HORTICULTURE

AAS DEGREE

The Horticulture program meets the needs of students entering the horticulture industry as well as those presently employed who wish to continue their professional growth. Besides providing horticultural knowledge and skills, the program emphasizes the business and management proficiency necessary to compete successfully in the horticulture industry. The Horticulture degree requires a minimum of 64 credits in program requirements, program electives and general education as listed below.

Field of Study Code: HORT.AAS

Program Requirements ........................................... 25 to 26
Hort 1100 Introduction to Horticulture ...................... 3
Hort 1101 Soils and Fertilizers .............................. 3
Hort 1110 Applied Plant Taxonomy ......................... 3
Hort 1130 Horticulture Business ............................ 3
OR
Busin 1100 Introduction to Business ......................... 3
Hort 2221 Plant Propagation ................................ 3
Hort 2863 Internship (Career & Technical Ed) ............. 3
Biolo 1110 Environmental Biology .......................... 4
OR
Biolo 1151 Principles of Biological Science I ............. 5
OR
Chemi 1211 Survey of General Chemistry .................. 5
Math 1104 Mathematics for Horticulture ................... 3

Program Electives ....................................................... 27
When selecting program electives, students may include up to eight credits in any combination from the additional courses listed below. No more than three credits of internship can be applied as program elective credit toward this degree.
Hort 1800 Special Project ...................................... 1 to 3
Hort 2860 Internship (Career & Technical Education) .... 1 to 4
Hort 2865 Internship-Advanced (Career & Technical Education) .... 1 to 4
Arch 1211 Basic Computer-Aided Drafting- AutoCAD ...................................................... 3

Select a minimum of 27 credits from the courses listed below. (In addition to the courses listed above.)
Hort 1105 Floral Design I ....................................... 3
Hort 1109 OSHA 10 Hour Landscape Safety ............... 1
Hort 1111 Landscape Design I ............................... 3
Hort 1112 Landscape Maintenance ......................... 3
Hort 1113 Landscape Construction ......................... 3
Hort 1114 Irrigation and Water Management .............. 3
Hort 1115 Floral Design II ................................... 3
Hort 1125 Water Use and Conservation in the Landscape .................................................. 1
Hort 1131 Landscaping for Wildlife ........................................... 1
Hort 1135 Introduction to Green Roofs ...................... 1
Hort 1140 Landscape Graphics .................................. 2
Hort 1141 Sustainable Landscape Design .................... 1
Hort 1145 Perennial Plant Communities I ................. 2
Hort 1151 2-Cycle Small Plant Communities I ............ 1
Hort 1152 4-Cycle Small Engine Repair and Maintenance ........................................... 2
Hort 1153 Advanced Computer-Aided Draft for Landscape ........................................... 3
Hort 2211 Advanced 3D Landscape Design ............... 3
Hort 2214 Advanced 3D Landscape Design ............... 3
Hort 2215 Speciality Floral Design ......................... 3
Hort 2231 Turf Science and Management .................. 3
Hort 2241 Landscape Plants I ............................... 3
Hort 2242 Landscape Plants II .................................. 3
Hort 2243 Ornamental Grasses .............................. 2
Hort 2244 Herbaceous Perennials ......................... 3
Hort 2245 Perennial Plant Communities II ............... 1
Hort 2251 Diseases of Ornamental Plants ................. 3
Hort 2253 Greenhouse Operations and Procedures ....... 3
Hort 2255 Greenhouse Crop Production ................... 3
Hort 2257 Bedding Plant Production ....................... 3
Hort 2261 Insects of Ornamental Plants .................... 3
Hort 2271 Landscape Design II ............................. 3
Hort 2302 Sustainable Urban Vegetable and Herb Production ........................................... 3
Hort 2304 Hydroponic and Aquaponic Production Systems ........................................... 3
Hort 2308 Introduction to Composting ...................... 1

General Education .................................................. 12
(In addition to the courses listed above.)

Total Credits Required ........................................... 64 to 65
AAS DEGREE

The Landscape Contracting and Management degree develops a student’s ability to design, implement, and maintain landscape projects. Students build professional skills in plant healthcare, design, estimating, installation and project management while earning an Associate’s in Applied Science Degree. Landscape contracting graduates are well-placed to work in the growing field of sustainable landscaping, or enter a Bachelors program in Horticulture or related field. This degree requires a minimum of 71 credits in program requirements, program electives and general education in the courses listed below.

