Horticulture | Associate in Applied Science

Field of Study Code: HORT.AAS

Catalog Description:

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 program requires a minimum of 64 credits in program requirements, program electives and general education in the courses listed below.

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 Education) ......3
Biolo 1110* Environmental Biology .........................4
OR
Biolo 1151* Principles of Biological Science ............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. (In addition to the courses listed above.)

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.
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

Suggested Course Sequence (Full-Time Enrollment)

Please note: A student’s readiness to perform college-level coursework is based on the student’s placement test and/or ACT scores. Below 1000 level coursework may be required prior to the student taking courses in the suggested sequences.

First Semester (15 credits)
- Engli 1101 (3)
- Hort 1100 (3)
- Hort 1110 (3)
- Hort 1101 (3)
- Hort 1110 (3)
- Busin 1100 or Hort 1130 (3)

Second Semester (11 to 17 credits)
- Speci 1100 (3)
- Biolo 1110 or 1151 or Chemi 1211 (4 to 5)
- Math 1104 (3)
- Program Elective (1 to 6)

Summer Term (1 to 6 credits)
- Program Elective (1 to 6)

Third Semester (6 to 9 credits)
- Social & Behavioral Sciences (3)
- Program Elective (3 to 9)

Fourth Semester (12 to 15 credits)
- Humanities & Fine Arts (3)
- Hort 2221 (3)
- Hort 2863 (3)
- Program Elective (3 to 6)

For more information:
If you are considering this program as an area of study, please contact the Business and Technology Division office at 630-942-2592.

Program web site:
http://www.cod.edu/programs/horticulture/
| 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 Engine Repair and Maintenance | 2 |
| Hort 1152 | 4-Cycle Small Engine Repair and Maintenance | 3 |
| Hort 1185 | Arboriculture | 3 |
| Hort 1820 | Selected Topics | 3 |
| Hort 1821 | Selected Topics | 3 |
| Hort 1824 | Selected Topics | 2 |
| Hort 1826 | Selected Topics | 1 |
| Hort 1827 | Selected Topics | 1 |
| Hort 2211* | Computer-Aided Drafting for Landscape | 3 |
| Hort 2212* | Advanced Computer-Aided Drafting for Landscape | 3 |
| Hort 2213 | 3D Landscape Design | 3 |
| Hort 2214 | Advanced 3D Landscape Design | 2 |
| Hort 2225 | Specialty 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 |

* - course has a prerequisite

**General Education** .............................................................. 12

Each candidate for an Associate in Applied Science (A.A.S.) degree shall satisfactorily complete a minimum of 18 credits in General Education. For the Horticulture degree, some General Education courses are already listed under program requirements. Therefore, students need a minimum of 12 credits besides those listed under program requirements.

Under the specified General Education headings below, the following courses are required for the Horticulture degree:

**Communication:** 6 credits
**Written:** (3 credits) English 1101 or 1105
**Oral:** (3 credits) Speech 1100, 1120 or 1150

**Physical and Life Sciences:** 3 to 5 credits
At least one course with a laboratory component
(Biology 1110, Biology 1151 or Chemistry 1211 in program requirements fulfills this requirement)

**Mathematics:** 3 to 5 credits
Select a minimum of 3 credits (1000 level or above). Select Mathematics 1102, 1104 or 1120 only where required in the degree program. Only one from the following three courses may count toward overall degree requirement credit: Mathematics 1635, Psychology 2280 or Sociology 2205. Only one of the following courses may count toward overall degree credit: Mathematics 1428 or Mathematics 1431.
(Math 1104 in program requirements fulfills this requirement)

**Humanities and Fine Arts:** 3 credits

**Social and Behavioral Sciences:** 3 credits

Complete at least 2 credits from the list of courses in the Global/Multicultural Studies or Contemporary Life Skills Category. (Horticulture 1100 within program requirements fulfills this requirement)

**TOTAL CREDITS FOR AAS DEGREE**

64 to 65
Career Information  HORT.AAS

Job Title(s): Nursery and Greenhouse Managers
Production Manager, Nursery Manager, Greenhouse Manager, Grower, Propagation Manager, Farm Manager, Garden Center Manager, Harvesting Manager, Horticulturist, Perennial House Manager
For salary and wage information, please visit:  www.onetonline.org

If you would like information regarding internships, resume development, interviewing and job search skills, please contact the Career Services Center
Phone:  630-942-2230
www.cod.edu/careerservices  Twitter:  @codcareercenter

Related Occupations:
Aquacultural Managers  Agricultural Inspectors
Soil and Water Conservationists  Forest and Conservation Technicians
Industrial Production Managers  Forest and Conservation Workers
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers
Horticulture | Associate in Applied Science
Field of Study Code: HORT.AAS.LAND

Catalog Description:

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.

