Sustainable Agriculture Minor

Guidelines for Undergraduate Students

UNIVERSITY OF MINNESOTA
COLLEGE OF FOOD, AGRICULTURAL AND NATURAL RESOURCE SCIENCES

Agricultural Systems are complex and dynamic. In recent years, questions have been raised regarding the sustainability of energy and resource intensive agriculture systems. While all agriculturally oriented majors of the College of Food, Agricultural and Natural Resource Sciences (CFANS) consider issues of sustainability in agriculture, the Sustainable Agriculture Minor provides a concentration of courses giving students greater understanding of the scientific, technological and socio-economic factors affecting the viability of agriculture. Students examine ecological, economic and social features of agriculture and work through case studies involving integrated management of specific agricultural systems. The minor provides a degree of flexibility and individuality through several elective options. Students should develop their course of study in consultation with an advisor in one of the CFANS major programs. This minor allows students to study sustainability of agricultural food systems from an integraed perspective including coursework, practical experience and community reflection.

MISA
Connecting farmers, the university, and the community to promote sustainable agriculture

Minnesota Institute for Sustainable Agriculture
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St. Paul, MN 55108
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Forms
- ✔ Intent to Enroll page 17
- ✔ Internship Proposal Cover Sheet page 18
- ✔ Proof of Health Insurance page 19

Program Office

For futher information, contact the Minor Coordinator or the Student Program Coodinator. This handbook and additional information are available on the MISA website: www.misa.umn.edu under Student Programs.

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Sustainable Agriculture seeks to balance three long term goals: Quality of life, Environment and Economics.

The Admission Process

To enroll in the minor, complete the declare a CFANS minor form https://umn.qualtrics.com/SE/?SID=SV_55x9tFhvqe5Qzrf. Students are also encouraged to submit the Intent to Enroll Form (on page 17 of this packet) to the MISA office and the Student Program Coordinator. It is the student's responsibility to identify an advisor; any faculty person may serve as the minor advsior, if you would like assistanace identifying an advisor please contact the Minor Coordinator or the Student Program Coordinator (contact information on page 2). Students may want to consider the faculty person's areas of interest and expertise when making this choice.

Minor Requirements

Students are required to complete 2 core courses and one class from each of the three foundational clusters: (1) Agriculture / Environment and Natural Resources; (2) Citizen / Science and Society; and (3) Land and Public Policy is required, for a total of at least 17 credits.

Core Courses (2 Courses Required)

Agro 4888 2 credits
Issues in Sustainable Ag
Study the social, economic, political and environmental aspects of a sustainable agriculture through discussions with experts in the field. Specific topics can include: the history of agriculture and the family farm, government farm policy, the importance of biodiversity for healthy landscapes, rural communities, quality of life, community supported agriculture, organic agriculture, landscape health and non-profit organizations. Teaching approaches will include student, faculty and producer-led discussions. The course will include on-farm visits. Target audience: non-majors and majors interested in sustainable agriculture.

Internship Core Course (Choose one of the following):

XXXX 4096 1-3 credits
Professional Experience Program: Internship
Supervised Professional Experience. Students would register for one of the following classes: AGRO 4096, ANSC 4096, APEC 4096, ENT 4096, ESPM 4096, FSCN 4096, HORT 4096, or PLPA 4096.

ID 3597 - HECUA Off-Campus Study Program: Agriculture and Justice Food Systems Internship 4 credits
Minimum of 160 hours on substantive, mission-related projects at community-based organizations dedicated to food justice/food sovereignty in Twin Cities/greater Minnesota. Through written assignments/critical reflection, HECUA faculty link internship back to theoretical frames.

ID 3594 4 credits
HECUA Off-Campus Study Program: Environmental Sustainability, Internship (CIV)
Students work with an organization addressing issues such as how to manage infrastructure for a booming economy and population in the metropolitan area, how rural communities can maintain viable livelihoods, and how to avert environmental decline in threatened ecosystems.

