Welcome
Ecological restoration is increasingly relied on as a conservation strategy in Minnesota. In order to increase project success rates, the Ecological Restoration Training Cooperative has developed five online restoration courses that teach practical in-field applications, as well as the theory behind the practice, for specific aspects of restoration.

Who Should Participate
With a goal of promoting best practices in ecological restoration, this training series is targeted at early career professionals, but even well-seasoned practitioners will benefit from the depth of the content.

Instructors
Susan M. Galatowitsch, Professor/Head, Department of Fisheries, Wildlife & Conservation Biology, University of Minnesota
Julia Bohnen, research fellow, Department of Fisheries, Wildlife & Conservation Biology, University of Minnesota

SITE ASSESSMENT AND SETTING RESTORATION GOALS (Required)
Two sessions scheduled, Fall 2015 and Spring 2016
August 24–September 27, 2015
January 4–February 7, 2016
This required introductory course will simulate the initial steps of planning a restoration project, from gathering background information to collecting relevant data, and then use the information gathered to formulate restoration goals. This course covers how to assess the ecological condition of degraded sites, diagnose the restoration needs of a site prior to restoration, and plan meaningful project goals. This course is a prerequisite to each of the other four courses.

DESIGNING AND USING NATIVE SEED MIXES
Two sessions scheduled, Fall 2015 and Spring 2016
September 28–November 8, 2015
February 8–March 20, 2016
Many ecological restoration projects rely on revegetation from seed. This course discusses successful steps for designing and implementing a seed mix, from choosing appropriate species to preparing the planting site. This course covers how to: assess the need to seed, use seed biology to make practical decisions about seeding projects, design seed mixes, acquire and store seeds, prepare sites and seeds for sowing, seed a restoration site, and manage a site after sowing to promote vegetation establishment. *Field Training Sessions included.

MONITORING ECOLOGICAL RESTORATIONS
Two sessions scheduled, Fall 2015 and Spring 2016
September 28–November 8, 2015
February 8–March 20, 2016
Monitoring is necessary for evaluating the effectiveness of restoration actions. Learn how to design an efficient and effective monitoring program that yields information helpful for ongoing restoration management decisions and problem solving. This course covers how to select monitoring parameters, develop monitoring protocols, monitor implementation and quality control, summarize and visualize data, analyze data, and keep records.

DESIGNING, INSTALLING, AND MANAGING NATIVE PLANTINGS
Two sessions scheduled, Fall 2015 and Spring 2016
November 9–December 20, 2015
March 21–May 1, 2016
Ecological restorations of small sites often rely primarily on installing plants to restore the desired native vegetation. Even large sites, which are typically seeded, may be supplemented with plantings. This course covers how to assess the need to plant, design a planting and select species, choose planting stock, create a planting plan, prepare to plant, plant a restoration site, and manage a planting.

VEGETATION MANAGEMENT FOR RESTORED ECOSYSTEMS
Two sessions scheduled, Fall 2015 and Spring 2016
November 9–December 20, 2015
March 21–May 1, 2016
Restored and degraded ecosystems may take many years to recover. During that time, they need ongoing management. Techniques used in two broad categories of management strategies for restorations: reestablishing natural disturbances and controlling invasive species will be presented. This course covers: disturbances and introduced species as management priorities, nonchemical management techniques, vegetation management with herbicides, and long-term management of prairies, forests, and wetlands. *Field Training Sessions Included.

Welcome to the Ecological Restoration Training Cooperative! The Ecological Restoration Training Cooperative was established in 2011 to provide training opportunities for both professionals and community members who would like to enhance their restoration skills and knowledge. The Training Cooperative provides opportunities to learn from the best available knowledge from research and practice via online courses and training, webinars, workshops, resources, and discussion forum on the Practitioner’s Network.
Time Commitment
It takes most students 25–30 hours, including reviewing resource materials and completing assignments, and a final exam. All requirements must be completed by the last day of the registration period to receive continuing education credit.

Course Deadlines
The courses include recommended deadlines for submitting assignments. If you submit your assignments by the recommended deadline, you’ll know which questions you didn’t answer correctly in time to try again.

Professional Credit
Each course has been approved for 3.0 Continuing Education Credits (CEUs) and 30 Professional Development Hours (PDHs). A CEU certificate will be sent to each participant after the course is taken. The University of Minnesota maintains a permanent record of CEUs earned.

Registration and Fees
Your registration includes access to the course for five weeks and a CEU certificate upon completion of the course. Each course costs $395.

How to Register
Online registration is available on the website at www.restoringminnesota.umn.edu.

For Further Information
Katherine Hagberg
University of Minnesota
612-624-4230
cceconf3@umn.edu

Online Training
For those of you who avoid online courses because they don’t seem like a great way to learn — give these a try! These online courses have been designed to be interactive and as “real world” as possible. This means you’ll be able to visit warm, sunny field sites even when it is 20 degrees below. How bad can that be? All courses will be delivered online and each course will have a specific start and end date.

Sponsored by:

College of Food, Agricultural and Natural Resources Sciences
University of Minnesota

College of Continuing Education
University of Minnesota

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Project Partners:

Minnesota Department of Natural Resources

Minnesota Department of Transportation

Minnesota Board of Water and Soil Resources