NATURAL RESOURCES
http://www.uvm.edu/rsenr/

OVERVIEW
Graduate students in the Rubenstein School work closely with faculty who are dedicated to applied environmental research in service of society and have very active research programs. Faculty take an integrated approach to their research projects, work with other faculty teams in the School, and collaborate nationally and internationally with other researchers.

DEGREES
Natural Resources AMP
Natural Resources M.S.
Natural Resources: Leadership for Sustainability M.P.S.
Natural Resources: Master of Environmental Law and Policy/Master of Science in Natural Resources (MELP/MSNR)
Natural Resources Ph.D.
Transdisciplinary Leadership and Creativity for Sustainability Ph.D.

FACULTY
Adair, Elizabeth Carol; Associate Professor; Rubenstein School of Environment and Natural Resources; PHD, Colorado State University
Bierman, Paul Robert; Professor, Rubenstein School of Environment and Natural Resources; PHD, University of Washington
Bowden, William Breck; Professor Emeritus; Rubenstein School of Environment and Natural Resources; PHD, North Carolina State University Raleigh
Chase, Lisa Cheryl; Extension Professor and Associate Professor; Department of Ext - Programming and Faculty Support; PHD, Cornell University
Coghill-Wemple, Beverley; Professor, Department of Geography; PHD, Oregon State University
D’Amato, Anthony; Professor, Rubenstein School of Environment and Natural Resources; PHD, University of Massachusetts Amherst
Danks, Cecilia Marie; Associate Professor; Rubenstein School of Environment and Natural Resources; PHD, University of California Berkeley
Dimov, Luben D.; Senior Lecturer, Rubenstein School of Environment and Natural Resources; PHD, Louisiana State University
Donovan, Therese M.; Research Associate Professor; Rubenstein School of Environment and Natural Resources; PHD, University of Missouri Columbia
Dupigny-Giroux, Lesley-Ann; Professor, Department of Geography; PHD, McGill University
Erickson, Jon; Professor; Rubenstein School of Environmental and Natural Resources; PHD, Cornell University
Farley, Joshua; Professor, Department of Community Development and Applied Economics; PHD, Cornell University
Fisher, Brendan; Professor, Rubenstein School of Environment and Natural Resources; PHD, University of Vermont
Galford, Gillian Laura; Research Associate Professor; Rubenstein School of Environment and Natural Resources; PHD, Brown University
Georgiou, Elena; Adjunct Assistant Professor, Rubenstein School of Environment and Natural Resources; MA, City University of New York
Gieder, Katherina; Adjunct Assistant Professor, Rubenstein School of Environment and Natural Resources; PHD, Virginia Tech
Ginger, Clare A.; Associate Professor; Rubenstein School of Environment and Natural Resources; PHD, University of Michigan Ann Arbor
Gould, Rachelle; Associate Professor, Rubenstein School of Environment and Natural Resources; PhD, Stanford University
Grant, Evan H.; Adjunct Associate Professor, Rubenstein School of Environmental and Natural Resources; PHD, University of Maryland, College Park
Henderson, Mark J.; Research Associate Professor, Rubenstein School of Environment and Natural Resources; PhD, College of William and Mary
Hill, Jason M.; Adjunct Assistant Professor, Rubenstein School of Environment and Natural Resources; PhD, Pennsylvania State University
Hughes, Jeffrey Winston; Professor Emeritus; Department of Plant Biology; PHD, Cornell University
Ivakhiv, Adrian J; Professor, Rubenstein School of Environment and Natural Resources; PHD, York University
Jefferson, Anne; Professor, Rubenstein School of Environment and Natural Resources; PhD, Oregon State University
Kapil, Bhanu; Adjunct Associate Professor, Rubenstein School of Environmental and Natural Resources; MA, SUNY Brockport
Keeton, William Scott; Professor, Rubenstein School of Environment and Natural Resources; PhD, University of Washington
Kolan, Matthew Peter; Senior Lecturer; Rubenstein School of Environment and Natural Resources; PHD, University of Vermont
Kuentzel, Walter Frederick; Professor Emeritus; Rubenstein School of Environment and Natural Resources; PHD, University of Wisconsin-Madison
Lawson, Steven R.; Adjunct Associate Professor; Rubenstein School of Environment and Natural Resources; PhD, University of Vermont
Lloyd, John D.; Adjunct Associate Professor, Rubenstein School of Environment and Natural Resources; PHD, University of Montana
