

# Landscape Horticulture (LH & LDC)

## Landscape Horticulture (LH)

The Landscape Horticulture associate's degree program focuses on interior and exterior landscape design, installation, and management.

Students complete foundation courses in horticulture, and then take additional technical courses in subject areas tailored to individual needs, including advanced landscape design, computerized landscape design, landscape construction, arboriculture, or greenhouse or nursery management. Core business courses prepare students for management positions.

The Landscape Horticulture degree program is industry-accredited by the National Association of Landscape Professionals (NALP)

For more information, please contact the Business Technologies Division at (513) 569-1620.

To apply for this program at Cincinnati State, visit the Admissions (<http://www.cincinnati.edu/academics/admission/>) section of the College website.

## Landscape Design Certificate (LDC)

The Landscape Design Certificate is for students interested in learning landscape design skills, and is an excellent addition to the Landscape Horticulture major.

For students who already have an associate's or bachelor's degree (usually in business or horticulture), the Landscape Design Certificate meets the need for professional credentials in the field of landscape design.

For more information, please contact the Business Technologies Division at (513) 569-1620.

To apply for this program at Cincinnati State, visit the Admissions (<http://www.cincinnati.edu/academics/admission/>) section of the College website.

## Landscape Horticulture (LH)

| Semester 1 |  | Lec | Lat | Credits |
|------------|--|-----|-----|---------|
| ENG 101    | English Composition 1 ( G )            | 3   | 0   | 3       |
| LH 105     | Horticulture Occupations ( B )         | 1   | 1   | 1       |
| LH 120     | Soil Science and Plant Nutrition ( T ) | 2   | 2   | 3       |
| LH 130     | Woody Plant Materials ( T )            | 1   | 5   | 3       |
| LH 125     | Turfgrass Management ( B )             | 2   | 2   | 3       |
| LH 140     | Landscape Operations ( B )             | 2   | 3   | 3       |
| FYE 1XX    | First Year Experience Elective ( B )   | 1   | 0   | 1       |
| Semester 2 |  |     |     |         |
| BUS 190    | Professional Practices ( B )           | 1   | 0   | 1       |
| LH 110     | Horticulture Science ( G )             | 2   | 3   | 3       |

| LH 151         | Landscape Design 1 ( T )   | 2  | 3   | 3  |
|----------------|--|----|-----|----|
| ENG 10X        | English Composition Elective ( G )                                   | 3  | 0   | 3  |
| XXX XXX        | Computer Elective ( T )  | 2  | 3   | 3  |
| MAT 1XX        | Mathematics Elective ( G )   | 3  | 0   | 3  |
| Semester 3     |  |    |     |    |
| LH 135         | Herbaceous Plant Materials ( T )                                     | 2  | 3   | 3  |
| LH 165         | Landscape Construction ( T )   | 2  | 3   | 3  |
| LH X9X         | Cooperative Education Elective 1: Landscape Horticulture ( T )       | 1  | 40  | 2  |
| Semester 4     |  |    |     |    |
| ACC 101        | Financial Accounting ( B )   | 2  | 2   | 3  |
| LAW 101        | Business Law ( B )   | 3  | 0   | 3  |
| LH XXX         | Landscape Elective 1 ( T )   | 2  | 3   | 3  |
| XXX XXX        | Management/Marketing Elective ( B )                                  | 3  | 0   | 3  |
| Semester 5     |  |    |     |    |
| LH 205         | Landscape Pests and Controls ( T )                                   | 2  | 3   | 3  |
| LH 240         | Landscape Management ( T )   | 2  | 3   | 3  |
| LH XXX         | Landscape Elective 2 ( T )   | 3  | 0   | 3  |
| XXX XXX        | Arts/Humanities Elective or Social/Behavioral Science Elective ( G ) | 3  | 0   | 3  |
| Semester 6     |  |    |     |    |
| LH X9X         | Cooperative Education Elective 2: Landscape Horticulture ( T )       | 1  | 40  | 2  |
| Total Credits: |  | 51 | 119 | 67 |