Foundational Clusters

Select one course from each of the following clusters. **Other courses may be submitted with the approval of the minor advisor and coordinator.**

- Agriculture / Environment and Natural Resources
- Citizen / Science and Society
- Land and Public Policy Courses

Agriculture, Environment and Natural Resources Courses

Agro 1103 4 credits
Crops, Environment, and Society
Life on earth is dependent on plants. Learn about food, fiber, and medicinal plants that are important to our society, their impact on environmental quality, and how they are improved and cultured. Discuss currently important topics such as genetic engineering, food safety, water quality, organic agriculture, and species preservation. In a laboratory, learn about how plants grow, and about food products derived from plants. This course is intended for undergraduate majors and non-majors interested in a general understanding of food and fiber production from crop plants.

Agro 5999 3 credits
Agroecosystems Analysis (Summer Field Course)
This is a field-based "immersion" course that introduces students to the concept of the agroecosystem and their analysis with an underlying emphasis on sustainability. Students visit a number of farms of various types in Minnesota, Iowa and Nebraska, as well as other historic and cultural sites of significance to this region. There is considerable time for discussions with the farmers. Students prepare oral and written analyses based on their observations and conclusions.

AMIN 3312 3 credits
American Indian Environmental Issues and Ecological Perspectives (ENV)
American Indian environmental issues in U.S./Canada. Analysis of social, political, economic, legal forces/institutions. Colonial histories/tribal sovereignty.

AMIN 3314 3 credits
Natural Resource Manament & the Environmental Policy in Indian Country
American Indian natural resource management issues in U.S./Canada. Analysis of land tenure practices (pre-/post-European arrival), federal management programs, tribal natural resource governance/policy. Co-management initiatives between federal/state/tribal agencies.

Ansc 1101 4 credits
Introductory Animal Science
Introduction to animal science with emphasis on fundamental concepts of physiology, nutrition, animal breeding and management as they apply to production systems of livestock, poultry, and companion animals.

Agriculture, Environment and Natural Resources Courses (continued)

Ansc 3203/Agro 3203W 3 credits
Environment, Global Food Production, and the Citizen
Sustainable production of food is crucial to human survival. Different agricultural ecosystems have developed around the world that are influenced by and have an impact on the environment. This Course examines how the environment constrains the capacity to produce food and the impact of agriculture on the environment from a Global Perspective. Topics include human population growth and hunger, ecological properties of agricultural ecosystems, issues of biodiversity, natural resource conservation, pollution, water and waste management. The course is Writing Intensive and utilizes the Active Learning Classroom to provide a group learning environment. Students with no prior exposure to agriculture are encouraged to enroll. An introductory knowledge of biological concepts would be helpful.

APEC 3611W 3 credits
Environmental and Natural Resource Economics
This is a course on the use of economic tools in the analysis of policies for use and protection of natural resources and the environment. The focus will be on how we can use basic economic models to analyze problems of resource use and the potential effects of public policies, to help sharpen our thinking about how choices are made, by individuals and society, concerning natural resources and the environment. We will look at both environmental economics (which focuses on externalities) and natural resource economics (which looks at resource use over time). You will be asked, during the course, to set up and solve economic models that capture important aspects of the behavior and policies that we will consider throughout the semester.

APEC 3811 3 credits
Principles of Farm management
Strategic and operations aspects of farm management; financial analysis, budgeting, strategic management; marketing plan and control; enterprise and whole farm planning and control; investment analysis, quality, risk, and personnel management.

APS 4072 3 credits
What Does It Means to Be Green?
Explore the role and potential of organic agriculture in providing healthy food at both local and global levels. A unique aspect of this course is the lead instructor: He is a farmer with 15 years of experience and has a PhD in Plant Biology. The course will emphasize the specific practices used on small to medium size fruit and vegetable farms as examples of how cultural systems interact with nature in the practice of agriculture. The classes will be a mix of lecture and discussion and is intended to be both information intensive and thought provoking. Student projects will serve to provide opportunity for greater depth in a specific area. The interests of students will influence the final syllabus. One farm visit field trip is required

Continued on the next page.

Agriculture, Environment and Natural Resources Courses continued

EEB 4609 3 credits
Ecosystem Ecology
Regulation of energy and elements cycling through ecosystems. Dependence of cycles on kinds/numbers of species within ecosystems. Effects of human-induced global changes on functioning of ecosystems.

ENT 4021 3 credits
Honey Bees and Insect Societies
Natural history, identification, and behavior of honey bees and other social insects. Evolution of social behavior, pheromones and communication, organization and division of labor, social parasitism. Lab with honey bee management and maintenance of other social bees for pollination.

