

Horticulture 375: Special Topics

Community-Based Learning and Sustainable Food Systems International Field Study in Guatemala Course Syllabus

**San Marcos La Laguna, Sololá, Guatemala
Summer 2018 – 2 weeks
(2 credits)**

Instructor:

Claudia Irene Calderón (cicalderon@wisc.edu) Phone: +1 608 416-9335

Description:

This international field study will emphasize the challenges facing food systems in the 21st century, and issues of sustainability for agriculture and other food production activities, as well as the challenges posed by food insecurity and modern diets to human health and well-being. It will take place in the western highlands of Guatemala, during the first weeks of the 3-week summer session of 2018.

Students will meet with farmers, activists, NGOs, and local specialists working to transform food systems to provide a background on specific topics related to sustainable food systems.

Course Learning Objectives:

- 1) Recognize social, economic, and environmental issues related to food systems and use this insight to find suitable methods to address them.
- 2) Contrast farming and consumer practices in Wisconsin and in Guatemala, and explore their effect on nutrition, food security, health, community and economic development.
- 3) Integrate ideas, interdisciplinary skills, and global competencies through the analysis of food systems and their impacts on local and global communities.
- 4) Describe relationships between environment, cropping systems and public health.
- 5) Contribute to communities locally and internationally by engaging in directed studies and public service through internships and community-based learning projects.
- 6) Develop cultural awareness of self and other.

Student Learning Outcomes

- 1) Apply knowledge to develop partnerships by making environmentally and culturally appropriate joint activities that address community needs and interests.
- 2) Demonstrate global and cultural competency engaging diverse communities in addressing real-world problems.
- 3) Practice empathy and purposeful action.
- 4) Connect and communicate with different actors involved in food systems in Madison, Wisconsin and in Guatemala.

The course will focus on the following competencies:

1. Systems thinking – consider the linkages and interactions between components of the system.
2. Intergenerational partnerships: considers thinking inter-generationally and about future generations.
3. Values thinking – justice, equity, empathy, & other values related to sustainability.
4. Purposeful action – engage in creative inquiry, apply knowledge and skills to solve problems, engage in public service, contribute to community, lead for positive change.
5. Interpersonal competence – collaborate in teams, partner with others.

Course prerequisite: junior standing (sophomores can participate with instructor’s consent)

Language of instruction: English. No Spanish proficiency is required for this course, but preference will be given to students who can communicate in Spanish.

Expectation: This field study is a rigorous academic experience during which students are expected to be **fully engaged** throughout the duration of the program and to maintain an open communication channel with their instructor and local hosts. Students are expected to **actively participate** in all programmed activities as they learn about the many facets of food systems and gain cultural awareness. Students are also expected to adhere to UW’s code of conduct and behave in a manner that demonstrates mutual respect for their peers, instructors, and the people they will meet during the two weeks abroad.

Course content and assignments

Content: The first component of this course, will include three pre-departure orientation sessions (10 hours maximum) in Madison in which students will learn cultural competency, key concepts on community gardens creation and maintenance, sustainable food systems, and information on Guatemala’s social, economic and environmental issues related to food systems. In addition, students will gain hands-on training working in the vegetable garden of Centro Hispano and the school garden of Lincoln Elementary.

The second component of the course will consist of the international field study that will integrate a community-based project. This international experience will take place in San Marcos La Laguna, in the western highlands of Guatemala during the first two weeks of the Summer Session 2018. Students will work alongside a group of women to create a community garden. Subsequently, students will work to re-activate a neighboring school garden. Students will design the vision for the gardens alongside the community, prepare the soil (eliminate weeds, amend the soil), match appropriate plants to the site and to the needs of the community (sow seeds, select native seedlings, propagate material from local plants), mulch, tag the plants for easy identification by the community. Both gardens will receive follow-up maintenance by our local partner in-country. The group will visit local groups, associations, NGOs for further explorations of the topics of food systems and sustainability. We will visit local farmers, activists, and specialists to enrich our daily discussions (see itinerary for further details).

We estimate that students will be dedicating at least 30 hours for the community-based projects.

