

Viticulture And Enology

VEN 101 Introduction to Winemaking/Enology

3.0 units

Acceptable for credit: Transfer to UC, CSU

An examination of the principles of enology (winemaking) including history, grape growing, chemistry, wine microorganisms, fermentation, winemaking operations, cooperage, physiology and sociology of wine, and health and legal issues. This course is not open to students who have received credit for AG 101. (Fall, Spring) (Letter Grade or Pass/No Pass)

VEN 102 Introduction to Viticulture

3.0 units

Acceptable for credit: Transfer to UC, CSU

An introduction to viticulture including grape growing, biology, anatomy, history, distribution, propagation, varieties, wine types, climate, common diseases and pests. This course is not open to students who have received credit for AG 102. (Fall, Spring) (Letter Grade or Pass/No Pass)

VEN 103 Sensory Evaluation of Wine

3.0 units

Acceptable for credit: Transfer CSU

Limitations on Enrollment: Must be 21 years of age or older.

An exploration of the principles of sensory wine evaluation. Demonstrates how wine quality is affected by climate, viticulture practices, production techniques, grape varieties, vineyard location, oak aging, and storage conditions. Participants will survey and evaluate commercial wine styles. Limitation on enrollment: students must be 21 years of age or older. This course is not open to students who have received credit for AG 103. (Fall) (Letter Grade or Pass/No Pass)

VEN 104 Advanced Sensory Evaluation of Wine

3.0 units

Acceptable for credit: Transfer CSU

Limitations on Enrollment: Must be 21 years of age or older

Prerequisite: VEN 103 - Sensory Evaluation of Wine ; or VEN 103 - Sensory Evaluation of Wine

An investigation of Bordeaux, Burgundian, and Rhone varietals from regions where they occur world wide -- France, USA, Chile, Italy, Australia, New Zealand, and Germany. Focuses on geography/soils, enological considerations, viticulture practices, wine production techniques and styles produced. This course is not open to students who have received credit for AG 104. (Spring) (Letter Grade or Pass/No Pass)

VEN 105 Wine Marketing and Sales

3.0 units

Acceptable for credit: Transfer CSU

An introductory overview of the wine industry, production, planning, marketing channels, advertising, promotion, packaging, pricing, retail/wholesale distribution, and public relations. This course is not open to students who have received credit for AG 105. (Letter Grade or Pass/No Pass)

VEN 106 Winery and Vineyard Financial Management

3.0 units

Acceptable for credit: Transfer CSU

Advisories: CBIS 371 - Intro to Excel

Presents the many aspects of operating a small to medium-sized winery in today's business environment. Topics include an overview of the California grape and wine industry, government compliance, financial planning (capital and operating budgets), grape supply options, grape contracts, financial and managerial accounting for vineyards and wineries. Includes the basics of vineyard and winery financial management e.g. using financial statements and what they mean, cash flow management, financial and investment analysis, banking and funding sources. The class combines short lecture and hands-on experience to gain practice with, and examine the limitations of, each analysis. Some basic understanding of Microsoft Excel is recommended. This course is not open to students who have received credit for AG 106. (Fall, Spring) (Letter Grade or Pass/No Pass)

VEN 114 Wine Business

3.0 units

Acceptable for credit: Transfer CSU

Advisories: BUS 101 - Introduction to Business ; ENGL 514 - Writing Skills 4

The course will cover the basics of wine business for commercial wine production, sales, marketing, logistics, compliance and administration. The class combines short lecture and hands-on experience to gain practice with, and examine the limitations of, each analysis. The student will work in small groups analyzing regional wine industries. This course is not open to students who have received credit for AG 114. (Fall, Spring) (Letter Grade or Pass/No Pass)

VEN 120 Viticulture Operations 1

3.0 units

Acceptable for credit: Transfer CSU

Advisories: VEN 102 - Introduction to Viticulture ; or VEN 102 - Introduction to Viticulture