ESPM 1011 3 credits
Issues in the Environment
This course is an introductory survey of environmental issues that explores the connections between environmental sciences, policy, and management. The course begins by reviewing scientific, ethical, and economic approaches to environmental decision-making, but our primary focus will be scientific. Then we will conduct a short review of ecology, focusing on case studies involving threats to biological diversity. Finally, we will apply these perspectives to prominent environmental issues, including human population growth, resource consumption, land management (e.g. forestry, agriculture), pollution, and energy use. The course is intended for first-year students majoring in Environmental Sciences, Policy, and Management (ESPM), and for all students who are interested in the environment and wish to satisfy the University's liberal education theme for Environment. The course has no prerequisites and is appropriate for students with little or no scientific background.

ESPM 3108 3 credits
Ecology of Managed Systems (ENV)
Ecology of ecosystems that are primarily composed of managed plant communities, such as managed forests, field-crop agroecosystems, rangelands and nature reserves, parks, and urban open-spaces. Concepts of ecology and ecosystem management.

ESPM 3245 3 credits
Sustainable Land Use Planning and Policy (ENV)
Policies affecting land use planning at local, state, and federal levels. Ecosystem and landscape scale planning. Collaborative and community-based approaches to planning for ecological, social, and economic sustainability. Class project applies interdisciplinary perspectives on planning and policy, including information gathering techniques, conservation planning tools, and evaluation of planning options.

Agriculture, Environment and Natural Resources Courses continued

GEOG 3401 4 credits
Geography of Environmental Systems and Global Change
The underlying theme to this course is that the natural environment provides the resources that sustain humans, and that our well being depends crucially on our interaction and interdependence with the natural environment. We have three main objectives: 1. to understand the processes that create the patterns of the natural environment, specifically the patterns of climate, vegetation, soils, and landforms; 2. to comprehend how changes in the processes may influence spatial patterns; and 3. to study the potential of humans to cause changes in processes, spatial patterns, and ultimately, our natural resources. The course topics will be covered with a mixture of lectures, discussion, and computer-based lab work. Lab projects focus on environmental concepts discussed in class (climate, vegetation, and soils geography) and the lab projects lead up to each student's final project.

GWSS 3290 3 credits
Topics: Biology, Health, and Environmental Studies: Enviro/ Feminism
Concepts of environmental biology, changing conditions of life on earth, creating a sustainable future. Connection between feminism and environmental justice. Disproportionate impact of environmental crises on women, children, and economically disadvantaged communities.

HORT 1014 3 credits
Edible Landscapes
Tracing our relationship with edible landscapes traces to our hunting-gathering origins. Technological/social changes have distanced us from our food. Integrating food plants into pleasing, sustainable, and edible landscapes in yards, neighborhoods, and cities.

HORT 2031 3 credits
Organic Food: How to Grow It, Where to Buy It, Can it Feed the World?
Basics of organic food. Growing small-scale organic fruits/vegetables. National Organic Program, importance of organic certification. Role of organics in food security and potential to feed world. Lecture, "hands dirty" experience on student organic farm.

HORT 3131/5131 3 credits
Student Organic Farm Planning, Growing and Marketing
As a result of successfully completing this course you will understand the principles that underlie the USDA National Organic Program and be able to interpret USDA organic certification guidelines for plant production. You will be able to apply these guidelines to effectively transition a conventional farm to a certified organic farm and to maintain its organic certification. In addition you will become familiar with different plant production approaches and practices in organic produce production. Since this is a laboratory course, about half of your grade will be determined from laboratory experiences. Lab is intended to simulate the experiences of working on an organic farm while integrating educational research and experiments.

Continued on the next page.

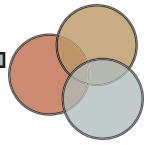
Agriculture, Environment and Natural Resources Courses continued

ID 3564 4 credits
HECUA Off-Campus Study Program: Environment and Agriculture: Sustainable Food Systems (ENV)
Connection between the environment and agriculture. Firsthand experience of food systems. Environmental, economic, political, social, and cultural issues that define modern farming. Seminars, field study trips, extended visits to sustainable Minnesota farms.