Assignments

- a) **Student-led group daily discussions and reflections:** students will take turns in Guatemala to lead discussions. The topics of the discussions will revolve around food security, native and exotic plants, plant-pathogen interactions, community projects, social justice, systems thinking, sustainability, environmental issues, and global health, among others. Some of these discussions will require an accompanying reading from the list of references below. Each discussion will be moderated by the program leader and will be scheduled before or after dinner every day.
- b) **Field trip video:** After returning to Madison, students will work in groups of two to create a short 3-5 minute documentary video describing one of the following topics:
 - a. **Challenges of food security in San Marcos La Laguna, Guatemala**
 - b. **Description of food systems with a gender lens**
 - c. **Strategies for promoting sustainable food production**
 - d. **Description of native crops used in the gardens in San Marcos La Laguna**
 - e. **Organic or conventional strategies for sustainable pest management.**
 - f. **Linkages between climate change and food production.**
 - g. **Contrast the role of community and school gardens in San Marcos La Laguna**
 - h. **Topic of your choice (topic needs to be pre-approved by the instructor)**

Videos will be uploaded into BOX. The audience for this video will be future Community-Based Learning & Sustainable Food Production participants, other UW students who may be interested in the social, scientific, and environmental problems associated with food security, as well as faculty, administrators, and donors interested in international education. ***Videos are due two weeks after the end of the program (dates will be determined at the beginning of the field study).*** Students will also be required to submit a self-evaluation and a peer evaluation to the instructor. Evaluations will be used to assess active participation of both members of the group.

Final reflection paper: Each student will write a short essay (2-3 pages, single-spaced, 12pt Cambria font, 1-inch margins) describing their experience in the Community-Based Learning & Sustainable Food Production field study in Guatemala. Papers should include reflections about environmental, social, and economic topics pertaining to food systems that impacted or changed your thinking. They should also include a description of the activity that you enjoyed the most and the one you enjoyed the least. This assignment must be submitted to Canvas two weeks after the end of the program.

Grading:

Each students' grade for this course will be determined by the following criteria:

- a) Active participation and punctuality during the programmed activities in Guatemala (25 pts).
- b) Active participation in the student-led group discussions in Guatemala (25 pts).
- c) Contribution to field trip video. Self and peer-evaluations will be done to assess active participation of all the members in the group (25 pts).
- d) Clear and well organized reflection paper submitted in Madison within 14 days of the end of the program (25 pts).

Grading of the group work will be based on the following criteria:

- a) Strength of the arguments
- b) Logic, clarity and originality of the ideas
- c) Participation and ability to work in groups under short term pressure
- d) Individual grades will reflect the group's grade weighted by a peer and self-assessment.

Late assignments will be penalized by 10% for each day it is late. Assignments turned in more than five days late will not be accepted.

Grade scale:

A	100-95%
AB	94-89%
B	88-83%
BC	82-77%
C	76-71%
D	65-70%
F	<65%

Attendance Policy:

Students are expected to fully participate in all programmed activities for the duration of the field study.

Respect policy

This course is based on respect, and any disrespect will not be tolerated. Your ideas will be received with the utmost respect. We want you to feel comfortable sharing your thoughts, comments, and questions. If you ever feel you are not being respected by anyone that is a part of this program, please contact the instructor.

Plagiarism policy

Plagiarism is taken very seriously in this class and won't be tolerated. We recommend familiarizing yourself with what plagiarism is using this link:

http://writing.wisc.edu/Handbook/QPA_plagiarism.html.

Disability accommodations

Any student is welcome in this class. If you have a disability and need classroom accommodations, you should contact the McBurney Disability Resource Center and the instructor at the beginning of the summer session, preceding the program's departure to provide your visa and ensure we make arrangements ahead of time for instruction, assessments and field study.

Grievance policy

In the College of Agricultural and Life Sciences (CALs) any student who feels unfairly treated by a member of the College faculty or staff has the right to complain about the treatment and to receive a prompt hearing. Please see the Student Grievance Procedure webpage for more information: <http://www.cals.wisc.edu/academics/undergraduate-programs/curriculum-information/student-grievance-procedure/>

Resolution of Disputes

If you wish to file a complaint or have any questions about the complaint procedures please talk to whomever you feel comfortable: your instructor, other faculty, your department chair, student services coordinators, UHS, or the University Title IX coordinator, Lauren Hasselbacher (lauren.hasselbacher@wisc.edu)

If you believe the course instructor has discriminated against you because of your religion, race, gender, sexual orientation, or ethnic background, you also may take your complaint to the Office of Equity and Diversity (room 179-ABascom Hall).

