

**VIT 124 Course Outline as of Fall 2005****CATALOG INFORMATION**

Dept and Nbr: VIT 124 Title: VINE IRRIGATION/FERT

Full Title: Vineyard Irrigation &amp; Fertilization

Last Reviewed: 2/12/2018

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	1.00	Lecture Scheduled	6.00	3	Lecture Scheduled	18.00
Minimum	1.00	Lab Scheduled	0	2	Lab Scheduled	0
		Contact DHR	0		Contact DHR	0
		Contact Total	6.00		Contact Total	18.00
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 36.00

Total Student Learning Hours: 54.00

Title 5 Category: AA Degree Applicable

Grading: Grade or P/NP

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

Also Listed As:

Formerly: AG 281.20

**Catalog Description:**

Soil types and irrigation requirements in the vineyard. Covers vineyard water and nutrition needs, water and fertilizer application techniques, and irrigation management for various rootstocks.

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

Eligibility for ENGL 100 or ESL 100

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

Description: Soil types and irrigation requirements in the vineyard. Covers vineyard water and nutrition needs, water and fertilizer application techniques, and irrigation management for various rootstocks. (Grade or P/NP)

Prerequisites/Corequisites:

Recommended: Eligibility for ENGL 100 or ESL 100

Limits on Enrollment:

Transfer Credit:

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>		Effective:	Inactive:
<b>UC Transfer:</b>		Effective:	Inactive:

**CID:**

**Certificate/Major Applicable:**

Both Certificate and Major Applicable

## **COURSE CONTENT**

### **Outcomes and Objectives:**

Upon completion of this course, the student will be able to:

1. Give examples of North Coast geography and soil types.
2. Read and interpret a soil analysis.
3. Recognize foliar symptoms of grapevine nutrient deficiency.
4. Determine appropriate fertilizers and methods of application for grapevines.
5. Assess a plant's response to fertilizer application.
6. Discuss water management strategies for vine health.
7. Evaluate rootstocks for health and adaptability.

### **Topics and Scope:**

- I. North Coast Geology and Soils
- II. Soil Chemistry
  - A. Texture
  - B. Clay types and chemistry cations
  - C. Cation exchange and CEC (cation exchange capacity)
- III. Nutrient Mobility and Fixation
- IV. Reading and Understanding Soil Analyses
- V. Tissue Sampling and Interpretation
- VI. Visual Recognition of Foliar Symptoms
- VII. Fertilizers
  - A. Determining vine needs
  - B. Methods of application
  - C. Assessing response to fertilizers
- VIII. Soil Physical Traits
  - A. Texture
  - B. Structure
  - C. Water-holding capacity

- IX. Water Management Strategies
  - A. Soil-, plant-, and weather-based techniques
  - B. Separating types of "stress"
- X. Aerial Reconnaissance of Vineyards
- XI. Rootstock Adaptability and Selection
- XII. Phylloxera and Other Root Pests
- XIII. Rootstock Evaluation and Pathogens

### Assignment:

Representative assignments:

1. Read and analyze 3-5 soil samples; write 1-page interpretive report on each.
2. Reading: 10-15 pages per week.
3. Field trip.
4. Quizzes (1-2) and 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.

Soil analysis.

Problem solving  
10 - 20%

**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.

Multiple choice, True/false, Matching items, Completion, Short answer.

Exams  
80 - 90%

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

Participation.

Other Category  
0 - 10%

### Representative Textbooks and Materials:

Instructor prepared materials.