VIT 124 Course Outline as of Fall 2018

CATALOG INFORMATION

Dept and Nbr: VIT 124 Title: VINE IRRIGATION/FERT Full Title: Vineyard Irrigation and 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:

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree: CSU GE:	Area Transfer Area	Effective: Effective:	Inactive: Inactive:
IGETC:	Transfer Area	Effective:	Inactive:
CSU Transfer	: Effective:	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. Recognize vine mineral nutrition deficiency/toxicity symptoms.
- 2. Assess and evaluate a vineyard's fertilization and irrigation practices.
- 3. Make appropriate fertilizer and irrigation scheduling recommendations.

Objectives:

At the conclusion of this course, the student should 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:

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

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

Soil analysis

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

None

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

Quizzes and final exam: Multiple choice, True/false, Matching items, Completion, Short answer

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

Participation

Writing 0 - 0%

Problem solving 10 - 20%

Skill Demonstrations 0 - 0%

> Exams 80 - 90%

Representative Textbooks and Materials: Instructor prepared materials.