Vineyard practices for the fall and winter seasons, including harvest, pruning, fertilization, weed control, erosion control, and propagation. Laboratory work will stress practical applications of viticulture theory. Operations in commercial vineyards will be studied through field trips. This course is not open to students who have received credit for AG 120. (Fall) (Letter Grade or Pass/No Pass)

VEN 121 Viticulture Operations 2

3.0 units

Acceptable for credit: Transfer CSU

Advisories: VEN 102 - Introduction to Viticulture ; or VEN 102 - Introduction to Viticulture

Vineyard practices for the spring season including cultivation, frost control, planting, training, irrigation, disease, and pest control. Laboratory work will stress practical applications of viticulture theory. Operations in commercial vineyards will be studied through field trips. This course is not open to students who have received credit for AG 121. (Spring) (Letter Grade or Pass/No Pass)

VEN 122 Viticulture Operations 3**3.0 units**

Acceptable for credit: Transfer CSU

Vineyard practices for the summer season including canopy management, crop load assessment and adjustment, pest and disease monitoring and management, weed control, irrigation, and grape quality improvement techniques. This course is not open to students who have received credit for AG 122. (Summer) (Letter Grade or Pass/No Pass)

VEN 125 Soils and Plant Nutrition**4.0 units**

Acceptable for credit: Transfer to UC, CSU

Advisories: CHEM 120 - Introductory Chemistry

A study of the physical, chemical and biological properties of soils, including plant nutrition and factors affecting the availability of nutrients. Composition, value, use and application of fertilizer materials and soil amendments will be covered. The course is not open to students who are enrolled in or have received credit for AG 125. (Fall, Spring) (Letter Grade or Pass/No Pass)

VEN 130 Integrated Pest Management**4.0 units**

Acceptable for credit: Transfer CSU

Prerequisite: VEN 102 - Introduction to Viticulture (or completion of AG 102)

A study of the various pests and diseases found in California vineyard, fruit, vegetable, nut and grain crops - emphasizing pest and disease identification, sampling and monitoring techniques, and control methods. Integrated pest management approaches will be emphasized, including the latest bio-control strategies, biotechnological advances, and disease modeling for risk management. Students will visit local vineyards and farms providing "hands-on" learning opportunities. Two separate lab sections will be offered in order to provide students the appropriate option for their agricultural field of interest. Section I will be for the Viticulture focus, Section II will be for the Agriculture focus. This course is not open to students who are enrolled in or have received credit for AG 130. (Letter Grade or Pass/No Pass)

VEN 135 Grapevine Physiology**1.0 unit**

Acceptable for credit: Transfer CSU

Advisories: VEN 102 - Introduction to Viticulture ; or VEN 102 - Introduction to Viticulture

An advanced study of grapevine physiology and phenology. Topics include vine balance, flowering and fruit set, stages of berry growth and vine water status. This course is designed for those working in the wine grape industry and already familiar with vineyard operations. This course is not open to students who have received credit for AG 135. (Letter Grade or Pass/No Pass)

VEN 140 Viticulture Operations 4**3.0 units**

Acceptable for credit: Transfer CSU

Prerequisite: VEN 120 - Viticulture Operations 1 ; or VEN 120 - Viticulture Operations 1

Advanced vineyard practices for the fall season including crop projection, grape quality assessment, grape maturity monitoring,

harvest coordination, post-harvest practices, and budgeting. Management planning and financial aspects of the operations are emphasized. This course is not open to students who have received credit for AG 140. (Fall) (Letter Grade or Pass/No Pass)

VEN 141 Viticulture Operations 5**3.0 units**

Acceptable for credit: Transfer CSU

Prerequisite: VEN 121 - Viticulture Operations 2 ; or VEN 121 - Viticulture Operations 2

Advanced vineyard practices for the winter and spring seasons including vine balance determination, pruning, cover crop management, frost protection, vine training, vineyard research trials, and budgeting. Management planning and financial aspects of the operations are emphasized. This course is not open to students who have received credit for AG 141. (Spring) (Letter Grade or Pass/No Pass)

