



Enology and Viticulture Option

*Department of Food Science & Technology
at Oregon State University*

“From Vine to Wine through Education and Research”

About Oregon Wine

Oregon is third in the nation in the number of wineries and fourth in wine volume or production. Although most wineries produce no more than 5000 cases per year, there is a commitment to producing high quality wines from the 72 grape varieties planted throughout the state. The focus of the Enology & Viticulture option supports the continuously growing industry.

Enology and Viticulture are the two disciplines of wine production. The Department of Food Science and Technology offers an option in this area by focusing a student's instruction on grape production (Viticulture) and winemaking (Enology). The Enology and Viticulture option provides a thorough understanding of the principles and practices of wine production, with knowledge firmly based in the core disciplines of biology, chemistry, physics, microbiology, and math.

Facilities & Equipment

University Vineyards

The University owns and maintains two vineyards, one located at the Lewis Brown farm outside of Corvallis and Woodhall vineyard located in Alpine, about 20 minutes south of Corvallis. These vineyards have multiple uses and are actively utilized for instruction as well as extension and research. The vineyards are planted with cool climate, industry relevant varieties such as Pinot noir, Pinot gris and Chardonnay.

Pilot Plant Winery

The pilot plant teaching and research winery is located in neighboring Withycombe Hall and is comprised of equipment necessary for wine-grape processing including a stemmer-crusher, presses, filtration systems, centrifuge, fermenters, bottling systems and storage facilities. The winery also serves as a teaching tool for extension workshops, and University-owned vineyards provide wine-grapes for teaching and research purposes.

Internships & Career Opportunities

Students are encouraged and have had work experiences in the many local wineries in the state as well as larger national companies. For those wanting to broaden their experience, work opportunities have been found in countries such as New Zealand, Australia, Spain, and France. Most internships typically fall during harvest and can last as long as 6 months. Fall quarter coursework is setup to facilitate six month internships.

Enology and Viticulture graduates are trained to become technically proficient in all aspects of wine production and have the training necessary to become successful winemakers. Our graduates have been employed among the approximate 605 wineries in Oregon. Other large wineries outside Oregon who have hired graduates are EJ Gallo, Constellation Wines and Beringer.

Oregon Wine Research Institute (OWRI)

The Oregon Wine Research Institute is the first multi-disciplinary program dedicated to addressing the research and outreach needs of the wine industry (Viticulture and Enology) in Oregon. One goal of the OWRI is to develop a rigorous program of research and outreach in the area of wine business.

owri.oregonstate.edu



Academics

Courses

Courses that form the core of the undergraduate degree option focus extensively on the science of winemaking, but also provides the student a strong understanding of vineyard management and grape quality through additional coursework in Horticulture, Soil Science, and Crop Science.

Undergraduate Research

Interested undergraduates can earn course credit by participating in the latest research of department faculty members who work in a variety of areas: biochemistry and natural products chemistry, flavor chemistry, molecular biology, sensory studies, fermentation engineering, and microbiology.

Food Science Major Core (104 Cr.) - Required for all options			Option: Enology & Viticulture (con't)		
Supporting Courses (75 Cr.)			Required Fermentation & Enology Courses (11 Cr.)		
Tech Wri, Science Wri, or Eng Comp <i>Select one of WR 327, 362, or 222</i>	WR* 327, 362, <u>or</u> 222	3	Wine Production Principles	FST 466	3
Public Speaking	COMM 111*	3	Wine Prod., Analysis & Sensory Eval	FST 467	5
General Chemistry	CH* 231, 232, 233	4, 4, 4	Fermentation Microbiology	FST 479	3
General Chemistry Lab	CH* 261, 262, 263	1, 1, 1	Enology & Viticulture Option Electives (9 Cr.)		
Organic Chemistry/Lab	CH 331, 332/337	4, 4, 4	Seminar - Leadership Academy	AG 407**	3
Quantitative Analysis	CH 324	4	Intro Plant Pathology	BOT 350	4
Principles of Biology	BI* 211, 212, 213	4, 4, 4	Intro Pest Management	ENT 311	4
Elementary Biochemistry	BB 350	4	Food Science Orientation	FST 101	1
General Microbiology/Lab	MB 302/303	3, 2	Intro to Wines, Beers, and Spirits	FST 251	3
Intro to Statistical Methods	ST 351	4	Food Sci & Tech in Western Culture	FST 260*	3
General Physics	PH 201	5	Wine in the Western World	FST 273*	3
<i>Complete one pair: MTH 227/228 or MTH 251/252</i>			Research	FST 401**	3
Calculus & Probability for Life Science	MTH 227*/228	4, 4	Internship	FST 410**	3
Differential/Integral Calculus	MTH 251*/252	4, 4	Sensory Evaluation of Foods	FST 420	4
<i>Depending on placement, some students may also need to complete some part of the progression: MTH 095, 111* and 112*</i>			Topics in Fermentation <i>Up to 2 credits of FST 480 may be applied</i>	FST 480	1
Core Food Science Courses (29 Cr.)			Temp. Tree Fruit, Berries, Grapes, Nuts	HORT 251	2
Food Safety and Sanitation	FST 360	3	Plant Nutrition	HORT 316	4
Industry Preparation/HACCP	FST 370	3	Food Microbiology/Lab	MB 440/441	3, 2
Communicating Food and Ferm Sci	FST 385^	3	Food in Non-Western World	NUTR 216*	3
Senior Seminar	FST 407	1	Total Credits in Major		141
Food Law	FST 421*	3	Preparatory Math		0-8
Food Chemistry Fundamentals	FST 422	4	Add'l. Bacc Core		21-24
Food Systems Chemistry	FST 425	4	Unrestricted Electives		7-22
Intro to Food Engineering Principles	BEE 472	5	Minimum 180 credits required for graduation		
Intro to Food Eng Process Design	BEE 473	3	^ Writing Intensive Course		
Option: Enology & Viticulture (37 Cr.)			* Fulfills Bacc Core requirements		
Required Plant Science Courses (17 Cr.)			** Competitive selection, and/or dept. pre-approval required		
Plant Physiology	BOT 331	4	<i>Degree requirements subject to change in accordance with OSU policies. Requests for exceptions to major requirements should be made in consultation with academic advisor to the FST Undergraduate Committee.</i>		
Biology of Horticulture	HORT 301	3			
Grapevine Growth & Physiology	HORT 453	3			
Principles & Practices Vineyard Prod.	HORT 454	3			
Soil Science/Lab	SOIL 205/206*	3, 1			

For more information contact: Holly Templeton | 541.737.6486 | holly.templeton@oregonstate.edu

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