my education and career. I have, and will continue to, recommend this training to everyone I work with because I found the content effectively delivered by the instructors. By far, this was one of the greatest training I endured—direct hand-on practices and strong directions. I guarantee that each person will walk away from this training having learnt important environmental strategies and having added a valuable asset to their resume.

Ariel Swayze, University Student, Merritt, BC

Our communities partnered with NREP in 2011 to deliver an ETCP training course for 18 students. The instructors were extremely friendly, knowledgeable on all subjects and we received great feedback from the Students once the course was completed. If the opportunity were to arise, we would definitely partner with VIU again for another ETCP Training Program!

Suzanne Ellis, Corporate Secretary, Seven Generations Environmental Services, Chilliwack, BC

I really enjoyed the hands-on training. Darren was very great, and treated everyone with the utmost respect.

Morgan Douse, Technician, Gitanyow Fisheries, Terrace BC

Great course and instructors! All instructors are knowledgeable, enthusiastic and encouraging.

JoAnne Fisher, Lands Manager, Ktunaxa Nation Council, Cranbrook BC

Very practical course, great instructor. One of the best courses I've ever taken.

Matt Joyce, Simon Fraser University grad student, Vancouver, BC



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All of the instructors teaching this course were top notch! They each brought in their own set of skills and worked well with one another to ensure all the students were involved in the learning process. They were knowledgeable, friendly, passionate, and very approachable. The course material was fantastic and the flow of the entire program from in class theory to hands on field work was perfect. This is easily one of the best courses I've ever taken and have recommended it to a number of my peers. I learned more in this course than I did in many of my undergraduate classes, I wouldn't change a thing about it!

Brian Titaro, Conservation Technician, Vancouver, BC