ID 3591 4 credits
HECUA Off-Campus Study Program: Environmental Sustainability: Adaptive Ecosystem Management (ENV)
Examine ecological and physical processes that underlie environmental degradation and learn to set up ecological monitoring through in-depth case studies of adaptive management projects

PLPA 2001 3 credits
Introductory Plant Pathology
The purpose of this course is to provide undergraduate students with a foundation in applied plant pathology. In the lectures students will be introduced to the concepts that form the basis for our understanding of the causes and control of plant diseases. The course emphasizes the biological and ecological aspects of plant disease and the role of plant diseases in plant production. Students are not expected to have a prior knowledge of plant pathology. The lectures are complemented by a weekly laboratory session that provides students with practical experience in the recognition of disease in plants, disease diagnosis and in the identification of plant pathogens. Students will also conduct some practical exercises in disease control. The course is intended to appeal to students with an interest in biology, and will increasing their awareness and knowledge of the microorganisms that cause disease in plants, plant disease development and the management of plant disease.

SOIL 2125 4 credits
Basic Soil Science
This is the introductory course for Soil Science. The material covered includes information on physical, chemical, and biological soil properties. These properties are related to agricultural and environmental examples where knowledge of soils is important. This course has 2 lectures a week (Monday and Wednesday), a self-paced laboratory, and a recitation session on Thursday. The overall goal of this course is to provide a foundation of Soil Science principles that can be applied to future study and every day life.



Citizen / Society and Science Courses

AFEE 4221 3 credits
Rural Leadership Development
Understanding the role, function, and features of leadership in rural communities; importance of personal involvement, personal leadership qualities, and vision for individuals and rural community organizations.

BBE 3201 3 credits
Sustainability of Food Systems: A Life Cycle Perspective
Hamburger or hummus? Conventional or organic? McDonald's or Mediterranean diet? What dietary choices are the most sustainable recognizing that what we eat affects not only our health but also the environment and the well-being of those involved in food production? Feeding a world population that in the coming decades will grow in both numbers and in wealth will require that we greatly increase the amount of food we produce and be better informed of its impacts. This course examines the consequences of the global food system from a life cycle perspective. Students will explore the diversity of both the foods we eat and the means by which we grow, process, distribute, and prepare them. Students will be asked to investigate and debate current topics and controversies in food sustainability, focusing on inherent complexity and trade-offs in various dietary options and the means of producing them. Case studies, readings, and discussion topics will be chosen to emphasize that responsible decisions concerning what we eat can only be made when we consider entire food supply chains and their full set of economic, environmental, and social consequences.

CHIC 3374 3 credits
Migrant Farmworkers in the United States: Families, Work, and Advocacy (CIV)
Socioeconomic/political forces that impact migrant farmworkers. Laws, legislation, and policies, effects on everyday life. Strategies of unions and advocacy groups. Role/power of consumer. How we produce, distribute, and consume food. Moral/ethical dilemma of consuming cheap food.

ENGL 3071 3 credits
The American Food Revolution in Literature and Tevevision
Personalities who through writing/TV brough european/global sensibilities to American table. Episodes of Julia Child. Writing by MFK Fisher, James Beard, Julia Child, Anthony Bourdain, Eric Schlosser, and Michael Pollan.

ESPM 3011 3 credits
Ethics in Natural Resources
Normative/professional ethics, and leadership considerations, applicable to managing natural resources and the environment. Readings, discussion.

ESPM 3202 3 credits
Environmental Conflict Management, Leadership, and Planning (WI)
Negotiation of natural resource management issues. Use of collaborative planning. Case study approach to conflict management, strategic planning, and building leadership qualities. Emphasizes analytical concepts, techniques, and skills.

Continued on the next page.

Citizen / Society and Science Courses continued

FSCN 2001 3 credits
Healthy Foods, Healthy Lives: A Food System Approach to Cooking
Skills/resources for food choices based on nutritional, environmental, local/global societal implications. Ethical/civic themes that guide food choices. Discussion/writing on how environmental, cultural, social, health issues impact personal food choices.

FSCN 3301 3 credits
Food Choices: Healing the Earth, Healing Ourselves
Link between our food/diet, agricultural practices, and health of planet. Food security. Cultural/personal context of food choices. Ways that food is produced, especially industrial monoculture. Food choices and the earth's bio diversity. Land use, water use, pollution, energy needs, climate change. Alternatives: organic/sustainable, fair trade. Economic policies/choices. Global tradeoffs.

