

Department:

Viticulture and Enology

Course Description:

This intermediate course is built on the fundamentals of science and technology in winemaking practices taught in Introduction to Enology. During this course, students will understand how the whole winemaking practice works and learn the scientific background for any decisions made during the process of winemaking. At the completion of the course students will understand winemaking calculations necessary for accurate, precise and safe additions to the wine. This class emphasizes the practical aspects to growing grapes and making wine.

Course Competencies:

Upon completion of the course, the student should be able to:

1. Discuss the characteristics of wine types and styles.
2. Explain the applications of viticulture to winemaking.
3. Demonstrate the processes and procedures involved in fruit harvest, juice, must, and wine preparation.
4. Describe the processes involved in alcoholic fermentation.
5. Describe the processes involved in malolactic fermentation.
6. Demonstrate blending technique and explain aging of wine.
7. Explain wine clarification and fining techniques.
8. Demonstrate an understanding of the factors and procedures involved in wine stability.
9. Discuss wine analysis.
10. Describe the processes of dealing with problem wines.
11. Explain the preparation and processes involved in wine bottling.
12. Demonstrate an understanding of TTB Regulations (Alcohol and Tobacco Tax and Trade Bureau).

Course Content:

- A. Application of Sensory Evaluation in Wine Making
- B. Grape Maturity and Quality
- C. Hydrogen ION (pH) and Fixed Acids
- D. Carbohydrates
- E. Alcohol and Extract
- F. Phenolic Compounds and Wine Color
- G. Nitrogen Compounds
- H. Sulfur-Containing Compounds
- I. Sulfur Dioxide and Ascorbic Acid
- J. Volatile Acidity

- K. Metals, Cations and Anions
- L. Sorbic Acid, Benzoic Acid and Dimethyldicarbonate
- M. Oxygen, Carbon Dioxide, and Nitrogen
- N. Tartrates and Instabilities
- O. Fining and Fining Agents
- P. Winery Sanitation
- Q. Microbiology of Winemaking
- R. Cork

Learning Assessments:

Course competencies will be assessed by use of portfolios and presentations, written examinations, laboratory and field observations, class projects and activities, active participation in course dialog, and scholarly activities including discovery, application, and integration.

Instructional Materials:

Wine Analysis and Production; Zoecklein, Fugelsang, Gump, Nury; Aspen Publishers, 1995.
ISBN: 0834217015

Guidelines for Requesting Accommodations Based on Documented Disability or Medical Condition

It is the intention of Highland Community College to work toward full compliance with the Americans with Disabilities Act, to make instructional programs accessible to all people, and to provide reasonable accommodations according to the law.

Students should understand that it is their responsibility to self-identify their need(s) for accommodation and that they must provide current, comprehensive diagnosis of a specific disability or medical condition from a qualified professional in order to receive services. Documentation must include specific recommendations for accommodation(s). Documentation should be provided in a timely manner prior to or early in the semester so that the requested accommodation can be considered and, if warranted, arranged.

In order to begin the process all students **must** complete the "Disabilities Self-Identification Form" at this link:
<https://highlandcc.edu/pages/disability-services>.

This form can also be accessed at the Highland Community College homepage under Students Services/Student Resources/Disability Service or by contacting the Disabilities Coordinator.