VEN 142 Viticulture Operations 6**1.0 unit**

Acceptable for credit: Transfer CSU

Prerequisite: VEN 122 - Viticulture Operations 3 ; or VEN 122 - Viticulture Operations 3

Advanced vineyard practices for the summer season including equipment operation and maintenance, vine training, vineyard research trials, and budgeting. Management planning and financial aspects of the operations are emphasized. This course is not open to students who have received credit for AG 142. (Summer) (Letter Grade or Pass/No Pass)

VEN 151 Winery Equipment**2.0 units**

Acceptable for credit: Transfer CSU

Prerequisite: Completion of or concurrent enrollment in; VEN 101 - Introduction to Winemaking/Enology ; or VEN 101 - Introduction to Winemaking/Enology

Presents all aspects of winery equipment; function, use, location, safe operation and repair. A strong emphasis is placed on safety and legal compliance. Production, storage and packaging equipment are included. This course is not open to students who have received credit for AG 151. (Fall) (Letter Grade or Pass/No Pass)

VEN 179A Intro to Precision Viticulture**3.0 units**

Acceptable for credit: D - Credit - Degree Applicable

This course will provide an introduction to the techniques used in precision viticulture. Some of the technologies and techniques will include Geographical Information Systems (GIS), Global Positioning Systems (GPS), Electromagnetic Induction (EM), Normalized Difference Vegetation Index (NDVI) and Ground Penetrating Radar (GPD). An emphasis will be put on applying these techniques to increase grape quality and spatial uniformity, reducing input costs, and more accurately assessing yield estimates. (A) (Letter Grade or Pass/No Pass)

VEN 301 Pairing Wine and Food**0.5 units**

Acceptable for credit: D - Credit - Degree Applicable

Limitations on Enrollment: Must be 21 years of age or older.
Designed to familiarize students with the components of tasting wine and food, to develop wine evaluation techniques, and to pair wines with appropriate food. This course is not open to students who have received credit for AG 301. (Letter Grade or Pass/No Pass)

VEN 302 Progressive Wine and Food Pairing

0.5 units

Acceptable for credit: D - Credit - Degree Applicable
Limitations on Enrollment: Must be 21 years of age or older.
Designed to give students an understanding of how to ensure food flavors and intensity are maximized, while serving a wider range of wines. This course is not open to students who have received credit for AG 302. (Letter Grade or Pass/No Pass)

VEN 303 European Wine and Food

0.5 units

Acceptable for credit: D - Credit - Degree Applicable
Limitations on Enrollment: Must be 21 years or older
Designed for students wishing to expand their knowledge of wine and food pairings. Focuses on European as well as California wines with appropriate regional food. This course is not open to students who have received credit for AG 303. (Fall, Spring) (Letter Grade or Pass/No Pass)

VEN 304 Dessert Wine and Food Pairing

0.5 units

Acceptable for credit: D - Credit - Degree Applicable
Limitations on Enrollment: Must be 21 years of age or older.
Designed for advanced students wishing to expand their knowledge in wine and dessert pairings. Champagnes, sparkling wines and a variety of dessert wines (ports, sherries, Madeira) will be presented. This course is not open to students who have received credit for AG 304. (Letter Grade or Pass/No Pass)

VEN 305 Pairing the Wines and Foods of Provence

0.5 units

Acceptable for credit: D - Credit - Degree Applicable
Advisories: VEN 301 - Pairing Wine and Food
Limitations on Enrollment: Must be 21 years of age or older.
Designed for advanced students wishing to expand their knowledge of wine and food pairings. Focuses on the distinctive foods and wines of the Provence region in southern France. This course is not open to students who have received credit for AG 305. (Letter Grade or Pass/No Pass)

VEN 306 Pairing the Wines and Foods of Tuscany

0.5 units

Acceptable for credit: D - Credit - Degree Applicable
Advisories: VEN 301 - Pairing Wine and Food ; or VEN 301 - Pairing Wine and Food
Limitations on Enrollment: Must be 21 years or older at time of registration.
Designed for advanced students wishing to expand their knowledge of specific wine and food pairings. Focuses on the distinctive foods and wines of the Tuscan region in northern Italy.

