



## VITICULTURE 55 Syllabus

### Basic Wine Grape Viticulture

VIT 55

Fall 2020

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**Course Overview:** This course covers the basics of vineyard development and vineyard maintenance. The purpose is to provide an introduction to viticultural principles. Topics include history of grapes and wine, distribution of winegrapes and growing regions around the world, biology, physiology and anatomy of the grapevine, yearly cycle of vine growth, how soils and climate affect grape growing, cultivars, rootstocks, clones, propagation, training of vines, canopy management, mineral nutrition, soils and irrigation, pests and diseases, basics of managing a vineyard in California, and methods to improve winegrape quality.

**Course Objectives:** Upon successful completion of the course, the student will be able to describe the grapevine's yearly cycle of growth, list winegrape varieties, rootstocks; describe trellis types, pruning, training and canopy management techniques. The student will be able to identify common vineyard problems and suggest remedies. The student will be able to describe the entire process of grape growing from site feasibility determination, to planting and training a vineyard, to improvement of quality and harvesting fruit for a Sonoma County vineyard.

### Learning Materials:

Textbooks: Grapes 2<sup>nd</sup> edition, Creasy and Creasy, CABI, 2018.

Electronic files of discussion materials will be available on Canvas.

### Course Requirements and Policies:

- The class will be distance learning at the start. We will be meeting online with zoom, combined with you working on your own. It will be a synchronized class, meaning we will all go through the material at the same pace over the semester. Typically, there is 1 lesson plan per week. We are still working on permission for vineyard visits to Shone Farm.
- Our zoom meeting time will be every Tuesday, 4-6pm. In addition to the zoom meeting, there will be reading/watching videos, quizzes, and a vineyard photo project that you will do on your own. I will also be scheduling 1 on 1 video conferences as we move through the material.
- Participation is a big part of this class. Attending the zoom meeting and replying to quiz questions is vital. Distance learning can make participation difficult, but we will make it work!
- The student is responsible for material covered in lecture/discussion, pdf files, assigned readings/videos and material covered during field trips, should there be any.
- Course requires use of 'Canvas' on internet for electronic information, grades, homework, Syllabus, and communications and updates.

### **Grading Outline:**

Weekly Lesson introduction assessments	20%
Weekly Reading	20%
Weekly Photo/Video Log	20%
Weekly Assessment	20%
Weekly Participation	20%

### **Learning Outcomes:**

Students will be able to:

Upon completion of this course, students will be able to:

1. Summarize the history and development of the wine industry.
2. Evaluate the importance of grapes both historically and currently.
3. Analyze the vineyard yearly growth cycle and relate it to timing of vineyard practices.
4. Identify and describe grapevine structures and functions.
5. Describe and contrast development of a new vineyard vs. farming an established vineyard.
6. Explain how climate, soils and vineyard practices affect vine growth and grape and wine quality.
7. Identify, compare and contrast the different cultivars and rootstocks.
8. Summarize the unique characteristics of the world's major grape growing areas.
9. Identify and describe the important vineyard disease and pests and recommend integrated pest management practices.
10. Describe the steps required for the determination of feasibility for planting (or replanting) a vineyard.
11. Describe various grapevine cultivars, rootstocks, trellis types and canopy management strategies that are utilized for high quality wine grape production.
12. Identify common vineyard pest and disease problems, explain their life cycles, and recommend timely and sustainable vineyard practices for disease and pest control.
13. Explain the grapevine's yearly growth cycle, and correlate vineyard operations appropriate and required at each phenological stage

### Vit 55 Curriculum outline Fall 2020

Week	Dates		Topic
1	8-17	History, Geography, and grape growing business	Course goals Class logistics and assignments Viticulture Vocabulary  History of Grapes Geographical Distribution Grape growing business
2	8-24		Climate, Degree Days & Growing Regions
3	8-31	Biology	Vine Structure, Yearly Cycle of Vine Growth
4	9-7		<i>Vitis</i> species Rootstocks, Cultivars and Clones
5	9-14		Vine Physiology,
6	9-21		Berry Development Maturity Determination and Harvest
7	9-28	Vineyards	Trellises & Vine Support Systems, Vine Spacing Vine Training and Pruning
8	10-5		Vineyard Development Frost Protection
9	10-12		Vine Propagation, Budding and Grafting
10	10-19		Vineyard Soils and Irrigation Vineyard Floor Management
11	10-26	Growing grapes	Canopy Management / Canopy Assessment
12	11-2		Vine Pests & Diseases Other vine issues
13	11-9		Integrated Pest Management Sustainable Ag, Organic, Biodynamic Practices
14	11-16		Pesticide Safety / Regulations and Compliance
15	11-23		Vine Mineral Nutrition
16	11-30		Vineyard management
17	12-7		Methods to Improve Grape Quality
18	12-14		