Our Changing Ecosystems
Restoration, Climate Change, and Biodiversity,
grades 9–12

PROGRAM OBJECTIVES

- Students will learn how ecological restoration increases biodiversity in managed ecosystems and how climate change influences our restoration practices.
- If a long day component is added, students will participate in the practice of land care management.

PROGRAM DETAILS

Length: 1.5–4 hours
Grade level: 9–12
Season: All
Student to naturalist ratio: 15:1

PROGRAM ACTIVITIES

- Collect and research ecosystem data to understand community dynamics.
- Compare restored to non-restored lands.
- Observe consequences of climate change on natural systems.
- Discuss scenarios in which weather changes can change the landscape.
- Analyze Arboretum phenological records, past and present.
- Create a systems map, identifying how parts of the system are connected.
- Remove invasive species, collect seeds, and/or seed a site (long day component).

STANDARDS ADDRESSED

- Wisconsin Standards for Environmental Literacy and Sustainability
  - ELS.EX2.B.h
  - ELS.EX3.B.h
  - ELS.EX5.B.h
  - ELS.EN7.C.h
- Wisconsin Standards for Science
  - SCI.LS2.C.h
- Next Generation Science Standards
  - HS-LS2-6

WORK PARTY

- Students will participate in a land care volunteer project for 1–1.5 hours.
- A lunch or snack break will be scheduled between the learning segment and volunteer segment.
• Students must come dressed in long pants, long sleeves, and closed-toed shoes.
• Students are expected to follow all UW–Madison Arboretum safety protocols.
• The project will vary depending on the season.
• This portion of the field trip will be canceled in bad weather.
• The cost of this is the same as a two-hour field trip.
• Maximum number of students: 30.