ECOLOGICAL ANALYSIS

The Graduate Certificate in Ecological Analysis equips graduate students and working professionals in ecological research and natural resources management with essential applied skills in ecological data analysis. Focused on the unique analytical tools and techniques required for understanding ecological systems, the coursework provides students with knowledge of relevant statistical methods and advanced programming skills in R. Students also gain hands-on experience in advanced statistical analysis and modeling using ecological data. The program is offered asynchronously online during the fall and spring semesters, and while it is designed to be completed in one year, students have up to five years from initial enrollment to finish.

Program Benefits

The Graduate Certificate in Ecological Analysis allows participants to gain relevant quantitative ecological data analysis skills and experience. These skills are required to monitor ecosystem conditions, identify trends, make predictions, and evaluate the impacts of environmental changes or management actions. With the ability to analyze complex ecological data, they can develop evidence-based strategies for conservation and resource management. Moreover, data analysis enhances their ability to communicate findings effectively to policymakers, stakeholders, and the public, ensuring that ecological decisions are grounded in solid scientific evidence.

Admission Requirements

Admission Overview: An undergraduate degree in Ecology or related program from a regionally accredited college or university. Completed undergraduate coursework should include algebra and introductory statistics with a grade of at least B-. Applications will be holistically reviewed by the M.S. in Ecology review committee to ensure appropriate placement and student success based on past achievement and potential. Applicants should submit the following materials:

Academic Transcripts

- Submit official or unofficial transcripts from a regionally accredited college or university. Unofficial transcripts may be uploaded to expedite application review; however, official undergraduate transcripts will be required for formal acceptance. A minimum undergraduate GPA of 3.0 on a 4.0 scale

Professional Resume

- The professional resume should be up-to-date and highlight education and relevant work experience.

Personal Statement

- The professional statement should outline interest in the certificate, applicant goals, and experiences.

Program Requirements

12 credits are required, including:

Code	Title	Credits
BIOL 601		3
BIOL 602		3
BIOL 603		3
BIOL 604		3
Total Credits		**12**