## Electives

### First Year Experience Elective

|         |                              |   |
|---------|------------------------------|---|
| FYE 100 | College Survival Skills      | 1 |
| FYE 105 | College Success Strategies   | 2 |
| FYE 110 | Community College Experience | 3 |

### English Composition Elective

|         |   |   |
|---------|---|---|
| ENG 102 | English Composition 2: Contemporary Issues      | 3 |
| ENG 103 | English Composition 2: Writing about Literature | 3 |
| ENG 104 | English Composition 2: Technical Communication  | 3 |
| ENG 105 | English Composition 2: Business Communication   | 3 |

### Computer Elective

|        |  |   |
|--------|--|---|
| LH 155 | Computer-Aided Landscape Design          | 3 |
| IM 111 | Computer Applications                    | 3 |
| IM 120 | Electronic Spreadsheets: Microsoft Excel | 3 |

### Mathematics Elective

|         |                          |   |
|---------|--------------------------|---|
| MAT 105 | Quantitative Reasoning   | 3 |
| MAT 111 | Business Mathematics     | 3 |
| MAT 115 | Pre-Statistics           | 3 |
| MAT 125 | Algebra and Trigonometry | 4 |

### Landscape Electives

|        |   |   |
|--------|---|---|
| LH 115 | Floral Design and Marketing                     | 3 |
| LH 160 | Irrigation Design, Installation, and Management | 3 |
| LH 175 | Interior Plantscaping                           | 3 |
| LH 215 | Arboriculture                                   | 3 |
| LH 225 | Greenhouse Management and Plant Production      | 3 |
| LH 252 | Landscape Design 2                              | 3 |
| LH 265 | Landscape Grading, Drainage, and Surveying      | 3 |

### Management/Marketing Elective

|         |                                  |   |
|---------|----------------------------------|---|
| MGT 101 | Principles of Management         | 3 |
| MGT 105 | Human Resource Management        | 3 |
| MGT 120 | Entrepreneurship                 | 3 |
| MGT 130 | Project Management               | 3 |
| MKT 101 | Principles of Marketing          | 3 |
| MKT 105 | Marketing and Customer Relations | 3 |
| MKT 130 | Professional Selling             | 3 |

### Arts/Humanities Elective or Social/Behavioral Science Elective (select one course)

Any Transfer Module course from ART, LIT, MUS, PHI, REL, THE, or COMM 130

or, any Transfer Module course from ECO, GEO, HST, LBR, POL, PSY, SOC, or SPN 101

### Cooperative Education Electives (4 credit hours required)

|        |   |   |
|--------|---|---|
| LH 191 | Part-Time Cooperative Education 1: Landscape Horticulture | 1 |
| LH 192 | Part-Time Cooperative Education 2: Landscape Horticulture | 1 |
| LH 193 | Part-Time Cooperative Education 3: Landscape Horticulture | 1 |
| LH 194 | Part-Time Cooperative Education 4: Landscape Horticulture | 1 |
| LH 291 | Full-Time Cooperative Education 1: Landscape Horticulture | 2 |

|        |   |   |
|--------|---|---|
| LH 292 | Full-Time Cooperative Education 2: Landscape Horticulture | 2 |
|--------|---|---|

Some courses are offered in alternative versions identified with a letter after the course number-- for example, ENG 101 and ENG 101A.

- This curriculum displays only course numbers without the added letter.
- The alternative version, when available, meets the requirements of the course version without the added letter.

The letters G, B, and T (displayed after course titles or elective descriptions) identify types of courses required by the Ohio Department of Higher Education as part of an associate's degree curriculum.

