

**Lobo Gardens Courses – Fall 2014**  
**Sustainability Studies Program**  
**SUST 402\*, section 004 (August 18<sup>th</sup> – October 10th)**

**Abstract:**

In this class you will be learning the basis of sustainable horticulture for high desert areas with a historical/cultural approach. The objective of this approach is to create a deep understanding of where our crops come from, the importance of heritage farming and the value of heirloom crops for the coming generations. As part of the class, the students will be involved in hands-on gardening and more than weeding, students will learn sustainable horticulture from scratch (from seeding to harvesting) and because of the season, we will emphasize on cold season crops. Furthermore, this class has a community engagement component. The students will be encouraged to take part as volunteers of different community organizations. For instance, Seed2Need is active vibrant organization which cultivates 3-acre at Corrales, NM. All production is donated to 15 pantries located in Albuquerque area providing fresh fruit and vegetables to people of limited economic resources.

**Instructor:**

Warner Orozco, Ph.D.  
Sustainability Studies Program | [sust.unm.edu](http://sust.unm.edu)  
Castetter (Biology), room 163B  
Office: 505.277.3431 | Mobile: 910.547.4765  
Email addresses: [orozcow@unm.edu](mailto:orozcow@unm.edu) / [orozcow@gmail.com](mailto:orozcow@gmail.com)

**Class Locations & Meeting Times:**

Lecture: Mondays 2:00 – 3:50 PM  
Dane Smith Hall 317  
Field Day: Friday 8:10 am – 11:10am  
Lobo Gardens is located behind the UNM Real Estate office:  
2811 Campus Blvd NE Albuquerque, NM 87106.

**August 18<sup>th</sup> – October 10th, CRN#24044, section 005**

Mondays: 9:20am – 11:20am; Class room and location TBA  
Fridays: 8:10am – 12:30pm; Lobo Gardens

**Course Background and Objectives:**

**Background:**

Contextual relationships strengthen linkages among the learning environments (home, school, community) and reinforce the meaning to education. Agriculture as a contextual relationship serves as unifying theme for new curricula and adds meaning to what students learn in class. Agricultural education implemented in educational programs helps to:

- Build a capacity for life-long learning in individuals
- Develop knowledge skills and attitudes in people
- Contribute to the general development of community

The Lobo Gardens summer course began in 2010 and its inception marked the culmination of several years of focused efforts by UNM students, staff, and faculty to make community food gardens on campus a reality. The vision had been, and continues to be, to create outdoor learning laboratories where multiple departments, programs, and disciplines create, maintain, and use the gardens to teach hands-on topics through service learning.

The fall 2014 classes are aiming to provide students with a theoretical background focusing the history of agriculture in New Mexico and the Southwest. The instructor will provide cultural sensible readings that will enhance the understanding of the students about Native Americans relations with nature and the environment. Heritage farming and crops will be included. Furthermore, we will read about the environment and its influence in early and more modern agriculture in NM.

The experiential component of the course will provide students with the basis of how to develop a garden in the area. Sustainable agricultural practices for the high elevation desert will be implemented (e.g. the use of compost, mulching, raise beds, etc). In addition, the students will learn about the importance of heirloom crops and the history and value of Native American and heritage crops will be discussed.

Our work will be shared, intellectual (focused on issues of eco-culturally sustainable and restorative perceptions and practices), hands-on, and community focused. As part of the community engagement students will participate in different organizations located in Albuquerque. For instance, Seed2Need is a community project located in Corrales, NM. This non-profit cultivates 3 acres and provides 15 New Mexico pantries with fresh fruit and vegetables. As part of this project, each student will engage in 15 hours of community work helping to plant, grow and harvest fruit and vegetables from its site.

**Required texts:** Finish all assigned readings *before* you come to class. Be prepared to discuss, question, and build on the readings. *You will have reading quizzes on the 2<sup>nd</sup>, 4<sup>rd</sup>, 5<sup>th</sup>, and 6<sup>th</sup> Mondays.*

1. **Book:** William W. Dunmire. 2004. Gardens of New Spain: How Mediterranean Plants and Foods Changed America. Texas Press.
2. **Reading assignments:** This class will provide a series of readings to support the content of the main chapter from the book. The readings can be downloaded from any computer at UNM campus (with library access). In addition, they can be found with Google scholar. Most of the readings will focus on Native American agriculture in the Southwest, heritage farming, and native crops (see schedule).

