Environmental Sustainability:
Ecology, Policy and Social Transformation
Fall 2017

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Dates: September 5 to December 13, 2017
Tuesdays and Wednesdays 9:30 to 3pm (and as arranged)
Class Location 2104 Stevens Ave S. Minneapolis, MN 55404 and
Lily Springs Farm, 1930 60th Ave, Osceola, WI 54020
Office Hours, Tuesdays 3 to 3:30 and by arrangement.
**Introduction**

Environmental Sustainability engages students in a thorough, participatory exploration of the critical sustainability challenges and the emerging sustainability theories and strategies of the twenty first century. We work with data from the Millennium Ecosystem Assessment, the Sustainable Development Goals (follow up to the Millennium Development Goals), and the Intergovernmental Panel on Climate Change and a field-learning site applying farmer-led participatory permaculture design action research. We partner with organizations and networks attending to many of the complex challenges locally – including the City of Minneapolis Office of Sustainability; Northside Fresh; the Center for Earth, Energy and Democracy; Lily Springs Farm; the United States Forest Service; Frogtown Farms; and more. The curriculum framework is grounded in complexity theories, international political ecology, integral ecology, world-systems analysis, permaculture design and applied considerations of decolonizing approaches to regenerative livelihood at all levels of scale.

We pay particular attention each semester to sustainability challenges and opportunities that emerge during the semester. In 2015, students went to the Fourth Precinct Encampment to understand police-community relations as an environmental issue. In 2016, students went to Standing Rock and built two yurts: one for the eco-village emerging there and one for the school, and did an afternoon of nature-based outdoor education with the students at the Water Is Life School there. For 2017, we have prepared four field-based science immersions to learn applied tools in permaculture design, agroecology, soils, biodiversity and climate resilience on farmer and community decision-making in both urban and rural contexts.

We partner with at least four organizations where we do field based learning (other options often arise):

a) At Lily Springs Farm, students learn and apply permaculture design to assist in the transition of a 40-acre pine plantation to an oak savannah mimic;

b) With Northside Fresh, students assist in the evolution of a local food system intended to co-produce community health and community wealth by 2020;

c) With the Community Planning and Economic Development and Homegrown Minneapolis, students will do design lab process to evaluate and improve a loan product for urban agriculture; and

d) With Sierra Leone Foundation for New Democracy students assess strategies to mitigate climate change in West Africa, restore the Lowland Guinea Rain Forest and promote sustainable livelihood among a network of traditional villages.

This program asks,

*What role does our worldview play in how we see environmental sustainability?*

*What can we do differently to restore ecosystems, environmental health, and promote a sustainable and equitable quality of life for all?*

*What are the diverse sustainability scenarios of the future and what leverage points and dynamics of complexity tilt socio-ecological trajectories in one way versus another?*

*Applying the lenses of socio-ecological systems, resilience, environmental sciences, complexity theory, and sustainability studies, how do we cooperatively navigate the numerous challenges and potent opportunities presented to us now and in the future?*

*How does the applied science of permaculture foster a participatory approach to ES?*
To answer, students learn to apply insights from political ecology, socio-ecological analysis, permaculture, complexity theory, and adaptive resource management to our current and intersecting political, economic, cultural and ecological crises and opportunities. Students explore a half-century of organizing in the environmental justice movement, and the more recent history of organizing for climate justice. We look at patterns at all levels of scale and seek to understand the conditions under which degenerative or regenerative patterns expand or contract in scope and impact. Students develop an environmental and climate equity lens through which to weigh the benefits and risks of protection, restoration, and development. Students also participate in internships and community-driven restoration and research projects. This dynamic investigation unfolds within a complex urban setting, home to one of the most active environmental networks in the country, where questions of equity, justice, and sustainability lead students to discover careers, life directions, and new ways of thinking.

**Program Structure**

*Environmental Sustainability* has one curriculum, with four components, for a total of 16 credits:

- **Course 1)** *Climate and Environmental Justice*, including the applied science of social permaculture
- **Course 2)** *Socio-Ecological Systems*, including the applied science of permaculture design

In these two linked seminars, students engage with theoretical work and practical applications to answer the core questions posed above.

Course 3) The *Field Methods* course provides students with practical and ethically informed technical skills to assess and improve ecosystems and improve human decision making in socio-ecological systems. Permaculture design principles guide this exploration of how to work with nature to improve ecological, communal, and personal health simultaneously. All field-based learning in the program works through partnerships with community organizations and branches of government that are working actively as ecological stewards and promoting sustainability of human society with wise design.

Course 4) The *Environmental Sustainability Internship* provides concentrated practice, and facilitates student learning on many levels. Students integrate and refine their theoretical understanding, build and develop skills, gain a greater understanding of methods of social change, and grow in their understanding of career possibilities. Through facilitated reflection, written assignments, and activities that include time at another student’s internship site, the internship experiences are carefully integrated with the other courses. Students work a minimum of 160 hours at their placement, 12-15 hours each week for thirteen weeks of the program.

**Core Themes in the Environmental Sustainability Program**

During the first week of class, students will assess their current level of understanding and interest in areas related to the broad themes of the program. Students’ current competencies will be used to benefit the class as a whole, and students’ core learning interests will be layered into the design of the semester.
Themes we will explore. See Course Descriptions and Forecast below for more detail.

• Human evolution and environmental history –our roots, our current moment, and visions of the future in evolutionary context;
• The evolution of “modernity,” the coloniality of power, the world capitalist system, and the continuing cosmology of dominance over nature
• The evolution of democracy and the tension lines of economy, governance, environment – what possible future and role of “ecological democracy”?
• The Millennium Ecosystem Assessment: assessing the current state of 24 core ecosystem services;
• The Millennium and Sustainability Development Goals: assess how well we do when we set our minds on a common global goal;
• The Intergovernmental Panel on Climate Change and the United Nations Forum on Climate Change.
• Permaculture and Eco-villages: emerging alternative models of society. The course incorporates a 72-hour Permaculture Design Course (PDC). All students will complete requirements for certification, assuming you fulfill all requirements for the course;
• Local living economies as a way of shifting local culture, including the transition town movement as an example;
• Continuously productive urban landscapes: the possibilities and strategies to heal urban landscapes with ecological planning as a basis of urban design;
• Integral Political Ecology: intermingling of diverse perspectives on the environment and society that are in tension with each other, learning to help groups generatively work through our divides on the interface of society and environment;
• Healing landscapes and humanity: exploring ways to foster ecological, cultural and social healing as part of this work;
• Alternative visions of the future and scenario forecasting: dreaming bigger about what might unfold in the world. Recognize what is “trending” and by applying complexity theory, learn how to shape the emerging future;
• Complexity, co-creativity and sustainability: how to set conditions for healthy co-evolution.

Outcomes
The Environmental Sustainability program develops students’ theoretical understanding and skills for practical application in the four domains listed below:

1. Environmental and climate justice lenses in the contexts of public policy, public consciousness, and science;
2. Applied political ecology and the emergence of sustainability innovations from the private sector, branches of government, civil society, the grassroots and social movements.
3. Transdisciplinarity and Interculturalism as two key skill sets of sustainability scientists and practitioners in the twenty first century; and
4. A variety of field-based research methods (qualitative and quantitative) to support a range of transformations, including ecologically restored landscapes, improved agricultural productivity (whether urban or rural), increased ecological literacy, fostering emerging ecological enterprise opportunities, and design and development of socio-ecological systems that integrate earth care, people care, and care of the future. Finally, this year, students will also develop an on-site learning laboratory. We will: a) construct a raised bed
and do applied soil science; b) build a simple aquaponics unit and grow micro-greens; c) and d) do an ecological assessment of the south Minneapolis neighborhoods in proximity to our urban field office and of the rural community surrounding our rural field site. Lily Springs Farm will be our ‘practical headquarters’ for considering how to organize a ‘just transition’ for a renewable society. The urban field office is our theoretical headquarters where we bridge theory and practice as we consider how to address urban sustainability challenges and opportunities.

