Unitar Online Catalogue

CIFAL Victoria - The Certificate in Restoration of Natural Systems

People

Date limite: 1 Aug 2025

Type:	Course
Emplacement:	Web-based
Date:	1 mai 2025 to 30 déc 2025
Durée:	36 Hours
Domaine du programme:	Decentralize Cooperation Programme
Site internet:	https://www.uvic.ca/about-uvic/cifal/index.php
Prix:	0.00 $US
Email du point focal de l'événement:	cifalcommunications@uvic.ca
Partenariat:	CIFAL Victoria, , University of Victoria

CONTEXTE

The Restoration of Natural Systems (RNS) certificate is a dynamic, interdisciplinary, non-credit program that provides comprehensive knowledge and skills to those interested in the field of ecological restoration. You'll learn current restoration practices from experienced and knowledgeable instructors, surrounded by peers who share your passion for the natural world.

Similar to the RNS diploma, this certificate program emphasizes a holistic approach, providing training that combines the research and theory of the biophysical sciences with skills for effective collaboration with communities in restoration work. The certificate is designed to provide foundational skills that will give you the ability to assess a site, develop a restoration plan and put it into action. If you need these skills, and already have a credential in a related field then this program is a good fit. If you are looking for foundational skills with the option of more elective courses with a stand-alone credential, visit the RNS diploma program.

This program is supported by a unique partnership between the School of Environmental Studies and the Division of Continuing Studies, resulting in expertly designed courses that are current, comprehensive and delivered with attention to the needs of adult learners. Achieve your goals at your own pace with online and on campus course options and flexible program completion timelines.

The RNS program has received both the Award of Excellence from the Canadian Association for University Continuing Education (2001) and the Ecostar Award for Environmental Education from the Capital Regional District (2005).

Program features

- A holistic approach to ecological restoration
- Flexible program completion timelines
- Combination of on-campus intensive and online course formats
- Courses instructed by restoration professionals
- Different perspectives come together as part of a shared vision
- A recognized university credential for professionals

OBJECTIFS DU COURS

Knowing where we are headed, from an ecological standpoint, requires an understanding of environmental impacts and recovery strategies. The Restoration of Natural Systems program provides a bridge that connects this knowledge with the practical skills needed to solve complex restoration issues. The program’s holistic approach will empower you, as someone who is passionate about the

environment, to make a difference in how we connect with the natural world.

OBJECTIFS D'APPRENTISSAGE

By the end of the program, students will be able to:

- Design and evaluate restoration projects in a broad range of subject areas
- Use scientifically rigorous approaches to restoration projects
- Interpret technical reports and scientific publications
- Identify and understand the decisions and policies governing restoration work
- Apply research methodologies to restoration projects
- Use current mapping and sampling technologies
- Solve problems encountered in implementing restoration projects including dispute resolution, conducting consultative processes, and building consensus
- Understand issues of national and international restoration
- Take human impacts into consideration when analyzing and designing restoration projects
- Incorporate traditional ecological knowledge in restoration planning where appropriate
- Communicate knowledge about restoration projects to the wider public

CONTENU ET STRUCTURE

Structure

Online Asynchronous delivery style over a 13-week period for each course, requiring approximately 10 hours of coursework per week, or 5-day in-person intensive class at the University of Victoria (potential field visits)

Content

Six (6) required courses:

1. **ER 313: Biodiversity and Conservation Biology**

This course gives students an understanding of biodiversity and conservation biology as scientific disciplines whose aims are to reduce impacts of human activities on biological diversity. We'll explore the following topics: the history and subject matter of conservation biology, including a discussion of the scientific approach to understanding the world; what biodiversity is, where it's found and how it arises; values of biodiversity including economic, ethical and ecological perspectives; important basic principles of ecology as well as how these principles are used to design conservation projects and understand population biology processes and patterns (especially for small and endangered populations); the status of biodiversity and the impacts of current threats such as habitat destruction, introduction of exotic species, spread of disease and over exploitation.

We'll also look at possible human interventions for stemming the loss of biodiversity including creating and maintaining protected areas, restoration and species recovery strategies, laws, policies and programs.

2. **ER 390: Environmental Restoration Project**

This course involves a planning and participating in a real restoration project. The project is usually done in partnership with a community group, government department or industry partner. If you are working in a related field, the project can be based on activities for your job with prior approval from the Academic Director.