**Teaching approach:**

We will encourage student-driven exploration and collaborative experiential learning. To accomplish this, a variety of teaching methods will include: interactive lectures, field

trips, student-driven collaborative research and hands on horticultural infrastructure development.

### **Course Grade Requirements:**

- Reading quizzes
- Class participation
- Garden Journal (material will be used to enhance the Garden Binders)
- Field trips reflection report
- Community engagement participation and reflection report
- Final paper and presentation

\* Graduate students will prepare and present an additional research paper or project to be decided in collaboration with the professor.

1. **Reading Quizzes:** Expect a reading quiz during our 2<sup>nd</sup>, 4<sup>rd</sup>, 5<sup>th</sup>, and 6<sup>th</sup> Mondays. Each quiz covers your readings for the week, and serves as your reading review before lecture and discussion.

2. **Participation:** Students must be fully engaged in class and in the field. Be aware that being present and not completing your work will count as a zero. As part of your participation, other aspects that will be considered are:

a. **Short papers and presentations:** Students will be required to generate a one-page paper that will be presented and discussed in class to enrich yours and others participatory learning.

- **Book chapter paper:** Two-page papers focused on a chapter of our book. Additional information (peer reviewed articles) can be used to enhance the paper/topic. References must be provided. First paper is due on Thursday evening by 11:59 p.m. September 04<sup>th</sup> via email.

- **Field study reflection papers:** Two 1½ to 2 page single-spaced typed papers of your reflections of the field study. A field guide will be provided and the students are encouraged to take lots of notes to support the report. Each paper is expected to be emailed to the instructor the following Sunday after the field trip not later than 11:59 p.m.

- **Garden reports/Journal:** This task aims to help the students update the garden binders (described below). The idea is for students to record their individual accomplishments and provide feedback to future students on the learning process of the class. The Garden Journal must be email not later than Sunday after the week work not later than 11:59 p.m.

- **Garden Binders:** Previous Lobo Gardens' students have already established garden binders for RED and Hokona Gardens. These binders help establish a history and user guide to pass from semester to semester, so the gardens can function smoothly and flourish. With your journals and reports, your contribution to this and future classes will help to update, in an organized and user-friendly fashion, all aspects of the binders that should be updated based on your service. If you have any issues with your professor posting your reports please let me know.

- b. **Community engagement forms:** You are expected to do a minimum of 3 hours of project service a week for a total of 15 hours. The instructor will coordinate with the projects' directors to provide the students with the attendance form. This form must be returned to the instructor with a brief description of the activities performed. For the record, expect the instructor to be present in the project.

3. **Final Project Reflection Paper:** In this 2-page reflection paper (single-spaced), students will analyze and discuss their class experiences through the intellectual lenses of sustainability, the environment, and culture, engaging concepts from class readings and meetings. Include an American Society of Horticulture Sciences (ASHS)-style reference list. First-person writing voice is encouraged. Choose the readings that best help you interpret, reflect upon, and analyze your particular experience. At the end of this paper, include a short paragraph reflecting on the dynamics of collaboration in your group. You have to do a PowerPoint presentation (7 minutes).

4. **Final Project Presentations (October 10<sup>th</sup>):** On our final class day, individual students or student groups will present on your work in the gardens. The presentations (no longer than 7 minute aid with a PowerPoint) are a chance for you to reflect on your work this summer in concert with class academic themes. The professor will provide potential topics for this assignment.

**The grading criteria:** Originality/innovation/creativity are not just expected but encouraged. Students must show a depth of critical thinking, and research must be accurate and analytical. Wikipedia use is discouraged and references should be appropriately reported (e.g. ASHS format).

### **Grading:**

Reading quizzes:	100 points	(10% of final grade)
Book chapters paper	100 points	(10% of final grade)
Field study reflection papers	100 points	(10% of final grade)
Community engagement	200 points	(20% of final grade)
Class attendance (Garden)	200 points	(20% of final grade)
Garden reports/journals	100 points	(10% of final grade)
Final project presentations:	100 points	(10% of final grade)

Final project reflection paper: 100 points (10% of final grade)

\*For graduate students, in addition to these graded requirements, which will count as 75% of the final grade, the graduate student paper or project will factor at 25% of the final grade.

