Horticulture

Horticulture & Gardening

Enrollment is open to anyone interested in learning the science of horticulture or the common techniques to successful gardening. For Horticulture and Gardening Certificate information visit horticulture.uclaextension.edu

BIOLOGY X 494
Introduction to Horticulture
4.0 units
Designed for beginners and experienced gardeners, this course covers the basics of garden care and provides the students with the knowledge to solve many of the problems commonly faced in keeping plants healthy. Topics include soils and soil amendments, fertilizers, plant physiology and identification methods, planting, pruning, and staking techniques, turf grasses, plant selection guidelines, and pest and disease control. The course also includes a brief history of horticulture and an introduction to taxonomy. Students are encouraged to bring in plants for identification and discussion. Includes field trips.

Fee: $575
Classroom
11 mtgs
Tuesday, 7-10pm, June 27-September 12
UCLA Extension Gayley Center:
1145 Gayley Ave.

Core course in Horticulture & Gardening Certificate.

How to Succeed in the Landscape Industry

Saturday, July 15 & 22, 9am-4pm
UCLA Extension Gayley Center, 1145 Gayley Ave.

This 2-day course is designed for individuals looking to enter the landscape or “green” industry, as well as those currently employed who are looking to climb the ladder of success. Judith Guido, of Guido and Associates, who has had a diverse and successful career within the green industry, provides valuable information on market trends, growth areas, and industry business metrics.

For More Information
(310) 825-9414 | horticulture.uclaextension.edu

BIOLOGY X 499
Plant Materials for Landscape Use
4.0 units
This course presents the characteristics of up to 150 plant species selected for their garden use and seasonal interest in the Southern California area. Topics include trees, shrubs, ground covers, vines, and herbaceous plants, emphasizing their landscape use, appropriate placement, horticultural care, and ornamental features. The first class is held on campus, followed by field trips by itinerary. A course project is required for all credit students.

Reg# 354668
Fee: $575
Classroom
9 mtgs
Saturday, 9am-1pm, July 8
UCLA: Botany Field Trips
Saturday, 9am-1pm, July 15-29; August 12-26; September 9-16
Location to be announced
Core course in Horticulture & Gardening Certificate.

For More Information
(310) 825-9414 | horticulture.uclaextension.edu

Hybrid Course, page 4.
Textbook Required.
UC Credit, page 5.
# Horticulture & Gardening Certificate

## Curriculum Sequence

*Students Can Begin the Program at Any Time*

Take your love of gardening to the next level with the Horticulture & Gardening Certificate. Whether you are looking to improve your soil’s health, grow your own food, design an efficient irrigation system, or explore or enhance your career opportunities in the landscape industry, the Horticulture & Gardening program can help you. The program is uniquely designed to prepare beginning students with gardening fundamentals and enrich professionals with foundational science courses.

## Curriculum

The curriculum consists of 7 core courses and 8 units of program-approved electives. Students are able to finish the certificate in as little as 5 quarters. Students do not need to be enrolled in the certificate to take individual courses.

### Core

<table>
<thead>
<tr>
<th>Course</th>
<th>Spring</th>
<th>Summer</th>
<th>Fall</th>
<th>Winter</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Botany for Gardeners (4 units)</td>
<td></td>
<td>Introduction to Horticulture (4 units)</td>
<td>Horticultural Pest Management (4 units)</td>
<td>Soils and Plant Nutrition (4 units)</td>
</tr>
<tr>
<td>Gardening Practices and Techniques (4 units)</td>
<td>(also offered in the Fall)</td>
<td>(also offered in the Winter)</td>
<td></td>
<td>Plant Taxonomy and Identification (4 units)</td>
</tr>
</tbody>
</table>

### Elective

<table>
<thead>
<tr>
<th>Course</th>
<th>Spring</th>
<th>Summer</th>
<th>Fall</th>
<th>Winter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Arboriculture (4 units)</td>
<td></td>
<td>The Art and Practice of Pruning (2 units)</td>
<td>Building a Garden Ecology with California Natives (4 units)</td>
<td>Plant Propagation for Gardeners (4 units)</td>
</tr>
<tr>
<td>Container Gardening (2 units)</td>
<td></td>
<td>Advance Arboriculture (4 units)</td>
<td></td>
<td>Planting Design (4 units)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Greener Gardens: Sustainable Garden Practices (4 units)</td>
<td></td>
<td>How to Succeed in the Landscape Industry (1.5 units)</td>
</tr>
</tbody>
</table>

- 8 elective units must be inserted into the curriculum.

### For More Information

(310) 825-9414 | horticulture.uclaextension.edu

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## Course Icons Provide Information At-a-Glance

- Online course
- Technical requirements, page 4
- HYBRID COURSE, page 4
- WEB-ENHANCED COURSE, page 4
- ON-GROUND COURSE
- TEXTBOOK REQUIRED
  - Visit our website for textbook information.
- UC CREDIT
  - May be transferable to other colleges and universities, page 5

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## Landscape Architecture Electives

Some Landscape Architecture courses count toward elective requirements in the Horticulture & Gardening Certificate. To view Landscape Architecture courses, visit page 15.

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## Free Information Session!

**Landscape Architecture and Horticulture & Gardening Certificates**

Saturday, August 19, 1010 Westwood Blvd.