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 ...............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

Suggested Course Sequence
(Full-Time Enrollment)

Please note: A student’s readiness to perform college-level coursework is based on the student’s placement test and/or ACT scores. Below 1000 level coursework may be required prior to the student taking courses in the suggested sequences.

First Semester (16 credits)
• Engli 1101 (3)
• Hort 1100 (3)
• Hort 1101 (3)
• Hort 1109 (1)
• Hort 1111 (3)
• Hort 1130 (3)

Second Semester (16 to 17 credits)
• Speci 1100 (3)
• Biolo 1110 or Chemi 1151 or Chemi 1211 (4 to 5)
• Math 1104 (3)
• Hort 1113 (3)
• Hort 2211 (3)

Summer Term (9 credits)
• Hort 1114 (3)
• Hort 2231 (3)
• Program Elective (3)

Third Semester (15 credits)
• Econ 2201 or Econo 2202 (3)
• Hort 1112 (3)
• Hort 2213 (3)
• Hort 2241 (3)
• Hort 2241 (3)

Fourth Semester (15 credits)
• Humanities & Fine Arts (3)
• Hort 2235 (3)
• Hort 2242 (3)
• Hort 2261 (3)
• Hort 2863 (3)

For more information:
If you are considering this program as an area of study, please contact the Business and Technology Division office at 630-942-2592. Program web site: http://www.cod.edu/programs/horticulture/
Each candidate for an Associate in Applied Science (A.A.S.) degree shall satisfactorily complete a minimum of 18 credits in General Education. (In addition to the courses listed below.)

For the Horticulture degree, some General Education courses are already listed under program requirements. Therefore, students need a minimum of nine credits besides those listed under program requirements.

Under the specified General Education headings below, the following courses are required:

**Communication:** 6 credits
- Written: (3 credits) English 1101 or 1105
- Oral: (3 credits) Speech 1100, 1120 or 1150

**Physical and Life Sciences:** 3 to 5 credits
- At least one course with a laboratory component
  * (Biology 1110, Biology 1151 or Chemistry 1211 in program requirements fulfills this requirement)

**Mathematics:** 3 to 5 credits
- Select a minimum of 3 credits (1000 level or above).
- Select Mathematics 1102, 1104 or 1120 only where required in the degree program. Only one from the following three courses may count toward overall degree requirement credit: Mathematics 1635, Psychology 2280 or Sociology 2205. Only one of the following courses may count toward overall degree credit: Mathematics 1428 or Mathematics 1431.
  * (Math 1104 in program requirements fulfills this requirement)

**Humanities and Fine Arts:** 3 credits
- (Economics 2201 or Economics 2202 1211 in program requirements fulfills this requirement)

Complete at least 2 credits from the list of courses in the Global/Multicultural Studies or Contemporary Life Skills Category. (Horticulture 1100 within program requirements fulfills this requirement)