Final Grade: **100%**

Your final grade is on a strict percentage basis based on your points earned:

900-1,000 Excellent	97-100% = A+
	93-96.9% = A
	90-92.9% = A-
800-899 Good	87-89.9% = B+
	83-86.9% = B
	80-82.9% = B-
700-799 Competent	77-79.9% = C+
	73-76.9% = C
	70-72.9% = C-
600-699 Below Average	67-69.9% = D+
	63-66.9% = D
	60-62.9% = D-
0-599 Failing	BELOW 60% = F

A = Work meets all requirements of the assignment and shows a superior understanding of the material. Excellent work is creative in presentation, and in the application and evaluation of concepts. A assignments are precise, well thought out, well organized, and have no stylistic errors.

B = Work meets all requirements of the assignment and shows a valid understanding of the material. Good work exceeds assignment content expectations and has no to few stylistic errors. B assignments are clear in presentation and in the application and evaluation of concepts. B assignments are accurate and thought out.

C = Work simply meets the requirements of the assignment. Average work meets the minimum assignment content expectations and has some stylistic errors. C assignments show an understanding of the material, and in general how to apply and evaluate it. Demonstrates basic competency in organization, spelling, grammar, and structure is simply meeting the average expectations of a college student.

D = Work does not meet the minimum assignment expectations for content and has several stylistic errors. Below average work misses portions of requirements and shows the student has failed to grasp or utilize concepts. D assignments do not show competency in basic fundamentals expected of college students.

F = Work does not reflect the content expectations and is plagued by numerous stylistic errors. Poor work indicates a student has no grasp of the material or does not care.

## **COURSE POLICIES & TIPS FOR SUCCEEDING IN CLASS:**

**1. Ethics:** The course emphasizes ethical practices and perspectives. Above all, students should strive to communicate and act, both in class interactions and in assigned coursework, in a manner directed by personal integrity, honesty, and respect for self and others. Included in this focus is the need for academic honesty by students as stated by the UNM Pathfinder. Students need to do original work and properly cite sources. For example, be aware of plagiarism—directly copying more than 3 or 4 words from another author without quoting (not just citing) the author is plagiarism. If you commit plagiarism or engage in academic dishonesty of any kind you will receive an “F” for the course and be reported to the Dean of Students where further disciplinary action may be taken (Please see UNM’s *Pathfinder Handbook* for more details on the university’s Academic Dishonesty Policy).

**2. Late work & absences:** Late work will not be accepted. Turn in your work in a timely manner by deadline. In addition, you will *not* have a chance to rewrite your work after it has been turned in. However, you are encouraged to meet with the professor in advance to discuss and ask questions about your assignments in progress. If you know you have a UNM institutionally excused absence coming up, you must turn in your assignments in advance or by deadline. Any excused absence must be documented, and you must get this documentation to the professor if you want to receive credit for your work. As this is a 3-credit class that meets only 3 days per week, missing a class will affect your grade in terms of participation, quizzes, etc. Late work, again, will not be accepted.

**3. Email responsibility:** Check your UNM email account regularly, as we will use this account to keep in touch with you about course requirements or updates. If you use another email address, please set up your UNM account to forward your UNM account email to that address.

**4. References:** Cite and reference all sources you refer to in your written work and do so using ASHS style.

**5. Technology:** Be respectful of each other’s learning by turning off cell phones and not using the Internet while in class. No texting during class time.

**6. Diversity:** This course encourages different perspectives related to such factors including gender, race, nationality, ethnicity, sexual orientation, religion, and other relevant cultural identities. The course seeks to foster understanding and inclusiveness related to such diverse perspectives and ways of communicating.

**7. ADA accessibility:** Qualified students with disabilities needing appropriate academic adjustments should contact Accessibility Services (277-3506) and inform the professor as soon as possible to ensure your needs are met in a timely manner.

**8. Lactation policy:** In the event that you are a mother who breastfeeds during the course of this class, accommodations will be made as necessary to allow you to pump or breastfeed during the scheduled class periods without any penalty to your grade. You are encouraged to contact me directly to make the necessary arrangements.

## **COURSE SCHEDULE**

*\*Please Note: This schedule is tentative and subject to change. Students will be notified in advance of any changes.*

### **WEEK 1:**

Introduction Class history and expectations.

- Who are we and what do we bring to this project?
- Why it important to have a cultural, historical perspective on a hands on gardening class.
- How these types of projects can help the community and us as future professionals.

