



CERTIFICATE OF GRADUATE STUDY IN AGROECOLOGY

T H E U N I V E R S I T Y O F V E R M O N T

'Scaling up agroecological practices can simultaneously increase farm productivity and food security, improve incomes and rural livelihoods, and reverse the trend towards species loss and genetic erosion.'

—Former United Nations Special Rapporteur on the Right to Food, Olivier De Schutter

WHAT IS A CERTIFICATE OF GRADUATE STUDY IN AGROECOLOGY?

The Certificate of Graduate Study in Agroecology is a 15-credit program that can be completed within one year. The Certificate is designed so that participants will learn about and experience agroecology as a transdisciplinary, action-oriented approach. The curriculum encourages students to integrate ecological, social and economic perspectives in developing practical solutions to contemporary problems in our agrifood system. The fully prescribed coursework consists of one residential hybrid course, three foundational online classes and a final synthesis seminar course. Students will be placed in yearly cohorts so that we are building community and expanding the network among program participants. The certificate's hybrid design means you can live in your own food shed while learning lessons that you can apply anywhere.

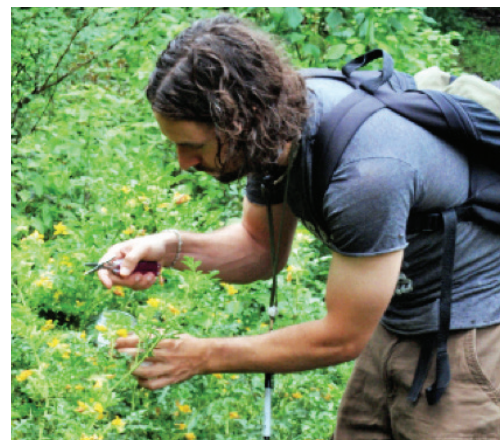


WHY AGROECOLOGY?

Identifying the most viable and sustainable ways to improve our agrifood systems remains one of the most important challenges of our time. While there are no magic bullets, the field of Agroecology is a demonstrated, holistic approach that addresses the social, ecological and production challenges of current agrifood systems.

WHY NOW?

The field of agroecology is gaining influence in a diversity of academic, policy and advocacy spaces worldwide. In 2014, for the first time in its history, the U.N. Food and Agriculture Organization (FAO) held an International Symposium on Agroecology for Food Security and Nutrition. Agroecology has also received endorsement from La Via Campesina, and the Journal of Sustainable Agriculture was recently renamed as Agroecology and Sustainable Food Systems (Gliessman)—demonstrating that groups of peasant farmers, scientists and international policy makers are each convinced of agroecology's value and potential. This increased attention has brought with it a call for empirical research about the performance of agroecological practices and a demand for training in agroecological principles. In response to these demands, we are developing a rigorous and practical option that offers a foundation in agroecology, opportunities for research, and a design that makes it accessible to students, international audiences and mid-career professionals.



Agroecology—is an approach that integrates ecological science with other scientific disciplines (e.g. social sciences) and knowledge systems (e.g. local or indigenous) to guide research and actions towards the sustainable transformation of our current agrifood system. It is based on principles such as conserving resources, managing ecological relationships, maximizing long-term benefit and prioritizing people's empowerment, and also includes sub-principles and recommendations for practices adaptable to context.

Participatory Action Research (PAR)—involves researcher and non-researcher partners in an iterative process that integrates research, reflection and action to generate practical, long-term solutions to locally identified issues..

Transdisciplinary—Transdisciplinary research integrates different academic disciplines (e.g. social and natural sciences) with other forms of knowledge (e.g. experiential, local, indigenous, etc.)



The University of Vermont

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Sequential Curriculum (5 Courses, 15 Credits)

Course 1: Introduction to Agroecology (PSS 311, 3 credits)

INSTRUCTOR: V. Ernesto Méndez, Ph.D., UVM Associate Professor of Agroecology

COURSE DESCRIPTION: This hybrid, 6-week course presents an in-depth overview of research and applications in the field of agroecology. We cover the evolution of the field, from its origins to the present, as it gains increasing recognition in scientific, policy and farming spaces. Students will engage in some of the debates agroecologists are now facing, as they grapple with maintaining the core characteristics of the field as it is increasingly applied by a wide diversity of users. The course combines an international and U.S. perspective. Students will spend a residential week in Vermont, which will serve as experiential learning and create a cohort.

Course 2: The Ecological Foundations of Agroecology (PSS 312, 3 credits)

INSTRUCTOR: Victor Izzo, Ph.D., UVM Lecturer in Agroecology and Insect Ecology

COURSE DESCRIPTION: This online course examines the ecological foundations of Agroecology, largely from a biophysical perspective. Over the course of three sequential modules, students will explore the fundamental principles of ecology and their application to agricultural systems and landscapes. Students will be challenged to evaluate agricultural systems from an ecological perspective. By comparing and contrasting conventional and agroecological rationale and production, students will identify and understand how to apply ecological strategies for the development of sustainable agricultural strategies.

Course 3: Participatory Action Research (PAR) & Transdisciplinary Approaches to Agroecology (PSS 313, 3 credits)

INSTRUCTORS: Rachel Schattman, Ph.D., Postdoctoral Researcher, Northeast USDA Climate Hub & Martha Caswell, MPP, Research & Outreach Coordinator, UVM Agroecology and Rural Livelihoods Group

COURSE DESCRIPTION: Participatory Action Research (PAR) can be described as a cyclical approach where researcher and non-researcher actors are involved in an integrated, iterative process of research, reflection and action (e.g. problem solving, implementing a practice, etc.). This graduate level course will introduce students to PAR in the context of agroecology, and examine how integration of PAR and transdisciplinary approaches can serve to deepen our collective understanding of complex problems/issues. Students will build upon previous certificate courses, and learn how to apply a transdisciplinary PAR approach to topics/contexts of interest.

Course 4: Agroecology, Food Sovereignty and Social Movements (PSS 314, 3 credits)

INSTRUCTORS: V. Ernesto Méndez, Ph.D., & Martha Caswell, MPP

COURSE DESCRIPTION: This course investigates social, political, and economic elements of the global food system from multiple perspectives, considering the ability to scale-up agroecology, and the intersections among agroecology, food sovereignty, food justice, right to food and other policy related topics. We will explore the concepts of global hunger, and analyze US-based food movements and key international social movements that interact with agroecology.

Course 5: Capstone Experience (PSS 315, 3 credits)

INSTRUCTORS: V. Ernesto Méndez, Ph.D., Victor Izzo, Ph.D., Martha Caswell, MPP, & Rachel Schattman, Ph.D.

COURSE DESCRIPTION: The capstone is designed for students to apply newly developed knowledge and skills in a culminating experience/project that addresses an agroecological topic relevant to each individual student. Each student will develop a project concept and will receive coaching and guidance to ensure that the project will benefit their own learning objectives.



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