- Environmental Impact Assessment and Risk Analysis
- Ecological Restoration Planning and Implementation
- Sample Design ς Statistical Analyses
- Quantitative Literacy ς Data Visualization and Communication
- Stakeholder Engagement and Science Communication
- Geospatial Technologies, Measurements and Mapping
- Systems Thinking and Sustainability Frameworks
- Environmental Problem Solving and Decision Support

- Environmental monitoring (vegetation, erosion, etc.)
- Sample collection & analysis (water quality, soil sampling, nutrient levels, etc.)
- Species identification & classification
- Environmental/habitat assessment and inventory
- Data Collection and Quality
- Operate and maintain a variety of environmental field equipment
- Use of pacing, topographic maps, compass, and/or GPS equipment to navigate natural environment
- Field campaign planning - Leave No Trace

- Soil and Water Quality assessment
- Sample preparation and handling
- Laboratory Safety protocols
- Microscopy
- Chemical analysis and Micro-pipetting
- Operation of various lab equipment (e.g., ICP)
- Documenting methodologies
- Analyzing and interpreting data / statistical analysis

- Python
- SPSS, JMP, R-Studio
- GIS, ArcGIS, etc.
- Microsoft Office (Word, PowerPoint, Excel, etc.)
- OneNote
- Teams


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COMPETENCIES

1. Employ effective speaking, writing, listening, and digital communication techniques.
2. Contribute to collaborative efforts, facilitate contributions of others, and address conflict directly and constructively.
3. Critically examine dimensions of difference and apply a nuanced understanding of power and privilege through effective communication.
4. Design, evaluate, and employ appropriate frameworks in order to effect change and generate collaborative solutions to complex problems.
5. Apply critical thinking skills and employ qualitative and quantitative methodologies in order to formulate questions and evaluate core knowledge areas.
6. Synthesize and transfer learning to complex situations across disciplinary boundaries through the application of critical reflection skills.

KNOWLEDGE AREAS

7. Identify and describe basic ecological processes and systems.
8. Identify, interpret, and analyze cultural, economic, historical, and political dynamics of environmental issues.
9. Describe effective strategies in ecological planning, management, stewardship, and conservation of natural resources.
10. Discuss social, economic, and ecological principles of sustainability.