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General Information

LONGWOOD GARDENS' HISTORY

Exquisite flowers, majestic trees, dazzling fountains, extravagant conservatory, starlit theatre, thunderous organ—all describe the magic of Longwood Gardens, a horticultural showstopper, where the gardening arts are encased in classic forms and enhanced by modern technology. Many generations helped create Longwood Gardens, but one individual—Pierre S. du Pont (1870-1954), industrialist, conservationist, farmer, designer, impresario, and philanthropist—made the most enduring contribution.

Pierre S. du Pont was the great-grandson of Eleuthère Irénée du Pont (1771-1834), who arrived from France in 1800 and founded the DuPont chemical company. Pierre turned the family business into a corporate empire in the early 20th century and used his resulting fortune to develop the Longwood property, which he purchased at 36 years-of-age in order to save an existing 15-acre arboretum from destruction.

Pierre du Pont's purchase of the property to save the trees reflects an acute awareness of plants and gardens dating from childhood. The du Pont family had a long tradition of gardening, and Pierre would turn out to be one of its greatest gardeners. Pierre followed no grand plan for Longwood; rather, he built the gardens piecemeal, beginning with the 600-foot long Flower Garden Walk in 1907. Although his later gardens would draw heavily on Italian and French forms, this early effort reflected what he termed an "old-fashioned" influence, with nostalgic cottage-garden flowers, exuberant shrubs, rose-laden trellises, and even a shiny gazing ball. The scale was grand, and the accessories quaint.

Longwood's foremost influence on American horticulture has been through its educational programs, in keeping with Mr. du Pont's desire to establish "a school where students and others may receive instruction in the arts of horticulture and floriculture." Since 1958, thousands of students from all over the world have participated in one or more of Longwood's intensive programs, ranging from internships to the two-year Professional Gardener Program to the Longwood Graduate Program. Graduates have gone on to leadership roles in many of the country's top horticultural institutions.

The public has embraced Longwood Gardens with great enthusiasm. Its early heritage is rich, and its modern-day additions exemplify the finest in contemporary horticulture. Yet most of its public appeal is due to Pierre du Pont's innate sense of the garden as theatre, tying Longwood directly to the great gardens of Italy and France, and to the spectacular world's fairs that proclaimed the triumph of technology. Longwood combines the gardening arts with technology, and the results are unforgettable.

Education Programs & Resources

Longwood's founder, Pierre S. du Pont, envisioned the establishment of "a school where students and others may receive instruction in the arts of horticulture and floriculture." Today, Longwood staff members and contract instructors carry out this important aspect of the original charter through several programs dedicated to teaching the art and science of horticulture to students of varied backgrounds and goals.

Longwood's programs include the "Nurturing Curiosity" Program for K-12 school classes, the High School Summer Internship Program, the College & University Internship Program, the International Gardener Program, the Professional Gardener Program, the Longwood Graduate Program, and the Continuing Education Program. All programs center on using the vast resources of Longwood Gardens to inspire students to learn and continually seek the highest level of quality, excellence, and professionalism in their work.

NURTURING CURIOSITY PROGRAM

Developed in 2007 for students in grades K-12, this onsite fieldtrip program is designed to nurture student curiosity while focusing on learning. Each 90-minute lesson features people and places that are uniquely Longwood, while connecting to national education standards in Arts & Humanities, Language Arts, Mathematics, Science & Technology, and Social Studies. Students participate in hands-on discovery learning while experiencing the beauty of Longwood Gardens.

HIGH SCHOOL SUMMER INTERNSHIP PROGRAM

The eight-week High School Summer Internship Program began in 1995. The program provides a quality, hands-on work experience for individuals in their sophomore and junior years at several local area high schools.

The students rotate through work assignments in the Outdoor Display, Indoor Display, and Production Divisions of the Horticulture Department. Additionally participants have the opportunity to work in the Education, Guest Services, Marketing & Public Relations, or the Facilities Management Department. Students learn through interaction with Longwood staff, other students, and volunteers.

COLLEGE & UNIVERSITY INTERNSHIP PROGRAM

In 1958, Longwood began a Summer Laboratory in Ornamental Horticulture, which offered a ten-week practical work experience. In 1983, Longwood initiated the College Internship Program with outdoor and indoor horticulture positions available from ten weeks to ten months. Today, Longwood offers internships in fifteen different areas including experiences in horticulture and education. The Program trains students by complementing their college education with practical, hands-on, professional experience. Potential students apply for and are selected to work in a specific area of Longwood Gardens that will best serve their career objectives. Longwood Gardens sponsors visas for International students as one-year Exchange Visitors through the US Department of State Student and Exchange Visitor Program (SEVP). International students may choose from internships in Ornamental Horticulture, Education, Library Science, or Marketing & Public Relations.

