



Syllabus

VIT 210 Enology I

General Information

Date

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Author

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Department

Environmental Conservation and Horticulture

Course Prefix

VIT

Course Number

210

Course Title

Enology I

Course Information

Credit Hours

4

Lecture Contact Hours

2

Lab Contact Hours

4

Other Contact Hours

0

Catalog Description

This course is designed to introduce second year viticulture and wine technology students to the science of winemaking. Topics covered include: microbiology of wine yeast and bacteria; and the importance of sanitation in the winery. Students will study and perform the processes of wine cellar operations from vineyard through fermentation, and the early stages of initial stabilization of young wines. Students will become familiar with various wine making equipment including a stemmer/crusher, press, must pumps, juice and wine pumps, and other fermentation tools. Techniques and reasons for using various winemaking additives from harvest through stabilization will be explored. Work orders, common in a winery environment, will be introduced, used and created by students throughout the course so the student is prepared to track information throughout harvest and winemaking.

Key Assessment

This course does not contain a Key Assessment for any programs

Prerequisites

VIT 115 and CHM 121

Co-requisites

None

Grading Scheme

Letter

First Year Experience/Capstone Designation

This course **DOES NOT** satisfy the outcomes applicable for status as a FYE or Capstone.

SUNY General Education

This course is designated as satisfying a requirement in the following SUNY Gen Ed category

None

FLCC Values

Institutional Learning Outcomes Addressed by the Course

Vitality
Inquiry
Perseverance
Interconnectedness

Course Learning Outcomes

Course Learning Outcomes

1. Practice and recognize proper winery safety
2. Describe methods used to combat the production of off flavors in wines originating from harvest through initial wine stabilization
3. Manage a fermentation from vineyard through initial wine stabilization

Outline of Topics Covered

1. Winery Safety
 - a. Eyewash stations
 - b. Shower

- c. Equipment
- 2. Work orders –Generation and completion
 - a. Grapes
 - b. Winemaking
- 3. Pre-harvest monitoring of grapes
 - a. Physiological ripening
 - b. When to harvest
- 4. Yeast
 - a. Cultured
 - b. Native
 - c. Ecology
- 5. Bacteria
 - a. Cultured
 - b. Native
 - c. Ecology
- 6. Malolactic Fermentation
 - a. Sequential
 - b. Co-inoculation
 - c. Nutrition
- 7. Nutrient requirements of fermentation
 - a. Nitrogen balance
 - b. Micronutrients
- 8. Proper operation of harvest equipment
 - a. Elevator
 - b. Destemmer/Crusher
 - c. Press
 - d. Must Pump
- 9. Juice
 - a. Chaptalization
 - b. Acid adjustment
 - c. Lees Filtration
 - d. Floatation

- e. Enzymes
- f. Press Dynamics
- 10. Sulfur dioxide management
 - a. Harvest
 - b. Fermentation
 - c. Initial Wine Stabilization
- 11. Oxygen management from
 - a. harvest
 - b. Fermentation
 - c. wine stabilization and storage
- 12. Fermentation Management
 - a. Planning
 - b. Operation
 - c. Kinetics
- 13. Winery Sanitation
 - a. Equipment
 - b. Facilities
- 14. Sensory Analysis
 - a. Types
 - b. Basic Statistics
 - c. Conditions
- 15. Fruit (other than grape) Wine
 - a. Pome (cider)
 - b. Stone
 - c. Citrus