

ENOLOGY (ENOL)

ENOL 12000 SCIENCE OF WINE AND BEER PRODUCTION I 3 Credit Hours

Provides an in-depth study of the molecular and analytical principles of wine and beer production. It covers essential chemistry topics, including fermentation, flavor, aroma and color chemistry, while also teaching practical techniques for grape juice and wine analysis. Students engage in both theoretical learning and hands-on lab exercises, emphasizing chemical, physical, and biochemical methods, as well as real-world applications in winery environments.

Prerequisite: None.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 3 lecture, .6 lab

Grade Mode: Standard Letter-IP

ENOL 14600 INTRODUCTION TO ENOLOGY 3 Credit Hours

Targets people who became interested in home winemaking with possibilities to grow into the small business opportunity, as well as cellar employees interested in winemaking career. During this course, students build proper basic understanding of winemaking which alleviates common home winemaker's errors.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter-IP

ENOL 14810 WINERY AND BREWERY SANITATION 3 Credit Hours

The basic science and technology of winery and brewery sanitation that includes an introduction to microbiology. Covers all methods used both in the winery and brewery for sanitation including premises, tanks, pumps, filters, oak barrels and sampling equipment, including but not limited to chemical agents, reagents and thermal treatments leading to sterile bottling. Environmental issues and compliance are also addressed.

Pre/corequisite: ENOL 14600 or VIN 11800.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter-IP

ENOL 16000 WINERY EQUIPMENT OPERATION 2 Credit Hours

Covers process technologies and process systems used in modern commercial wineries. Overview of winemaking systems, including work place safety, cleaning and sanitation procedures, winemaking equipment and materials, tanks, barrels and barrel alternatives, filtration systems and bottling equipment. Also touches upon on chillers and electrical needs.

Prerequisite: ENOL 14600.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter-IP

ENOL 21010 INTRODUCTION TO WINE AND BEER MICROORGANISMS 3 Credit Hours

Introduction to the basic principles of wine and beer microbiology and the variety of microorganisms frequently encountered in the wine making and brewing process. Yeasts, bacteria and molds play vital roles in the production of wine and beer, both beneficial and harmful. Students become familiar with the morphology, reproduction and sensory attributes of wine and beer microorganisms in order to understand their influence on winemaking and brewing and to be able to manage them effectively.

Prerequisite: ENOL 14600 or VIN 11800.

Schedule Type: Combined Lecture and Lab

Contact Hours: 2.5 lecture, 1 lab

Grade Mode: Standard Letter-IP

ENOL 22000 SCIENCE OF WINE AND BEER PRODUCTION II 2 Credit Hours

Provides an in-depth study of the molecular and analytical principles of wine and beer production. It covers essential chemistry topics, including fermentation, flavor, aroma and color chemistry, while also teaching practical techniques for grape juice and wine analysis. Students engage in both theoretical learning and hands-on lab exercises, emphasizing chemical, physical and biochemical methods, as well as real-world applications in winery environments. Analyses of a practical and useful nature are chosen for the laboratory exercises demonstrating various chemical, physical and biochemical methods.

Prerequisite: ENOL 14600 or VIN 11800; and ENOL 12000.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 2 lecture, .6 lab

Grade Mode: Standard Letter-IP

ENOL 22001 ADVANCED WINERY AND BREWERY MICROBIOLOGY AND SANITATION 4 Credit Hours

Introduction to the basic principles of wine and beer microbiology and the variety of microorganisms frequently encountered in the wine making and brewing process. Yeasts, bacteria and molds play vital roles in the production of wine and beer, both beneficial and harmful. Students become familiar with the morphology, reproduction and sensory attributes of wine and beer microorganisms in order to understand their influence on winemaking and brewing, cleaning and sanitation techniques, and to be able to manage them effectively. Environmental and safety considerations, regulatory compliance, as well as spoilage prevention strategies are emphasized.

Prerequisite: ENOL 14600 or VIN 11800; and ENOL 12000.

Pre/corequisite: ENOL 22000.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 4 lecture, 1.2 lab

Grade Mode: Standard Letter-IP

ENOL 22092 INTERMEDIATE ENOLOGY: HARVEST AND CRUSH WITH FIELDWORK (ELR) 4 Credit Hours

Focused on advanced science and technology concepts of winemaking as it relates to pre-harvest, fruit harvest, and procedures involved in juice and must preparation. Covers advanced principles of grape juice and wine analysis, harvest practices and the application of enological science in a real-world field setting. Builds on the fundamentals taught in Introduction to Enology, Science of Wine and Beer Making I and II and Advanced Winery and Brewery Microbiology and Sanitation.

Prerequisite: ENOL 12000 and ENOL 14600 and ENOL 22000.