INTERNATIONAL INTERN AND TRAINEE PROGRAM

Dr. Russell J. Seibert, Longwood's first director, was a major influence in the establishment of the International Gardener Program. While visiting foreign botanical institutions and becoming acquainted with horticulturists throughout the world, he promoted the opportunity for individuals to come to the United States and experience horticulture at Longwood. In 1957, two foreign students arrived at Longwood Gardens as trainees in horticulture. Longwood now has an intern and trainee program, sponsoring visas for International Students as one-year Exchange Visitors through the United States Immigration and Naturalization Service. International students train through hands-on experience, working directly with Longwood staff in the following areas: Ornamental Horticulture, Education, Library Science and Marketing and Public Relations.

LONGWOOD GRADUATE PROGRAM

This two-year opportunity to achieve a Master of Science degree in Public Horticulture is a cooperative program between Longwood Gardens and the University of Delaware. The program emphasizes the administration, leadership, and management of public gardens and their diverse operations.

The program was established in 1967 to help motivated students, who are already competent and experienced in ornamental horticulture, gain management and leadership skills. Individuals in this program gain practical experience by working with the Director and staff within Longwood's Horticulture, Facilities Management, Education, Guest Services, Marketing & Public Relations, and Administrative Services Departments. Longwood Fellows attend graduate-level courses at the University of Delaware and participate in leadership experiences at Longwood Gardens.

CONTINUING EDUCATION PROGRAM

Longwood's Continuing Education program offers courses designed for horticultural learning at all levels—from individuals with a passing interest to those who make horticulture a central part of their lives. All of Longwood's Continuing Education classes currently are available to Professional Gardener students. In addition to individual courses, Longwood offers Certificates of Merit in Ornamental Horticulture, Floral Design, and Landscape Design.

Individuals in all of Longwood's student programs are encouraged to take advantage of the Continuing Education course offerings at a discounted cost while at Longwood. A course catalog and information is provided during student orientation.

LONGWOOD LIBRARY

The Longwood Library contains a 38,000-volume working collection, including horticultural periodicals and reference books. The hours are 8:00 AM – 5:00 PM Monday through Friday. Additional or extended hours are possible if there is sufficient need and use. Computers with Internet access are available in the Library during open hours. Contact the Librarian with questions about items available for use in the Library. Students may use the Library during working hours with permission from their work supervisor.

PROFESSIONAL GARDENER PROGRAM

The Professional Gardener Program (PG Program) is Longwood Gardens' two-year school in professional horticulture. Planning for the Professional Gardener Program began in 1969, and the first class of six students started the 18-month program on July 13, 1970. Today, Longwood selects up to ten students each year, matriculating in January of the given year, to participate in this unique 2-year combination of rigorous academic curriculum and hands-on experience. Graduates of this program are prepared for employment as professional horticulturists in public, private, and commercial horticulture.

The following information pertains exclusively to the Professional Gardener Program.

Academic Calendar

ONGOING

Continuing Education plant identification courses are used to fulfill the requirements for the following courses (see specific requirements on page 19.)

HORT 2613: Herbaceous Ornamental Plants
 HORT 2623: Woody Ornamental Plants
 HORT 2642: Ornamental Plants

2012 GRADUATING CLASS

SECOND YEAR

Winter Semester: January 5 – March 30, 2012

(12 wk. semester – no classes on Thursday and Friday of PGAA Symposium)

HORT 1222: Conservatory Plant Identification & Management
 SOIL 1123: Fundamentals of Soil Science
 HORT 2713: Arboriculture & Pruning
 LAND 2653: Landscape Design & Construction
 HORT 2512: Fruit & Vegetable Culture
 HORT 2323: Floricultural Crop Production

Spring Semester: (12 wk. semester) April 2 – June 22, 2012

HORT 1711: Horticulture Internship
 HORT 2021: Garden Practicum

Summer Semester: (12 wk. semester) June 25 – September 14, 2012

LAND 2693: Capstone Garden Project
 PLNT 1023: Plant Pathology
 PLNT 1223: Weed Identification & Management
 PLNT 2413: Plant Ecology & Sustainable Practices
 HORT 2913: Turfgrass Management

Fall Semester: (13 wk. semester) September 17 – December 14, 2012 (no classes during Thanksgiving week)