If your complaint has to do with sexual harassment, faculty, staff, and others who work directly with students at UW-Madison are required by law to report first-hand knowledge or disclosures of sexual assault. To contact UW-Madison's reporting and complaint advisors or a Title IX coordinator, email Tonya Schmidt (tonya.schmidt@wisc.edu) for a response during business hours.

References

General to Course Content

Chapman, P. Bananas: how the United Fruit Company shaped the world. Canongate U.S. 240 p. 2009.

Easterly, William. The White Man's Burden: Why the West's Efforts to Aid the Rest Have Done so Much Ill and so Little Good. Cambridge University Press: Cambridge, England. 2006.

Ejeta, Gebisa. Revitalizing agricultural research for global food security. Journal of Food Security. 1:391-401. 2009. <https://ag.purdue.edu/agry/Documents/Ejeta-Food-Security-Journal.pdf>

Food and Agriculture Organization. Rome Declaration on World Food Security. 1996. <http://www.fao.org/docrep/003/w3613e/w3613e00.htm>

Goldin, L. Global Maya: work and ideology in rural Guatemala. University of Arizona Press. 2011

Thurow, Roger and Scott Kilman. Enough: Why the World's Poorest Starve in an Age of Plenty. Perseus Books: Philadelphia, PA. 2009.

Food Security

Brown, L. Full planet, empty plates: the new geopolitics of food scarcity. Earth Policy Institute. 2012

DeWeerd S. Is Local Food Better? Worldwatch Institute. 2008.

<http://www.worldwatch.org/node/6064>

International Food Policy Research Institute. Millions Fed: Proven Successes in Agricultural Development. 2009.

http://www.ifpri.org/sites/default/files/millionsfedbooklet_smaller.pdf

Spender N and Declan Butler. Food: The Growing Problem. Nature. Vol 466:29. July 2010. <http://www.nature.com/news/2010/100728/pdf/466546a.pdf>

Walsh B. Getting Real About the High Price of Cheap Food. Time. August 21 2009.

<http://www.time.com/time/magazine/article/0,9171,1917726,00.html>

Health Systems

Food and Agriculture Organization of the United Nations. The double burden of malnutrition: six international case studies.

<http://www.fao.org/ag/magazine/0602sp1.htm>

International Food Policy Research Institute. Understanding the links between agriculture and health. 2006. <http://www.ifpri.org/publication/understanding-links-between-agriculture-and-health>

Biodiversity and Sustainability

Altieri, M., et. al. Agroecology and the design of climate change-resilient farming systems. Agron Sustain. Dev. 35:869-890. 2015.

Johns T, Eyzaguirre. Linking biodiversity, diet and health in policy and practice.

Proceedings of the Nutrition Society. 2006:65:182-189.

www.ncbi.nlm.nih.gov/pubmed/16672079?dopt=Abstract

Kirschenmann F. Redefining Sustainability: From “Greening” to Enhancing Capacity for Self-Renewal. Science and Environmental Health Network. The Networker. Vol 13:4.

2008. http://www.sehn.org/Volume_13-4.html#a2

Nabhan, Gary. Where Our Food Comes From: Retracing Nikolay Vavilov’s Quest to End Famine. Island Press. Washington, DC. 2008.

Phalan, Ben et al. Reconciling food production and biodiversity conservation: land sharing and land sparing compared. Science 333:1289-91. 2011