Marsden, J. Ellen; Professor; Rubenstein School of Environment and Natural Resources; PHD, Cornell University
Mathews, Nancy; Professor Emeritus and Dean Emeritus, Rubenstein School of Environment and Natural Resources; PhD, State University of New York College of Environmental Science & Forestry
Mitchell, Brian; Adjunct Assistant Professor; Rubenstein School of Environment and Natural Resources; PHD, University of California Berkeley
Morales, Ana Melinda; Assistant Professor, Rubenstein School of Environment and Natural Resources; DPHIL, Iowa State University
Mosher, Brittany; Assistant Professor, Rubenstein School of Environment and Natural Resources, Ph.D., Colorado State University
Murdoch, James D.; Associate Professor; Rubenstein School of Environment and Natural Resources; DPHIL, University of Oregon
Panikkar, Bindu; Assistant Professor, Rubenstein School of Environment and Natural Resources; PHD, Tufts University
Parish, Donna; Professor Emeritus; Rubenstein School of Environment and Natural Resources; PHD, Ohio State University
Perdrial, Julia Nathalie; Assistant Professor, Department of Geology; PHD, Université Louis Pasteur, Strasbourg, France
Perrin, Nicholas; Research Assistant Professor, Department of Geology; PHD, Université Louis Pasteur, Strasbourg, France
Pinto, Sayra; Adjunct Assistant Professor, Rubenstein School of Environment and Natural Resources; PHD, The Union Institute and University
Poleman, Walter Mallery; Senior Lecturer; Rubenstein School of Environment and Natural Resources; MS, University of Vermont
Pontius, Jennifer A.; Research Assistant Professor and Interim Associate Dean; Rubenstein School of Environment and Natural Resources; PHD, University of New Hampshire
Renfrew, Rosalind Brent; Adjunct Associate Professor, Rubenstein School of Environment and Natural Resources; PHD, University of Wisconsin - Madison
Ricketts, Taylor H; Professor; Rubenstein School of Environment and Natural Resources; PHD, Stanford University
Rodriguez-Cabal, Mariano; Research Assistant Professor, Rubenstein School of Environmental and Natural Resources; PHD, University of Tennessee
Roman, Joe; Non-salaried faculty; Rubenstein School of Environment and Natural Resources; PHD, Harvard University
Roy, Eric; Associate Professor, Rubenstein School of Environment and Natural Resources; PHD, Louisiana State University
Schaberg, Paul; Adjunct Associate Professor; Rubenstein School of Environment and Natural Resources; PHD, University of Vermont
Schattman, Rachel E.; Rubenstein School of Environment and Natural Resources; PHD, University of Vermont
Schroth, Andrew W.; Research Associate Professor, Department of Geology; PHD, Dartmouth College
Stepenuck, Kristine F.; Extension Assistant Professor, Rubenstein School of Environment and Natural Resources, PHD; University of Wisconsin-Madison
Stephens, Jennie; Adjunct Associate Professor, Rubenstein School of Environment and Natural Resources; PHD, California Institute of Technology
Stockwell, Jason Dana; Professor, Rubenstein School of Environmental and Natural Resources; PHD, University of Toronto
Stokowski, Patricia A.; Professor; Rubenstein School of Environment and Natural Resources; PHD, University of Washington
Strong, Allan Matthew; Professor; Rubenstein School of Environment and Natural Resources; PHD, Tulane University
Talley, Heather; Adjunct Assistant Professor, Rubenstein School of Environmental and Natural Resources; PHD Vanderbilt University
Twery, Mark; Adjunct Associate Professor, Rubenstein School of Environment and Natural Resources; PHD, Yale University
Uddin, M. Salim; Assistant Professor, Department of Natural Resources; PhD, University of Manitoba, Canada
Vatovec, Christine M.; Research Assistant Professor; Rubenstein School of Environment and Natural Resources; PHD, University of Wisconsin Madison
Vea, Marie C.; Research Assistant Professor, Rubenstein School of Environmental and Natural Resources; Ed.D., University of Vermont
Vivanco, Luis A.; Professor, Department of Anthropology; PHD, Princeton University
Wollenberg, Eva (Lini); Research Professor, Rubenstein School of Environmental and Natural Resources; PHD, University of California, Berkeley
Yamamoto, Britt; Adjunct Associate Professor, Rubenstein School of Environment and Natural Resources; PHD, University of Washington Seattle

