### VIT 51 Course Outline as of Fall 2015

## **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	<b>Course Hours Total</b>	
Maximum	3.00	Lecture Scheduled	2.00	17.5	Lecture Scheduled	35.00
Minimum	3.00	Lab Scheduled	3.00	17.5	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:**

AS Degree: Area Effective: Inactive: CSU GE: Transfer Area Effective: Inactive:

**IGETC:** Transfer Area Effective: Inactive:

**CSU Transfer:** Transferable Effective: Fall 1981 Inactive:

**UC Transfer:** 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 winegrapes.
- 4. Develop a farm plan and budget appropriate to the late summer and fall time period.
- 5. Evaluate fall practices performed and give recommendations for improvement.

## **Objectives:**

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

- 1. Outline the key elements in the grape harvest process.
- 2. Estimate the size of the grape crop through field observation.
- 3. Outline vineyard management procedures during harvest.
- 4. Summarize criteria used to evaluate grape readiness for harvest.
- 5. Describe post-harvest cultural practices.
- 6. Assess sugar/acid ratios based on vineyard sampling.
- 7. Describe techniques for grape maturity sampling.
- 8. Identify disease symptoms common in the fall vineyard.
- 9. Compare and contrast the various types and applications for erosion control methods.
- 10. Evaluate the elements of a vineyard development plan.
- 11. Identify appropriate vineyard practices for each stage of the growth cycle.
- 12. Compare and contrast sustainable and organic agricultural practices in the vineyard.

### **Topics and Scope:**

- I. Harvesting Grapes
  - A. Vineyard sampling for sugar/acid ratios
  - B. Techniques for maturity sampling
  - C. Estimating crop size
    - 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. Insect control
  - 4. Crop load adjustments
- E. Traditional harvest criteria
  - 1. Briggs (sugar)
  - 2. pH
  - 3. Total acid (T.A.)
- F. New harvest & quality concepts
  - 1. Baume
  - 2. Color intensity
  - 3. Ripe flavors
  - 4. Clones
    - a. cluster size and weight
    - b. berry size and weight
    - c. different maturity times
  - 5. Hand vs. machine harvest
  - 6. Daytime vs. nighttime harvest
  - 7. Contaminants
- G. Transporting grapes
- II. Post-harvest Cultural Practices
  - A. Post-harvest irrigation
  - B. Post-harvest fertilization
  - C. Early pre-pruning
- III. Grapevine Diseases and Fall Symptoms
  - A. Fungal
  - B. Bacterial
  - C. Virus and virus-like diseases
  - D. Nematodes
- IV. Winery and Grower Relations
  - A. Marketing your grapes
  - B. Grape sale contracts
  - C. Cultural operations under contract
  - D. Evaluating the wines made from your grapes
- V. Erosion Control and Vineyard Winterization
  - A. Cover crops
    - 1. Types of cover crops
    - 2. Criteria for selection
    - 3. Fertilization of cover crops
  - B. Drainage systems
  - C. Silt ponds and silt fences
  - D. Fish friendly practices
  - E. Erosion control and drainage system repair and maintenance
- VI. Vineyard Development
  - A. Criteria
    - 1. Location, site selection and accessibility
    - 2. Climate
    - 3. Water availability and quality
    - 4. Soil testing

- B. Permits
- C. Vineyard abandonment
- D. Field preparation
  - 1. Soil amendments
  - 2. Ripping and disking
- E. Establishing the Vineyard
  - 1. Varietals and clone selection
  - 2. Selection and utilization of commercial rootstocks
  - 3. Spacing
  - 4. Trellis systems and materials
  - 5. Irrigation system selection
  - 6. Vineyard layout
- VII. Pruning
  - A. Pruning principles
  - B. Types of pruning
    - 1. Head pruning
    - 2. Cordon Pruning
    - 3. Cane Pruning
  - C. New Pruning techniques
    - 1. Modified pruning
    - 2. Growth advantage points
    - 3. Pre-pruning
    - 4. Late pruning
  - D. Pruning mature vines
  - E. Wine quality concepts at pruning
  - F. Pruning and training young vines
    - 1. During dormancy
    - 2. After bud break

### **Assignment:**

- 1. Reading, 15 20 pages per week.
- 2. Lab activities such as:
- a. Collect cluster samples, test sugar and pH.
- b. Analyze and compare clusters size and weights, berry size and weight.
- c. Disease identification.
- d. Interpretation of soil and petiole tests.
- e. Pruning.
- 3. Lab reports, 2-3 pages per activity.
- 4. Four quizzes; midterm; 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.

None, This is a degree applicable course but assessment tools based on writing are not included because problem solving assessments are more appropriate for this course.

Writing 0 - 0%

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

Lab reports

Problem solving 25 - 40%

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

None

Skill Demonstrations 0 - 0%

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

Quizzes, Midterm, Final Exam: Multiple choice, True/false, Matching items, Completion, Short answer.

Exams 60 - 75%

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

None

Other Category 0 - 0%

## **Representative Textbooks and Materials:**

View from the Vineyard: A Practical Guide to Sustainable Winegrape Growing. Clifford Ohmart. Wine Appreciation Guild, 2011. Instructor prepared materials