By the end of the semester, students will:

• Understand environmental justice and climate justice frames in a variety of contexts, and develop and demonstrate abilities for leadership using these frames;
• Understand how complexity theory and systems theory can be applied in day-to-day practice, and develop the ability to advance ecological health using these theories;
• Comprehend how a variety of qualitative and quantitative tools are used in political ecology and socio-ecological fieldwork to advance environmental and community health.
• Strengthen their capacity as an environmental sustainability leader, with a clearer sense of how they will apply their skills to attend to the challenges and opportunities of the twenty first century.

The teaching and learning style of the curriculum prepares students for leadership in environmental sustainability leadership by: a) supporting each student in assessing what they know and would like to know more about in environmental sustainability, and developing a personal learning plan with each student; b) building student skill-sets in public presentation by having students do class presentations starting the second week of the semester; c) connecting each student to an internship experience that reinforces what they most want to learn, honors how they learn, and allows them to successfully engage existing assets while building new ones with constructive mentoring; d) engages students as learning and leading partners with scientists doing applied community-based work, with policy makers and activists promoting sustainability policy innovations; and e) by connecting students with community-based organizations, branches of government and the private sector in efforts to evaluate and advance sustainability practice.

From the second day of class, students are actively taking leadership roles in the classroom, developing new skills in both personal responsibility and sustainability leadership, and finding a clearer sense of direction for their careers.

The internship experience provides a rich, deep opportunity to do applied learning, and students bridge internship experience with classroom and field work experiences. Similarly, field work experiences are structured to build on what we learn and do in class in order to promote integrated learning that transforms students, the learning process, the internship sites, and the field work sites.
1. Student Learning Outcomes

These three linked courses and internship have at their core one or more of the seven Student Learning Outcomes identified by the University of Minnesota as essential to the student experience. These outcomes are designated as critical by other institutions as well.

A. The course Climate and Environmental Justice

Students completing this course can identify, define, and solve problems and understand diverse philosophies and cultures within and across societies.

Overall, the program Environmental Sustainability provides tools for analyzing conflicts over environmental issues and examines strategies for social change.

Although environmental problems are commonly viewed as technical problems, the most difficult and enduring challenges are social and institutional. Students learn to apply insights from a number of disciplines to our current and intersecting political, economic, cultural, and ecological crises and opportunities.

Recognizing that our environmental impacts now are global in scope and potentially catastrophic in scale, the Climate and Environmental Justice course helps students frame the problem and potential solutions:

- As we consider how to respond to climate change, restore degraded ecosystems, and promote a sustainable quality of life, how might we employ an environmentally just approach?

The course examines many answers to this question, reflecting on different case studies, on a half-century of organizing in the environmental justice movement, and the more recent history of organizing for climate justice.

The course teaches students how to think about the three aspects of environmental justice at once:

- as a recognition that disproportionate burdens of environmental harm fall on communities that are poor, indigenous, or consist largely of people of color;
- as a call that those most affected be included in decision-making related to the environment;
- and as a vision of a just, healthy, and sustainable future.

Similarly, climate justice movements argue that climate change is not only an environmental issue but also an ethical, political, and economic one. Both movements seek to dissolve “whiteness” as the privileged position that defines, directs, and dominates human relationships to the environment. Instead of “race,” this HECUA course offers a deep discussion of “interculturalism,” a framework emerging from indigenous people in South America.

Learning about environmental and climate justice and cultural values from analytical texts, activists, organizers, and scientists, students in this course develop an environmental and climate equity lens through which to weigh the benefits and risks of protection, restoration, and development. As they understand both dominant and emerging discourses on key environmental issues, students also gain new ways to communicate, relate, and work together with members of different communities and constituencies.
B. The course Socio-ecological Systems
Students completing this course understand diverse philosophies and cultures within and across societies.

Building on the examination of the scope and scale of human impacts on the environment addressed in Climate and Environmental Justice, this course considers the key issues we must attend to in light of increasing social and ecological complexity.

As mentioned above, the program as a whole examines “whiteness” in mainstream agendas for mitigating environmental degradation. Those agendas have tended to focus on solutions that address the environmental problems faced by middle-to-upper income populations within dominant culture, at the expense of lower income people of color, immigrants, and refugees. The program employs the notion of “interculturality” as a framework for building environmental solutions, moving beyond the tolerance or even celebration of cultural differences to active cultural interaction resulting in two-way sharing of ideas and hybrid practices and policy.

Socio-Ecological Systems, also known as socioecological research, is a type of systems thinking and a branch of "Sustainability Sciences." Socio-ecology seeks to bridge the natural science/social science divide through transdisciplinary theory and practice by examining how social and natural systems interact, co-evolve over time, and have impacts on one another. Students explore strategies for building socio-ecological resilience at diverse scales and in diverse contexts, including low-income neighborhoods, rural villages, thriving metropolis, regions in significant decline, and at the global level.

C. The course Field Methods: Research and Investigation
Students completing this course master a body of knowledge and a mode of inquiry.

Students learn practical skills to assess and improve ecosystems and to improve human decision-making in socio-ecological systems. The course uses a text by the co-founder of Permaculture to learn how to work with nature to improve ecological, communal, and personal health simultaneously. The core principles of permaculture involve
• working with, rather than against, nature
• protracted and thoughtful observation before action
• looking at systems in all their functions, rather than asking only one yield of them
• allowing systems to demonstrate their own evolutions

Through the insights of permaculture, and in participatory projects at key sites employing permaculture principles, students develop the capacity for constant and consistent ecological thinking so they themselves can participate in wise and effective decision-making at the interface of the human and natural worlds. All field-based learning is in partnership with community organizations and government entities working actively as ecological stewards and promoting sustainability of human society and specific settlements with wise design. Using permaculture and other methods, students learn and apply conceptual, organizational, and technical skills to help community and institutional partners accomplish these goals.

D. The Internship and Integration Seminar
Students completing the internship and seminar acquire skills for effective citizenship and lifelong learning.

The internship is concentrated practice, where students integrate and refine their theoretical understanding, build and develop skills, gain a greater understanding of methods of social change, and grow in their understanding of career possibilities. Students work a minimum of 160 hours at their placement. Every internship site engages in work informed by environmental justice, climate justice, or have a racial equity lens. The seminar provides theoretical frameworks for
making meaning from the internship experiences. Students analyze the operation of organizations dedicated to making change through the arts, learn how, when, and why organizations collaborate, and explore the perspectives that internship organizations and staff bring to individual and societal change. In written assignments, students articulate and assess worldviews on social change and movement-building, including their own, those in texts discussed in the classroom, those expressed by field speakers who visit the program, and staff at their internship sites. Through guided examination of the assumptions they bring to interactions with practitioners and communities, students see how varying worldviews play out within organizations and in processes of social change. Finally, students reflect on the impacts their classroom training and lived experiences have in real-world work and community environments, and articulate plans for their future engagement.

2. Liberal Education

In a liberal education, you acquire a meaningful and useful introduction to major branches of human knowledge and key forms of practical and creative expression.

In addition to fulfilling the requirements above, the three linked seminars and internship meet some of the University of Minnesota’s Liberal Education (LE) requirements. Liberal Education Core and Theme courses serve as the foundation for liberal education at the University of Minnesota. Many other campuses have similar requirements spelling out the foundations of a liberal education.

Courses that meet a Liberal Education Theme requirement:
--foster critical reflection on important challenges facing our society and world, issues that call for response and participation
Students in Environmental Sustainability learn about a myriad of responses to the planetary crisis, and engage actively with different actors and entities working to change practices and policies.
--focus attention on developing a sense of responsibility for engaging with relevant issues of today, and understanding what’s at stake in addressing these challenges
Students in Environmental Sustainability engage actively with problem-solving related to a set of issues they have heard about their entire lives: climate change, environmental degradation, and the perilous future of the planet. Their coursework, field work, and internship work help them appreciate how others interpret the stakes of the situation, how much hard work is underway in addressing these crises, and what kinds of career paths they could follow to be active in working for sustainability.
--offer different perspectives to engage in critical reflection and engagement
Students hear from farmers engaged in traditional and in unconventional practices, policy makers at various levels of government, grass-roots activists, and social entrepreneurs. Their engagement is always structured and their reflection on their experience is always guided.
--prepare for effective critical reflection by helping build a knowledge base about these critical issues and practice using that knowledge
Students learn first about the history of the environmental and climate justice movements, so they can engage with and assess the initiatives they see first hand.