Natural Resources Courses
NR 5450. Data Vis & Communication. 3 Credits.
Focuses on fundamentals and practice of data visualization and communication. Learn the ways humans use cognitive and perceptual abilities to comprehend information, best practices for creating compelling and effective data visualizations, and the many nuanced factors influencing the successful application of practices. Includes work with an existing research data set. Prerequisite: Graduate student or Instructor permission.

NR 5460. Geospatial Computation. 3 Credits.
Geospatial Computation is the study of general computational methods applied to spatial and spatiotemporal data for exploratory, confirmatory, descriptive or predictive analysis. Introduces foundational concepts applications in spatial data science within the context of GIS. Computational approaches in spatial simulation, exploratory data analysis, predictive analysis and geospatial data visualization. Prerequisite: Graduate student or Instructor permission.

NR 5990. Special Topics. 1-18 Credits.
See Schedule of Courses for specific titles.

NR 6060. Envisioning a Sust Future. 2 Credits.
Seminar orienting Graduate students to RSENR and providing frameworks for collaborative leadership, whole systems thinking, and intercultural competency.
NR 6070. Applied Ecol., Env. & Society. 2 Credits.
Critically examines the process and ethics of science, including scientific reasoning, theory, hypotheses, and integration with experimental design, discovery, and ethics. Students will begin to form their professional networks and understand the historical and contemporary influences of professional networks on research and scholarship.

NR 6110. Leadership for Sustainability. 3 Credits.
Provides an experiential and theoretical orientation to foundational practices, principles, and skills of sustainability leadership with an emphasis on ecological/systems thinking, sustainability, and leadership.

NR 6120. Power Privilege & Catalyz Change. 3 Credits.
Focuses on leadership skills and systems frameworks for engaging with issues of diversity, power, and privilege and the implications of these topics on leaders’ capacity. Designed to meet the Rubenstein School of Environment & Natural Resources graduate diversity requirement. Prerequisite: NR 6110.

NR 6391. Master’s Thesis Research. 1-18 Credits.
Research for the Master’s Thesis.

NR 6392. Master’s Project Research. 1-12 Credits.
Research for the Master’s Project.

NR 6410. Ecological Economic Theory. 3 Credits.
A transdisciplinary study of the economic system as embedded and interdependent on social institutions and environmental systems.

NR 6420. Ecosystem Services. 3 Credits.
Examines the economic and other benefits nature provides to people. Covers the ecological foundations of quantifying ecosystem services, the economics of valuing them, and the practical issues involved with putting them to work for conservation. Prerequisite: Instructor permission.

NR 6430. Fndmtls of Geog Info Systems. 0 or 3 Credits.
Concepts and methods in Geographic Information Systems (GIS) presented at an accelerated pace for Graduate students using ArcGIS software.

NR 6720. Transdisc Leadshp & Creatvty. 3 Credits.
Explores the theoretical and practice-based fields and lineages associated with transdisciplinary leadership and creativity while providing a solid structural and relational grounding for students in the Transdisciplinary Leadership, Creativity & Sustainability Doctoral Program.

NR 6730. Transdisc Mthds&Modes of Inqry. 3 Credits.
Focuses on practices for engaging with inquiry, methods, and practice as students develop more clarity about the research questions, practices, structure, methods, and lineages that will inform their dissertation proposal and research.