G = General Education course in this curriculum

B = Basic Skills course in this curriculum

T = Technical course in this curriculum

## Landscape Design Certificate (LDC)

| Semester 1     |   | Lec | Lat | Credits |
|----------------|---|-----|-----|---------|
| LH 105         | Horticulture Occupations                        | 1   | 1   | 1       |
| LH 110         | Horticulture Science                            | 2   | 3   | 3       |
| LH 120         | Soil Science and Plant Nutrition                | 2   | 2   | 3       |
| LH 130         | Woody Plant Materials                           | 1   | 5   | 3       |
| LH 140         | Landscape Operations                            | 2   | 3   | 3       |
| LH 151         | Landscape Design 1                              | 2   | 3   | 3       |
| Semester 2     |   |     |     |         |
| LH 135         | Herbaceous Plant Materials                      | 2   | 3   | 3       |
| LH 155         | Computer-Aided Landscape Design                 | 2   | 3   | 3       |
| LH 160         | Irrigation Design, Installation, and Management | 2   | 3   | 3       |
| LH 165         | Landscape Construction                          | 2   | 3   | 3       |
| Semester 3     |   |     |     |         |
| LH 240         | Landscape Management                            | 2   | 3   | 3       |
| LH 252         | Landscape Design 2                              | 2   | 3   | 3       |
| LH 265         | Landscape Grading, Drainage, and Surveying      | 2   | 2   | 3       |
| Total Credits: |   | 24  | 37  | 37      |

Some courses are offered in alternative versions identified with a letter after the course number-- for example, ENG 101 and ENG 101A.

- This curriculum displays only course numbers without the added letter.
- The alternative version, when available, meets the requirements of the course version without the added letter.

## Landscape Horticulture (LH)

- LH graduates are prepared to enter the green industry workforce at the technician level or above.
- LH graduates complete a rigorous curriculum based on sound science.
- LH graduates are prepared to design, sell, and install landscapes.

- LH graduates are prepared to estimate and price proposals for landscape management services.
- LH graduates have a broad-based knowledge of woody and herbaceous plants including identification, culture, and potential issues with common landscape plants.
- LH graduates can communicate effectively through multiple means.
- LH graduates can recognize, evaluate, and solve problems in landscapes.
- LH graduates can identify and safely operate a variety of equipment and tools commonly used in the green industry.
- LH graduates can identify potential plant pests, determine if controls are needed, evaluate potential controls, and apply the most effective control.

## Faculty

### Program Chair

Samuel (Mark) Deacon, MS  
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### Co-op Coordinator

Brian Hooten, MAOL  
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### Advisors

Heather Augustine, MS, LEED Green Associate  
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Stephenie Seta, MAEd  
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## Courses

### LH 105 Horticulture Occupations 1 Credit. 1 Lecture Hour. 1 Lab Hour.

An introduction to horticulture occupations in the Cincinnati region. Topics include: job levels, working conditions, abilities needed, and benefits within the horticulture industries; resume preparation; interviewing; and business etiquette for the landscaping industry.  
Prerequisites: None

### LH 110 Horticulture Science 3 Credits. 2 Lecture Hours. 3 Lab Hours.

A course on plant classification, structures, physiology, and development, and the environmental conditions that affect plant growth.  
Prerequisites: ENG 085 or appropriate placement

### LH 115 Floral Design and Marketing 3 Credits. 2 Lecture Hours. 2 Lab Hours.

A course on concepts and techniques of floral design. Topics include: floral design styles, pricing, shop management, and specialized work such as weddings and funerals. Students must attend off-campus field trips.  
Prerequisites: None

### LH 120 Soil Science and Plant Nutrition 3 Credits. 2 Lecture Hours. 3 Lab Hours.

A course on physical, chemical, and biological properties of soils. Topics include: soil formation; soil conservation; and properties of soils that affect plant growth, development, and health.  
Prerequisites: ENG 085 or appropriate placement