A. Within this semester program, the course Environmental and Climate Justice animates the Environment theme. In this course:
Students grapple with climate change and environmental and climate justice, among other environmental issues of major significance.
The course pays explicit attention to interrelationships between the natural environment and human society.
Students learn the underlying scientific principles behind the environmental issues being examined; for example, through their work on several case studies students learn about the biology behind planting trees and mushrooms as remediation for environmental degradation. Students explore the limitations of technologies and the constraints of science on the public policy issues being considered: for example, they see how insufficient the notion of a “technological fix” remains for climate change.

Students learn how to identify and evaluate credible information concerning the environment: students gather and assess information from peer-reviewed journals, scientist-led organizations, and science-based organizations, including reports by the Intergovernmental Panel on Climate Change, the United Nations Framework Convention on Climate Change, and the United Nations Sustainable Development Goals.

Students demonstrate an understanding that solutions to environmental problems will only be sustained if they are consistent with the ethics and values of society. Students explore a range of ethical and value-based responses to climate change, and consider the reasons for the ethical stances taken and the power dynamics imbricated in socio-ecological decision-making.

B. The course Socio-ecological Systems meets the Social Sciences core requirement in these ways:

- Students engage with a variety of literature in the social sciences describing and analyzing human experiences and behavior related to climate and other environmental issues. Students work with social science data (primary or secondary) using various qualitative methods, including newer analytical methods such as the decolonization concept, ecosystems services, and social ecology, and evaluates their quality.

The 2005 Millennium Ecosystem Assessment (MA) provides qualitative and quantitative data on 24 core ecosystem services. Students will use more recent data to assess the extent to which we have addressed the degraded status of ecosystems described in the MA and what we can do over the next 30 years to substantively improve ecosystems and human well being simultaneously. The MA included the perspectives of indigenous peoples and peasants in the diagnosis of ecological conditions and also in the design of possible ecological rehabilitation strategies. The Decolonial framework and decolonizing methodologies de-center mainstream narratives on past, present, and future and amplify the significance of indigenous ecological knowledge. Connecting diverse ecological knowledges through intercultural dialogue, the coursework provides a transdisciplinary approach that engages a range of critical theories (Marxism, feminism, critical race theory, queer theory, borderlands theory, fourth world theory).

Students gain the ability to apply these diverse critical lenses and practice that ability in presentations and analytical papers.

- The course identifies key transdisciplinary resources, especially within the analytical frameworks of social ecology, political ecology and socio-ecological systems and engages them in the analysis of particular cases of socio-ecological inquiry or problem-solving. Social ecology critiques current social, political, and anti-ecological trends and promotes an ecological and communitarian approach to society. Political ecology connects heterodox political economy and ecology. Socio-ecological systems brings together systems thinking and complexity theories with ecology to provide a set of tools to examine the unfolding dynamics of human systems’ interactions with nature. Together, these three lenses provide an powerful analysis of socio-ecological dynamics. Adding recent theoretical contributions of “Integral Ecology” allows us to examine our own subjectivity and inter-subjectivity as environmental scientists, policy makers, entrepreneurs, activists and actors in civil society.

- The course explores the interrelationships among individuals, institutions, structures, events and/or ideas, especially in relation to sustainability, where the factors include human individuals, human institutions, and the environment. The concept of interculturality allows for a deep examination of how cultural practices shape both mainstream and alternative approaches to
sustainability. In field work, students read about socially and culturally sensitive interventions into environmental problems, and then work with two organizations, one Native-run, on a pollination meadow. Students also work with a Native-run teaching garden in the Phillips neighborhood in Minneapolis, learning about and using indigenous seeds and growing methods. In Wisconsin, we partner with Lily Springs Farm, a permaculture demonstration farm. Students have the opportunity to help restore a tamarack bog; develop a perennial polycultural agriculture system that provides produce for the farm family and for market, rebuilds soil, and helps restore ecological integrity of the farmstead; transition a pine plantation to an oak savannah mimic; and work with local farmers and schools to educate about the value of layering aspects of perennial agriculture into the farm systems.

• **Students examine the roles that individuals play in their cultural, social, economic, and/or political worlds,** particularly through theories that address the complexity of human-natural interactions. Using Standpoint theory, students will look at problem-solving distinctions that emerge when any one perspective is privileged above others. When large agribusiness considerations are primary, what is unique about the approach to agronomy, soil, environmental, policy, and social considerations? When this perspective is de-centered and the interests of low-income residents in a community are privileged, what shifts about preferences, possibilities and outcomes? Taking these diverse and usually divergent standpoints and bringing them together with an intercultural, integral ecology lens provides a way to build the analytical and social practices necessary to bridge the many divides that make environmental decision-making so complex and often ‘hotly contested’ in the twenty-first century.

• **Students use multidisciplinary tools to synthesize and analyze local, national, and global environmental and social issues, and the connections among these.** Students learn about the formation of the Intergovernmental Panel on Climate Change that has produced annual reports on climate change and its political and economic impacts. They study reactions to those reports and panels in various countries, and the prospects for collaborative responses to environmental degradation and climate change across national boundaries.

In addition, in this course and in the linked Field Methods course, students examine experimental evidence to understand current knowledge about climate change, and they collect data themselves. In the Field Methods course students gain first-hand experience in collecting, handling, and interpreting data, using tools in multiple disciplines to link sociological and ecological analyses. To understand socially and culturally sensitive interventions into environmental problems, students work with two organizations, one Native-run, on two different pollination meadows. Students work with foresters with the US Forest Service on a project to increase forest regeneration rates, and students work on a permaculture teaching farm using permaculture design to restoration and management of oak savannah.

• **Students work collaboratively and individually to construct new knowledge,** collaborating on efforts to work as ecological stewards while promoting sustainability of human society with “wise design.” They collaborate on reading examples of biodiversity assessment and performing assessments at two very different sites. Students engage in biodiversity assessments at Lily Springs Farm, Mashkiiki Gitigaan teaching garden, and the Eloise Butler Bird Sanctuary. The aim of biodiversity assessment is not only to quantitatively measure what is present in a landscape, but then to work with land owners and users to plan how to enhance and sustain biodiversity in a way that replenishes ecological integrity, increases the aesthetic qualities of a landscape, and offers multiple benefits to users and owners.

C. The **Internship** meets the **Civic Life and Ethics Theme** in these ways:

--The course presents and defines ethics and the role of ethics in civic life.

The seminar provides theoretical frameworks for making meaning from the internship experiences. Students analyze the operation of organizations dedicated to making change in human relationships with the environment, learn how, when, and why organizations collaborate,
and explore the perspectives that internship organizations and staff bring to individual and societal change.

--The course explores how the ethical principles of a society or societies have been derived and developed through group processes, and debated in various arenas.

In written assignments, students articulate and assess worldviews on social change and movement-building, including their own, those in texts discussed in the classroom, those expressed by field speakers who visit the program, and staff at their internship sites.

--The course encourages students to develop, defend, or challenge their personal values and beliefs as they relate to their lives as residents of the United States and members of a global society.

Through guided examination of the assumptions they themselves bring to interactions with practitioners and communities, students see how varying worldviews play out within organizations and in processes of social change.

--Students have concrete opportunities to identify and apply their knowledge of ethics, both in solving short-term problems and in creating long-term forecasts.

Students work a minimum of 160 hours at their placement. Internship sites are all environmental organizations that work directly on social justice issues, and where possible, whose work employs a racial justice lens. Students reflect on the impacts their classroom training and lived experiences have in real-world work and community environments, and articulate plans for their future engagement.

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About HECUA and the Environmental Sustainability Program

HECUA has been a leader in student-centered, community-based education since 1971. Our unique urban immersion programs provides a rich learning context for students to “go deep” into a participatory paradigm of learning and action.