UNIVERSITY OF WISCONSIN-MADISON FIELD TRIP ITINERARY

Guatemala, Summer 2018

Day	Time	Activities	Course learning objectives *	Location	Service learning hours	Contact hours
1	AM	Departure from the US				
	PM	Arrival at Aeropuerto Internacional La Aurora				
	PM	Pick-up from the airport and transfer to Antigua Guatemala (bus hire)		Guatemala city		
	PM	Dinner at Hotel Posada Los Búcaros		Antigua Guatemala		
	PM	Lodging at Hotel Posada Los Búcaros		Antigua Guatemala		
2	AM	Breakfast at hotel Posada Los Búcaros		Antigua Guatemala		
	AM	Transfer to Panajachel		Panajachel, Sololá		
	PM	Lunch at Panajachel		Panajachel, Sololá		
	PM	Transfer from Panajachel to San Marcos La Laguna		transfer		
	PM	Orientation		San Marcos La Laguna		1
	PM	Dinner at restaurant Fe		San Marcos La Laguna		
	PM	Lodging Hotel San Marcos		San Marcos La Laguna		
3	AM	Optional yoga class		San Marcos La Laguna		
	AM	Breakfast at Restaurant Fe		San Marcos La Laguna		
	AM	Inventory of garden supplies (tools, soil, soil ammendments, mulch, seeds, seedlings), protocols.	2	San Marcos La Laguna		
	AM	Introductions with Henry Ruiz Solsol		San Marcos La Laguna	2.5	
	AM	Description of the two projects: community needs, expectations, garden designs.	5	San Marcos La Laguna		
	PM	Lunch at Restaurant Fe		San Marcos La Laguna		
	PM	Meeting with group of women and teachers in charge of community garden and school garden.	5, 6	San Marcos La Laguna	2.5	
	PM	Hike around San Marcos La Laguna	1,2,4	San Marcos La Laguna		1

	PM	Class discussion	3	San Marcos La Laguna		1
	PM	Dinner at restaurant Fe		San Marcos La Laguna		
	PM	Lodging Hotel San Marcos		San Marcos La Laguna		
4	AM	Breakfast at Restaurant Fe		San Marcos La Laguna		
	AM	Garden design, soil preparation, soil ammendments	5	San Marcos La Laguna	2.5	
	PM	Lunch at Restaurant Fe		San Marcos La Laguna		
	PM	School garden clean up	1,5	San Marcos La Laguna	2.5	
	PM	Class: starting from seeds, seedling transplant, biological control, soil ammendments	1	San Marcos La Laguna		
	PM	Dinner at restaurant Fe		San Marcos La Laguna		1
	PM	Class discussion	3	San Marcos La Laguna		
	PM	Lodging Hotel San Marcos		San Marcos La Laguna		
5	AM	Breakfast at Restaurant Fe		San Marcos La Laguna		
	AM	Transfer to San Juan La Laguna		transfer		
	AM	Coffee tour at cooperativa La Voz Que Clama en El Desierto: shade trees, harvest, drying, roasting.	1,2, 4, 6	San Juan La Laguna		1
	PM	Lunch at Ixoq Ajkeem women weavers coop.	1,2,6	San Juan La Laguna		
	PM	Visit textile weaving coop. naturally dyed with plants & insects	1,2, 4, 6	San Juan La Laguna		1
	PM	20 min hike Cerro de la Cruz in San Juan for a group picture with Lake background	1,2,4	San Juan La Laguna		
	PM	Transfer to San Marcos La Laguna		transfer		1
	PM	Class: Traditional diet in communities around lake Atitlán	1,2,4	San Marcos La Laguna		
	PM	Dinner at restaurant Fe		San Marcos La Laguna		
	PM	Class discussion	3	San Marcos La Laguna		1
	PM	Lodging Hotel San Marcos		San Marcos La Laguna		
	AM	Breakfast at Restaurant Fe		San Marcos La Laguna		
	AM	Preparation of beds for community garden and labeling of rows (de novo garden)	5	San Marcos La Laguna	2.5	
	PM	Lunch at Restaurant Fe		San Marcos La Laguna		

