

**Course number:** HORT 450  
**Course title:** Processing Coffee and High-Value Horticultural Crops (3 credits)  
**Term:** Fall 2018  
**Meeting times and location:** TR 11:10-12:25 pm, Horticulture and Forest Sciences Bldg. 101

### Course Description and Prerequisites

The course will examine the principles behind coffee processing and other high-value food crops including cultivation; different unit processing operations; methods for preservation; packaging and marketing strategies; and a processing plant visit. Prerequisites: junior or senior classification or approval of instructor

### Learning Outcomes

Upon completion of the course, students will be able to:

- Describe the principles of coffee processing and other high-value food crops
- Describe and connect how plant economic value is affected by cultivation, processing, and marketing decisions
- Evaluate environmental constraints to plant growth and production as they relate to crop processing
- Apply concepts and explain the main issues related to the global supply chains of high-value food crops
- Critically evaluate the role of globalization in sustainable horticultural systems and sustainable business practices
- Analyze and synthesize information from multiple sources
- Evaluate coffee processing operations and analyze and describe information

### Instructor Information

Name: Dr. Luis Cisneros Zevallos  
 Telephone number, 979-845-3244, Email address: [lcisnero@tamu.edu](mailto:lcisnero@tamu.edu)  
 Office hours: by appointment; Office location: 511 HFSB

### Textbook and Resource Material

Lecture notes will be available in PDF format from the course website. Additional study material will be provided by the instructor, either electronically or on hardcopy.

### Grading Policies

	<u>Points</u>
Exam I and Exam 2 (each 100 points)	200
Final exam	100
Total	300

Grading Scale based on the average of the 3 exams: A = 100 – 90 pts, B = 89 – 80 pts, C = 79 – 70 pts, D = 69 – 60 pts, F < 60 pts.

### Attendance

The University views class attendance as the responsibility of an individual student. Attendance is essential to complete the course successfully. University rules related to excused and unexcused absences are located online at <http://student-rules.tamu.edu/rule07>. Makeup exams for excused absences will be directly coordinated

with the instructor.

### **Classroom Decorum**

Cellular phones and other types of communications devices must be turned off during class.

### **Change in Schedule**

The instructors reserve the right to change the order and content of lectures as necessary. Exam and assignment due dates may be changed by the instructor, but at least 5 days' notice will be given.

### **Copyrights**

Please note that most handouts and supplements used in this course are copyrighted. This includes all materials generated for this class, including but not limited to syllabi, exams, in-class materials, review sheets, and lecture outlines. Materials may be downloaded or photocopied for personal use only, and may not be given or sold to other individuals.

### **Americans with Disabilities Act (ADA)**

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, currently located in the Disability Services building at the Student Services at White Creek complex on west campus or call 979-845-1637. For additional information, visit <http://disability.tamu.edu>.

### **Scholastic Dishonesty**

As commonly defined, plagiarism consists of passing off as one's own ideas, work, writings, etc., which belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you should have the permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without which research cannot be safely communicated. If you have questions regarding plagiarism, please consult the latest issue of the Texas A&M University Student Rules, under the section "Scholastic Dishonesty."

### **Academic Integrity**

*For additional information please visit: <http://aggiehonor.tamu.edu>*

*"An Aggie does not lie, cheat, or steal, or tolerate those who do."*

## Lecture schedule

1. Course Introduction
2. Food composition/nutritive value
3. Principles of food preservation
4. The history of coffee
5. The botany of coffee
6. Growing coffee
7. Pre-harvest handling coffee
8. Coffee processing I
9. EXAM 1
10. Coffee processing II
11. Coffee chemistry
12. Roasting coffee
13. Demo Lab-coffee roasting
14. Coffee By-products
15. Coffee Health properties
16. Making coffee
17. Demo Lab-coffee making
18. Field trip to What's the Buzz
19. Managing a coffee shop
20. Coffee tasting and sensory
21. EXAM 2
22. Socio-economic importance of coffee
23. Demo Lab coffee tasting
24. Tea and herbal beverages
25. Cocoa and chocolate
26. Fermentation, juices, plant extracts, dietary supplements
27. High value specialty crops (quinoa, chia, others)
28. Marketing strategies
29. EXAM 3 (3-5pm)