A HECUA classroom is not a traditional one. HECUA programs reflect several values in our practices:

- Everyone is a teacher and a learner and knowledge valuable to social change comes from many places, including the community and the academy.
- How we act in the world and how we understand our actions and outcomes are intricately linked in the process of social change. Thus, we must continually act, reflect, and make meaning of our learning experiences in the classroom and the community.
- All knowledge of social reality has historical, political, and economic contexts. As teachers and learners, we must explore the perspectives that derive from these diverse contexts.
- Our role as educators is to assist learners in developing and articulating a sense of values and ethics in relation to the world and to facilitate the development of skills to act with passion and purpose within communities.
- At the heart of our engagement with the world is a consistent and critical mode of thinking that asks difficult questions concerning power, perspective, access, and interests.
The HECUA Pedagogy
Four key concepts are at the core of how we teach and why we teach that way.

The teaching and learning are **transdisciplinary and intercultural**. The issues that we address are complex, so it is necessary to draw our materials and theories from a variety of academic disciplines and worldviews.

The pedagogy is **integrated**. We constantly make connections between theory and practice. Students and teachers critically assess competing theories, based on our experiences out in the field and the life experiences that we bring to the class.

The pedagogy is **experiential**. The course includes structured experiences—interactive tours and discussions, visits to sites, visits and participation in ongoing projects—that are connected to the program’s goals and key questions. These experiences are meant to be a major component of our critical reflection on the program’s themes.

Finally, the pedagogy is **holistic**. Students are encouraged not to simply view the program as an intellectual exercise. HECUA’s pedagogy is meant to create a space for students to view themselves as actors on history, with values and decisions and choices to make that have an impact on the political, economic, cultural, natural, and social systems that we are studying.

Expectations and Policies Across the Program

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<th>Grading on these is described in each course description below</th>
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<tbody>
<tr>
<td>Actively participate in all class sessions</td>
<td>30 sessions, no unexcused absences. Actively engage in all in-class participatory exercises and discussions</td>
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<tr>
<td>Lead class discussions based on your contributions to our fieldwork and your particular research interests.</td>
<td>Each student will present multiple times during semester. Students lead discussions on readings each week, and do final presentations on ecological design and socio-ecological theory.</td>
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<tr>
<td>Read all assignments in a timely manner and complete and turn in writing assignments on time</td>
<td>Core reading is assigned for the semester, plus some additional articles, based on student interests.</td>
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<tr>
<td>Participate in 4 to 5 overnight field immersions</td>
<td>“Deep trips” help us get to know ourselves, each other, and build critical ecological science and policy skills.</td>
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<tr>
<td>Participate in 2 day trip immersions (at least; there may be more)</td>
<td>“Day trips” provide a quick splash in learning key skills</td>
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Attendance and Participation
1. Attendance and participation are critical.
2. Excused absences are granted for medical and family emergencies and religious observances. Clear expected absences with as much advance notice as possible.
3. Participation grade is based on showing up AND actively participating in each session, demonstrating preparedness AND contribution.
4. Each student is allowed the equivalent of 1 day absence for internship-related work.

**Late Papers**
Do your best to NOT be late. Every late assignment slows down the semester for you and for all of us. Do your best to stay on top of it. If you know you are going to be late because something is going on in your life, please let me know at your earliest convenience so we can make arrangements to get back on pace. Late assignments are penalized 1 grade per day.

**Rewrite Policy**
Upon return of written work students have one week to make changes for re-submission.

**Grading Criteria**
1. Organization and Clarity
2. Use of multiple streams of evidence
3. Proper Citation
4. Originality
5. Integration of Theory
6. Practical Import

What matters most in your integral papers and presentations is demonstration of the integration of numerous perspectives on what you write about. Bring in the perspectives of the latest science, the uncertainties that matter, the political use of science, the business applications of science, organized resistance to environmental health, and perceived mechanisms and processes of change that, when leveraged well, help us act to improve ecosystem health and human well-being.

**Final grades are based on the standard percent system:**

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<tr>
<th>Grade</th>
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<tr>
<td>A</td>
<td>93 to 100 per cent</td>
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<tr>
<td>A-</td>
<td>90 to 92</td>
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<td>B+</td>
<td>87 to 89</td>
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<td>B</td>
<td>83 to 86</td>
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<td>B-</td>
<td>80 to 82</td>
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<td>C+</td>
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<td>C</td>
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<td>C-</td>
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<td>D+</td>
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<td>D</td>
<td>60 to 66</td>
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<tr>
<td>D-</td>
<td>59 and below = no credit</td>
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At the midterm point, if students are not performing at least at a C average, a memorandum of performance improvement will be completed by student and instructor to ensure satisfactory performance by the end of the semester.
Course descriptions

Course 1) Climate and Environmental Justice, 4 credits

Books (reading materials provided by HECUA):

In the twenty-first century, the environmental century, human beings must decide how to deal with the many planetary consequences of the “Great Acceleration” and its conjunction with the 500-year pattern of conquest, genocide, and extreme social marginalization of indigenous peoples and poor peoples of color. As we consider how to respond to climate change, restore degraded ecosystems, and promote a sustainable quality of life in human settlements, how might we do this in an environmentally just approach? This is the basic question to be explored in this course, in light of the past record of the inequitable distribution and accumulated disadvantage resulting from historical environmental behavior in societies and global civilization as a whole.

Framing questions of this course:
- Why are environmental burdens inequitably distributed?
- How are environmental justice constituencies organized, and organizing for deep change?
- Which battles are environmental justice movements winning? What can we do differently to restore ecosystems, environmental health, and equitable quality of life for all?

Outcomes
Students taking this course will develop a solid understanding of the past 50 years of organizing in the environmental justice movement and the last 20 years of climate justice organizing as well. In order to become effective leaders of environmental sustainability in the 21st century, it is important to both understand and demonstrate evolving capacity to address critical environmental and climate justice issues. Students will build capacity to:
a) Do case study analysis of environmental justice initiatives;
b) Propose strategies that would improve the likelihood of EJ/CJ campaigns to win more comprehensive victories in their quest for environmental and cultural health;
c) Define the 24 core ecosystem services, their current status, and how further harm can be prevented in an environmentally just way, and/or how environmental justice constituencies can be meaningfully engaged in ecosystem protection and restoration;
d) Develop a environmental/climate equity lens through which to weigh the benefits and risks of alternative approaches to societal development;
e) Effectively engage the voice and support the power-building objectives of EJ/CJ constituencies.
Your grade for this course will be based on the following assignments:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
<th>Due (specific due dates will be set in first week of class)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJ Blog</td>
<td>50</td>
<td>October 5th</td>
</tr>
<tr>
<td>Environmental Justice Case Study Analysis</td>
<td>100</td>
<td>Mid-October</td>
</tr>
<tr>
<td>Mid-Term presentation</td>
<td>200</td>
<td>Mid-November</td>
</tr>
<tr>
<td>Active participation</td>
<td>200</td>
<td>Always</td>
</tr>
<tr>
<td>Facilitation of one EJ/CJ reading assignment</td>
<td>50</td>
<td>Sign-up for specific date</td>
</tr>
<tr>
<td>Final Paper</td>
<td>200</td>
<td>12/06</td>
</tr>
<tr>
<td>Final presentation –poster session or PowerPoint on</td>
<td>200</td>
<td>12/13</td>
</tr>
<tr>
<td>major environmental/climate justice challenge or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>opportunity on which student has written the final</td>
<td></td>
<td></td>
</tr>
<tr>
<td>paper (focus on social permaculture aspect of final research paper)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1000</td>
<td>points total</td>
</tr>
</tbody>
</table>

Assignments in Climate and Environmental Justice

1) The Case Study Analysis is a thorough review of one example of environmental justice. Students will write up the example in a 5-page paper, using a case study analysis framework (Yin, 2004).

2) Each student will lead a class discussion on a reading in environmental and/or climate justice, summarizing and evaluating key points in handouts, and engaging students in a participatory dialogue on this critical EJ/CJ issue.