**TOTAL CREDITS FOR AAS DEGREE**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hort 1150</td>
<td>Power Equipment Electrical Systems</td>
<td>3</td>
</tr>
<tr>
<td>Hort 1151</td>
<td>2-Cycle Small Engine Repair and Maintenance</td>
<td>2</td>
</tr>
<tr>
<td>Hort 1152</td>
<td>4-Cycle Small Engine Repair and Maintenance</td>
<td>3</td>
</tr>
<tr>
<td>Hort 1153</td>
<td>Portable Power Generator Repair and Maintenance</td>
<td>2</td>
</tr>
<tr>
<td>Hort 1154</td>
<td>Compact Diesel Engines</td>
<td>3</td>
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<tr>
<td>Hort 1155</td>
<td>Power Equipment Drivelines/Hydraulics/ Hydraulics/ Hydrostatics</td>
<td>3</td>
</tr>
<tr>
<td>Hort 1158</td>
<td>Arboriculture</td>
<td>3</td>
</tr>
<tr>
<td>Hort 2212*</td>
<td>Advanced Computer-Aided Drafting for Landscape</td>
<td>3</td>
</tr>
<tr>
<td>Hort 2213</td>
<td>3D Landscape Design</td>
<td>3</td>
</tr>
<tr>
<td>Hort 2214</td>
<td>Advanced 3D Landscape Design</td>
<td>2</td>
</tr>
<tr>
<td>Hort 2225</td>
<td>Specialty Floral Design</td>
<td>3</td>
</tr>
<tr>
<td>Hort 2231</td>
<td>Turf Science and Management</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>2</td>
</tr>
<tr>
<td>Hort 2243</td>
<td>Ornamental Grasses</td>
<td>2</td>
</tr>
<tr>
<td>Hort 2244*</td>
<td>Herbaceous Perennials</td>
<td>3</td>
</tr>
<tr>
<td>Hort 2245*</td>
<td>Perennial Plant Communities II</td>
<td>3</td>
</tr>
<tr>
<td>Hort 2251</td>
<td>Diseases of Ornamental Plants</td>
<td>3</td>
</tr>
<tr>
<td>Hort 2253*</td>
<td>Greenhouse Operations and Procedures</td>
<td>3</td>
</tr>
<tr>
<td>Hort 2255</td>
<td>Greenhouse Crop Production</td>
<td>3</td>
</tr>
<tr>
<td>Hort 2257</td>
<td>Bedding Plant Production</td>
<td>3</td>
</tr>
<tr>
<td>Hort 2261*</td>
<td>Insects of Ornamental Plants</td>
<td>3</td>
</tr>
<tr>
<td>Hort 2271*</td>
<td>Landscape Design II</td>
<td>3</td>
</tr>
</tbody>
</table>

* - course has a prerequisite
Career Information: HORT.AAS.LAND

Job Title(s): First-Line Supervisors of Landscaping, Lawn Service, and Grounds keeping Workers (SOC 37-1012):

Directly supervise and coordinate activities of workers engaged in landscaping or grounds keeping activities. Work may involve reviewing contracts to ascertain service, machine, and workforce requirements; answering inquiries from potential customers regarding methods, material, and price ranges; and preparing estimates according to labor, material, and machine costs.

For salary and wage information, please visit: www.onetonline.org

If you would like information regarding internships, resume development, and job search skills, please contact the Career Services Center.
Phone: 630-942-2230 www.cod/careerservices Twitter: @codcareercenter

Related Occupations:
Golf Course Superintendent
Landscape Supervisor
Landscape Manager
Grounds Maintenance Supervisor
Grounds Foreman
Grounds Crew Supervisor
Groundskeeper Supervisor
Grounds Supervisor
Grounds Manager
Field Manager
Greenhouse Worker
The sustainable urban agriculture program 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. The Sustainable Urban Agriculture degree program requires a minimum of 66 credits in program requirements and general education in the courses listed below.

**Catalog Description:**

The sustainable urban agriculture program 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. The Sustainable Urban Agriculture degree program requires a minimum of 66 credits in program requirements and general education in the courses listed below.

**Program Requirements ........................................54 to 55**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hort 1100</td>
<td>Introduction to Horticulture</td>
<td>3</td>
</tr>
<tr>
<td>Hort 1101</td>
<td>Soils and Fertilizers</td>
<td>3</td>
</tr>
<tr>
<td>Hort 1109</td>
<td>OSHA 10-Hour Landscape Safety</td>
<td>1</td>
</tr>
<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 2253*</td>
<td>Greenhouse Operations and Procedures</td>
<td>3</td>
</tr>
<tr>
<td>Hort 2300</td>
<td>Introduction to Sustainable Urban Agriculture</td>
<td>3</td>
</tr>
<tr>
<td>Hort 2301*</td>
<td>Principles of Agroecology</td>
<td>3</td>
</tr>
<tr>
<td>Hort 2302*</td>
<td>Sustainable Urban Vegetable and Herb Production</td>
<td>3</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 2307</td>
<td>Business Principles of Sustainable Agriculture</td>
<td>2</td>
</tr>
<tr>
<td>Hort 2308</td>
<td>Introduction to Composting</td>
<td>1</td>
</tr>
<tr>
<td>Hort 2863*</td>
<td>Internship (Career &amp; Technical Ed)</td>
<td>3</td>
</tr>
<tr>
<td>Chemi 1110*</td>
<td>Environmental Biology</td>
<td>4</td>
</tr>
<tr>
<td>Biolo 1110*</td>
<td>Principles of Biological Science I</td>
<td>5</td>
</tr>
<tr>
<td>Chemi 1211*</td>
<td>Survey of General Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>Biolo 2150*</td>
<td>Ecology</td>
<td>4</td>
</tr>
<tr>
<td>Earth 1135</td>
<td>Water Science – Fundamentals of Hydrology</td>
<td>4</td>
</tr>
<tr>
<td>Math 1428*</td>
<td>College Algebra with Applications</td>
<td>3</td>
</tr>
<tr>
<td>Math 1635*</td>
<td>Statistics</td>
<td>4</td>
</tr>
</tbody>
</table>

