

**VIT 51 Course Outline as of Fall 2022****CATALOG INFORMATION**

Dept and Nbr: VIT 51 Title: VITICULTURE: FALL PRACT  
 Full Title: Viticulture: Fall Practices  
 Last Reviewed: 9/13/2021

| Units   |      | Course Hours per Week |      | Nbr of Weeks | Course Hours Total |       |
|---------|------|-----------------------|------|--------------|--------------------|-------|
| Maximum | 3.00 | Lecture Scheduled     | 2.00 | 17.5         | Lecture Scheduled  | 35.00 |
| Minimum | 3.00 | Lab Scheduled         | 3.00 | 15           | Lab Scheduled      | 52.50 |
|         |      | Contact DHR           | 0    |              | Contact DHR        | 0     |
|         |      | Contact Total         | 5.00 |              | Contact Total      | 87.50 |
|         |      | Non-contact DHR       | 0    |              | Non-contact DHR    | 0     |

Total Out of Class Hours: 70.00

Total Student Learning Hours: 157.50

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: AG 57A

**Catalog Description:**

Fall practices for wine grape production in the North Coast region, including budding, grape maturity monitoring, harvesting, pruning, varietal selection and vineyard development.

**Prerequisites/Corequisites:****Recommended Preparation:**

Eligibility for ENGL 100 or ESL 100

**Limits on Enrollment:****Schedule of Classes Information:**

Description: Fall practices for wine grape production in the North Coast region, including budding, grape maturity monitoring, harvesting, pruning, varietal selection and vineyard development. (Grade Only)

Prerequisites/Corequisites:

Recommended: Eligibility for ENGL 100 or ESL 100

Limits on Enrollment:

Transfer Credit: CSU;

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: | Fall 1981 | Inactive:  |           |
| <b>UC Transfer:</b>  |                      | Effective: |           | 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. Identify and describe vineyard practices appropriate to the late summer and fall time period.
2. Estimate accurate crop yield projections for various vineyard blocks.
3. Identify and explain the criteria used to determine optimum time to harvest wine grapes.
4. Develop a farm plan and budget appropriate for the late summer and fall time period.
5. Evaluate fall practices performed and give recommendations for improvement.

### **Objectives:**

In order to achieve these learning outcomes, during the course students will:

1. Outline the key elements in the grape harvest process.
2. Estimate the size of the grape crop through field observation and data collection.
3. Outline vineyard management procedures during harvest.
4. Summarize criteria used to evaluate grape readiness for harvest.
5. Describe techniques for grape maturity sampling.
6. Describe post-harvest cultural practices.
7. Describe pruning methods and vine balance.
8. Develop a workable vineyard budget.
9. Describe different types of grape purchase contracts.
10. Describe various crop insurance options.

### **Topics and Scope:**

#### **I. Harvesting Grapes**

- A. Vineyard sampling for sugar/acid ratios
- B. Techniques for maturity sampling
- C. Estimating crop size - crop projection
  1. Cluster counts
  2. Cluster weights
  3. Pounds (lbs.)/vine
  4. Tons/acre

- D. Vineyard management during harvest
  - 1. Irrigation
  - 2. Bunch rot control
  - 3. Basal leaf removal
  - 4. Crop load adjustments
  - 5. Use of refractometers and hand-held pH meters
- E. Harvest decision criteria
  - 1. Brix (sugar content)
  - 2. pH
  - 3. Titratable acid (T.A.)
- F. Improving grape quality concepts
  - 1. Color intensity
  - 2. Cultivar specific flavors and typicality
  - 3. Clones
- G. Hand vs. machine harvest
- H. Daytime vs. nighttime harvest
- I. Material Other than Grapes (MOG)
- J. Transporting grapes to the winery
- II. Post-harvest Cultural Practices
  - A. Post-harvest irrigation
  - B. Post-harvest fertilization
  - C. Post-harvest pest and disease control
- III. Grapevine Pests, Diseases, and Symptoms (Fall)
  - A. Fungal
  - B. Bacterial
  - C. Virus diseases
  - D. Nematodes
- IV. Erosion Control and Vineyard Winterization
  - A. Cover crops
    - 1. Types of cover crops
    - 2. Criteria for selection
  - B. Erosion control
    - 1. Drainage systems
    - 2. Drainage system repair and maintenance
  - C. Hedgerows
- V. Winter Weed Control
  - A. Winter weed identification
  - B. Herbicides
  - C. Cultural Practices for weed control
  - D. Mechanical Practices for weed control
- VI. Pruning
  - A. Pruning principles
  - B. Pruning safety
  - C. Types of pruning
    - 1. Cordon Pruning
    - 2. Cane Pruning
  - D. Pruning techniques
    - 1. Machine pruning vs. hand pruning
    - 2. Pre-pruning
    - 3. Late pruning
  - E. Vine balance for improving wine quality
- VII. Farming Methodology Comparisons

- A. Organic practices and certification
  - B. Sustainable practices and certification
  - C. Integrated Pest Management practices
  - D. Fish Friendly Farming and certification
- VIII. Vineyard Budgeting
- A. Various types of vineyard budgets
  - B. Excel programs for vineyard budgeting and planning
- IX. Grape Purchase Contracts
- A. Various types of contracts
  - B. Long-term vs. short-term
  - C. Spot market options
- X. Crop Insurance
- A. Various types of crop insurance
  - B. Catastrophic vs. complete coverage
- XI. Pesticide Use Compliance and Reports
- A. Licensing
  - B. Preparing and Submitting Pesticide Use Reports
- XII. Vineyard Record Keeping
- A. Software
  - B. Database management
- XIII. Soil Health
- A. Definition
  - B. Fertility Planning
  - C. Use of traditional fertilizers
  - D. Use of compost and compost tea

All lab topics will be aligned with lecture topics.

**Assignment:**

1. Weekly readings (25 - 50 pages)
2. Weekly writing assignments (2 - 5 pages)
3. Weekly lab reports (3 - 6 pages)
4. Lab activities will include:
  - A. Collect cluster samples; estimate total crop in the block, test degrees Brix and pH
  - B. Develop vineyard budget
  - C. One demonstration of pruning grapevines
  - D. Develop one winter weed control plan (3 - 6 pages)
  - E. Develop one soil health and fertility plan (3 - 6 pages)
5. One midterm and one final exam

**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.

|                            |
|----------------------------|
| Weekly writing assignments |
|----------------------------|

|                     |
|---------------------|
| Writing<br>10 - 20% |
|---------------------|

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

Lab reports and activities

Problem solving  
50 - 65%

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

Pruning grapevines

Skill Demonstrations  
10 - 15%

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

Midterm, Final Exam

Exams  
15 - 30%

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

None

Other Category  
0 - 0%

**Representative Textbooks and Materials:**

Pdf files instructor prepared and loaded into Canvas course website.