GLOS 3305 3 credits
Life for Sale: Global Debates on Environment, Science, and Society
This course examines some of the most hotly debated topics in biomedicine, the sciences, and the environment today. We will look at issues such as the patenting of plant, animal, and human genes and cells, vaccine trials, genetically modified organisms, environmental waste, commerce in body parts, genetic research, global warming, and more from the perspective of what makes these issues controversial, who benefits and who does not, who determines the direction scientific and medical research takes, how these topics are presented to society, and what is their larger impact on social thinking and practices.

ID 3592 4 credits
HECUA Off-Campus Study Program: Environmental Sustainability: Dimensions of Environmental Change (SOCS)
How power dynamics and a global free market impact efforts to promote sustainability. The state's role in regulating resources and distributing environmental benefits. How social movements develop a collective future and mobilize actors to realize it.

Citizen / Society and Science Courses continued

SUST 3003 3 credits
Sustainable People, Sustainable Planet
As one of the most contested, yet foundational concepts of sustainability studies, the commons invites us to ask, what counts as common knowledge, resources, space, and labor, and who has access to such common goods? Debates surrounding the commons inevitably engage three vital components of sustainability: social equity, environmental integrity, and economic prosperity. These components are all worthy goals, but in today's globalized world of vying interests, dwindling resources, and finite time in which to solve major dilemmas, these goals compete. It is therefore difficult, if not impossible, to maximize all three of them concurrently. Some objectives of sustainability are therefore realized at the cost of other equally valid objectives. How do we collectively move toward an ideal balance of these different aspects of sustainability? In Sustainable People, Sustainable Planet, we will examine sustainability as both a contestable method, what actions can sustain our commons and goals? How can we achieve sustainable commons? Eight sites of the commons land, food, water, air, energy, shelter, bodies, and community will be studied via transnational, translocal, and transcorporeal scales, for the conflicts and trade-offs that occur from trying to put sustainability into practice. We will also examine different approaches to sustainable living, so you can consider whether and how to integrate sustainability into your own life. Sustainable People, Sustainable Planet is intended for sophomores and above. There are no other prerequisites, but you should have previous exposure to critical reading, writing, and thinking.

WRIT 3371 3 credits
Technology, Self, and Society
In this course we will study the cultural history of technology, examining the ways machines and technical processes have impinged on and influenced people's lives in the United States over the last two centuries. In the U.S. we have repeatedly re-organized our habits and thinking around new technologies, in an assimilative process most often described as "progress" a term with mostly positive connotations. Yet deep ambivalence has been a common response to technological advance. A new tool promises us a greater reach but also threatens familiar ways of living and thinking. Since any big technological development thus challenges the values of a culture, part of our work in this course will be to investigate the ethical dilemmas associated with innovation. In an effort to focus the large and unwieldy subject of technology, we will concentrate for much of the semester on three limited but still large categories: transportation, energy, and communication all three of which have significantly influenced our experience of space and time in North America. Texts will include history, theory, literature, and film.

Land and Public Policy Courses

Agro/Apec/Fscn 4103 3 credits
World Food Problems
Multidisciplinary look at problems and possible solutions affecting food production, storage, and utilization in developing countries. Presentations/discussions introduce conflicting views on population, technology, and ethical and cultural values of people in various parts of the world.

ESPM 3221 3 credits
Soil Conservation and Land-use Management
Water quality impacts of soil erosion. Nutrient transport to surface waters. Causes/consequences of soil erosion. Physical processes of wind/water erosion. Soil conservation techniques. Economic, political, and sociological influences. Reducing nutrient losses to surface waters.

ESPM 3241W/5241 3 credits
Natural Resource and Environmental Policy
Political processes in management of the environment. How disagreements are addressed by different stakeholders, private-sector interests, government agencies, institutions, communities, and nonprofit organizations.

ESPM 3251 3 credits
Natural Resources and Sustainable International Development
International perspectives on resource use in developing countries. Integration of natural resource issues with social, economic, and policy considerations. Overviews of agriculture, forestry, agroforestry, non-timber forest products, water resources, certification, and development issues. Latin American focus but also includes case studies from other developing regions of the world.