This course is not open to students who have received credit for AG 306. (Letter Grade or Pass/No Pass)

VEN 307 Vineyard Irrigation

3.0 units

Acceptable for credit: D - Credit - Degree Applicable
Students will receive a general background in vineyard irrigation water management, including theory and practice lectures. Vineyard water stress monitoring, ETo, crop coefficients and drip irrigation topics will be covered. This course is not open to students who have received credit for AG 307. (Letter Grade or Pass/No Pass)

VEN 308 Wine Analysis

3.0 units

Acceptable for credit: D - Credit - Degree Applicable
Students will receive a general background in wine analysis with theory and demonstrations. Most common and important wine analysis in current winemaking industry settings will be practiced in teams providing hands on experience. This course is not open to students who have received credit for AG 308. (Letter Grade or Pass/No Pass)

VEN 310 Winemaking Operations I

2.0 units

Acceptable for credit: D - Credit - Degree Applicable
Advisories: VEN 101 - Introduction to Winemaking/Enology ; or VEN 101 - Introduction to Winemaking/Enology
Limitations on Enrollment: Must be 18 years of age or older and registered in the Enology/Viticulture major or must be 21 years old if not enrolled in the major.
The first course in a four-semester sequence, students are introduced to winemaking from grape harvest through bottling. This course is not open to students who have received credit for AG 310. (Letter Grade or Pass/No Pass)

VEN 311 Winemaking Operations II

2.0 units

Acceptable for credit: D - Credit - Degree Applicable
Advisories: VEN 310 - Winemaking Operations I ; and VEN 101 - Introduction to Winemaking/Enology ; or VEN 310 - Winemaking Operations I ; and VEN 101 - Introduction to Winemaking/Enology
Limitations on Enrollment: Must be 18 years of age or older and registered in the Enology/Viticulture major or must be at least 21 years old.
The second course in a four-semester sequence, students will chemically analyze, fine, and bottle the red and white wines that were fermented in the previous semester. This course is not open to students who have received credit for AG 311. (Spring) (Letter Grade or Pass/No Pass)

VEN 312 Advanced Viticulture

3.0 units

Acceptable for credit: D - Credit - Degree Applicable
Prerequisite: VEN 102 - Introduction to Viticulture ; or VEN 102 - Introduction to Viticulture
This class prepares students to understand and make decisions for the viticultural process including canopy management, frost

protection, specific deficit irrigation, morphology and physiology of the grapevine. This course is not open to students who have received credit for AG 312. (Letter Grade or Pass/No Pass)

VEN 314 Organic/Biodynamic Winegrowing

3.0 units

Acceptable for credit: D - Credit - Degree Applicable
Introduction to professional organic and biodynamic wine grape production with ecological production methods. Theory and practice with an emphasis on regional growing conditions. Includes appropriate planting, maintenance, soil fertility, biodiversity, and ecological pest management, current winery practices, and cost analysis. This course is not open to students who have received credit for AG 314. (Spring) (Letter Grade or Pass/No Pass)

VEN 315 Fertilizers and Plant Nutrition

4.0 units

Acceptable for credit: D - Credit - Degree Applicable
This course will provide an introduction to fertilizers and plant nutrition. Essential nutrients for plant development will be studied as well as deficiency symptoms and methods of correcting for these deficiencies. Fertilizer and other soil amendments will be studied as well as the proper management and application methods for these products. The course is not open to students who are enrolled in or have received credit for AG 315. (Spring) (Letter Grade or Pass/No Pass)

VEN 316 Introduction to Wine Microbiology

3.0 units

Acceptable for credit: D - Credit - Degree Applicable
Prerequisite: VEN 101 - Introduction to Winemaking/Enology ; or VEN 101 - Introduction to Winemaking/Enology
Introduction to the natural development, physiology, biochemistry and control of yeasts and bacteria involved in the making, aging and spoilage of wine, including conditions that affect microbial growth and ecology during vinification, characteristics of various wine microorganisms, and identification and prevention of spoilage. This course is not open to students who have received credit for AG 316. (Letter Grade or Pass/No Pass)