### LH 125 Turfgrass Management 3 Credits. 2 Lecture Hours. 2 Lab Hours.

A course on principles and practices for management of turfgrass installations. Topics include: turfgrass identification, growth, uses, and establishment; and pest control. Students must attend field trips.  
Prerequisites: MAT 093 or appropriate placement

### LH 130 Woody Plant Materials 3 Credits. 1 Lecture Hour. 5 Lab Hours.

A course on woody plants grown by nurseries and found in the landscape and in naturalized settings of Ohio. Topics include: identifying the features and landscape uses of deciduous and evergreen trees, shrubs, and vines. Students must attend weekly plant walk field trips.  
Prerequisites: ENG 085 or appropriate placement

### LH 135 Herbaceous Plant Materials 3 Credits. 2 Lecture Hours. 3 Lab Hours.

A course on annual, biennial, and non-woody plants commonly used in landscapes of the greater Cincinnati region. Topics include: identification, culture, and design uses of plants for landscapes.  
Prerequisites: ENG 085 or appropriate placement

### LH 140 Landscape Operations 3 Credits. 2 Lecture Hours. 3 Lab Hours.

A course on equipment used for landscape activities such as planting trees and shrubs and maintaining landscaped areas. Topics include: job safety; and operations of equipment such as loaders, backhoes, tractors, and commercial mowers. Students must attend field trips.  
Prerequisites: None

### LH 145 Horticulture Mechanics 3 Credits. 2 Lecture Hours. 2 Lab Hours.

An introduction to the mechanical systems used in the landscape industry. Topics include small engine theory, operation, and repair; gasoline and diesel fuels; hydraulic power systems; and traditional and alternative electrical systems.  
Prerequisites: None

### LH 151 Landscape Design 1 3 Credits. 2 Lecture Hours. 3 Lab Hours.

A course on landscape development for residential and small commercial sites. Topics include: the design process, proper design development, and graphics and lettering. Students must provide their own drawing tools and must attend field trips.  
Prerequisites: ENG 085 or appropriate placement

### LH 155 Computer-Aided Landscape Design 3 Credits. 2 Lecture Hours. 3 Lab Hours.

A course on techniques for using computers in landscape design and contracting. Topics include: generating plot plans, planting plans, and presentation drawings.  
Prerequisites: ENG 085 or appropriate placement

### LH 160 Irrigation Design, Installation, and Management 3 Credits. 2 Lecture Hours. 3 Lab Hours.

A course on designing, installing, and managing residential and commercial irrigation systems. Students must participate in field work.  
Prerequisites: LH 125 and LH 151 (minimum grade C for both)

**LH 165 Landscape Construction****3 Credits. 2 Lecture Hours. 3 Lab Hours.**

A course on techniques and use of materials for constructing and installing landscape planting features and structures such as gardens, terraces, walls, fences, mounds, ponds, irrigation, and outdoor lighting. Students must participate in field work.

Prerequisites: LH 151 (minimum grade C)

**LH 170 From Field to Kitchen****3 Credits. 2 Lecture Hours. 3 Lab Hours.**

A course on edible plants, herbs, and spices and their use in culinary preparations.

Prerequisites: None

Instructor Consent Required

**LH 175 Interior Plantscaping****3 Credits. 2 Lecture Hours. 2 Lab Hours.**

A course on the use of foliage and blooming plants to enhance interior areas of buildings. Topics include: classification, culture, and design applications.

Prerequisites: ENG 085 or appropriate placement

**LH 191 Part-Time Cooperative Education 1: Landscape Horticulture****1 Credit. 1 Lecture Hour. 20 Lab Hours.**

Students seeking an associate's degree participate in their first part-time field learning experience related to their degree. Students are expected to register for academic courses during the same semester. Students must follow cooperative education policies and procedures to earn credit. Grades issued are Satisfactory or Unsatisfactory.