GEOG 3361W 3 credits
Geography and Public Policy
Nature/effects of federal policy in the United States. How documents produced as policy are crafted/implemented. Policies relating to food/agriculture, forestry, wildlife, and transportation.

PA 5002 1.5 credits
Introduction to Policy Analysis
The goal of this course is to provide you with an introduction to policy analysis and a better understanding of where it fits within the policy process. Policy analysis provides advice to help citizens, policy-makers, and others solve problems, and it is as much a craft as a science. We will learn several specific policy analytic skills: developing a problem context, problem structuring, developing alternative policy options monitoring, evaluation, forecasting, policy simulation, and recommendation. In doing so, we will use different analytical tools, seek to understand the larger policy-context, and practice communicating policy advice.

Writ 3315 3 credits
Writing on Issues of Land and Environment
Land in America as an idea and as actual space. History of cultural values and the meanings land holds for us. Contrasting views of land, especially those of certain Native American peoples. Rise of the conservation movement and the urbanization of U.S. space.

Internship Program

Students are required to complete an internship for the minor in Sustainable Agriculture. Intership provide students with first-hand knowledge of sustainable agriculture. Undergraduate Internship Experiences are coordinated by MISA's Student Program Coordinator, Courtney Tchida (tchi0003@umn.edu or 612-625-2738) feel free to contact the program coordinator for more information.

Experiential learning is an important aspect of the minor in Sustainable Agriculture at the University of Minnesota.

The internship program was conceived to encourage and facilitate experiential learning. Internships provide students with the opportunity to work with diverse issues related to the long-term viability of agriculture. This program also aims to help students develop decision-making skills that will be useful in future employment, and to broaden the student's familarity with organizations that provide employment opportunities related to sustainable agriculture.

The goals of the internship program are to provide opportunities for students to:

- increase their understanding of the goals and concepts of sustainable agriculture and become aware of issues affecting the sustainability of food production,
- become familar with decision making approaches used by individuals and organizations,
- interact with members of the agricultural community and form working relationships with some of these individuals or groups,
- perform work on a farm, or within an organization, public agency, or agriculture-related business, that will contribute to the development of sustainable food systems.

The internship is an eight to ten week supervised off-campus experience. During the internship, students will work to complete specific objectives that are agreed upon by the student, the internship host and the minor advsior.

Internship Opportunities

Through the internship, students can gain experience with alternative farming systems, producer and community education, community development, alternative marketing , or policy making and implementation. To gain a broad understanding of agriculture, we encourage students to undertake internships that will provide experiences and exposure to issues they are unlikely to acquire through their own course work. Hosts are asked to provide interns with opportunities to engage in representative activities, to allow interns to observe decision-making activities on an individual or group level, and to consider the intern as a valuable contributor to their endeavors.

An internship in sustainable agriculture involves work that is directly related to agriculture in which environmental, social, and economic impacts of agricultural practices or policies are considered.

Internship Opportunities continued

Internships can be arranged with farmers, grassroots organizations, public agencies, or agricultural businesses. There is a list of potential internship hosts on the MISA website: http://www.misa.umn.edu/StudentPrograms/Internships/InternshipOpportunities/index.htm these are all farms, non-profits and public agencies that have expressed interest in hosting interns from the sustainable agriculture minor. The website will provide a brief description of potential host sites, a general description of the types of work an intern will do with each host, and the name and phone number of the contact person. The student should contact this person to find out about more specific intership projects that are available. In addition to this initial conversation, hosts may request an interview or resume from prospective interns.

There are also current internship listings from various farms, non-profits and public agencies that are listed as they announce them at http://misanews.wordpress.com/category/internships/. It is advise that students subscribe to the SUSTAG listserv (subscription information can be found at http://www.misa.umn.edu/Search_and_Ask/DiscussionGroups/index.htm). Many farms and organizations post job and internship information there, in addition to it being a great way to get in the loop of the sustainable agriculture community in Minnesota and the Midwest. Neither of these lists are exhaustive. Internships may be arranged with other organizations and farms than those listed.