6	PM	Transplant and sowing	5	San Marcos La Laguna	2.5	
	PM	Class: Caring for the garden: ecosystem considerations, short and long term usage of the space for the garden.	1,2	San Marcos La Laguna		1
	PM	Dinner at restaurant Fe		San Marcos La Laguna		
	PM	Class discussion	3	San Marcos La Laguna		1
	PM	Lodging Hotel San Marcos		San Marcos La Laguna		
7	AM	Breakfast at Restaurant Fe		San Marcos La Laguna		
	AM	Seed preparation, labeling, finish cleaning of school garden (reactivation)	5	San Marcos La Laguna	2.5	
	PM	Lunch at Restaurant Fe		San Marcos La Laguna		
	PM	Class: Agroecological principles and case studies in Latin America	1,2,4	San Marcos La Laguna		1
	PM	Dinner at restaurant Fe		San Marcos La Laguna		
	PM	Lodging Hotel San Marcos		San Marcos La Laguna		
8	AM	Breakfast at Restaurant Fe		San Marcos La Laguna		
	AM	Transfer to Panajachel and then Sololá		transfer		
	AM	Visit traditional vegetable and fruit market in Sololá to learn about distribution chain of these products	1,2,4,6	Sololá		3
	PM	Lunch at Parque In Sololá		Sololá		
	PM	Tour a nursery with native plants "Hongos Guatemala"	1,2,4	Sololá		2
	PM	Transfer to Panajachel and then San Marcos La Laguna		transfer		
	PM	Dinner at restaurant Fe		San Marcos La Laguna		
	PM	Class discussion	3	San Marcos La Laguna		1
9	PM	Lodging Hotel San Marcos		San Marcos La Laguna		
	AM	Breakfast at Restaurant Fe		San Marcos La Laguna		
	AM	Visit Ecologic park "Cerro Tzankujil"	1,4	San Marcos La Laguna		2
	PM	Lunch at Restaurant Fe		San Marcos La Laguna		
	PM	Design of pedagogical material to be used by teachers with the school garden	5	San Marcos La Laguna	2.5	
	PM	Dinner at restaurant Fe		San Marcos La Laguna		

	PM	Class discussion	3	San Marcos La Laguna		1
	PM	Lodging Hotel San Marcos		San Marcos La Laguna		
10	AM	Breakfast at Restaurant Fe		San Marcos La Laguna	2.5	
	AM	Work session at community garden	5	San Marcos La Laguna		
	PM	Lunch at Restaurant Fe		San Marcos La Laguna		
	PM	Work session at school garden	5	San Marcos La Laguna	2.5	
	PM	Quiet time, reflections	3	San Marcos La Laguna		
	PM	Dinner at restaurant Fe		San Marcos La Laguna		
	PM	Lodging Hotel San Marcos		San Marcos La Laguna		
11	AM	Breakfast at Restaurant Fe		San Marcos La Laguna		
	AM	Transfer to Panajachel and then Santa Cruz La Laguna		transfer		2
	AM	Tour the Education Center for Rural Development and Climate Change Adaptation	1,3,4	Santa Cruz La Laguna		
	PM	Lunch at Isla Verde		Santa Cruz La Laguna		
	PM	Transfer to Panajachel		transfer		2
	PM	Tour Medicinal Plant garden "Milagro de las Plantas"	1,3,4	Sololá		
	PM	Transfer to San Marcos La Laguna		transfer		
	PM	Dinner at restaurant Fe		San Marcos La Laguna		
	PM	Class discussion	3	San Marcos La Laguna		1
	PM	Lodging Hotel San Marcos		San Marcos La Laguna		
12	AM	Breakfast at Restaurant Fe		San Marcos La Laguna		
	AM	Transfer to Panajachel		transfer		
	PM	Transfer back to Antigua		transfer		
	PM	Lunch at La Fonda de la Calle Real in Antigua	2	Antigua Guatemala		
	PM	City tour (La Merced, Hike to Cerro de la Cruz (group photo)		Antigua Guatemala		3
	PM	Dinner at Hotel Posada Los Búcaros		Antigua Guatemala		
	PM	Lodging Hotel San Marcos		Antigua Guatemala		

13	AM	Breakfast at hotel Posada Los Búcaros		Antigua Guatemala		
	AM	ChocoMuseum, hand craft market, cooking class	1	Antigua Guatemala		3
	PM	Lunch at Panza Verde in Antigua	2	Antigua Guatemala		
	PM	Free afternoon		Antigua Guatemala		
	PM	Farewell dinner		Antigua Guatemala		
	PM	Program debriefing	3	Antigua Guatemala		2
	PM	Lodging at Hotel Posada Los Búcaros		Antigua Guatemala		
14	AM	Airport drop off for departure		Guatemala city		

25

33

* **Course Learning Objectives**

- 1 Recognize social, economic, and environmental issues related to food systems and use this insight to find suitable methods to address them
- 2 Contrast farming and consumer practices in Wisconsin and in Guatemala, and explore their effect on nutrition, food security, health, community and economic development
- 3 Integrate ideas, interdisciplinary skills, and global competencies through the analysis of food systems and their impacts on local and global communities.
- 4 Describe relationships between environment, cropping systems and public health
- 5 Contribute to communities locally and internationally by engaging in directed studies and public service through internships and community-based learning project
- 6 Develop cultural awareness of self and other