VEN 318 Advanced Winemaking

3.0 units

Acceptable for credit: D - Credit - Degree Applicable
Limitations on Enrollment: Must be 21 years old or older.
Prerequisite: VEN 101 - Introduction to Winemaking/Enology ; or VEN 101 - Introduction to Winemaking/Enology
Students will receive an advanced background in winemaking, in a lecture setting. Relevant winemaking issues are analyzed and discussed. The course will cover the principles of viticulture for winemaking, wine chemistry, principles and practices of making standard types of wines, with special reference to methods of vinification and stability. A brief discussion of winemaking costs and alternatives is presented. This course is not open to students who have received credit for AG 318. (Letter Grade or Pass/No Pass)

VEN 320 Wine Tasting Room Sales

1.5 units

Acceptable for credit: D - Credit - Degree Applicable

Presents all aspects of wine tasting room service and sales. Cellar clubs, selling techniques, wine vocabulary, and the laws and regulations of serving wine in California are covered. Legalities of shipping wine interstate and the various means of wine shipment are discussed. This course is not open to students who have received credit for AG 320. (Letter Grade or Pass/No Pass)

VEN 321 Winemaking Operations III

2.0 units

Acceptable for credit: D - Credit - Degree Applicable
Limitations on Enrollment: Must be 21 years of age or older
Prerequisite: VEN 310 - Winemaking Operations I ; or VEN 310 - Winemaking Operations I
The third course in a two year sequence, students are introduced to all practical winemaking from grape harvest through bottle aging, including specific winemaking procedures. This course is not open to students who have received credit for AG 321. (Letter Grade or Pass/No Pass)

VEN 322 Winemaking Operations IV

2.0 units

Acceptable for credit: D - Credit - Degree Applicable
Limitations on Enrollment: Must be 21 years of age or older
Prerequisite: VEN 311 - Winemaking Operations II ; or VEN 311 - Winemaking Operations II
The fourth course in a two year sequence (four semesters), students are introduced to all practical process of winemaking from grape harvest through bottle aging, including specific winemaking procedures such as stability treatments, personnel management, and wine packaging and quality control. This course is not open to students who have received credit for AG 322. (Letter Grade or Pass/No Pass)

VEN 323 Vineyard and Winery Evaluation

3.0 units

Acceptable for credit: D - Credit - Degree Applicable
Advisories: VEN 102 - Introduction to Viticulture ; and VEN 101 - Introduction to Winemaking/Enology
This course will include the data collection and process analysis of vineyards and wineries in the San Luis Obispo and Santa Barbara counties. The students and instructor will perform a comparative analysis of two local vineyard/winery operations, assessing a wide range of different variables ranging from soil conditions vineyard practices and winemaking to wine sales and product distribution. Students will present detailed reports at the end of the course with findings and suggestions to the management of the selected operations, addressing their specific concerns when applicable. (Letter Grade or Pass/No Pass)

VEN 324 Small Acreage Grapegrowing

1.0 unit

Acceptable for credit: D - Credit - Degree Applicable
Learn about small vineyard establishment and maintenance. Topics include: selection of site, variety and rootstock, vineyard layout, irrigation, trellising, planting and pest control. This course is not open to students who have received credit for AG 324. (Letter Grade or Pass/No Pass)

VEN 330 Harvest Boot Camp**0.5 units**

Acceptable for credit: D - Credit - Degree Applicable

Limitations on Enrollment: Must be 18 years of age or older

Course provides a basic understanding of the vocabulary and procedures for harvesting both at the vineyard and at the winery. Efficiency and safety issues are addressed. Management principles encountered in the day-to-day harvest operation. This course is not open to students who have received credit for AG 330. (Letter Grade or Pass/No Pass)