

**VIT 53 Course Outline as of Fall 2004****CATALOG INFORMATION**

Dept and Nbr: VIT 53 Title: ADV VINEYARD PRODUCTION  
 Full Title: Advanced Vineyard Practices for Quality Production  
 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	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 or P/NP

Repeatability: 03 - May Be Taken for a Total of 3 Units

Also Listed As:

Formerly: AG 57E

**Catalog Description:**

Course presents principles and cultural practices utilized in the vineyard to produce high quality North Coast wines. A thorough look at the practices of fertilization, irrigation, trellis design, and canopy management as they relate to wine quality factors. Includes lectures, guest speakers and field trips to local vineyards and wineries.

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

Completion of or concurrent enrollment AG 55, VIT 51, VIT 52, VIT 53 and eligibility for ENGL 100.

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

Description: Principles and cultural practices utilized in the vineyard to produce high quality North Coast wines. Practices of fertilization, irrigation, trellis design & canopy management as related to wine quality factors. (Grade or P/NP)

Prerequisites/Corequisites:

Recommended: Completion of or concurrent enrollment AG 55, VIT 51, VIT 52, VIT 53 and eligibility for ENGL 100.

Limits on Enrollment:

Transfer Credit: CSU;

Repeatability: May Be Taken for a Total of 3 Units

### **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 1987	Inactive:	
<b>UC Transfer:</b>		Effective:		Inactive:	

**CID:**

**Certificate/Major Applicable:**

Certificate Applicable Course

### **COURSE CONTENT**

**Outcomes and Objectives:**

**Topics and Scope:**

I. Introduction

- A. Quality winemaking starts in the vineyard
- B. Factors affecting vineyard yield and wine quality
- C. Principles for the production of wine grape quality
- D. Managing for quality

II. Trellis Design and Wine Quality

III. Canopy Management and Wine Quality

- A. Physiological basis for canopy management
- B. Effect of sunlight
  - 1. Vine photosynthesis
  - 2. Fruit ripening
  - 3. Bud initiation
  - 4. Other yield concerns
- C. Optimal utilization of available sunlight
- D. Deleterious effects of canopy shade on wine grape composition
- E. Canopy microclimate effects on important diseases
  - 1. Botrytis bunch rot
  - 2. Oidium
- F. Choice and management of winegrape training systems
  - 1. Most important canopy management systems in use around the world today
    - a. VSP systems

- b. Vertically split systems
- c. Horizontally split systems
- 2. Designs to improve yield and quality
- 3. Designs to reduce shoot vigor
- 4. Designs to facilitate mechanization
- 5. Guidelines for selecting a training system
- IV. Advanced Pruning Techniques
  - A. Cordon pruning
    - 1. Balancing crop load
    - 2. Fine tuning the vine
      - a. traditional formulas
      - b. contemporary formulas
      - c. trunk diameter formula for training and pruning young vines
  - B. Cane pruning
- IV. Fertilization (Nutrition Management)
- V. Irrigation Management
- VI. Grapevine Physiology and Wine Quality
  - A. Grapevine physiology
    - 1. Relevance to grapevine performance and grape quality
    - 2. Growth cycle stages
  - B. Berry physiology
  - C. Propagation methods
- VII. Sustainable Practices in the Vineyard
- VIII. Vineyard Quality Assurance
  - A. Record keeping requirements of modern viticulture
  - B. Quality assurance procedures to improve quality
- IX. Special Topics
  - A. Using climatic data for determining variety
  - B. Soils for vineyards
  - C. Mildew control program and grape/wine quality concerns
  - D. Other

**Assignment:**

**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
------

Writing 0 - 0%
-------------------

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

None
------

Problem solving 0 - 0%
---------------------------

**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.

None

Exams  
0 - 0%

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

None

Other Category  
0 - 0%

**Representative Textbooks and Materials:**

Sunlight to Wine. Smart, Richard. Smart, et al, 2001.

Growing Quality Grapes to Winery Specifications. Krstic, Mark. Winetitles, 2003.

General Viticulture. Winkler, Albert Julius. University of California Press, 1975.