Prerequisites: BUS 190 (minimum grade C)

**LH 192 Part-Time Cooperative Education 2: Landscape Horticulture****1 Credit. 1 Lecture Hour. 20 Lab Hours.**

Students seeking an associate's degree participate in their second part-time field learning experience related to their degree. Students are expected to register for academic courses during the same semester. Students must follow cooperative education policies and procedures to earn credit. Grades issued are Satisfactory or Unsatisfactory.

Prerequisites: LH 191

**LH 193 Part-Time Cooperative Education 3: Landscape Horticulture****1 Credit. 1 Lecture Hour. 20 Lab Hours.**

Students seeking an associate's degree participate in their third part-time field learning experience related to their degree. Students are expected to register for academic courses during the same semester. Students must follow cooperative education policies and procedures to earn credit. Grades issued are Satisfactory or Unsatisfactory.

Prerequisites: LH 192

**LH 194 Part-Time Cooperative Education 4: Landscape Horticulture****1 Credit. 1 Lecture Hour. 20 Lab Hours.**

Students seeking an associate's degree participate in their fourth part-time field learning experience related to their degree. Students are expected to register for academic courses during the same semester. Students must follow cooperative education policies and procedures to earn credit. Grades issued are Satisfactory or Unsatisfactory.

Prerequisites: LH 194

**LH 195 Part-Time Cooperative Education 5: Landscape Horticulture****1 Credit. 1 Lecture Hour. 20 Lab Hours.**

Students seeking an associate's degree participate in their fifth part-time field learning experience related to their degree. Students are expected to register for academic courses during the same semester. Students must follow cooperative education policies and procedures to earn credit. Grades issued are Satisfactory or Unsatisfactory.

Prerequisites: LH 195

**LH 196 Part-Time Cooperative Education 6: Landscape Horticulture****1 Credit. 1 Lecture Hour. 20 Lab Hours.**

Students seeking an associate's degree participate in their sixth part-time field learning experience related to their degree. Students are expected to register for academic courses during the same semester. Students must follow cooperative education policies and procedures to earn credit. Grades issued are Satisfactory or Unsatisfactory.

Prerequisites: LH 195

**LH 205 Landscape Pests and Controls****3 Credits. 2 Lecture Hours. 3 Lab Hours.**

A course on identification, diagnosis, and control of common insect, disease, and weed pests in the landscape industry. Topics include: integrated pest management/plant health care principles, and Ohio Department of Agriculture Commercial CORE and Category 6d exams.

Prerequisites: LH 110 and LH 130 and LH 135 (minimum grade C for all)

**LH 210 Turfgrass Pests and Controls****3 Credits. 2 Lecture Hours. 2 Lab Hours.**

A course on identification, diagnosis, and control of common insect, disease, and weed pests of turfgrasses. Topics include: integrated pest management/plant health care principles, and Ohio Department of Agriculture Commercial CORE and Category 8 exams. Students must attend field trips.

Prerequisites: LH 110 and LH 125 (minimum grade C for both)

**LH 215 Arboriculture****3 Credits. 2 Lecture Hours. 3 Lab Hours.**

A course on principles and techniques of the commercial arboriculture business. Topics include: trees and the environment; protection, diagnosis, and treatment of tree health problems; techniques for pruning, removal, and climbing; and job safety. Students must attend field trips.

Prerequisites: LH 110 (minimum grade C)

**LH 225 Greenhouse Management and Plant Production****3 Credits. 2 Lecture Hours. 2 Lab Hours.**

A course on principles and practices for greenhouse management and plant production. Topics include: greenhouse structures and maintenance, and managing environmental conditions vital to plant growth. Students must attend field trips.

Prerequisites: LH 110 and LH 135 (minimum grade C for both)

**LH 230 Landscape Solutions to Stormwater Management****3 Credits. 2 Lecture Hours. 3 Lab Hours.**

A course on using landscaping to manage stormwater and water runoff. Topics include: the ecology, design, installation, and maintenance of water management and retention systems including bioswales, green roofs, and rain gardens. Students must attend field trips.