Field of Study Code: HORT.AAS.LAND

Program Requirements ...........................................59 to 60
Hort 1100 Introduction to Horticulture......................3
Hort 1101 Soils and Fertilizers.................................3
Hort 1109 OSHA 10-Hour Landscape Safety ...............1
Hort 1111 Landscape Design I.................................3
Hort 1112 Landscape Maintenance..........................3
Hort 1113 Landscape Construction..........................3
Hort 1114 Irrigation and Water Management..............3
Hort 1130 Horticulture Business...........................3
Hort 2211 Computer-Aided Drafting for Landscape ....3
Hort 2213 3D Landscape Design.............................3
Hort 2231 Turf Science and Management..................3
Hort 2235 Landscape Estimating and Bidding...............3
Hort 2241 Landscape Plants I................................3
Hort 2242 Landscape Plants II.................................3
Hort 2251 Diseases of Ornamental Plants................3
Hort 2261 Insects of Ornamental Plants....................3
Hort 2863 Internship (Career & Technical Education) ..3
Biolo 1110 Environmental Biology........................4

OR

Biolo 1151 Principles of Biological Science I............5

OR

Chemi 1211 Survey of General Chemistry................5
Econo 2201 Macroeconomics and the Global Economy...3

OR

Econo 2202 Microeconomics and the Global Economy...3
Math 1104 Mathematics for Horticulture................3

Program Electives ..................................................3
Select a minimum of three credits from the courses listed below. (In addition to the courses listed above.)
Hort 1125 Water Use and Conservation in the Landscape ....1
Hort 1131 Landscaping for Wildlife........................1
Hort 1135 Introduction to Green Roofs....................1
Hort 1140 Landscape Graphics................................2
Hort 1141 Sustainable Landscape Design................1
Hort 1145 Perennial Plant Communities I................2
Hort 1150 Power Equipment Electrical Systems..........3
Hort 1151 2-Cycle Small Engine Repair and Maintenance ..2

General Education ................................................9
(In addition to the courses listed above.)

Total Credits Required ...........................................71 to 72

AAS DEGREE

The Sustainable Urban Agriculture degree offers a hands-on approach to becoming a professional in the field of urban farming and sustainable urban agriculture. The goal of the program is to help society improve the health of its environment, food, and communities, give students practical experience working alongside professional urban farmers and faculty and teach students how to critically analyze historical and current food systems to offer more sustainable solutions. Includes management and marketing techniques for urban agriculture food production systems. This degree requires a minimum of 66 credits in program requirements and general education in the courses listed below.

Field of Study Code: HORT.AAS.URBAN

Program Requirements ...........................................54 to 55
Hort 1100 Introduction to Horticulture......................3
Hort 1101 Soils and Fertilizers...............................3
Hort 1109 OSHA 10-Hour Landscape Safety ...............1
Hort 1125 Water Use and Conservation in the Landscape ..................1
Hort 1135 Introduction to Green Roofs....................1
Hort 1141 Sustainable Landscape Design................1
Hort 2253 Greenhouse Operations and Procedures.........3
Hort 2300 Introduction to Sustainable Urban Agriculture..........................3
Hort 2301 Principles of Agroecology........................3
Hort 2302 Sustainable Urban Vegetable and Herb Production ..................3
Hort 2303 Urban Agriculture Issues........................2
Hort 2304 Hydroponic and Aquaponic Production Systems .................3
Program Electives ....................................................... 2
Hort 2305 Local Foods .............................................. 2
Hort 2307 Business Principles of Sustainable Agriculture .............................................. 2
Hort 2308 Introduction to Composting .............................................. 1
Hort 2863 Internship (Career & Technical Education) ..................................................... 3

Biolo 1110 Environmental Biology .............................................. 4
OR
Biolo 1151 Principles of Biological Science I .............................................. 5

Chemi 1211 Survey of General Chemistry .............................................. 5
Biolo 2150 Ecology ...................................................... 4
Earth 1135 Water Science – Fundamentals of Hydrology .............................................. 4
Math 1428 College Algebra with Applications .............................................. 3
Math 1635 Statistics ...................................................... 4

General Education ...................................................... 12
(In addition to the courses listed above.)

Total Credits Required ...................................................... 66 to 67

CERTIFICATE

The Horticulture certificate requires 15 credits in the courses listed below.
Field of Study Code: HORT.CER

Total Credits Required ...................................................... 15
Hort 1100 Introduction to Horticulture .............................................. 3
Hort 1101 Soils and Fertilizers ...................................................... 3
Hort 1110 Applied Plant Taxonomy ...................................................... 3
Hort 1130 Horticulture Business ...................................................... 3
Hort 2221 Plant Propagation ...................................................... 3

CERTIFICATE

The Greenhouse Management certificate requires 24 credits in the courses listed below.
Field of Study Code: HORT.CER.GRNH