3) Mid-Term Presentation – Each student will do a 10 minute presentation documenting their understanding of environmental and climate justice and present on the case study completed. Presentations are expected to demonstrate: a) thorough understanding of EJ/CJ; b) capacity to document the context, process, and outcomes of an EJ/CJ case; and c) demonstrate analysis of the strengths and weaknesses of this case and recommendations for what can be learned from it in terms of science, policy, and social justice practice—or how successful initiatives in other settings could improve outcomes in the case presented.

4) Active participation. Students will both teach and learn in every sequence in the course. Active participation means when others are teaching, you’re listening, with full attention, without interruption. And when you’re speaking, you demonstrate that you honor the different sensibilities of all the other learners in that space.

5) Final paper and presentation. An opportunity to share “the shine” that’s come through you as a result of your deep immersion in the subject matter. Students will write a 12 to 15 page paper in APA format on one environmental or climate justice issue and demonstrate what they have learned throughout the semester on incorporating equity issues and challenges, cultural considerations, decision making processes, tension among goals and choices, and policy and economic preferences that best support realization of the proposed EJ/CJ objectives defined in the student’s research. Students will present that paper and learning journey in a senior-seminar
style, which will be evaluated on quality of the presentation, integration of topics, and demonstration of analytical acumen.

**Guest Speakers in Climate and Environmental Justice:**
Ernie Whiteman, Indigenous Environmental Philosophy
Cultural perspectives offered by Shane Orthman – Icelandic; Tousaiko Lee – Hmong;
Travis Decorie – Lakota/Dakota; Nothandu Zulu – African American; Alyanna - Latina
Shalini Gupta or Cecilia Martinez – Center for Earth, Energy and Democracy
Representative Karen Clark – Minnesota House of Representatives and Women’s Environmental Institute
Staff – MN 350
Staff – MNIPL
Robert Blake – Solar Bear
Jamez Staples – Renewable Energy Partners
Miah Ulysses and Melanie Heckt – Northside Fresh
Jason Sole – Minneapolis NAACP

**Course 2) Socio-Ecological Systems, 4 credits**

**Books (reading materials provided by HECUA):**

Since our original hunter-gatherer communities, humans have had an impact, sometimes quite negative, on our environment. What is different now, since the “Great Acceleration” that began in the mid-twentieth century, is that our environmental impacts are global in scope and potentially catastrophic in scale.

Learning to become ecologically wise is thus a priority for all of humanity in the twenty-first century. Socio-Ecological Systems bridges political science and environmental sciences with the intent of fostering policy responses that help human society apply ecological wisdom in a timely manner at worst, and in an ecologically regenerative manner at best.

In this course, we will integrate questions regarding sustainability challenges of water, forest, wetland, climate, soil, with those involving people, cultures, politics, and economy in a comprehensive, integral framework. This investigation will build students’ ability to see complex dynamics more clearly, and prepare students to be part of efforts to create ecologically wise policy and practices for a more sustainable future.
Framing questions of this course:

- How do different stakeholders propose or resist the bridging of political science and environmental science - and why and how is this framework of importance in for environmental sustainability?
- How do we support socio-ecological resilience at diverse scales and in diverse contexts (low-income neighborhood, rural village, thriving metropolis, region in significant decline, at the global level), considering the limits of this planet and the complexity of socio-ecological interactions?

Outcomes

On completion of this course, students will be able to:

- Clearly articulate the evolution of the human-environment interface, describing quantitatively and qualitatively the impact of humans on ecosystems
- Design and develop participatory interventions in socio-ecological systems that improve livelihoods and sustainability at diverse scales and in diverse contexts
- Design and implement assessments of socio-ecological systems that prepare diverse stakeholders for potential environmental risks by improving the possibility for considerations of sustainability in institutional, community, and household practices.

Field Speakers in Socio-Ecological Systems

- Dr. Nic Jelinsky, soil scientist, University of MN
- Dr. Leslie Brandt – United States Forest Service – Climate Adaptation and Forest Management
- Dr. Julia Nerbonne – MN Interfaith Power and Light, and University of MN
- Drew Slevin and Lindsay Rebhan will work with us for 8 days on site at Lily Springs Farm
Your grade for this course will be based on the following assignments:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
<th>Due (specific due dates will be set in first week of class)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short essay and presentation: Sustainability as a priority to me – allows each student to offer a formal introduction of interests, background and learning objectives.</td>
<td>100 points</td>
<td>Second class meeting 9/6</td>
</tr>
<tr>
<td>Socio-Ecological Systems midterm essay</td>
<td>200 points</td>
<td>7th week of class</td>
</tr>
<tr>
<td>Facilitation of a case study of one problem illustrating bridging or resistance to connecting social and environmental systems</td>
<td>100 points</td>
<td>4th through 9th week</td>
</tr>
<tr>
<td>Design and presentation of one dream intervention that successfully bridges that interface</td>
<td>200 points</td>
<td></td>
</tr>
<tr>
<td>Participation</td>
<td>200 points</td>
<td>Always</td>
</tr>
<tr>
<td>Socio-Ecological Systems final paper (demonstrating the integral systems thinking of permaculture design)</td>
<td>200 points</td>
<td>12/12</td>
</tr>
<tr>
<td>Final presentation of paper</td>
<td>200 points</td>
<td>12/12</td>
</tr>
</tbody>
</table>

1000 points total

Assignments in Socio-Ecological Systems
1) Essay: Sustainability as a priority to me. Tell a story about why environmental sustainability is important subject matter for you, and how you hope to offer leadership for environmental sustainability (the subject), and Environmental Sustainability (the semester program). In a 3~5-page essay, describe how you hope participating in this semester will enrich your capacities as a leader in environmental sustainability.

2) Midterm essay. This is a take-home exam in which students demonstrate their integration of all the topics covered up to the semester’s mid-point. Students share their interpretation of various strands in the semester and draw connections among them.

3) Students will take turns facilitating discussions on topics covered in the readings each Tuesday and Wednesday, including one case study of a problem and one study of a real or proposed solution. Over the course of the semester students are expected to demonstrably improve public speaking, facilitation and analytical skill.

4) Participation. As above, students will both teach and learn in every sequence in the course. When others are teaching, the active participant is listening, with full attention, without interruption. And when that participant is speaking, there is engagement with the different sensibilities of all the other learners in that space.

5) Final presentation and paper. Like the presentation in CJ/EJ, this final paper and presentation is an opportunity to share “the shine” that’s come through you as a result of your deep immersion in the
subject matter, but this time, the focus is on socio-ecology and on one socio-ecological system or network of systems, such as the Millennium Ecosystem Assessment. Students will sum up their learning journey in a high-quality senior-seminar style presentation. Evaluated on quality of the presentation, integration of topics, and demonstration of analytical acumen.

**Course 3) Field Research Methods and Investigation, 4 credits**

**Books (reading materials provided by HECUA):**

The Field Methods course provides students with practical skills to assess and improve ecosystems and decision-making in socio-ecological systems. We will use a text by Bill Mollison, a founder of permaculture, to learn how to work with nature to improve ecological, communal, and personal health simultaneously. This course is designed to help students develop the capacity for constant and consistent ecological thinking, in order to participate in wise and effective decision-making at the interface of the human and natural worlds. All field-based learning in the course takes place in partnership with community organizations and branches of government that are working actively as ecological stewards and promoting sustainability of human society and specific settlements with wise design. We will learn and apply conceptual, organizational, and technical skills to help our community and institutional partners in this process. This course engages Lily Springs Farm as a field-learning site. We work with a permaculture designer and farmer on-site to use a variety of techniques to assess the landscape and to design and implement ecologically restoration strategies for: a lake; a wetland; a farm system, a pine plantation being slowly converted to an oak savanna mimic; and 30 acres of forest that has been largely undisturbed for the past thirty years.

**Field Studies Site and Field Visits**
We will have four overnight stays (8 full days of work) at Lily Springs Farm, a permaculture demonstration site, where we will study forestry, farming, water, rural livelihoods, ecological design, and permaculture. Once during the semester we will travel to Standing Rock Reservation in North Dakota to continue supporting their Water is Life school and their emerging models for ecological-cultural renewal.
We will make multiple visits to Northside Fresh, which implements the local food systems model for North Minneapolis. We will also study indigenous agroecological research at the Mashkiiki Giitigaan teaching garden and Dream of Wild Health farm.

