

Sustainability, Ecology & Policy
Skills

Students have opportunities to develop skills as they make choices about courses, study abroad programs, and internships. These vary based on their concentration as described below. Students also gain competencies and knowledge through the Rubenstein School Core Curriculum shown on the reverse side of this handout. In addition, as is true of all students at the University of Vermont, students gain skills in communication and in computer programs such as the Microsoft Office suite of programs and MS Teams. They may gain additional computer skills based on their choice of courses.

Concentration in Applied Ecology

All students gain skills in:

- Field methods offered in Rubenstein School core curriculum courses and a lab course in natural resource ecology and assessment (observe/record/analyze/report field data, use of field guides, field sampling, use of pacing, topographic maps, compass and/or GPS equipment);
- Introductory geospatial analysis methods, including spatial measurements and mapping;
- Introductory statistical analysis; and
- Analytical skills to interpret dimensions of sustainability.

Students develop these skills further depending on choices they make for upper-level coursework, study abroad programs, internships, and minors. Examples include:

- Advanced skills in geospatial techniques and analysis through a minor in Geospatial Technologies;
- Coursework with skills specific to the topic of study, for example, limnology and characterizing lake conditions, dendrology/ornithology/ichthyology and species identification, ecological design tools;
- Field methods through study abroad programs that include independent projects; and
- Proposal writing and research skills through an Honors College thesis.

Concentration in Environmental Policy, Planning & Law

All students gain skills in:

- Field methods offered in Rubenstein School core curriculum courses (observe/record/analyze/report field data, use of field guides);
- Introductory statistical analysis;
- Introductory methods for interpreting policy issues including consideration of government policy processes, benefit-cost analysis, and interest group behavior; and
- Analytical skills to interpret dimensions of sustainability.

Students gain skills pertinent to their area of focus within the concentration. These vary based on their choices for upper-level coursework, study abroad programs, internships, and minors. Examples include:

- Policy analysis and interpretation of political dimensions of government decision-making;
- Reading and interpreting statutory, regulatory and judicial documents;
- Tools for community engagement and citizen participation;
- Developing outreach, educational, and interpretive materials;
- Geospatial techniques including mapping for land use planning and/or design;
- Tools to gather data about and characterize social settings; and
- Proposal writing and research skills through an Honors College thesis.

Rubenstein School Core Competencies & Knowledge Areas:

COMPETENCIES

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

KNOWLEDGE AREAS

7. **Ecological Processes & Systems:** Identify and describe basic ecological processes and systems.
8. **Social Processes & Systems:** Identify, interpret, and analyze cultural, economic, historical, and political dynamics of environmental issues.
9. **Planning & Management:** Describe effective strategies in ecological planning, management, stewardship, and conservation of natural resources.
10. **Sustainability:** Discuss social, economic, and ecological principles of sustainability.