

ECOSYSTEM SCIENCE AND RESTORATION

Bachelor of Science in Ecosystem Science and Restoration

Ecological restoration is the process of assisting in the repair of damaged ecosystems. It is one of the fastest growing areas of natural resource management. With increasing interest, there is a corresponding need for trained professionals who understand not only the science of restoration ecology but also the management practices and social factors that lead to successful project implementation. The W.A Franke College of Forestry and Conservation offers a Bachelor of Science and a minor in Ecosystem Science and Restoration. For more information see the Ecosystem Science and Restoration website (<http://www.cfc.umt.edu/undergrad/restoration/default.php>).

Degree Concentrations

Bachelor of Science in Ecosystem Science and Restoration (Aquatic and Terrestrial Concentrations)

The major in Ecosystem Science and Restoration prepares students to tackle the complex challenges associated with repairing degraded ecosystems. Students select one of two concentrations:

- the *Terrestrial Concentration*, which focuses on restoration of forests, grasslands, and other terrestrial ecosystems; or
- the *Aquatic Concentration* which focuses on stream, wetland, and groundwater restoration.

Both concentrations provide in-depth training in the science of restoration ecology and the management activities and human dimensions of restoration practice. Students engage in field-based learning, contribute to cutting-edge restoration projects, and are challenged to apply ecological theory to restoration practice. The major requires completion of a nine-credit restoration capstone, during which students gain hands-on real-world experience planning and implementing restoration projects in partnership with natural resource management agencies and organizations in western Montana.

A degree in Ecosystem Science and Restoration prepares students for careers as restoration practitioners with non-profit, private, or governmental agencies and for graduate school in ecology or natural resource management. Students who graduate with this major may qualify for the following federal civil service jobs:

- biological technician (Series 0404),
- ecologist (Series GS-408),
- forester (Series G-0460),
- hydrologist (Series GS-1315),
- range technician (Series GS-0455), and
- soil conservationist (Series GS-0457).

More information can be found on the federal civil service requirements website (<http://www.opm.gov/qualifications/standards/indexes/alpha-ndx.asp>).

Minor in Ecological Restoration

In addition to the major, the Ecosystem Science and Restoration program also offers a minor for students who wish to gain basic competency in restoration while pursuing another UM major.

Undergraduate

- Ecological Sciences & Restoration B.S., Aquatic Ecosystem Sciences and Restoration Concentration (<http://catalog.umt.edu/past-catalogs/2017-2018/colleges-schools-programs/forestry-conservation/ecosystem-science-restoration/bs-ecosystem-science-restoration-aquatic>)
- Ecological Sciences & Restoration B.S., Terrestrial Ecosystem Sciences and Restoration Concentration (<http://catalog.umt.edu/past-catalogs/2017-2018/colleges-schools-programs/forestry-conservation/ecosystem-science-restoration/bs-ecosystem-science-restoration-terrestrial>)

Undergraduate Minors

- Ecological Restoration (<http://catalog.umt.edu/past-catalogs/2017-2018/colleges-schools-programs/forestry-conservation/ecosystem-science-restoration/minor-ecological-restoration>)