### **The history of Lobo Gardens (R.E.D. and Hokona)**

Guest speaker: Lobo Garden coordinator (TBA)

### **Readings:**

#### ***Online:***

<http://unmlobogardens.wordpress.com/>: read the official Lobo Gardens website and its links.

<http://www.facebook.com/group.php?gid=277642865307&v=info>: join and explore the Lobo Gardens Facebook page

### **WEEK 2:**

“How Mediterranean plants and foods changed America”

**Book** : Dunmire, William. 2004. Gardens of New Spain: How Mediterranean plants and foods changed America. The University of Texas Press.

Chapter 1: Pre-Columbian Spain

### **Assisting readings:**

- 1) Lewis, David R. 1995. Native Americans and the Environment: A Survey of Twentieth-Century Issues. University of Nebraska Press. American Indian Quarterly 19(3): 423-450

### **WEEK 3:**

“Highland desert agriculture and it’s the history”

**Book chapter 2:** Mexico before Columbus

**Assisting readings:**

- 1) Doolittle, William E. 1992. Agriculture in North America on the Eve of Contact: A Reassessment. *Annals of the Association of American Geographers*. 82(3): 386-401
- 2) Salisbury, Neal. 1996. The Indians' Old World: Native Americans and the Coming of Europeans. *The William and Mary Quarterly*. Vol. LIII (3): 435-458

**WEEK 4:**

“Highland desert agriculture, the environment and the constraints”

**Book chapter 3:** Pre-Columbian Agriculture in the American Southwest.

**Assisting readings:**

- 1) Benson, Larry V. et al. 2007. Possible impacts of early-11th-, middle-12th, and late-13th-century droughts on western Native Americans and the Mississippian Cahokians. *Quaternary Science Reviews* 26 (3-4): 336-350

**Field studies TBA:** 8 a.m. departure from Duck Pond roundabout

**WEEK 5:**

“Native Horticulture in Hispaniola”

**Book chapter 4:** European Plant-ways to the New World: 1492 - 1521

**Assisting readings:**

- 1) Whitaker, A. 1929. The Spanish contribution to American Agriculture. *Agricultural History* 3(1):1-14. <http://www.jstor.org/stable/3739718>

**WEEK 6:**

“Heritage and modern crops”

**Book chapter 5:** Old World Agriculture comes to the Mexican Mainland.

**Assisting readings:**

- 1) Nabhan, Gary P. 1985. Native crop diversity in Aridoamerica: Conservation of regional gene pools. *Economic Botany* 39(4):387-399
- 2) Roney, J. R. and R. J. Hard. 2011. Way Down south: A review of evidence pertaining to early agriculture in Mexico and beyond. Pecos Conference. Online publication: [www.archaeologysouthwest.org/what-we-do/investigations/earliest-farmers](http://www.archaeologysouthwest.org/what-we-do/investigations/earliest-farmers)

**Field studies TBA:** 8 a.m. departure from Duck Pond roundabout



## **WEEK 7:**

**Next week: Final presentations and papers are due (Fall Break)**

“European Horticulture arrives to New Mexico”

**Book chapter 7:** New Mexico’s first Mediterranean gardens

### **Assisting readings:**

- 1) De Vos, P. S. 2006. The Science of Spices: Empiricism and Economic Botany in the Early Spanish Empire. *J. World History* 17 (4): 399 - 427

## **WEEK 8:**

**Fall break – no classes on Friday.**

“Community Gardens and the Social Dimension of Sustainable Development”

How community gardens help change our ecological, social, and cultural perceptions and practices?

### **Videos to watch:**

Seed2Need Project – Corrales, NM:

<https://mail.google.com/mail/u/0/?tab=wm#search/seed2need+video/14451369fe7289f4?projector=1>

### **Additional readings:**

- a) Hancock, Trevor. 2001. People, partnerships and human progress: building community capital. *Public Health & Epidemiology* 16 (3):275-280
- b) Ferris, John; C. Norman, and J. Sempik. 2001. People, Land and Sustainability: Community Gardens and the Social Dimension of Sustainable Development. *Social Policy & Administration* 35 (5):559-569
- c) Armstrong, Donna. 2000. A survey of community gardens in upstate New York: Implications for health promotion and community development. *Health & Place* 6 (4):319-327

## **FINAL PROJECTS**

- Garden Journal (material will be used to enhance the Garden Binders)
- Community engagement participation and reflection report
- Final reflection paper
- Final project paper and presentation
- Graduate students’ projects/papers