Viticulture & Enology Program Curriculum

**CALS Requirements**
Refer to [http://cals.cornell.edu/academics/upload/CALS-Graduation-Requirements.pdf](http://cals.cornell.edu/academics/upload/CALS-Graduation-Requirements.pdf) and DUST.

**Viticulture and Enology Major Requirements**

**Physical Science Core:**

**Biological Sciences**
___PLSCI 1420 Functional Plant Biology (Spring, 3)
___Introductory biology course (BIOMG 1350, BIOG 1140, BLOG 1440, BIOEE 1610, BIOEE 1780, or PLHRT 1115)
___BIOMI 2900 General Microbiology (Fall, Spring, 3)

**Chemistry**
___CHEM 1560 Introduction to General Chemistry (Fall, 4)
___CHEM 1570 Introduction to Organic and Biological Chemistry (Spring, 3)
___BIOMG 3300 or 3310 Principles of Biochemistry (Fall, Spring, 3-4)

**Statistics**
___Introductory statistics course (NTRES 3130/STSCI 2200, STSCI 2100, or STSCI 2150 recommended)

**Plant Science**
___PLBIO 2410 Introductory Plant Biodiversity and Evolution (Fall, 3)
___PLSCS 2600 Soil Science (Fall, 4)

**Viticulture & Enology Core:**

___VIEN 1104 Wines and Vines Lecture (Fall, Spring; 3)
___VIEN 1105 Wines and Vines Lab (Spring; 2)
___VIEN 2204 Grapes to Wines Lecture (Fall; 3)
___VIEN 2205 Grapes to Wines Lab (Fall; 2)
___FDSC 2100 Food Analysis (Spring, 2; Discussion and Laboratory Only)
___VIEN 2400 Wines and Grapes: Composition and Analysis (Spring; 2)
___VIEN 2610 Fall Vineyard Practicum (Fall, 2)
___VIEN 4700/4710 Winemaking Theory and Practice II Lecture and Lab (Spring; 4)**
___VIEN 4980 Internship Experience (Maximum of 3 credits)
___Choose one:
  - VIEN 3XXX Science of Grapevines (Fall, 2) [Course number TBD April 2019]
  - VIEN 3200 Grape Pest Management (Fall every other year, 2)
___Choose one:
  - VIEN 4990 CALS Honors Research (Variable credit)***
  - FDSC 4000 Capstone Project in Food Science (Spring; 2)

*Updated March 2019*
Major Electives (Minimum 15 credits):
At least 5 credits of major electives must be VIEN classes.

Electives with Enology Focus:

___VIEN 2310/4310  The Science and Technology of Beer Lecture and Lab (2.5)**
___VIEN 2360/4360  Distillation Principles and Practices Lecture and Lab (2.5)**
___VIEN 2340/4340  Cider Production: Apples and Fermented Juice Lecture and Lab (2.5)**
___BIOMI 2911  General Microbiology Lab (2)
___FDSC 3940  Applied and Food Microbiology (3)
___FDSC 3950  Food Microbiology Lab (3)
___FDSC 4100  Sensory Evaluation of Food Lecture and Lab (3)**
___FDSC 4170  Food Chemistry I (3)
___FDSC 4180  Food Chemistry II (3)
___FDSC 4190  Food Chemistry Lab (2)
___FDSC 4220  Functional Foods and Dietary Supplements for Health (2)
___VIEN 4400  Wine and Grape Flavor Chemistry (3)
___HADM 4430  Wine Marketing (3)
___VIEN 4500/4510  Winemaking Theory and Practice I Lecture and Lab (3)**
___VIEN 4650  Wine Microbiology (3)
___VIEN 4660  Current Topics in the Biology of Wine Microbes (2)

Electives with Viticulture Focus:

___VIEN 2620  Spring Vineyard Practicum (2)
___VIEN 3XXX  Science of Grapevines (2) (Only applicable if not taken as part of VIEN Core)
___VIEN 3200  Grape Pest Management (2) (Only applicable if not taken as part of VIEN Core)
___PLSCS 3150  Weed Biology and Management (4)
___PLHRT 3600  Climate Change and the Future of Food (3)
___NTRES 3240  Sustainable, Ecologically Based Management of Water Resources (3)
___DSOC 3060  Farmworkers: Contemporary Issues and Their Implications (1)
___PLBRG 2250  Plant Genetics (4)
___PLBIO 3420  Plant Physiology Lectures (3)
___PLBIO 3421  Plant Physiology Laboratory (2)
___PLHRT 4450  Ecological Orchard Management (3)
___VIEN 4460  Advanced Viticulture Topics (2)
___Choose one:
   PLSCS 3210  Soil and Crop Management for Sustainability (4)
   PLSCS 4660  Soil Ecology (4)
___Choose one:
   PLHRT 4551  Principles of Nutrition and Nutrient Management in Crops and Landscape Plants (3)
   PLSCS 4720  Nutrient Management in Agro-Ecosystems (4)

*All major requirements must be taken for a letter grade, except when not an option. All required V&E Core and Major Elective courses must be completed with a C- or better.

**Both lecture and laboratory section must be taken for major elective credit. Students taking only the lecture will not receive credit for the course towards completion of the major.

*** Students may choose either a research honors thesis or participation in FDSC 4000: Capstone Project in Food Science as their capstone experience. Students should follow the deadlines and procedures of an honors thesis in their project’s field of study as published by CALS if choosing the research option.