Viticulture & Enology Program Curriculum

CALS Requirements
Refer to http://cals.cornell.edu/academics/upload/CALS-Graduation-Requirements.pdf and DUST.

Viticulture and Enology Major Requirements*

Physical Science Core (35-36 credits):

Biological Sciences (minimum 9 credits)
- BIOG 1140 Foundations of Biology (4)
- Introductory biology course (BIOMG 1350, BIOG 1440, BIOG 1500, BIOEE 1610, BIOEE 1780, or PLHRT 1115)
- BIOMI 2900 General Microbiology (3)

Chemistry (10-11 credits)
- CHEM 1560 Introduction to General Chemistry (4)
- CHEM 1570 Introduction to Organic and Biological Chemistry (3)
- BIOMG 3300 or 3310 Principles of Biochemistry (3-4)

Statistics (4 credits)
- Introductory statistics course (NTRES 3130/STSCI 2200, STSCI 2100, or STSCI 2150 recommended)

Plant Science (12 credits)
- PLBIO 2410 Introductory Plant Biodiversity and Evolution (3)
- PLSCS 2600 Soil Science (4)
- Choose one:
  - PLBIO 2420/2421 Plant Function and Growth, Lectures and Laboratory (5)
  - PLBIO 3420/3421 Plant Physiology, Lectures and Laboratory (5)

Viticulture & Enology Core (Minimum 21 credits):
- VIEN 1104 Wines and Vines Lecture (3)
- VIEN 1105 Wines and Vines Lab (2)
- VIEN 2204 Grapes to Wines Lecture (3)
- VIEN 2205 Grapes to Wines Lab (2)
- VIEN 2400 Wines and Grapes: Composition and Analysis (3)
- Choose one:
  - VIEN 3440 Viticulture and Vineyard Management (3)
  - VIEN 3200 Grape Pest Management (3)
  - VIEN 4700/4710 Winemaking Theory and Practice II Lecture and Lab (3)**
- Choose one:
  - VIEN 4990 Capstone Research (Independent Study or Research) (1-3)***
  - FDSC 4000 Capstone Project in Food Science
- VIEN 4980 Internship Experience (0-3)

Updated September 2017
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 2911/2910 General Microbiology Lab (2)/Advanced Microbiology Lab (3)
___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 4600 Wine and Food Fermentations (3)

Electives with Viticulture Focus:

___VIEN 3200 Grape Pest Management (3) (only applicable if not taken as part of VIEN Core)
___VIEN 3440 Viticulture and Vineyard Management (3) (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)
___Choose one:
  PLSCS 3210 Soil and Crop Management for Sustainability (4)
  PLSCS 4660 Soil Ecology (4)
  ___PLHRT 4450 Ecological Orchard Management (3)
___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.

Updated September 2017
**Suggested Electives**

**Business Management**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM 1200*</td>
<td>Introduction to Business Management</td>
</tr>
<tr>
<td>AEM 1230*</td>
<td>Foundations of Entrepreneurship and Business</td>
</tr>
<tr>
<td>AEM 2050</td>
<td>Introduction to Agricultural and Development Finance</td>
</tr>
<tr>
<td>AEM 2210*</td>
<td>Financial Accounting</td>
</tr>
<tr>
<td>AEM 2400*</td>
<td>Marketing</td>
</tr>
<tr>
<td>AEM 3020*</td>
<td>Farm Business Management</td>
</tr>
<tr>
<td>AEM 3440</td>
<td>Consumer Behavior</td>
</tr>
<tr>
<td>AEM 3249*</td>
<td>Entrepreneurial Marketing and Strategy</td>
</tr>
<tr>
<td>ILRHR 2600</td>
<td>Human Resource Management</td>
</tr>
<tr>
<td>ILRHR 3670</td>
<td>Employee Training and Development</td>
</tr>
<tr>
<td>ILRHR 4600</td>
<td>International Human Resource Management</td>
</tr>
<tr>
<td>NBA 5150</td>
<td>Leadership Theory and Practice</td>
</tr>
<tr>
<td>NCC 5540*</td>
<td>Managing and Leading in Organizations</td>
</tr>
<tr>
<td>BEE 3299</td>
<td>Sustainable Development</td>
</tr>
<tr>
<td>HADM 4300</td>
<td>Introduction to Wines</td>
</tr>
</tbody>
</table>

**Agricultural and Plant Sciences**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLSCS 1900</td>
<td>Sustainable Agriculture: Food, Farming, and the Future</td>
</tr>
<tr>
<td>PLSCS 2940</td>
<td>Introduction to Agricultural Machinery</td>
</tr>
<tr>
<td>PLSCS 3150</td>
<td>Weed Biology and Management</td>
</tr>
<tr>
<td>PLHRT 4450</td>
<td>Ecological Orchard Management</td>
</tr>
<tr>
<td>PLHRT 4420</td>
<td>Berry Crops: Culture and Management</td>
</tr>
<tr>
<td>BIOEE 3690</td>
<td>Chemical Ecology</td>
</tr>
<tr>
<td>PLSCS 3210</td>
<td>Soil Management for Sustainability</td>
</tr>
<tr>
<td>PLSCS 4130</td>
<td>Physiology and Ecology of Yield</td>
</tr>
<tr>
<td>PLSCS 4200</td>
<td>Geographic Information Systems</td>
</tr>
<tr>
<td>PLSCS 4440</td>
<td>Integrated Pest Management</td>
</tr>
<tr>
<td>PLSCS 4660</td>
<td>Soil Ecology</td>
</tr>
</tbody>
</table>

* Course is applicable to the Dyson School Business Minor for Life Sciences Majors. For more information, visit [http://dyson.cornell.edu/undergraduate/minors/life-sciences](http://dyson.cornell.edu/undergraduate/minors/life-sciences).