

**WINE 42.1 Course Outline as of Fall 2022****CATALOG INFORMATION**

Dept and Nbr: WINE 42.1      Title: FALL WINERY OPERATIONS  
 Full Title: Fall Winery Operations  
 Last Reviewed: 2/14/2022

Units	Course Hours per Week		Nbr of Weeks		Course Hours Total	
Maximum	2.00	Lecture Scheduled	1.00	17.5	Lecture Scheduled	17.50
Minimum	2.00	Lab Scheduled	3.00	6	Lab Scheduled	52.50
		Contact DHR	0		Contact DHR	0
		Contact Total	4.00		Contact Total	70.00
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 35.00

Total Student Learning Hours: 105.00

Title 5 Category: AA Degree Applicable

Grading: Grade Only

Repeatability: 00 - Two Repeats if Grade was D, F, NC, or NP

Also Listed As:

Formerly: WINE 52.1

**Catalog Description:**

In this course, students will explore the hands-on operations used in a commercial winery for the fall season, including grape maturity monitoring, grape harvesting and crushing, fermentation, and handling and storage of new wines. This course also includes general industry standards for cellar practices.

**Prerequisites/Corequisites:**

Minimum Age 18 or older

**Recommended Preparation:**

Eligibility for ENGL 1A or equivalent

**Limits on Enrollment:**

Must be age 18 or older

**Schedule of Classes Information:**

Description: In this course, students will explore the hands-on operations used in a commercial winery for the fall season, including grape maturity monitoring, grape harvesting and crushing, fermentation, and handling and storage of new wines. This course also includes general industry standards for cellar practices. (Grade Only)

Prerequisites/Corequisites: Minimum Age 18 or older

Recommended: Eligibility for ENGL 1A or equivalent

Limits on Enrollment: Must be age 18 or older

Transfer Credit: CSU;UC.

Repeatability: Two Repeats if Grade was D, F, NC, or NP

## **ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:**

<b>AS Degree:</b>	<b>Area</b>	Effective:	Inactive:
<b>CSU GE:</b>	<b>Transfer Area</b>	Effective:	Inactive:
<b>IGETC:</b>	<b>Transfer Area</b>	Effective:	Inactive:
<b>CSU Transfer:</b>	Transferable	Effective: Spring 2006	Inactive:
<b>UC Transfer:</b>	Transferable	Effective: Spring 2006	Inactive:

### **CID:**

#### **Certificate/Major Applicable:**

Both Certificate and Major Applicable

## **COURSE CONTENT**

### **Student Learning Outcomes:**

At the conclusion of this course, the student should be able to:

1. Understand, evaluate and perform key winemaking and wine lab procedures applicable to the fall season.

### **Objectives:**

At the conclusion of this course, the student should be able to:

1. Evaluate suitability of wine grapes for harvest.
2. Start alcoholic and malolactic fermentations of wine grapes, including evaluation of proper wine additives.
3. Operate cellar equipment used for crushing, destemming, pressing, movement, cooling, and storage of grape juice and wine.
4. Choose and execute processing steps unique to white wine grapes, including whole cluster pressing and cold settling.
5. Choose and execute processing steps unique to red wine grapes, including cap management, cold soak, extended maceration, draining, pressing, and monitoring color and tannin development.
6. Perform and/or order lab analyses applicable to fall wine practices.
7. Perform proper cellar procedures involved in wine aging and storage, including detection of and response to wine faults.
8. Describe and execute proper cellar practices and safety, including compliance with legal requirements for record keeping.

### **Topics and Scope:**

- I. Harvest decisions
  - A. Sample grapes
  - B. Test Brix

- C. Test pH
- D. Test titratable acidity by manual titration
- E. Test grape phenolics (at commercial lab)
- F. Seed and tannin ripeness
- II. Starting fermentation
  - A. Inoculation
  - B. Yeast nutrients
  - C. Test nitrogen
  - D. Adding SO<sub>2</sub>
- III. Processing white grapes for wine
  - A. Destemming/crushing
  - B. Programming the press
  - C. Whole cluster pressing
  - D. Cold settling
  - E. Hoses and fittings and cellar organization
  - F. Pump types and usage
  - G. Monitoring fermentation
- IV. Processing red grapes for wine
  - A. Destemming/crushing
  - B. Cold soak
  - C. Pumpovers and punchdowns
  - D. Extended maceration
  - E. Drain and press
  - F. Test phenolics by spectrophotometer
- V. Malolactic fermentation
  - A. Inoculation
  - B. Test malic acid
- VI. Aging and storage
  - A. Moving wine to barrel
  - B. Topping
  - C. Racking
  - D. Monitoring
  - E. Stave and Oak Adjuncts
- VII. Wine additives
- VIII Cellar Practices and Safety
  - A. Cellar organization
  - B. Confined space safety
  - C. Legal requirements
  - D. Sanitation
  - E. Record-keeping
  - F. Use of cellar software and/or work orders
- IX. Wine spoilage and defects
- X. Sensory analysis of sound and defective wines
- XI. Other Wine lab analysis
  - A. Test residual sugar
  - B. Test alcohol by AlcoLyzer
  - C. Test SO<sub>2</sub> by Ripper

Concepts presented in lecture are applied and practiced in lab.

**Assignment:**

Lecture related assignments:

1. Weekly reading (5-30 pages)
2. Written evaluation of grapes before harvest (1-2 pages)
3. Work order exercises (5-10)
4. One midterm
5. Final exam

Lab related assignments:

1. Winemaking procedures lab exercises (4-5)
2. One winemaking project including:
  - a. sample and evaluate grapes before harvest
  - b. perform all tasks in making red and white wine
  - c. make one barrel of red wine per group
  - d. perform wine lab assays (2-3)

**Methods of Evaluation/Basis of Grade:**

**Writing:** Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

Written evaluation of grapes; work order exercises

Writing  
5 - 20%

**Problem Solving:** Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Winemaking procedures lab exercises

Problem solving  
5 - 20%

**Skill Demonstrations:** All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Winemaking project

Skill Demonstrations  
25 - 60%

**Exams:** All forms of formal testing, other than skill performance exams.

Midterm and final exam

Exams  
20 - 45%

**Other:** Includes any assessment tools that do not logically fit into the above categories.

Participation

Other Category  
10 - 20%

**Representative Textbooks and Materials:**

Instructor prepared materials