Arranging an Internship

Internships can be conducted at any time of the year. Factors such as the student's course work and the availability of internships of interest to the student will determine the timing. After identifying an intern host and defining the project with that host, the student should prepare a proposal for their internship project (See Internship Proposal Guidelines). The student will need to meet with their internship host and agree on meeting specific work responsibilities, educational objectives and details such as hours of work, products required by the host and wages (if provided). Students should regard internships as contract projects that are unique and negotiated. Then students should meet with their minor advsior and present their internship proposal for approval or changes that need to be made for the internship to fufill the requirements for the minor. By signing the Proposal Cover sheet all parties agree to the described conditions of the internship. Upon completion of the internship students are required to submit a one-page abstract about their experience to the program coordinator and minor advisor.

Academic Credit

Credit for the internship should be registered for through the student's home department under XXXX 4096 Professional Experience Program (PEP): Internship. Examples of internship courses offering credit includes, but is not limited to:

- AGRO 4096 Agronomy Professional Experience Program
- ANSC 4096 Animal Science Professional Experience Program
- APEC 4096 Applied Economics Professional Experience Program
- ENT 4096 Entomology Professional Experience Program
- ESPM 4096 Environmental Science Policy and Management Professional Experience Program
- FSCN 4096 Food Science and Nutrition Professional Experience Program
- HORT 4096 Horticulture Professional Experience Program
- PLPA 4096 Plant Pathology Professional Experience Program

Internship Opportunities continued
Academic Credit

- ID 3565 HECUA Off-Campus Study Program: Environment and Agriculture: Sustainable Food Systems Internship
- ID 3594 HECUA Off-Campus Study Program: Environmental Sustainability, Internship

Documentation of the Internship can be tailored to meet PEP requirements and course credit then is obtained through the major. For CLA students or students in other colleges they should either register for internship credit in their major or the PEP class in the major of their minor advisor.

Internship Learning Agreement Proposal Guidelines

After you have identified the internship project on which you'll be working with, you should prepare a two to four page proposal. Present a draft of your proposal to both your intern host and your minor advisor, and discuss and agree upon the activities of the internship. Please use the headings and subheadings given below when preparing your proposal. After making any changes recommended by your intern host or minor advisor, you should submit a copy of your proposal to the Program Coordinator. Include typed copies of the following forms with your proposal: Proposal Cover Sheet and Proof of Health Insurance Coverage. These forms are available in this packet (Pages X and Y) and downloadable versions are on the MISA website http://www.misa.umn.edu/StudentPrograms/Internships/InformationforStudents/InternshipForms/index.htm.

Components of the Proposal

1. Project Overview

Provide a brief description of the intern host's operation and activities. Next, describe how your internship activties fit into the work conducted by your intern host.

2. Educational intent

- Goals - List two or three learning goals that you have for your internship (the goals should be fairly broad in scope).
- Objectives - List one or two objectives for each goal.
- Strategies / Work Responsibilities - List the strategies you intend to use to accompllish your objectives. These should relate directly to the work you will be performing for your internship. Describe any final product that your intern host expects upon completion of the internship.

3. Work Specifications

Give the beginning and ending dates of the internship, and work schedule (days / hours). Describe any benefits such as a stipend, living accomodations, travel expenses, etc. that the intern host will provide. Describe any other special conditions that the intern host has requested.

4. Academic Credit

Describe the work you will complete in XXXX 4096 Professional Experience Program: Internship or other internship class. State the number of credits for which you will register (1 to 3). See the Academic Credit section for futher details.

Procedures for completing an Internship Worksheet

Completion Date	Activity	Elaboration
	Declare your minor. Submit the online form. Submit the Intent to Enroll Form to the MISA office with the Student Program Coordinator.	Declaration form can be found here: https://umn.qualtrics.com/SE/?SID=SV_55x9tFhvqe5Qzrf The Intent to Enroll form is on page 17 of this packet.
	Ask a faculty member to serve as your minor advisior. Meet with the minor advisor to discuss coursework. The minor advisor must approve the program of study.	
	Consult information on potential internships. You are not limited to searching the MISA website internship listings, through your own networking you may find a suitable internship.	Internship opportunities are listed on the MISA website: http://www.misa.umn.edu/StudentPrograms/Internships/InternshipOpportunities/index.htm
	Contact potential host organizations for information on internship projects.	
	Chose the host organization. Send application materials or interview with the host if required.	
	Prepare a draft of the internship proposal	Proposal guidelines are included in this publication on the previous page.
	Meet with a representative from the host organization and share your proposal information. Meet with your minor advisor and share your proposal information. Once specific details of the proposal are agreed upon by all parties have each sign off on the internship proposal cover sheet.	
	Submit all internship paperwork (cover sheet, proposal, and proof of health insurance coverage forms) to the Student Program Coordinator in the MISA office.	
	Complete the internship experience	
	Arrange for a debriefing interview with your minor advsior. Turn in documentation required to complete the internsip.	