Prerequisites: LH 110 and LH 120 and LH 151 (minimum grade C for all)

**LH 240 Landscape Management****3 Credits. 2 Lecture Hours. 3 Lab Hours.**

A course on principles and practices of management used in the landscape industry. Topics include: seasonal planning for landscape maintenance, contracts and specifications, cost estimating, business management, and personnel management. Students must attend field trips.

Prerequisites: LH 110 and LH 120 and LH 130 (minimum grade C for all), and MAT 093 or appropriate placement

**LH 245 Plants for Sustainable Landscapes****3 Credits. 2 Lecture Hours. 3 Lab Hours.**

A course on identification, culture, and uses of nursery-grown woody and herbaceous plants in Cincinnati-area sustainable landscapes.

Topics include: using native species appropriately, and controlling invasive species. Students must attend weekly field trips.

Prerequisites: LH 130 and LH 135 and LH 151 (minimum grade C for all)

**LH 252 Landscape Design 2****3 Credits. 2 Lecture Hours. 3 Lab Hours.**

A course on application of design theory to develop creative solutions to landscape problems. Topics include: graphic skills such as section, elevation, isometric and perspective techniques; construction plans; interaction with clients; and sales presentations. Students must attend field trips.

Prerequisites: LH 130 and LH 140 and LH 151 (minimum grade C for all)

**LH 255 Golf Course and Athletic Field Management****3 Credits. 2 Lecture Hours. 3 Lab Hours.**

A course on techniques for golf course and athletic field management. Topics include: layout and construction, course/field management systems, maintenance, budgeting, record-keeping, golf-specific turf care, turfgrass selection and enhancement, practices for playability enhancement, field set-up, and renovation of existing fields. Students must attend field trips.

Prerequisites: LH 125 (minimum grade C) and instructor consent  
Instructor Consent Required

**LH 265 Landscape Grading, Drainage, and Surveying****3 Credits. 2 Lecture Hours. 2 Lab Hours.**

A course on landscape site preparation. Topics include: site assessment, establishing grades, soil conservation and improvement, surface and sub-surface drain systems, cut-and-fill calculations, and safe operation of equipment. Students must attend field trips.

Prerequisites: LH 151 (minimum grade C) and MAT 093 or appropriate placement

**LH 290 Sustainable Landscape Design Capstone****3 Credits. 2 Lecture Hours. 3 Lab Hours.**

Students complete a project while examining the landscape designer's role in restoring and protecting habitats. Topics include: site choice, stormwater controls, xeriscaping, criteria for LEED and other certifications, and techniques for landscape features such as green roofs and rain gardens. Students must attend field trips.

Prerequisites: LH 151 and LH 155 and LH 230 and LH 245 (minimum grade C for all)

**LH 291 Full-Time Cooperative Education 1: Landscape Horticulture****2 Credits. 1 Lecture Hour. 40 Lab Hours.**

Students seeking an associate's degree participate in their first full-time field learning experience related to their degree. Students must follow cooperative education policies and procedures to earn credit. Grades issued are Satisfactory or Unsatisfactory.

Prerequisites: BUS 190 (minimum grade C)

**LH 292 Full-Time Cooperative Education 2: Landscape Horticulture****2 Credits. 1 Lecture Hour. 40 Lab Hours.**

Students seeking an associate's degree participate in their second full-time field learning experience related to their degree. Students must follow cooperative education policies and procedures to earn credit.

Grades issued are Satisfactory or Unsatisfactory.

Prerequisites: LH 291

**LH 293 Full-Time Cooperative Education 3: Landscape Horticulture****2 Credits. 1 Lecture Hour. 40 Lab Hours.**

Students seeking an associate's degree participate in their third full-time field learning experience related to their degree. Students must follow cooperative education policies and procedures to earn credit.

Grades issued are Satisfactory or Unsatisfactory.

Prerequisites: LH 292