

VWT-231: SPRING VINEYARD OPERATIONS

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

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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.

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