Total Credits Required ...................................................... 24
Hort 1100 Introduction to Horticulture .............................................. 3
Hort 1101 Soils and Fertilizers ...................................................... 3
Hort 1130 Horticulture Business ...................................................... 3
OR
Busin 1100 Introduction to Business ...................................................... 3
Hort 2221 Plant Propagation ...................................................... 3
Hort 2253 Greenhouse Operations and Procedures ...................................................... 3
Hort 2255 Greenhouse Crop Production ...................................................... 3
Hort 2257 Bedding Plant Production ...................................................... 3
Hort 2863 Internship (Career & Technical Education) ...................................................... 3

Program Electives ...................................................... 3
Select three credits from any 1000- or 2000-level courses. The following courses are suggested. (In addition to the courses listed above.)
Hort 2257 Bedding Plant Production ...................................................... 3
Fashi 1620 Visual Merchandising I ...................................................... 3

CERTIFICATE

The Nursery and Garden Center Management certificate requires 35 credits in the courses listed below.
Field of Study Code: HORT.CER.GRDN

Total Credits Required ...................................................... 35
Hort 1100 Introduction to Horticulture ...................................................... 3
Hort 1101 Soils and Fertilizers ...................................................... 3
Hort 1130 Horticulture Business ...................................................... 3
OR
Busin 1100 Introduction to Business ...................................................... 3
Hort 2221 Plant Propagation ...................................................... 3
Hort 2241 Landscape Plants I ...................................................... 3
Hort 2242 Landscape Plants II ...................................................... 3
Hort 2243 Ornamental Grasses ...................................................... 2
Hort 2244 Herbaceous Perennials ...................................................... 3
Hort 2251 Diseases of Ornamental Plants ...................................................... 3
Hort 2261 Insects of Ornamental Plants ...................................................... 3
Hort 2863 Internship (Career & Technical Education) ...................................................... 3
Math 1104 Mathematics for Horticulture ...................................................... 3

CERTIFICATE

The Landscape Design and Construction certificate requires 41 credits in the courses listed below.
Field of Study Code: HORT.CER.LAND

Total Credits Required ...................................................... 41
Hort 1100 Introduction to Horticulture ...................................................... 3
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hort 1101</td>
<td>Soils and Fertilizers</td>
<td>3</td>
</tr>
<tr>
<td>Hort 1111</td>
<td>Landscape Design I</td>
<td>3</td>
</tr>
<tr>
<td>Hort 1112</td>
<td>Landscape Maintenance</td>
<td>3</td>
</tr>
<tr>
<td>Hort 1113</td>
<td>Landscape Construction</td>
<td>3</td>
</tr>
<tr>
<td>Hort 1114</td>
<td>Irrigation and Water Management</td>
<td>3</td>
</tr>
<tr>
<td>Hort 1140</td>
<td>Landscape Graphics</td>
<td>2</td>
</tr>
<tr>
<td>Hort 2211</td>
<td>Computer-Aided Drafting for Landscape</td>
<td>3</td>
</tr>
<tr>
<td>Arch 1211</td>
<td>Basic Computer-Aided Drafting – AutoCAD</td>
<td>3</td>
</tr>
<tr>
<td>Hort 2241</td>
<td>Landscape Plants I</td>
<td>3</td>
</tr>
<tr>
<td>Hort 2242</td>
<td>Landscape Plants II</td>
<td>3</td>
</tr>
<tr>
<td>Hort 2244</td>
<td>Herbaceous Perennials</td>
<td>3</td>
</tr>
<tr>
<td>Hort 2271</td>
<td>Landscape Design II</td>
<td>3</td>
</tr>
<tr>
<td>Hort 2863</td>
<td>Internship (Career &amp; Technical Education)</td>
<td>3</td>
</tr>
<tr>
<td>Math 1104</td>
<td>Mathematics for Horticulture</td>
<td>3</td>
</tr>
</tbody>
</table>

**CERTIFICATE**

The **Power Equipment and Technology certificate** requires 16 credits in the courses listed below.

**Field of Study Code: HORT.CER.POWEQ**

<table>
<thead>
<tr>
<th>Total Credits Required</th>
<th>16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hort 1150</td>
<td>Power Equipment Electrical Systems</td>
</tr>
<tr>
<td>Hort 1151</td>
<td>2-Cycle Small Engine Repair and Maintenance</td>
</tr>
<tr>
<td>Hort 1152</td>
<td>4-Cycle Small Engine Repair and Maintenance</td>
</tr>
<tr>
<td>Hort 1153</td>
<td>Portable Power Generator Repair and</td>
</tr>
<tr>
<td>Hort 1154</td>
<td>Maintenance</td>
</tr>
<tr>
<td>Hort 1155</td>
<td>Compact Diesel Engines</td>
</tr>
<tr>
<td>Hort 2244</td>
<td>Hydrostatics</td>
</tr>
</tbody>
</table>

**CERTIFICATE**

The **Sustainable Landscapes certificate** requires seven credits in the courses listed below.

