Is the Environmental Horticulture CPH Career Pathway for You?

Do you have the following?

- Mathematical and analytical skills
- Environmental awareness
- Creativity
- Problem-solving skills
- Enthusiasm for design
- Technological savvy
- Love for the outdoors
- An aspiration to help people

If so, this could be the pathway for you.

Quotes from Professionals in the Local Horticulture Industry

“The green industry needs professionals who are both plant and engineering savvy to design, install and maintain new stormwater landscapes.”

Ann English, RLA, ASLA, LEED, AP B+CDrainage Coordinator
Montgomery County Department of Environmental Protection

“With the country concentrating on going ‘Green’ we often forget the original green industry of Horticulture. The horticulture industry is a multi-billion dollar industry with endless opportunities. Horticulture is one of the best kept secrets for a career that will demand good salaries and give the opportunity to make an immediate and lasting impact on our environment. One of the biggest challenges in our industry is finding educated and motivated employees.”

J. Kelly Lewis, Certified Professional Horticulturalist
General Manager
Ruppert Nurseries Inc.

"With international interest in promoting sustainability and being green, the opportunities in the horticulture field are broader and more diverse than they have ever been. Horticulturalists are essential for meeting the environmental needs for the future."

David Vismara
Chief of Horticulture, Forestry and Environmental Division
Montgomery County Parks

Hydro lettuce growing in gullies.
Horticulture Training Leads to Local, Regional, National and International Careers

This course of study prepares students for careers in horticulture related fields. Horticulture is a diversified field with nearly unlimited career opportunities. Many jobs in the industry are hands-on and require the use of technology. Wages vary by region, but depending on the career path you choose, you could make more than $100,000 annually.

Horticulture Related Careers

Agricultural Business Consultant—Evaluates productivity and efficiency of agricultural businesses. Assists in establishing budgets, providing tax advice and other financial issues. May be self-employed or work for a financial consulting firm and agribusinesses.

Arborist—Concerned with all aspects of woody plants. Hired by consulting firms, government agencies, landscape maintenance firms, large private estates, parks, research institutions, resorts, tree nurseries, and utility companies.

Botanist—Studies form and function of plants. Hired by biological supply companies, biotechnology firms, botanical gardens, chemical companies, food growers, research companies and seed growers.

Grower, Plant Producer and Farmer—Produces horticulture crops for retail or wholesale. Works on/owns farm, orchard, nursery, vineyard or greenhouse.

Horticultural Therapist—Uses plants and horticultural activities to improve emotional, mental or physical well-being of patients. Employed by hospitals, nursing homes, prisons, and rehabilitation centers.

Irrigation Specialist—Sells, installs and operates irrigation systems at various locations such as golf courses, athletic fields, farms, nurseries and greenhouses.

Landscape Architect—Plans and designs landscapes. May be self-employed, work for landscape architectural firm or the government.

Plant Breeder and Geneticist—Produces and improves new plant varieties. Positions with botanical gardens, government, and development departments in large corporations.

Plant Propagator—Propagates new plant material using techniques such as grafting, seed production, tissue culture and vegetative propagation. Employed by arboretum, botanical gardens, propagation nurseries and universities.

Pomologist—Specializes in the production and marketing of tree fruits, tree nuts and small fruits. Hired by universities, research institutions and food processing companies.

Soil Scientist—Responsible for optimal soil utilization. Specializes in soil formation, soil classification, soil survey, soil mineralogy, soil biology, chemistry and physics, soil fertility or soil decay. May be employed as a researcher developer or advisor.

Turfgrass Management—Develops and maintains turf areas, such as golf courses, commercial sites, sod farms and sports fields.

Viticulturist—Studies grape production for wine, juice, raisins and other grape products. Employers include vineyards and wineries.

Foundation of Horticulture (1.0): Through theory and hands-on instruction students learn the concepts of plant growth and development, plant nomenclature, use of plants in landscapes, effects of invasive species, principles of Integrated Pest Management (IPM), and how diseases impact plants.

Plant Production (1.0): Students incorporate market research and development to successfully plan, produce, and sell greenhouse and nursery crops. They monitor and maintain proper growing conditions, use IPM strategies and develop business plans.

Landscape Design (1.0): Students apply principles of design, use of drafting tools and techniques, and prepare various types of design views to present landscape designs that include softscape and hardscape elements. They evaluate all aspects of their designs.

Capstone Experience: Students complete an internship experience within the horticulture industry. The goal of the internship is to match students to authentic employment that links to their interests. Students that are unable to participate in an internship can fulfill the capstone requirement by taking a credit-bearing college-level horticulture course.

Sample Schedule:

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<thead>
<tr>
<th>Grade 10</th>
<th>Grade 11</th>
<th>Grade 12</th>
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<tbody>
<tr>
<td>On-level or Honors English</td>
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<tr>
<td>On-level or Honors Algebra II</td>
<td>On-level or Honors Pre-calculus</td>
<td>On-level or AP Calculus</td>
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<tr>
<td>On-level, Honors, or AP NSL</td>
<td>On-level, Honors, or AP World History</td>
<td>Elective</td>
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<tr>
<td>On-level or Honors Biology</td>
<td>On-level or Honors Chemistry</td>
<td>Advanced Placement Environmental Science</td>
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<tr>
<td>Fine Arts</td>
<td>Plant Production</td>
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<tr>
<td>Foundations of Horticulture</td>
<td>Landscape Design</td>
<td>Capstone Experience</td>
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Horticulture Related Programs at Local Universities and Colleges

The majority of horticultural careers require a minimum of either a two or four year degree. Many horticulture related programs are offered at local institutions.

University of Maryland College of Agriculture and Natural Resources (AGNR):

“...Offers a variety of academic programs that apply science, management, design, and engineering to improve the world in which we live and work. Feeding the world’s population, developing scientifically-based land use practices and policies, understanding animal and plant biology, improving nutrition and its effects on human health, conserving and restoring ecosystems, and profitably managing farms and agribusinesses in harmony with the environment are all vital concerns of the College.” For more information: www.umd.edu/

**Degree Programs**

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<th>Degree</th>
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<tr>
<td>Agriculture and Natural Resources Economics, Environmental Science and Policy, Environmental Science and Technology, Plant Sciences, General Agricultural Sciences, Landscape Architecture, Natural Resource Management, Nutrition and Food Science</td>
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**Minors**

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**Certificate Programs**

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<th>Programs</th>
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<tr>
<td>Agriculture Management, Golf Course Management, Golf Course Construction Management, Landscape Management, Ornamental Horticulture, Sports Turf Management, Turfgrass Management</td>
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Montgomery College (MC) Landscape Technology Associates of Applied Science and Certificate Programs:

MCPS and MC have an articulation agreement to help students meet the future employment needs of the horticulture industry. Upon completing the MCPS pathway courses students may receive college credit when they enter MC’s Landscape Technology degree or certificate programs. The Landscape Technology programs at MC provide students with a comprehensive mixture of academic and practical training in the field of ornamental horticulture. For more information: http://cms.montgomerycollege.edu/EDU/Department2.aspx?id=32509

Prince George’s Community College Certificate in Commercial Urban Agriculture Program:

“Prince George’s Community College and ECO City Farms are proud partners in the Certificate in Commercial Urban Agriculture program. The program is the first of its kind in the region and will give you a comprehensive introduction to starting your own urban farm. A total of six courses (28 hours of instruction) make up the Certificate in Commercial Urban Agriculture. The courses are taught at ECO City Farms...” For more information: www.acoffshoots.org/farmers/pgcc/