**Framing questions of this course:**
How can we create processes for restoring ecosystems that also foster improved socio-ecological interfaces? How can we improve decision-making at the interface of the human/natural worlds?

**Outcomes**
Students will gain intercultural, organizing, organizational, and technical skills.
Students will practice these intercultural and organizing skills:
- Design and implement qualitative interviews, using Generative Listening
- Develop and deliver high quality presentations on complex issues to diverse audiences
- Facilitate community dialogues to build public ecological knowledge
- Design and carry out a biodiversity assessment
- Propose ways to enhance biodiversity while attending to a diverse range of connected socio-ecological concerns
- Develop a socio-ecological systems transformation plan

At Lily Springs Farm, students will practice the technical skills necessary to apply integral science, policy and practice in the areas of:
- Lake ecology – and biodiversity assessment;
- Tamarack bog ecology and bioremediation of pesticide and herbicide run-off from adjacent farm fields;
- Soil Science, regenerating soil in a transitioning monocultural pine plantation;
- Innovations in grazing of goats as key component of regenerative landscape design;
- Working with mushrooms as bioremediation technology;
- Perennial polyculture – how to design for short-term profits and long-term benefits?

Field experiences in past years have included:
- Expanding earth skills by setting up, managing, and taking down camps with zero waste on each of our field trips
- Comparing and contrasting protected and managed forest habitats, including immersion in a protected remaining stand of virgin forest
- Working with the United States Forest Service to improve the survival rate of tree seedlings in a pine forest, employing bud-capping
- Working with a permaculture demonstration farm on plantings within an ecosystem that mimics an oak savannah
- Carrying out field interviews with urban farmers regarding water management practices
- Working hands-on with honeybees and learning about pollinator meadows and corridors as techniques to restore pollination services to areas degraded by infrastructures in urban and rural areas
- Learning hands-on about indigenous farming practices
- Developing local food systems development strategies to help low income communities move toward partial self-sufficiency
- Working with urban farmers to build capacity
- Exploring the development of new markets for farm products
- Developing plans for continuously productive urban landscapes

Data-informed analysis and decision-making

Below are four of the field-based research projects incorporated in the HECUA-ES curriculum. What students do in these field projects is directly connected to work in the classroom, and used to generate reports/analyses useful to decision makers in the appropriate socio-ecological context (farming, state forestry management, agricultural extension, outdoor education, climate science, urban and rural policy making.)
Your grade for this course will be based on the following assignment:

Assignment

There is one assignment for Field-Based Research Methods: A complete permaculture design for a project of your choice (which can be a group project).

- 200 points for project description and background statement
- 200 points for community engagement in design process
- 400 points for completed design
- 200 points for presentation of design

1000 points total

<table>
<thead>
<tr>
<th>Applied Science Experiences</th>
<th>Description</th>
<th>Learning Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil Assessment</td>
<td>Students will assess soil conditions in four sites: pine plantation; adjacent slightly disturbed forest; farm field under perennial polyculture and nearby farm doing conventional corn/soybean agriculture.</td>
<td>Students will learn how to take soil samples and about measures to apply to improve soils. Students will observe and understand consequences of decisions regarding soil quality in talks with decision-makers.</td>
</tr>
<tr>
<td>Biodiversity Assessment</td>
<td>Students will do biodiversity assessments at an urban bird sanctuary and a rural permaculture demonstration farm.</td>
<td>Students will learn a variety of biodiversity assessment tools, and how to assess the usefulness of baseline assessments to support enhanced biodiversity over time.</td>
</tr>
<tr>
<td>Seed Nutritional Assessment</td>
<td>Students will check nutrient density of seeds from different seed stocks and interview seed-users to assess the bases of decisions about seed stock.</td>
<td>Many urban and rural farmers do not generate enough high quality seed stock within their operations. This study intends to determine how farmers make choices about acquiring seeds and under what conditions they might be inclined to join in efforts to improve local availability of indigenous, heritage and other seed varieties.</td>
</tr>
<tr>
<td>Climate Change and Farming Practices</td>
<td>Students will interview 30 farmers (ten urban, twenty rural) who have been farming for at least five years.</td>
<td>Students will learn the extent to which farmers are noticing impacts from climate turbulence and, if so, how they are adapting to and/or mitigating the impacts of climate change in their farm systems.</td>
</tr>
</tbody>
</table>
Embedded Permaculture Certificate
For those interested, it is possible to receive a Permaculture Design Certificate (PDC) and join a worldwide movement of more than 1 million permaculturalists working to extend the embodiment of the three ethics of earth care, people care, and fair share. To receive the PDC students must complete a design project in a community. See below for potential sites for those projects.

<table>
<thead>
<tr>
<th>Permaculture Ethics</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earth Care</td>
<td>Soil Fertility</td>
</tr>
<tr>
<td></td>
<td>Climate adaptation</td>
</tr>
<tr>
<td></td>
<td>Waste reduction, re-imagination and re-utilization</td>
</tr>
<tr>
<td></td>
<td>Energy Systems</td>
</tr>
<tr>
<td></td>
<td>Food and plant systems</td>
</tr>
<tr>
<td></td>
<td>Biodiversity</td>
</tr>
<tr>
<td></td>
<td>Shelter, Structure and Ecological Economics</td>
</tr>
<tr>
<td></td>
<td>Ecosystems Science and global ecosystems assessments</td>
</tr>
<tr>
<td>People Care</td>
<td>The welfare state model, the laissez-faire model, the economic justice model, and the ecological democracy model – comparative analysis</td>
</tr>
<tr>
<td></td>
<td>Exploration of bottom up models of local living economies</td>
</tr>
<tr>
<td></td>
<td>Exploration of businesses with triple bottom line (earth care, social benefit, sustainable profitability)</td>
</tr>
<tr>
<td>Fair Share</td>
<td>Taking care of the Ecological Commons</td>
</tr>
<tr>
<td></td>
<td>Indigenous self-determination</td>
</tr>
<tr>
<td></td>
<td>Social movements among slum dwellers, peasants and landless workers</td>
</tr>
<tr>
<td></td>
<td>Bridging Ecological Economics and Economic Justice</td>
</tr>
</tbody>
</table>

We recognize that not every student will desire a permaculture certificate, and any student can opt out of doing a permaculture project. We also recognize that there is some dispute about the scientific and practical merits of permaculture design. Both teachers are certified permaculture designers, and one is a certified permaculture teacher. In our life experience in the United State, in South America and in Africa, we have seen the profound benefits of well designed, scientifically-grounded applications of permaculture to improved livelihood, improved policy-making and improved science practice. Therefore, we continue to proudly offer it as a core aspect of our curriculum, but can easily provide opt-out alternatives to a student who would prefer, for instance, to focus their field seminar final presentation on changing public policy, partnering a citizen science initiative, or advancing sustainability practice with an institution or network.

Course 4) Environmental Sustainability Internship
This four-credit internship intentionally integrates science, policy and social justice leadership. Students will be expected to evaluate each of these domains in terms of how their internship site incorporates science, policy and social justice in their work. To the extent they do, the task is to document practice. To the extent that they don’t, the task is to consider entry points by which the organization might begin to benefit from incorporation of all three of these domains in an integral way. We are incorporating a dialogical approach to design and reflect on our internship experiences – developing personal and shared
leadership competencies, integrally designed in-flow with the overall learning objectives for the semester as a whole.

September 5th – Hear from interns what their learning and leading styles are, what they would most like to learn in internships and what they would most like to lead on in the three domains: science, policy and social justice. Students are expected to develop learning and leading objectives in each of these three domains. We will discuss the questions, concerns and hopes they have as they prepare to meet their internship supervisors, and prepare them to be empowered interns – contributing a lot and achieving their personal learning and leading objectives to the fullest extent possible. At this session will critique the paradigm of service learning and discuss the always-evolving HECUA approach. Students will learn about the ethics of community engagement, and the often-turbulent dynamics that present themselves in social change endeavors.