Your ER390 project is one of the key components of your Restoration of Natural Systems Diploma. It is an independently led, hands-on restoration project that you will conduct (generally) in close coordination with a community partner over a maximum of three terms. Each ER390 project is uniquely tailored to the needs of the student and partner.

The final project brings together the knowledge and skills you acquired through the program and applies these to a real restoration situation in your area of

specialization. It should reinforce and grow what you have learned. The project has three main goals:

To demonstrate a positive contribution by you to ecological restoration; To give you a final opportunity to develop a desired professional skill and make professional connections; To provide a written report that provides a record of your work from which future students and the public can learn.

3. **ER 314: Ethical, Legal, and Policy Aspects of Environment Restoration**

Environmental restoration is a value-laden activity. It takes place within a societal framework of ethics, laws and politics. Ethics influence which actions are considered appropriate by society, while laws determine what is legally required or permissible and policies govern how things are done. What is ecologically desirable is not always socially acceptable.

This course considers the philosophy and ethics of restoration and introduces the legal and policy frameworks in which environmental restoration takes place, and which play a critical role in dealing with the practical issues of carrying out a restoration project.

4. **ER 312A: Field Study in Ecological Restoration I**

This course is meant to introduce you to a range of basic techniques for field study. You will learn some basic methodologies commonly used in the field of ecological restoration including: surveying methods; vegetation sampling methods; soil sampling; monitoring techniques; documenting field work.

As this is a course on field techniques, we will spend a lot of time outdoors, both on campus and at several field locations in the Victoria area.

5. **ER 312B: Field Study in Ecological Restoration**

This is an advanced field study course involving ecosystem mapping and detailed site evaluation (prescription). The first two mornings will be spent in the classroom, but the course will largely be taught in the field at sites on Royal Roads/DND lands.

The course involves: identifying standard plant species cover; creating physical site descriptions; recognizing natural boundaries on air photos and on the ground; identifying features related to slope stability; recognizing critical clues to ecological processes that either limit or are critical to the functioning of an ecosystem (e.g. wildlife trees).

An important focus is to observe and recognize successional patterns as clues to restoration strategies.

6. **ER 311: Principles and Concepts of Ecological Restoration**

This course introduces you to the practice of ecological restoration. We'll start by examining the physical and biological characteristics of ecosystems as well as the need to maintain and restore them. We'll also examine natural and human-caused changes, at ecosystem to species levels, while considering the philosophy and ethics of restoration within legal and policy frameworks.

This course also introduces you to the process and techniques of assessing ecosystems and developing recommendations. In addition, you'll develop your ability to combine and analyze factual scientific analysis of ecosystems in the context of human values and needs.

The emphasis is on examples from British Columbia but the approach applies to issues around the globe.

And one (1) elective course:

1. Advanced Principles & Concepts of Ecological Restoration
2. Ecorestoration Strategies: Case Studies
3. Ecosystems of British Columbia, Canada, and the World

4. Fire Ecology
5. Forest Restoration and Sustainable Forestry
6. Galiano Island Field Study
7. Methods in Adaptive Management for Ecological Restoration
8. Mining Reclamation
9. Non-Timber Forest Management and Sustainable Use by Major Forest Zones in BC
10. Restoration of Freshwater Aquatic Systems
11. Restoration of Marine Aquatic Systems
12. Science Communication for Ecological Restoration
13. Selection and Propagation of Native Plants for Ecological Restoration
14. Soil Conservation and Restoration
15. Special Topics in Environmental Restoration
16. Special Topics in Environmental Restoration: Climate Change in Ecological Restoration
17. Traditional Systems of Land and Resource Management
18. Urban Restoration and Sustainable Agricultural Systems

MÉTHODOLOGIE

The RNS program engages professional learners with academics and sector experts in the field. Participants will receive regular feedback throughout their learning, and will have multiple avenues to submit evaluative feedback formally and informally during and after their learning experience. Assessment will be hands-on and applicable to real-world use, allowing learners to easily transition their classroom experience to a professional context. Learner assessments will follow standard University undergraduate grading guidelines.

AUDIENCE CIBLE

The RNS certificate program will appeal to those who:

- are interested in a career in environmental conservation and restoration
- want specific information relevant to their environmental or planning work

- want to complement a degree in a related field with foundational skills and specialized knowledge

Some of our learners pursue careers in the following roles:

- Environmental Consultant
- Restoration Specialist
- Parks Employee (Municipal, Regional, Provincial, National)
- Provincial Government Employee
- Environmental Organization/Not-For-Profit Employee
- Environmental Project Coordinator
- Graduate Student