**Field of Study Code: HORT.CER.SUSTAIN**

<table>
<thead>
<tr>
<th>Total Credits Required</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hort 1125</td>
<td>Water Use and Conservation in the Landscape</td>
</tr>
<tr>
<td>Hort 1131</td>
<td>Landscaping for Wildlife</td>
</tr>
<tr>
<td>Hort 1135</td>
<td>Introduction to Green Roofs</td>
</tr>
<tr>
<td>Hort 1141</td>
<td>Sustainable Landscape Design</td>
</tr>
<tr>
<td>Hort 1145</td>
<td>Perennial Plant Communities I</td>
</tr>
<tr>
<td>Hort 2245</td>
<td>Perennial Plant Communities II</td>
</tr>
</tbody>
</table>

**CERTIFICATE**

The **Landscape and Turf Maintenance** certificate requires 39 credits in the courses listed below.

<table>
<thead>
<tr>
<th>Total Credits Required</th>
<th>39</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hort 1100</td>
<td>Introduction to Horticulture</td>
</tr>
<tr>
<td>Hort 1101</td>
<td>Soils and Fertilizers</td>
</tr>
<tr>
<td>Hort 1109</td>
<td>OSHA 10-Hour Landscape Safety</td>
</tr>
<tr>
<td>Hort 2300</td>
<td>Introduction to Sustainable Urban Agriculture</td>
</tr>
<tr>
<td>Hort 2301</td>
<td>Principles of Agroecology</td>
</tr>
<tr>
<td>Hort 2302</td>
<td>Sustainable Urban Vegetable and Herb Production</td>
</tr>
<tr>
<td>Hort 2307</td>
<td>Business Principles of Sustainable Agriculture</td>
</tr>
<tr>
<td>Hort 2863</td>
<td>Internship (Career &amp; Technical Education)</td>
</tr>
</tbody>
</table>

**Program Electives**

<table>
<thead>
<tr>
<th>Select six credits from the following courses. (Courses cannot be repeated.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hort 1110</td>
</tr>
<tr>
<td>Hort 1151</td>
</tr>
<tr>
<td>Hort 1152</td>
</tr>
<tr>
<td>Hort 1185</td>
</tr>
<tr>
<td>Hort 2241</td>
</tr>
<tr>
<td>Hort 2242</td>
</tr>
<tr>
<td>Hort 2244</td>
</tr>
</tbody>
</table>

**CERTIFICATE**

The **Sustainable Urban Agriculture certificate** requires 28 credits in the courses listed below.

**Field of Study Code: HORT.CER.URBAN**

<table>
<thead>
<tr>
<th>Total Credits Required</th>
<th>28</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hort 1100</td>
<td>Introduction to Horticulture</td>
</tr>
<tr>
<td>Hort 1101</td>
<td>Soils and Fertilizers</td>
</tr>
<tr>
<td>Hort 1109</td>
<td>OSHA 10-Hour Landscape Safety</td>
</tr>
<tr>
<td>Hort 2300</td>
<td>Introduction to Sustainable Urban Agriculture</td>
</tr>
<tr>
<td>Hort 2301</td>
<td>Principles of Agroecology</td>
</tr>
<tr>
<td>Hort 2302</td>
<td>Sustainable Urban Vegetable and Herb Production</td>
</tr>
<tr>
<td>Hort 2307</td>
<td>Business Principles of Sustainable Agriculture</td>
</tr>
<tr>
<td>Hort 2863</td>
<td>Internship (Career &amp; Technical Education)</td>
</tr>
</tbody>
</table>

**Program Electives**

<table>
<thead>
<tr>
<th>Select three credits from the following courses. (Courses cannot be repeated.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hort 2241</td>
</tr>
<tr>
<td>Hort 2242</td>
</tr>
<tr>
<td>Hort 2244</td>
</tr>
</tbody>
</table>
Select seven credits from the following courses. (Courses cannot be repeated.)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hort 1125</td>
<td>Water Use and Conservation in the Landscape</td>
<td>1</td>
</tr>
<tr>
<td>Hort 1135</td>
<td>Introduction to Green Roofs</td>
<td>1</td>
</tr>
<tr>
<td>Hort 1141</td>
<td>Sustainable Landscape Design</td>
<td>1</td>
</tr>
<tr>
<td>Hort 2303</td>
<td>Urban Agriculture Issues</td>
<td>2</td>
</tr>
<tr>
<td>Hort 2304</td>
<td>Hydroponic and Aquaponic Production Systems</td>
<td>3</td>
</tr>
<tr>
<td>Hort 2305</td>
<td>Local Foods</td>
<td>2</td>
</tr>
<tr>
<td>Hort 2308</td>
<td>Introduction to Composting</td>
<td>1</td>
</tr>
</tbody>
</table>