



## Syllabus

### VIT 115 Introduction to Enology Laboratory Techniques

#### General Information

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**Date**

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**Author**

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**Department**

Environmental Conservation and Horticulture

**Course Prefix**

VIT

**Course Number**

115

**Course Title**

Introduction to Enology Laboratory Techniques

#### Course Information

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**Credit Hours**

2

**Lecture Contact Hours**

1

**Lab Contact Hours**

1

**Other Contact Hours**

0

**Catalog Description**

Students will become familiar with juice and wine analyses that are used when making a commercial wine from grape ripening through initial wine stabilization. Analytical methods (e.g. testing juices for sugar, acid and pH) are some of the skills that will be studied. Students will also study strategies for cleaning and maintaining the laboratory. Common mathematical and chemistry winemaking problems are embedded throughout this course. Identification and proper use of laboratory equipment will be integral to the course.

**Key Assessment**

This course does not contain a Key Assessment for any programs

**Prerequisites**

None

**Co-requisites**

CHM 121

**Grading Scheme**

Letter

## First Year Experience/Capstone Designation

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

## SUNY General Education

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

None

## FLCC Values

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**Institutional Learning Outcomes Addressed by the Course**

Vitality  
Inquiry  
Perseverance  
Interconnectedness

## Course Learning Outcomes

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**Course Learning Outcomes**

1. Show proper laboratory safety and cleanliness
2. Accurately execute basic laboratory procedures common in a wine laboratory from grape ripening through initial wine stabilization including: total soluble solids, pH, titratable acidity, and free SO<sub>2</sub> measurement
3. Interpret results of wine laboratory analyses
4. Calculate and solve relevant winemaking mathematical and chemistry problems

## Outline of Topics Covered

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1. Laboratory Safety
  - a. First aid
  - b. Eyewash

- c. Shower
- 2. Laboratory equipment
  - a. identification,
  - b. usage
  - c. cleaning procedures
  - d. storage
- 3. Microorganisms
  - a. Juice
  - b. Wine
  - c. Environment
- 4. Work orders
  - a. Lab
  - b. Winery
- 5. Total soluble solids measurement
  - a. Brix
  - b. Density
- 6. pH meter
  - a. usage
  - b. measurement
- 7. Titratable acidity
  - a. Definition
  - b. Titration
- 8. Yeast Assimable Nitrogen analysis
  - a. Definition
  - b. Analysis
- 9. Turbidity
  - a. Definition
  - b. Analysis
- 10. Free SO<sub>2</sub> analysis: Aeration Oxidation
  - a. Free SO<sub>2</sub>
  - b. Bound SO<sub>2</sub>
  - c. Total SO<sub>2</sub>

- d. Analysis
- 11. Residual sugar measurement
  - a. Reblein
  - b. Clinitest
- 12. Alcohol
  - a. Determination
  - b. Ebulliometry