NR 6760. Graduate Teaching Practicum. 2 Credits.
Natural Resource teaching practicum for Doctoral students in the Rubenstein School. Course is required if students are following the academic option. Should be taken concurrently or one semester in advance of completion of the doctoral teaching requirement. Prerequisite: Doctoral student.

NR 6880. Ecological Leadership Seminar. 3 Credits.
Explores emerging topics and themes related to the theory and practice of ecological leadership. Can be taken in successive semesters (up to two times), as learning module topics will change.

NR 6890. Ecological Leadership Practicum. 3 Credits.
An advanced exploration of ecological/systems thinking, sustainability, leadership skills, and leveraging change; offering students the opportunity to integrate these concepts and skills through an applied leadership practicum. Prerequisite: NR 6880.

NR 6990. Special Topics. 1-18 Credits.
Graduate topics and material that may eventually develop into a regular course offering.

NR 6991. Internship. 1-18 Credits.
On-site supervised work experience combined with a structured academic learning plan directed by a faculty member or a faculty-staff team in which a faculty member is the instructor of record, for which academic credit is awarded. Offered at department discretion.

NR 6993. Independent Study. 1-18 Credits.
A course which is tailored to fit the interests of a specific student, which occurs outside the traditional classroom/laboratory setting under the supervision of a faculty member, for which credit is awarded. Offered at department discretion.

NR 6995. Graduate Independent Research. 1-18 Credits.
Graduate student work on individual or small team research projects under the supervision of a faculty member, for which credit is awarded. Offered at department discretion.

NR 7491. Doctoral Dissertation Research. 1-18 Credits.
Research for the Doctoral Dissertation.

NR 7740. Creative Practice & Dissertatn. 3 Credits.
For Doctoral students nearing the end of dissertation research and beginning the integration, diffraction, synthesis, and meaning-making process essential to their dissertation. Provides structure, support and feedback in the creative act of crafting a dissertation. Prerequisites: NR 6720, NR 6730.

NR 7990. Special Topics. 1-18 Credits.
See Schedule of Courses for specific titles.

NR 7991. Internship. 1-18 Credits.
On-site supervised work experience combined with a structured academic learning plan directed by a faculty member or a faculty-staff team in which a faculty member is the instructor of record, for which academic credit is awarded. Offered at department discretion.
NR 7995. Graduate Independent Research. 1-18 Credits.
Graduate student work on individual or small team research projects
under the supervision of a faculty member, for which credit is
awarded. Offered at department discretion.

Sustainability, Ecology and Policy Courses
SEP 5990. Special Topics. 1-18 Credits.
See Schedule of Courses for specific titles.

SEP 6391. Master’s Thesis Research. 1-18 Credits.
Research for the Master’s Thesis.

SEP 6990. Special Topics. 1-18 Credits.
Graduate topics and material that may eventually develop into a
regular course offering.

SEP 6991. Internship. 1-18 Credits.
On-site supervised work experience combined with a structured
academic learning plan directed by a faculty member or a faculty-staff
team in which a faculty member is the instructor of record, for which
academic credit is awarded. Offered at department discretion.

SEP 6995. Graduate Independent Research. 1-18 Credits.
Graduate student work on individual or small team research projects
under the supervision of a faculty member, for which credit is
awarded. Offered at department discretion.

SEP 7491. Doctoral Dissertation Research. 1-18 Credits.
Research for the Doctoral Dissertation.

SEP 7990. Special Topics. 1-18 Credits.
See Schedule of Courses for specific titles.

SEP 7991. Internship. 1-18 Credits.
On-site supervised work experience combined with a structured
academic learning plan directed by a faculty member or a faculty-staff
team in which a faculty member is the instructor of record, for which
academic credit is awarded. Offered at department discretion.

SEP 7995. Graduate Independent Research. 1-18 Credits.
Graduate student work on individual or small team research projects
under the supervision of a faculty member, for which credit is
awarded. Offered at department discretion.