Schedule Type: Lecture, Practical Experience

Contact Hours: 3 lecture, 5 other

Grade Mode: Standard Letter-IP

Attributes: Experiential Learning Requirement

ENOL 23092 INTERMEDIATE ENOLOGY: POSTHARVEST WITH FIELDWORK (ELR) 4 Credit Hours

Focused on advanced science and technology concepts of winemaking as it relates to post harvest procedures. Students will gain a deeper understanding of stabilization, clarification, fining, bottling and wine analysis while participating in fieldwork to apply these principles to real-world operations. Builds on the fundamentals taught in Introduction to Enology, Science of Wine and Beer Production 1 and II, Advance Winery and Brewery Microbiology and Sanitation and Intermediate Enology: Harvest and Crush with Field Work.

Prerequisite: ENOL 12000 and ENOL 14600 and ENOL 22000 and ENOL 22092.

Schedule Type: Lecture, Practical Experience

Contact Hours: 3 lecture, 5 other

Grade Mode: Standard Letter-IP

Attributes: Experiential Learning Requirement

ENOL 24600 INTERMEDIATE ENOLOGY - HARVEST AND CRUSH 2 Credit Hours

Focused on advanced science and technology concepts of winemaking as it relates to pre-harvest, fruit harvest, and procedures involved in juice and must preparation. Builds on the fundamentals taught in Introduction to Enology, Molecular Principles of Grape and Wine, and Wine Microbiology.

Prerequisite: ENOL 14600.

Schedule Type: Combined Lecture and Lab

Contact Hours: 1.5 lecture, 1 lab

Grade Mode: Standard Letter-IP

ENOL 24700 INTERMEDIATE ENOLOGY - POSTHARVEST 2 Credit Hours

Focused on advanced science and technology concepts of winemaking as it relates to post harvest procedures involved in stabilization, clarification, fining, and bottling. Builds on the fundamentals taught in Introduction to Enology, Molecular Principles of Grape and Wine, Wine Microbiology, Wine and Must Analysis, and Intermediate Enology Harvest and Crush.

Prerequisite: ENOL 14600 and ENOL 24600.

Schedule Type: Combined Lecture and Lab

Contact Hours: 1.5 lecture, 1 lab

Grade Mode: Standard Letter-IP

ENOL 25792 FALL WINE PRODUCTION FIELD WORK (ELR) 3 Credit Hours

Principles of grape juice and wine analysis and the reasons for use of each analysis. Analyses of a practical and useful nature are chosen for the laboratory exercises demonstrating various chemical, physical and biochemical methods. Students participate in workshops and hands-on experiences at participating wineries.

Prerequisite: ENOL 14600; and ENOL 16000.

Corequisite: ENOL 24600.

Schedule Type: Field Experience, Lecture

Contact Hours: .5 lecture, 2.5 other

Grade Mode: Standard Letter-IP

Attributes: Experiential Learning Requirement

ENOL 25992 CELLAR OPERATIONS FIELD WORK (ELR) 2 Credit Hours

Provide students initiated in the field of enology with actual and practical exposure to the technology of wine making as is performed during the passive vineyard periods associated with winter and spring. Students are expected to improve their understanding of the methods and science involved by on-site participation in each of the various activities associated with finished wine production. Course serves as actual practical exposure and may qualify as experience for those seeking employment in commercial enology.

Prerequisite: ENOL 25792.

Schedule Type: Field Experience, Lecture

Contact Hours: .6 lecture, 4.25 other

Grade Mode: Standard Letter-IP

Attributes: Experiential Learning Requirement

ENOL 26600 SENSORY EVALUATION 3 Credit Hours

Intended for those individuals who need to develop an understanding of the principles of sensory evaluation used in commercial wine making. It also benefits wine enthusiasts interested in reaching advanced levels of appreciation, as well wine producers, wine merchants and enologists, who by the nature of their profession need to discern flavors and establish tasting benchmarks. Students practice sensory analysis at home and in workshops to further their sensory evaluation skills and techniques.

Prerequisite: ENOL 14600.

Schedule Type: Combined Lecture and Lab

Contact Hours: 2.5 lecture, 1 lab

Grade Mode: Standard Letter-IP

ENOL 26800 WINE AND MUST ANALYSIS 3 Credit Hours

Principles of grape juice and wine analysis and the reasons for use of each analysis. Analyses of a practical and useful nature are chosen for the laboratory exercises demonstrating various chemical, physical and biochemical methods. Students participate in workshops and hands-on experiences at participating wineries.

Prerequisite: ENOL 14600.

Schedule Type: Combined Lecture and Lab

Contact Hours: 2.5 lecture, 1 lab

Grade Mode: Standard Letter-IP