

VWT-233: ADVANCED VITICULTURE

Effective Term

Fall 2020

CC Approval

10/18/2019

AS Approval

10/22/2019

BOT Approval

11/14/2019

COCI Approval

05/25/2020

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

233

Department

Viticulture and Winery Technology

Division

Career Education and Workforce Development (CEWD)

Full Course Title

Advanced Viticulture

Short Title

Advanced Viticulture

CB03 TOP Code

0199.00 - *Other Agriculture and Natural Resources

CB08 Basic Skills Status

NBS - Not Basic Skills

CB09 SAM Code

E - Non-Occupational

Rationale

This course provides next level study for students intending to work or already working in a vineyard profession. It combines the course content of some archived 1-unit courses including "Cover Crops" and "Vineyard Propagation."

SECTION B - Course Description

Catalog Course Description

Advanced course in viticulture, including more in-depth study of rootstocks, grapevine propagation, cover cropping, grape development, and new technologies in precision viticulture. Study of viticultural impacts on grape and wine quality. Sustainable farming practices are emphasized.

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

Prerequisite(s)

Completion of VWT-130 with a minimum grade of C.

Requisite Justification

Requisite Description

Course Not in a Sequence

Subject

VWT

Course

130

Level of Scrutiny

Content Review

Upon entering this course, students should be able to:

VWT 130 with a minimum grade of C or better.

SECTION D - Course Standards

Is this course variable unit?

No

Units

3.00

Lecture Hours

54.00

Outside of Class Hours

108

Total Contact Hours

54

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.	Advance understanding of viticulture and nursery practices and the science of the grapevine.
2.	Acquire and polish skills required in the workplace.

Course Objectives

Upon satisfactory completion of the course, students will be able to:	
1.	Assess the use of appropriate rootstock cultivars for particular production goals, soil types, or soil pathogens.
2.	Understand and integrate knowledge of grapevine growth, science, and hormonal control into vineyard management practices.
3.	Demonstrate knowledge of grapevine propagation and nursery practices.
4.	Select cover crops for the amelioration of a wide variety of vineyard conditions and problems.
5.	Maintain knowledge and keep current with emerging viticulture practices and technologies.
6.	Implement current best management practices with respect to sustainability and minimizing impacts on the environment.

Course Content

1. Vegetative propagation technique and practice
2. Field budding and grafting technique and practice
3. Interactions of rootstock, site and soil.
 - a. Rootstock resistances to nematodes and virus
 - b. Scion and rootstock interaction
4. Clonal diversity within *Vitis vinifera* cultivars
 - a. Clones and wine style concerns
5. Use of winter cover crops in vineyard management
 - a. Impacts of various covers on site fertility
 - b. Cover crop relationships to insects pests and natural enemies
6. Role of sunlight and temperature in fruit development
7. Role of grapevine hormones and their use in vineyard management
8. Role of leaf area and canopy manipulation in yield and berry development
9. Improvement of wine quality through vineyard practices
10. Understanding and use of emerging theories and technologies in vineyard management practices
11. Non-grape improvements to vineyard sustainability
 - a. Use of hedgerows for improving biodiversity and sustainability
 - b. Use of animals in vineyard management
 - c. Composting practices and techniques

Methods of Instruction**Methods of Instruction**

Types	Examples of learning activities
Activity	
Directed Study	
Discussion	
Field Trips	
Lecture	
Observation and Demonstration	

Other Projects

Visiting Lecturers

Online Adaptation

Types	Examples of learning activities
Activity	
Directed Study	
Discussion	
Group Work	
Individualized Instruction	
Journal	
Lecture	

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	Multiple choice, true false, long and short written answer. Final Exam Midterm
Quizzes	
Projects	Research
Essays/Papers	
Oral Presentations	
Other	Field Trips
Class Participation	
Homework	
Other	Reading of and presentation of scientific journals.

Assignments

Reading Assignments

Assigned reading from text or of instructor distributed papers (example: Chapter 6.2 in The Science of Grapevines on Grape Composition and Fruit Quality).

Writing Assignments

Short research paper on various topics (example: Research drought resistant rootstocks and their relationship with saline soils).
 Problem solving (example: Winemaker complains that clusters from vines in block A lack uniformity. What can you do next year to promote uniform grape development?)

SECTION F - Textbooks and Instructional Materials**Material Type**

Textbook

Author

Keller, M.

Title

The Science of Grapevines

Edition/Version

2nd

Publisher

Elsevier

Year

2015

Material Type

Textbook

Author

Mullins, M. G., Bouquet, A., Williams L. E.

Title

Biology of the Grapevine

Publisher

Cambridge University Press

Year

1992

SECTION G - Diversity, Equity and Inclusivity**Course Codes (Admin Only)****CB00 State ID**

CCC000609444

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