Sustainable Agriculture Undergraduate Minor
Intent to Enroll

Please return to:
Campus Address— 413 Hayes Hall
Mailing Address– Sustainable Agriculture Minor
411 Borlaug Hall, University of Minnesota, 1991 Buford Circle, St. Paul, MN 55108

Student's Name: _____

Address: _____

City, State, Zip: _____Phone:_____

E-mail address: _____

Student ID#: _____

Degree Pursuing: _____Major: _____

Major Advisor: _____Dept: _____

Minor Advisor: _____Dept: _____

Anticipated date for completing degree: _____

Signature: _____Date: _____

Sustainable Agriculture Undergraduate Minor
Proposal Cover Sheet
Internship in Sustainable Agriculture

Please return to:
Campus Address— 413 Hayes Hall
Mailing Address– Sustainable Agriculture Minor
411 Borlaug Hall, University of Minnesota, 1991 Buford Circle, St. Paul, MN 55108

Student's Name:_____

Address:_____

City, State, Zip code:_____

E-mail address: _____ Phone:_____

Student ID #: _____

Minor Advisor:_____

Intern Host:_____

Address:_____

City, State, Zip code:_____

Email address: _____Phone:_____

Supervisor:_____

Start/Finish Dates:_____

Student Signature: _____ Date:_____

Intern Host Signature: _____ Date:_____

Minor Adviser Signature: _____ Date: _____

Approved: _____ Date:_____

Sustainable Agriculture Undergraduate Minor
Proof of Student Health Insurance Coverage

Please return to:
Campus Address— 413 Hayes Hall
Mailing Address– Sustainable Agriculture Minor
411 Borlaug Hall, University of Minnesota, 1991 Buford Circle, St. Paul, MN 55108

To insure that students enrolled in the minor in Sustainable Agriculture have adequate medical coverage during the period they are conducting internships, verification of health insurance is required. Health insurance purchased through the University of Minnesota or a comparable plan should provide coverage in the case of accidental injury to the individual.

This form must be completed by the student and returned to the Program Coordinator for the Sustainable Agriculture Systems minor before initiating on-site activities of the internship.

I verify that _____(name of student), is covered by the following health insurance:

Name of insurance provider:_____

Policy number:_____

Dates of coverage:_____

Signature of student: _____Date:_____

Minnesota Institute for Sustainable Agriculture

Mailing Address:
411 Borlaug Hall
1991 Buford Circle
St. Paul, MN 55108
Phone: 612-625-8235
Email: misamail@umn.edu

Or Stop By Our Office:
413 Hayes Hall, St. Paul Campus

MISA's purpose is to bring together the agricultural community and the University community in a cooperative effort to develop and promote sustainable agriculture in Minnesota and beyond.

MISA's goals are to:
Increase the University's response to the needs of the sustainable agriculture community and increase practitioner's influence on the university.
Promote sustainable agriculture thinking within the University so that the concepts permeate teaching, research and extension.
Work with rural communities in discovering and implementing the values of sustainability.

Check out the MISA Web site at www.misa.umn.edu for the latest:

- Calendar of Events
- Announcements
- Publications
- Resources
- Sustainable Agriculture Newsletter
- And More!

Be a part of the Sustainable Agriculture Community at the University of Minnesota

- Join the Sustag Listserv , subscription information is available under the subscribe tab at the MISA website www.misa.umn.edu. The Listserv will keep you up to date on all the happenings in the sustainable agriculture community.

- Attend our weekly What's Up in Sustainable Agriculture (WUSA) seminar series. WUSA is an informal group of students, staff, and faculty that meets weekly during the school year for a brown bag lunch to talk about sustainable agriculture with other professionals in the field. If you are interested, feel free to bring your lunch and stop by any of our meetings. Check the MISA web site Calendar for the topics, dates and times. For more information contact the MISA office, 612-625-8235 or misamail@umn.edu.