Unitar Online Catalogue

CIFAL Victoria - Ecological Restoration Professional Specialization Certificate (PSC)

People

Plazo: 30 Sep 2025

Tipo:	Course
Ubicación:	Web-based
Fecha:	1 Sep 2025 to 1 Oct 2025
Duración:	39 Hours
Área del programa:	Decentralize Cooperation Programme
Sitio web:	https://continuingstudies.uvic.ca/science-and-the-environment/programs/ecologic…
Precio:	0,00 US$
Correo Electrónico del Centro de Coordinación del Evento:	cifalcommunications@uvic.ca
Colaboración:	CIFAL Victoria

ANTECEDENTES

The Ecological Restoration program offers specialized training in high-level ecosystem functioning and is designed for practitioners working in restoration and related environmental fields that see problems with current practices and

want to investigate alternative and innovative solutions. This program develops critical thinking skills and asks challenging questions that require students to deal with the uncertainty that is present with problems in ecological restoration.

Upon completion of this program, students will be able to conduct detailed site assessments and restoration projects that pay special attention to the unique conditions and challenges presented by built and otherwise highly altered environments.

Courses in the certificate are offered online, appealing to professionals from across North America as a means to meet their annual professional development requirements or to update their skills and understanding.

OBJETIVOS DEL EVENTO

The Ecological Restoration (ER) professional specialization certificate program provides advanced ecology training for professionals working in the environmental sector. The courses will prepare participants to conduct site assessments and restoration projects with special attention to the unique challenges presented by altered environments.

OBJETIVOS DEL APRENDIZAJE

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

- incorporate native species into design
- use an ecosystems approach in planning and designing restoration activities
- develop restoration prescriptions patterned on natural processes
- understand urban ecosystems and the urban/rural interface
- practice and plan for invasive species control and management
- incorporate plant propagation techniques into restoration project design

CONTENIDO Y ESTRUCTURA

Structure

Online Asynchronous delivery style over a 13-week period, requiring approximately 10 hours of coursework per week.

Content

Completion of four (4) courses, selected from five (5) course options:

1. **ER 501: Design Principles for Natural Processes**

Ecological restoration is a rapidly changing subject. Practitioners and professionals faced with restoration of degraded ecosystems are seeking ways to restore these systems in the face of climate change and continued urban expansion.

The traditional values and assumptions that have gone along with developments are no longer holding true. Answering the questions faced by restoration professionals requires exploring a new approach to the field of restoration. New questions need to be asked and answered as restoration takes on a much broader role in the world.

This course aims to address these new challenges to traditional reclamation and restoration by identifying natural processes involved in maintaining ecosystems and how they are recreated in restoration projects. It also addresses the element of design where a particular restoration project accommodates special requirements.

2. **ER 502: Ecosystem Design through Propagation of Native Plants**

   This is an advanced course on ecosystem design that considers the ecology and reproductive biology of plants when restoring ecosystems. In this course, we'll examine the principles and ethics of native plant selection, harvesting and propagation to meet site-specific design objectives such as which species need to be closely matched genetically (geographically) for

the propagated stock. Other course topics include: pollinators;

peripheral populations

dispersal agents

hybridization.

We'll also explore the implications for green or living roofs and the impact of climate change.

The course includes an overview of the goals and foundations of ecological restoration and how restoration nurseries grow appropriate restoration species.

3. **ER 503: Restoration Ecology**

   This course provides advanced instruction on the ecological theory underlying restoration projects, emphasizing the unexpected connections that can have significant implications. The material in this course falls into two broad themes: ecological foundations: applications of ecology to advance restoration ecological practice; using restoration to solve a problem in ecology.

4. **ER 504: Invasive Species and Novel Ecosystems**

   Invasive species are highly successful species often dispersed by people, frequently transported by commercial or recreational activities. In this course we'll examine the biology of invasive species, focusing on the life-history adaptations and dispersal strategies that contribute to their success at both the individual and population levels.

   Upon completing the course, you'll be able to: identify common invasive species; describe their distributions, life cycles, growth habits, reproductive characteristics and adaptation.

   You'll also learn about control options including preventative, cultural, biological and chemical control methods.

Finally, you'll explore novel ecosystems that are created when invasive species insert themselves into the fabric of natural ecosystems, and the problems they pose to traditional approaches to ecosystem management such as when an endangered species becomes dependent on an invasive species for its survival.

5. **ER 505: Climate Change in Ecological Restoration**

   Climate change has many implications for how we conceptualize and practice ecological restoration. In this new online course, you will explore how climate change can impact the direction of restoration activities through course activities and exploration of current literature.

METODOLOGÍA

The ER program engages professional learners with academics and sector experts in the field. Participants 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.

PÚBLICO OBJETIVO

This program has been designed for professionals who are working in the fields of:

- ecological restoration
- environmental practice
- biology
- landscape architecture
- landscape design and management

- forestry
- agrology

Some of our learners pursue careers in the following roles:

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