

# VWT-231: SPRING VINEYARD OPERATIONS

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## Effective Term

Fall 2025

## CC Approval

02/07/2025

## AS Approval

02/13/2025

## BOT Approval

02/13/2025

## COCI Approval

05/15/2025

## SECTION A - Course Data Elements

### CB04 Credit Status

Credit - Degree Applicable

### Discipline

Minimum Qualifications	And/Or
Agricultural Production (Any Degree and Professional Experience)	

### Subject Code

VWT - Viticulture and Winery Technology

### Course Number

231

### Department

Viticulture and Winery Technology (VWT)

### Division

Career Education and Workforce Development (CEWD)

### Full Course Title

Spring Vineyard Operations

### Short Title

Spring Vineyard Operations

### CB03 TOP Code

0104.00 - \*Viticulture, Enology, and Wine Business

### CB08 Basic Skills Status

NBS - Not Basic Skills

### CB09 SAM Code

C - Clearly Occupational

### Rationale

Practical knowledge of viticultural and vineyard operations critical to the core SLO's of the Viticulture AS degree and related certificates.

## SECTION B - Course Description

### Catalog Course Description

Vineyard practices for the winter and spring seasons. This class operates in the NVC Student Vineyard, with an emphasis on practical applications of viticulture theory.

## SECTION C - Conditions on Enrollment

### Open Entry/Open Exit

No

### Repeatability

Not Repeatable

### Grading Options

Letter Grade or Pass/No Pass

### Allow Audit

Yes

## Requisites

## SECTION D - Course Standards

### Is this course variable unit?

No

### Units

3.00

### Lecture Hours

36.00

### Activity Hours

36.00

### Outside of Class Hours

90

### Total Contact Hours

72

### Total Student Hours

162

## Distance Education Approval

### Is this course offered through Distance Education?

Yes

### Online Delivery Methods

DE Modalities	Permanent or Emergency Only?
Entirely Online	Emergency Only
Hybrid	Permanent

## SECTION E - Course Content

### Student Learning Outcomes

Upon satisfactory completion of the course, students will be able to:	
1.	Perform and explain the basic vineyard operations for the winter and spring seasons.
2.	Demonstrate skills required in the workplace.

### Course Objectives

Upon satisfactory completion of the course, students will be able to:	
1.	Demonstrate spur and cane pruning techniques with an emphasis in long term vine health.
2.	Explain the differences between cordon trained spur-pruned, head trained spur-pruned and Guyot pruned systems.

3. Demonstrate proper pruning and training techniques for young vines.
4. Identify common trunk canker pathogens and discuss their risks and economic implications.
5. Explain the principles and methods of grapevine pruning wound protection for the prevention of trunk disease.
6. Evaluate frost protection systems and methods of passive frost protection.
7. Differentiate between count shoots and suckers among grapevine green growth.
8. Demonstrate appropriate shoot thinning (also known as suckering) of grapevines of various pruning styles.
9. Identify spring diseases and insect pests common in California's North Coast.
10. Perform shoot positioning in various training systems.
11. Design and implement a powdery mildew control program.
12. Assess vine nutrient status and implement a spring fertility program.
13. Assess the need for irrigation and apply water through a drip irrigation system when needed.
14. Explain the timing and significance of spring phenological events
15. Discuss springtime vineyard floor management including flail mowing, cultivation, under vine cultivation and herbicide regimes.

### Course Content

1. Perform basic trellis and irrigation maintenance repairs.
2. Double Guyot pruning (cane-pruning)
3. Cane pruning with and without replacement spurs
4. Cordon-trained spur pruning
5. Spring vineyard floor management: mowing, flail mowing, cultivation, and under vine cultivation
6. Pros and cons of tillage
7. Phenology of bud break and bloom
8. Pre-bloom foliar fertilization
9. Head-trained spur pruning
10. Pruning for sap flow maintenance
11. Young vine training and pruning to support that
12. Eutypa, Botryosphaeria, Esca and other canker pathogens: risks, timing, biology etc
13. Pruning wound protection
14. Active and passive frost protection methods
15. Effectiveness and limitations of frost protection methods
16. Count bud identification
17. Effect of pruning on vine balance (vine response to pruning)
18. Sucker identification
19. Spring suckering practice in spur pruned systems
20. Spring suckering in cane pruning- emphasis on leaving future cane positions in cane pruned systems without a renewal spur.
21. Pests and diseases common in the North Cost
22. Powdery mildew- early to mid-season monitoring and control
23. Use of hand lens and sweep net for pest monitoring and scouting
24. Shoot positioning
25. Wire movement and positioning
26. Vine nutrient monitoring (bloom time petioles when season allows)
27. Spring fertilizer application
28. Soil moisture assessment
29. Vine water status assessment
30. Use of a pressure chamber
31. Irrigation through drip system

### Methods of Instruction

#### Methods of Instruction

Types	Examples of learning activities
Activity	Spur-pruning grape vines of different ages.
Field Trips	Site visit to see demonstration of frost protection systems.

**Instructor-Initiated Online Contact Types**

- Announcements/Bulletin Boards
- Chat Rooms
- Discussion Boards
- E-mail Communication
- Telephone Conversations
- Video or Teleconferencing

**Student-Initiated Online Contact Types**

- Chat Rooms
- Discussions
- Group Work

**Course design is accessible**

Yes

**Methods of Evaluation**

**Methods of Evaluation**

Types	Examples of classroom assessments
Exams/Tests	Essay question "Explain the response of powdery mildew growth to ambient temperatures."
Skills Demonstration	Practical evaluation of appropriate pruning.

**Assignments**

**Reading Assignments**

Read the UCANR pamphlet "Vineyard Frost Protection"

**Writing Assignments**

Answer the essay question: "Why do we have to wait for the soil to dry out before we can drive the tractor through the vineyard? Other than getting the tractor stuck, what negative impact can it have?"

**Other Assignments**

Students are assigned 4 vines to prune and they are graded on their performance.

**SECTION F - Textbooks and Instructional Materials**

**Material Type**

Textbook

**Author**

B. Coombe and P. Dry

**Title**

Viticulture Volume 2 - Practices

**Edition/Version**

2nd

**Publisher**

Winetitles

**Year**

2006

**Rationale**

Classic text, lack of available text books for subject matter.

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**Course Codes (Admin Only)**

**ASSIST Update**

No

**CB00 State ID**

CCC000301963

**CB10 Cooperative Work Experience Status**

N - Is Not Part of a Cooperative Work Experience Education Program

**CB11 Course Classification Status**

Y - Credit Course

**CB13 Special Class Status**

N - The Course is Not an Approved Special Class

**CB23 Funding Agency Category**

Y - Not Applicable (Funding Not Used)

**CB24 Program Course Status**

Program Applicable

**Allow Pass/No Pass**

Yes

**Only Pass/No Pass**

No