HORT 1711: Horticulture Internship
 HORT 2813: Study Abroad

2013 GRADUATING CLASS

FIRST YEAR

Winter Semester: (12 wk. semester)

January 5 – March 30, 2012

(no classes on Friday of PGAA Symposium)

HORT 1711: Horticulture Internship
 HORT 1013: Principles of Horticulture

Spring Semester: (12 wk. semester)

April 2 – June 22, 2012

CHEM 1112: Chemistry in Horticulture
 PLNT 1032: Entomology
 SPCH 1713: Speech Communication
 MCAG 1211: Equipment Operation & Maintenance
 LAND 1012: History & Theory of Landscape Design
 MATH 1493: Applications of Modern Mathematics

Summer Semester: (12 wk. semester)

June 25 – September 14, 2012

HORT 1711: Horticulture Internship
 HORT 1021: Garden Practicum

Fall Semester: (13 wk. semester)

September 17 – December 14, 2012

(no classes during Thanksgiving week)

BUS 1012: Business Management
 HORT 1313: Greenhouse Management
 LAND 1612: Introduction to Landscape Design
 HORT 1652: Floral Design
 HORT 2113: Plant Propagation

SECOND YEAR

Winter Semester:

January 3 – March 29, 2013

(no classes on Thursday and Friday of PGAA Symposium)

HORT 1222: Conservatory Plant Identification & Management
 SOIL 1123: Fundamentals of Soil Science
 HORT 2713: Arboriculture & Pruning
 LAND 2653: Landscape Design & Construction
 HORT 2512: Fruit & Vegetable Culture
 HORT 2323: Floricultural Crop Production

Spring Semester: (12 wk. semester)

April 1 – June 21, 2013

HORT 1711: Horticulture Internship
 HORT 2511: Fruit & Vegetable Culture Lab

Summer Semester: (12 wk. semester)

June 24 – September 13, 2013

PLNT 1223: Weed Identification & Management
 HORT 2913: Turfgrass Management
 LAND 2693: Capstone Garden Project
 PLNT 1023: Plant Pathology
 PLNT 2413: Plant Ecology & Sustainable Practices
 HORT 2021: Garden Practicum

Fall Semester: (13 wk. semester)

September 16 – December 13, 2013

(no classes during Thanksgiving week)

HORT 1711: Horticulture Internship
 HORT 2813: Study Abroad
 PLNT 1031: Entomology Lab

Course Descriptions

One thousand level courses are typically first-year courses, and two thousand level courses are second-year courses. The last digit of the course number indicates the number of units (credit hour equivalents) associated with the respective course.

Many courses include online learning through LongwoodLIVE (<http://LongwoodLIVE.org>), Longwood Gardens' online global classroom. Students are provided user IDs and passwords to access instructors' presentations, resource links, assessment tools, discussion boards and more to support their learning. Not all courses will have an online component.

HORTICULTURE

HORT 1013: Principles of Horticulture

Students will study a beginning foundation of the principles of horticultural science, with an emphasis on the biology and technology underlying the use and production of horticultural crops and landscape plants.

THEORY: 32 hours
LAB: 32 hours
PREREQUISITES: none

HORT 1021 and 2021: Garden Practicum

Students will collect, plant, and care for ornamental plants while creating and maintaining a landscape design in an assigned plot. The practicum allows the student an opportunity to grow a wide variety of plants, learn valuable horticultural skills, and showcase their creative talents. In addition to the garden plot, each student will be provided a container and will be required to plant the container seasonally. The students are required to label all plant material in their plots and maintain the plots and containers using good horticultural practices for two years.

THEORY: 0 hours
LAB: 32 hours
PREREQUISITES: none

HORT 1222: Conservatory Plant Identification & Management

The identification, culture, and use of indoor foliage and flowering plants, and the management of the interior environment pertinent to home, garden, institutional and commercial applications. Course covers at least 150 plants.

THEORY: 16 hours
LAB: 32 hours
PREREQUISITES: HORT 1013

HORT 1313: Greenhouse Management

Introduces students to the management of a greenhouse and the manipulation of this environment to support plant growth. In addition, students will learn introductory crop management practices, such as container selection, root media selection, watering techniques, fertilization practices, and seed propagation. Students will form management teams that will work in concert to manage the greenhouse structure, the greenhouse environment, potting shed (head house) and support services, pest monitoring and management, and fertility management.