September 12th – Interns will meet their internship sites, hear all the fabulous things they are doing and how they hope to engage interns. Interns and internship supervisors will work together to complete the first draft of work plans for the semester and present how the interns will learn and lead in the three domains.

October 3rd – Dialogue on what we are learning, how we are leading, how we are making a difference. We will reflect on surprises, high-points, low-points, how we have adapted as learners and leaders to meet the twin objective of making a difference that has meaning to us personally and has value to the organization. We will celebrate contributions made, new skills established or strengthened, put sunlight and water on next learning objectives and review how well we are working with our internship supervisors and organizations.

November 1 – MID Semester Evaluation. Emily will provide a template, You are each expected to fill it out before the session, and come prepared to do a ten minute Tedx talk on your internship experience covering: mission, vision, process, practice, impact, and how the student is learning and leading in each of the three domains (science, policy and social justice practice). In addition, students will fold in internship swap insights incorporating a comparative analysis of how their experience at their own site compares to the experience of a peer at another site.

December 5 – Final internship evaluation facilitated by Emily. Student final evaluations are expected to provide a clear, detailed synopsis of theory and application in internships in science, policy and social justice practice.

The internship provides concentrated practice at an organization whose core work addresses issues raised in this program. At the internship, students integrate and refine their theoretical understanding, build and develop skills, and grow in their understanding of future career paths. Facilitated reflection, written assignments, and activities that include time at another student’s internship site, integrate the internship experiences with the other courses. Students work a minimum of 160 hours at their placement, 12-15 hours/week for 12 weeks during the program.
Your grade for this course will be based on the following assignments:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly Internship Logs</td>
<td>18</td>
<td>Every Monday, from Sept 25, for 12 weeks</td>
</tr>
<tr>
<td>Learning and Work Agreement</td>
<td>10</td>
<td>Due Sept 21</td>
</tr>
<tr>
<td>Organizational Profile PowerPoint</td>
<td>16</td>
<td>Due Oct 4</td>
</tr>
<tr>
<td>Mid Semester Evaluations</td>
<td>5</td>
<td>Due Nov 1</td>
</tr>
<tr>
<td>Internship Exchange Collaborative Project</td>
<td>16</td>
<td>Due Nov 1</td>
</tr>
<tr>
<td>Final Internship Evaluations</td>
<td>15</td>
<td>Due Dec 6</td>
</tr>
<tr>
<td>Log of Internship Hours Completed (160)</td>
<td>20</td>
<td>By Dec 16</td>
</tr>
<tr>
<td><strong>Total possible points:</strong></td>
<td><strong>100</strong></td>
<td></td>
</tr>
</tbody>
</table>

Note: Weekly Internship Logs and all other internship assignments should be submitted to/uploaded to Moodle on or before the day they are due. Late assignments will not be accepted unless you have arranged ahead of time for an alternative due date.

**Weekly Internship Logs**
On Moodle, write reflections on the highlights, successes, challenges, and connections to class themes you have felt and seen every week, reacting to prompts on Moodle. Record your hours for the week and keep a running total. You will hand in your log of internship hours with the mid-semester and the final evaluations.

**Learning and Work Agreement**
A Learning and Work Agreement is a helpful tool in preparing you and your supervisor for the internship. The agreement should outline your professional and personal goals for the internship and your work plan for the term. Be clear and specific about your goals. This document is one tool to facilitate mutual understanding of what is expected and what is possible through the internship. The more specific you are in your agreement up front, the better you will be able to evaluate, reassess, and achieve your goals. The more connected your goals are to your work plan, the more successful the internship will be.

The agreement should be a negotiated contract that you can revisit and reevaluate with your internship supervisor at regular intervals during the internship. It should be flexible and allow for growth and change of all involved parties. Make sure that you and your supervisor both agree that the desired outcome can be achieved in the time allotted and with the resources that are available.

The Learning and Work Agreement is available for download on Moodle. Once you have completed it, save electronic copies for yourself and for your supervisor, print out a hard copy, and, after you have both signed it electronically, upload the final version to Moodle. If you have difficulty, make sure to contact Emily Seru in advance.

Your Learning Agreement will be graded based on the level of detail you give to your own goals and to your proposed work plan, projects, due dates, upcoming events or meetings, etc. Be as concrete as possible. Think about how your work and progress will be evaluated at the mid-semester evaluation, and set specific goals and proposed outcomes for your work.

**Organizational Profile Power Point Presentation**
This assignment will help you to connect your day-to-day experiences and projects at your internship with the broader social mission of the organization. Teaching others can be a powerful way to synthesize what you have learned and to draw out opportunities for further learning. This assignment will ask you to present what you have learned about your internship site from your own experiences, observations, and research to your fellow HECUA students.

To complete this assignment, you will need to utilize printed and human resources at your internship site. We encourage you also to use this assignment to get to know people at your internship site. Try to talk to a variety of staff members, contacts in the community, clients or constituents, board members, etc. Past students have found it useful to set up brief time periods to meet with your new colleagues (e.g., lunch or coffee, or a formal meeting with your supervisor).

Come to class prepared to share what you have learned about your internship organization with your fellow classmates in the form of a PowerPoint presentation covering the following:

1. You must interview at least two people for this assignment. The first question you ask them should be about how they see their own social justice values intersecting with the work of their organization. Please include a quote from one of the people you interviewed in your presentation. Then, ask them about the following questions and pursue these from other sources as well.

2. What is the mission of the organization? Is the mission statement consistent with the issue(s) the organization is trying to address? What is the organization trying to change in the world? What will be different in the world if the organization succeeds? Why should someone support the work of this organization? Why would it make a difference?

3. What is the history of the organization and the historical context for its creation? How has the organization changed over time? How is this history reflected in the organization’s work? What does the future hold for the organization? Do they have a vision for what they want to become?

4. How does the organization try to make social change? What strategies does the organization employ? In what ways are their strategies successful? Important: Tell a brief story about something you have witnessed at the organization that demonstrates the importance of the work or how it is making a difference.

5. How is the organization funded? Do they receive foundation support? Individual support? Do they have earned income streams? Important: How does the organization’s sources of funding (funders) shape, limit or create their mission and approach to social change?

6. How does your work this semester fit into the organization's mission and history? What impact do you see yourself having on the organization’s work and mission? What do you feel you have to contribute and what do you feel you have to learn?

Address all of the questions above. If you hit roadblocks, reflect on why staff at your organization may be unaware of or unable to share this information. Please include citations of where you found all of your information. This list must include at least two in-person interviews with people connected with the organization. The assignment will be graded on the quality, persuasion, and creativity of your presentation, and on the evidence of your research. Use photographs from your internship wherever possible.

Mid-Semester and Final Internship Evaluations
The mid-semester and final evaluations include space for your own self-reflection and evaluation of your work, as well as room for your supervisor’s comments and evaluation on your performance and
self-reflection. The evaluations are available on Moodle to download, complete, and upload back to Moodle on the day they are due. We recommend you complete your own evaluation, give your supervisor your completed evaluation and their blank supervisor evaluation, and make time to sit down and discuss them together. (At the mid-semester evaluation meeting with your supervisor, make any revisions to your learning agreement that seem useful or necessary.) Plan ahead for the mid-semester and final evaluation meetings with your supervisor! It can be difficult to schedule with them on short notice. Get the meetings on both of your calendars ahead of time, giving you plenty of time to get their feedback in time to hand in your evaluations on the date they are due. “My supervisor was not available to meet with me” is not a valid excuse for an evaluation being late. These assignments will lose points for each class day they are handed in after the due date.

Internship Exchange Collaborative Project Proposals
The goal of this assignment is for you to:
• Clarify questions you would like to explore further through your internship experience;
• Compare and contrast two different organizations using a critical and reflective lens;
• Work collaboratively with a fellow student to design a project that connects the work and mission of both organizations;
• Present your collaborative idea in writing and in a public presentation to your internship supervisors and classmates.

Step 1: Preparation, October 10
You will be paired with another student in the class for this assignment.
You will be given time during class to develop five exploratory questions rooted in your own interests related to each other’s internship sites. You will schedule the days you will visit each other’s internship sites for half a day.