* - course has a prerequisite

**Suggested Course Sequence (Full-Time Enrollment)**

Please note: A student’s readiness to perform college-level coursework is based on the student’s placement test and/or ACT scores. Below 1000 level coursework may be required prior to the student taking courses in the suggested sequences.

**First Semester (14 to 15 credits)**
- Engli 1101 (3)
- Hort 1100 (3)
- Hort 1101 (3)
- Biolo 1110 or Chemi 1151 or Chemi 1211 (4 to 5)
- Hort 2308 (1)

**Second Semester (16 credits)**
- Speec 1100 (3)
- Math 1428 (3)
- Biolo 2150 (4)
- Hort 1141 (1)
- Hort 2300 (3)
- Hort 2305 (2)

**Summer Term (5 credits)**
- Hort 1109 (1)
- Earth 1135 (4)

**Third Semester (14 credits)**
- Math 1635 (4)
- Hort 1125 (1)
- Hort 1135 (1)
- Hort 2301 (3)
- Hort 2302 (3)
- Hort 2303 (2)

**Fourth Semester (14 credits)**
- Humanities & Fine Arts (3)
- Hort 2253 (3)
- Hort 2304 (3)
- Hort 2307 (2)
- Hort 2863 (3)
Each candidate for an Associate in Applied Science (A.A.S.) degree shall satisfactorily complete a minimum of 18 credits in General Education. (In addition to the courses listed below.)

For the Sustainable Urban Agriculture degree, some General Education courses are already listed under program requirements. Therefore, students need 12 credits besides those listed under program requirements.

Under the specified General Education headings below, the following courses are required:

**Communication:** 6 credits  
**Written:** (3 credits) English 1101 or 1105  
**Oral:** (3 credits) Speech 1100, 1120 or 1150

**Physical and Life Sciences:** 3 to 5 credits  
At least one course with a laboratory component  
*(Biology 1110, 1151 or Chemistry 1211 in program requirements fulfills this requirement)*

**Mathematics:** 3 to 5 credits  
Select a minimum of 3 credits (1000 level or above).  
Select Mathematics 1102, 1104 or 1120 only where required in the degree program. Only one from the following three courses may count toward overall degree requirement credit: Mathematics 1635, Psychology 2280 or Sociology 2205. Only one of the following courses may count toward overall degree credit: Mathematics 1428 or Mathematics 1431.  
*(Mathematics 1428 or Mathematics 1635 in program requirements fulfills this requirement)*

**Humanities and Fine Arts:** 3 credits

**Social and Behavioral Sciences:** 3 credits

Complete at least 2 credits from the list of courses in the Global/Multicultural Studies or Contemporary Life Skills Category.  
*(Horticulture 1100 within program requirements fulfills this requirement)*

**TOTAL CREDITS FOR AAS DEGREE**  
*66 to 67*

For more information:  
If you are considering this program as an area of study, please contact Art, Communications & Hospitality Division office at 630-942-2048  

Program web site:  
http://www.cod.edu/programs/horticulture/
Career Information: HORT.AAS.URBAN

Job Title(s): Farmworkers and Laborers, Crop, Nursery, and Greenhouse (SOC 45-2092):

Manually plant, cultivate, and harvest vegetables, fruits, nuts, horticultural specialties, and field crops. Use hand tools, such as shovels, trowels, hoes, tampers, pruning hooks, shears, and knives. Duties may include tilling soil and applying fertilizers; transplanting, weeding, thinning, or pruning crops; applying pesticides; or cleaning, grading, sorting, packing, and loading harvested products. May construct trellises, repair fences and farm buildings, or participate in irrigation activities.

For salary and wage information, please visit: www.onetonline.org

If you would like information regarding internships, resume development, and job search skills, please contact the Career Services Center.
Phone: 630-942-2230 www.cod/careerservices Twitter: @codcareercenter

Related Occupations:
Greenhouse Worker
Transplant Worker
Propagation Worker
Plant Production Worker
Picker Field Worker
Irrigator Farm Laborer Vegetable Grower
Tractor Operator