- 9:30–11:30am: Landscape Architecture
  - RSVP to landscapearchitecture@uclaextension.edu
- 12:30–2:00pm: Horticulture & Gardening
  - RSVP to horticulture@uclaextension.edu

See page 16 for complete information. For more information call (310) 825-9414.
BIOLOGY X 498.10  
**Greener Gardens: Sustainable Garden Practice**  
4.0 units  
Sustainability is today’s buzzword and many people seek to create a lifestyle with a more favorable impact on the environment. From home and school gardens, to commercial sites, our gardens present the perfect place to start. Designed for horticulture students, gardening professionals, educators, and home gardeners, this course focuses on turning your green thumb into a “greener” garden. Topics include composting, irrigation, water harvesting, water-wise plants, eating and growing local produce, recycling, and moving away from a consumptive, non-sustainable lifestyle when choosing materials and tools. Includes weekend field trips to the Los Angeles River to see our relationship with water in the L.A. basin, as well as the Rancho Santa Ana Botanical Garden, focusing not only on California native plants but also on water-conserving planting design. Students also visit the John J. Lyle Center for Regenerative Studies at Cal Poly Pomona, which advances the principles of environmentally sustainable living through education, research, demonstration, and community outreach.

**Reg# 354809**  
- **Fee:** $575  
- **Classroom**  
  - 12 mtgs  
  - Thursday, 6:30-9:30pm, June 29-August 24  
  - UCLA: Botany  
  - No refund after July 4.  
  - **Pieter Severynen**, BArch, landscape architect (CA 1970); ISA Certified Arborist (WC-2371-A).

BIOLOGY X 498.13  
**How to Succeed in the Landscape Industry**  
1.5 units  
Class is dedicated to understanding the business and professional side of the landscape industry. It includes the size and make-up of the market, trends, the role of sustainability, and the various professional opportunities available to students. Students learn what they need to know to land the perfect internship or job, and how to make certain they are marketable for years to come.

**Reg# 354706**  
- **Fee:** $230  
- **Classroom**  
  - 2 mtgs  
  - Saturday, 9am-4pm, July 15-22  
  - UCLA Extension Gayley Center: 1145 Gayley Ave.  
  - **Judith Guido**, keynote speaker, business columnist, researcher, trainer, and industry mentor. She took Landcare USA public on the NYSE in 1996. She helped re-brand several key landscape companies, has been involved in more than 103 mergers and acquisitions in the industry, and helped create Yellowstone Landscape.

Math and Statistics  
**Mathematics**  
For more information call (310) 825-7093.

**MATH X 1**  
**Precalculus**  
4.0 units  
This course covers function concept, linear and polynomial functions and their graphs; applications to optimization; inverse, exponential, and logarithmic functions; and trigonometric functions.  
Prerequisite(s): X 492.67 Basic Arboriculture or approval by instructor.

**Reg# 354140**  
- **Fee:** $1,388  
- **Classroom**  
  - 17 mtgs  
  - Monday, Wednesday, 7-10pm, June 26-August 16  
  - UCLA: Extension Woodland Hills: 21650 Oxnard St.  
  - All students must take the placement exam given at the first class. Students who are not qualified to take this course should enroll in 903 Intermediate Algebra for College Students.

**MATH X 31A**  
**Differential and Integral Calculus**  
4.0 units  
This course covers differential calculus and applications and the introduction to integration.  
Prerequisite(s): Math 1 Precalculus with a grade of C- or better and a half-year of high school mathematics, including some coordinate geometry and trigonometry.

**Reg# 354143**  
- **Fee:** $1,388  
- **Classroom**  
  - 14 mtgs  
  - Tuesday, Thursday, 6:30-9:30pm, June 27-August 29  
  - UCLA: Boelter Hall  
  - All students must take the placement exam given at the first class. Students who are not qualified to take this course should enroll in X 1 Precalculus.

**MATH X 402.1**  
**Introduction to Calculus**  
4.0 units  
This course covers the different applications of both differential and integral calculus to representative problems characteristic of the public and private economic sectors. Major topics covered in differential calculus include optimization; applications of the first and second derivatives that will find the optimized and inflection values of various functions; integral calculus, and procedures for finding either area under one curve or between two curves. Students are expected to apply the relevant techniques from differential and integral calculus in a wide variety of real-world contexts that are related to the problem-solving needs of public and private sector organizations. Upon completing this course, students should be able to take first derivatives of functions to find minimum and maximum values and take second derivatives to find inflection points of a function. Students are expected to understand the fundamental theorem of calculus and its implications for applied real-world problems.

**Reg# 354145**  
- **Fee:** $1,388  
- **Classroom**  
  - 14 mtgs  
  - Tuesday, Thursday, 6:30-9:30pm, June 27-29  
  - UCLA Extension Woodland Hills: 21650 Oxnard St.  
  - All students must take the placement exam given at the first class. Students who are not qualified to take this course should enroll in X 1 Precalculus.

**MATH 403**  
**Differential Equations**  
4.0 units  
This course covers the different applications of both differential and integral calculus to representative problems characteristic of the public and private economic sectors. Major topics covered in differential calculus include optimization; applications of the first and second derivatives that will find the optimized and inflection values of various functions; integral calculus, and procedures for finding either area under one curve or between two curves. Students are expected to apply the relevant techniques from differential and integral calculus in a wide variety of real-world contexts that are related to the problem-solving needs of public and private sector organizations. Upon completing this course, students should be able to take first derivatives of functions to find minimum and maximum values and take second derivatives to find inflection points of a function. Students are expected to understand the fundamental theorem of calculus and its implications for applied real-world problems.

**Reg# 354200**  
- **Fee:** $985  
- **Online**  
  - June 26-September 17  
  - Coursework must be submitted as Microsoft Word or Excel attachments.  
  - No refund after June 29.  
  - **Matthijs Topkour**, MSc, PhD, mechanical engineer, Los Angeles Department of Water and Power (retired).