Step 2: Internship visits (2)
Each student will host the other for a half-day at their internship and communicate with their supervisors about the timing and focus of the visits.
The role of the hosting student is to teach the other student about the work of the organization and involve them in an active way with the day-to-day operations of the internship. The role of the visiting student is to observe, and to actively explore the five questions developed in class. At the end of the first visit, you will take a half hour to debrief, reflect, document your observations and answers to the five questions, and make any adjustments to the five questions for the next visit.

Step 3: Project proposal draft
At the end of the second visit, you will reflect on your observations, answers to your exploratory questions, and together you will brainstorm and draft a proposed collaborative project that could benefit both of your organizations. This project should be relevant to each organization’s mission, and reflect the five questions you have explored through your visits to each other’s sites.

Step 4: Project proposal review with internship supervisors (Hand in to Emily and supervisors for feedback by October 20)
Collaboratively write up the proposed project idea and the benefits you feel it could have for organizations. Note the materials needed, and the time you feel it would take to complete. Each student
shares the project proposal with his or her supervisors for feedback. After receiving feedback, make any adjustments to the projects, and complete the proposal to present in the HECUA class.

Step 5: Class Presentations November 1
Each student pair will give a ten-minute presentation to the rest of the class. The presentation should include:

1. Your own accounting of the visits, the process, your reflections, and any new insights you gained about your own internship organization as a result of this project.
2. Your shared project idea and the reactions from your supervisors. Be sure to state the goals and potential benefits of the project, as well as any perceived barriers to collaboration.
3. Solicit questions and feedback from the class

This assignment will be graded based on how you completed each of the steps in the collaborative process, as well as on the quality of the proposed project and how you present it to your supervisors and to the class.

Faculty Bios

Sam Grant – Program Director
BA, MS, MA, PhD in progress
Sam Grant has been an Environmental Justice organizer since 1983. He has served on the Steering Committee for the North American Bioregional Congress, done workshops across the Americas on sustainable agriculture, innovated in urban agriculture in the Twin Cities region, developed models for eco-village organizing and development with the African Diaspora, and is a published author on the topic of embodied liberation – healing land and livelihood.

Sam has been a college professor since 1988, and has taught more than two thousand students over the years. He has ALWAYS engaged students in field-based learning, partnering with communities organizing for social change. He believes in a participatory, empowering approach to education and draws from the passions and questions of students in every class session.

Sam is currently:

- Board Chair of Sierra Leone Foundation for New Democracy, building an eco-village demonstration farm and early childhood education center in a rural village
- Instructor at both Metro State University and Minneapolis Community and Technical College
- Completing a PhD in integral ecology, with a focus on African Political Ecology

Sam is a husband and father and lives with his family and little dog by Como Park in Saint Paul. He loves music, nature, beauty, laughter and resilience.

Louis Alemayehu – Community Faculty
Louis Alemayehu is a writer, educator, activist, poet, father, and grandfather of African and Native American heritage. He offers workshops and consultations on racism, culture, organizational conflicts, environmental justice and community building. His writing has appeared in national and international publications such as The Process Work Journal, DRUMVOICES, Blues Visions and the Energy Bulletin. Alemayehu is a founding member of the seminal and award winning poetry/jazz ensemble, Ancestor Energy.
In 2009 the Minnesota Spoken Word Association presented Alemayehu an Urban Griot award for 30 years of excellence as a pioneering spoken word artist. In late 2011, Louis developed the concept of Minneapolis Energy Options (MEO) with George Crocker and Timothy Denher-Thomson. This led to the Clean Energy Partnership between the City of Minneapolis, Xcel Energy, Center Point Energy and an advisory board of Minneapolis citizens charged with determining the city’s clean energy future. In 2012 the Process Work Institute in Portland Oregon certified Louis as a “World Work Elder.”

Emily Seru – Manager of Internships and Community Partnerships
BA, MA in Experiential Education in progress
Emily Seru is a seasoned experiential education facilitator, community programs innovator, and internship guide in the Twin Cities social justice community. She actively listens and learns from HECUA’s community partners, students, and faculty members to draw out connections and possibilities for shared learning, growth, and work. Emily is a longtime resident and community leader in the Frogtown neighborhood of Saint Paul where she lives and plays with her husband, son, dog, cat, and the occasional mouse.

HECUA – ES 2017 Weekly Forecast

<table>
<thead>
<tr>
<th>Week</th>
<th>Focus</th>
<th>Presenters</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Introduction to ES</td>
<td>Review Syllabus, students complete pre-assessment. Students present on their big questions and primary interests in environmental sustainability</td>
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<tr>
<td>2.</td>
<td>Science/Policy/Practice Integration Seminar</td>
<td>Environmental and Climate Justice, global and local science, policy and practice</td>
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<td>3.</td>
<td>Lily Springs Farm Field Experience</td>
<td>Permaculture, Agroecology and Ecological Site Assessment Level 1</td>
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<tr>
<td>4.</td>
<td>Urban Field Lab</td>
<td>Local Food Systems Participatory Action Research in North and South Mpls</td>
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<td>5.</td>
<td>The Science, Policy and Practice of Climate Change</td>
<td>Climate Science and the Millennium Ecosystem Assessment Internship Integration Seminar</td>
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<td>6.</td>
<td>Science/Policy/Practice Integration Seminar</td>
<td>Critical Challenges in Social Change leadership/ perspectives from scientists, policy makers and activists. Bridging convention and indigenous science</td>
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<td>7.</td>
<td>Lily Springs Farm Field Experience</td>
<td>Permaculture, Agroecology and Ecological Site Assessment Level 2</td>
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<tr>
<td>8.</td>
<td>Field Lab</td>
<td>Building a simple one-person aquaponics system</td>
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<td>9.</td>
<td>Trip to visit with Native Nation</td>
<td>We will go to Standing Rock to support on-the-ground innovations in cultural restoration and ecological livelihood</td>
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<td>10.</td>
<td>Science/Policy/Practice Integration Seminar</td>
<td>Socio-Ecology of Environmental Complexity – how do we face the most wicked challenges of the 21st century in an integral way?</td>
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<td>11.</td>
<td>Lily Springs Farm Field</td>
<td>Permaculture, Agroecology and Ecological</td>
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<tr>
<td>Experience</td>
<td>Site Assessment Level 3</td>
<td>staff</td>
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<tr>
<td>12. The Global South and Ecological Economics</td>
<td>What can we learn from the way the Global South is organizing to address climate change and environmental justice, and sustainable livelihood innovations?</td>
<td>Sam/ theory seminar</td>
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<td>13. Science/Policy/Practice Integration Seminar</td>
<td>Complete Whittier neighborhood systems design</td>
<td>Sam, Louis, and guest speakers</td>
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<tr>
<td>14. Lily Springs Farm Field Experience</td>
<td>Student – final design presentations on permaculture and ecological design and restoration.</td>
<td>Sam, Louis, Lily Springs Farm staff, Emily (12/5 all day)</td>
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<tr>
<td>15. Student Final Presentations</td>
<td>Students’ final presentations, Final Evaluation of internships</td>
<td>Students</td>
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**Annual Theme**

HECUA’s annual theme for this year is Truth, Reparations and Conciliation. We will incorporate dialogue, reading, research and action that embody these themes in a way that is relevant for environmental sustainability.

**Skill-Sets**

- Non-Violent Direct Action
- Non-Violent Martial Arts (restorative self-defense)
- Meditation techniques to “be peace” in conflict spaces
- Accomplice Training
- Mediation Training (Conflict Transformation model)
- Cultivating your Satyagraha (truth-force)
- Reparations Analysis
- Conciliation Facilitation
- Permaculture Design

**Theoretical Competence**

- History of non-violent direct action
- Approaches to conflict (management, resolution, mediation, transformation)
- Structural Violence and Environmental and Climate Injustice
- Successes and failures of global peace-building approaches
- The Philosophy and Ethics of Permaculture and Co-Liberation
- Intercultural Action Research (the applied science of integral ecology)