

VIT 122 Course Outline as of Fall 2004**CATALOG INFORMATION**

Dept and Nbr: VIT 122 Title: VINE CANOPY MNGMT
 Full Title: Vineyard Canopy Management
 Last Reviewed: 9/13/2021

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	1.00	Lecture Scheduled	9.00	2	Lecture Scheduled	18.00
Minimum	1.00	Lab Scheduled	0	2	Lab Scheduled	0
		Contact DHR	0		Contact DHR	0
		Contact Total	9.00		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 281.21

Catalog Description:

Latest techniques in developing trellising systems for winegrape production. Principles and practices of canopy management are covered, focusing on improving grape and wine quality.

Prerequisites/Corequisites:**Recommended Preparation:****Limits on Enrollment:****Schedule of Classes Information:**

Description: Latest techniques in developing trellising systems for winegrape production. Principles and practices of canopy management are covered, focusing on improving grape and wine quality. (Grade or P/NP)

Prerequisites/Corequisites:

Recommended:

Limits on Enrollment:

Transfer Credit:

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:	Effective:	Inactive:
----------------------	-------------------	------------------

UC Transfer:	Effective:	Inactive:
---------------------	-------------------	------------------

CID:

Certificate/Major Applicable:

Both Certificate and Major Applicable

COURSE CONTENT

Outcomes and Objectives:

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

1. Define and give examples of grapevine canopy management techniques.
2. Compare and contrast various grapevine trellis support systems.
3. Describe the yearly vineyard cycle in the context of both vegetative and reproductive growth.
4. Compare and contrast methods for producing a balanced vine.
5. Summarize the importance of sunlight and microclimate on vine productivity.
6. Show the relationship between effective canopy management and winegrape quality.
7. Assess canopy management practices for their effects on winegrape quality.

Topics and Scope:

I. Introduction to Canopy Management

- A. Definitions and vocabulary
- B. Review of grapevine phenology
- C. Goals of canopy management
- D. Relationship of canopy management to modern pruning concepts
- E. The ideal canopy

II. Basic Pruning and Trellis System concepts

- A. Pruning techniques
- B. Trellis types
 1. Vertical split
 2. Horizontal split
 3. Shoot positioning versus non-shoot positioning
 4. Retro-fitting

III. Basic Grapevine Physiology and Growth Cycle

- A. European 6 phases of the growth cycle

- B. German 47 phases of the growth cycle
- IV. Vine Balance
 - A. Site vigor potential and its components
 - B. Pruning weights method
 - C. Canopy volume method
 - D. Formula for pruning young vines
 - E. Dense vs. open canopies
- V. Importance of Sunlight
 - A. Quantity, quality, and distribution
 - B. Leaf exposure
 - C. Fruit exposure
 - D. Bud exposure
 - E. Influence of microclimate on vine productivity
 - 1. Exposed canopies, sunburn and other potential problems
 - 2. Temperature and berry damages
 - 3. Strategies to protect grapes from sunburn
- VI. Canopy Configuration
 - A. Single curtain
 - B. Double curtain
 - C. Influence of training/trellis system on vine growth
- VII. Managing Vine Vigor
 - A. Tools
 - 1. Irrigation
 - 2. Fertilization
 - 3. Rootstocks
 - 4. Trellis systems
 - 5. Modified pruning methods
 - B. Managing high vigor vs. low vigor vines
- VIII. Canopy Assessment
 - A. Vineyard score card
 - B. Shoots / meter
 - C. Sensory evaluation of wine and canopy management trials

Assignment:

Representative assignments:

1. Lab reports.
2. In lab, balance the vine through pruning calculations (problem solving) and pruning techniques (skill demonstration).
3. Complete an Internet search to identify and locate trellis and hardware companies. Compile findings.
4. Reading: 10-15 pages per week.

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 and skill demonstrations 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, Pruning calculations; Internet search.	Problem solving 40 - 50%
Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.	
Pruning.	Skill Demonstrations 20 - 30%
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.	
Attendance and participation.	Other Category 20 - 30%

Representative Textbooks and Materials:

Sunlight into Wine: A Handbook for Winegrape Canopy Management. Smart, Richard and Robinson, Mike. Adelaide, South Australia: Winetitles, 1991.

Practical Aspects of Grapevine Trellising. Mollah, M. Adelaide, South Australia: Winetitles, 1997.

Instructor prepared materials.