THEORY: 32 hours
LAB: 32 hours
PREREQUISITES: HORT 1013

HORT 1652: Floral Design

This course provides an introduction to the principles and elements of floral design. Creative use of materials will be emphasized to encourage use of diverse materials, general knowledge of tools, mechanics, containers, trends in the industry and a thorough knowledge of cut flower identification and requirements.

THEORY: 16 hours
LAB: 32 hours
PREREQUISITES: none

HORTICULTURE (continued)

HORT 1711: Horticulture Internship

This course provides hands-on practical experience and reflects the horticultural work internships in which PG students participate. Credit is granted up to a total of twelve times. See Horticulture Internship descriptions on page 20.

THEORY: 0 hours
 LAB: 32 hours
 PREREQUISITES: none
 GRADING OPTION: P/NP

HORT 2113: Plant Propagation

Students will study and practice the propagation of ornamental plants by asexual and sexual methods, including seed, cuttings, grafting, and micro-propagation.

THEORY: 32 hours
 LAB: 32 hours
 PREREQUISITES: HORT 1013, HORT 1313

HORT 2323: Floricultural Crop Production

Students will solve problems and make decisions with respect to the production and sale of high quality cut and potted crops, including but not limited to chrysanthemum and poinsettia. Height control and plant nutritional management and monitoring will be part of the decision-making process. In addition to crop production skills, each student will have the opportunity to learn more about greenhouse facility management, leadership and team-building skills, and postproduction management and marketing of floriculture crops.

THEORY: 16 hours
 LAB: 32 hours
 PREREQUISITES: HORT 1013, HORT 1313

HORT 2511: Fruit & Vegetable Culture Lab

Students will apply lessons learned in HORT 2512 by planning for and maintaining a small fruit and vegetable garden during the growing season.

THEORY: 0 hours
 LAB: 32 hours
 PREREQUISITES: HORT 1013, HORT 2512

HORT 2512: Fruit & Vegetable Culture

Students will study the cultural requirements of a variety of fruit and vegetable crops with an emphasis on residential/landscape use and culture. Lectures, open discussions, studies, and demonstrations are used throughout the course.

THEORY: 32 hours
 LAB: 0 hours
 PREREQUISITES: none

HORT 2613: Herbaceous Ornamental Plants

Students will study the identification, ornamental characteristics, pest and disease problems, cultural requirements, and garden uses of herbaceous ornamental plants. This course covers more than 180 annuals, biennials, bulbs, and perennials. The course is taught through the Certificate of Merit in Ornamental Horticulture series – see information regarding Continuing Education courses on page 18.

THEORY: 42 hours
 LAB: 18 hours
 PREREQUISITES: none

HORT 2623: Woody Ornamental Plants

Students will study the identification, ornamental characteristics, pest and disease problems, cultural requirements, and garden uses of woody plant material. This course covers more than 180 deciduous trees, deciduous shrubs, broad-leaved evergreens, and conifers. The course is taught through the Certificate of Merit in Ornamental Horticulture series – see information regarding Continuing Education courses on page 18.

THEORY: 42 hours
 LAB: 18 hours
 PREREQUISITES: none

HORTICULTURE (continued)

HORT 2642: Ornamental Plants

Students will study the identification, ornamental characteristics, pest and disease problems, cultural requirements, and garden uses of herbaceous and woody plant material. This course covers more than 120 ornamental plants. The course is taught through the Certificate of Merit in Ornamental Horticulture series – see information regarding Continuing Education courses on page 18.

THEORY: 28 hours
LAB: 12 hours
PREREQUISITES: none

HORT 2713: Arboriculture and Pruning

Students will study and practice the concepts and techniques of arboriculture, such as climbing, pruning, cabling, bracing, planting, evaluating trees for hazards, and safety. This course prepares students for the International Society of Arboriculture Certified Arborist Examination.

THEORY: 32 hours
LAB: 32 hours
PREREQUISITES: HORT 1013

HORT 2913: Turfgrass Management

Students will study and practice the fundamental aspects of Turfgrass science including identification, propagation, fertilization, pest control, and other soil-plant relationships.

THEORY: 32 hours
LAB: 32 hours
PREREQUISITES: HORT 1013

LANDSCAPE DESIGN

LAND 1012: History & Theory of Landscape Design

This course guides students to recognize and identify the key factors that influence how we understand the history of designed landscapes.

THEORY: 32 hours
LAB: 0 hours
PREREQUISITES: none

LAND 1612: Introduction to Landscape Design

Students will study the use of plant materials in landscape composition. The course combines spatial definition of various gardens with plant selection. This course places a heavy emphasis on landscape uses and four-season appearance of a group of ornamentally useful herbaceous and woody plants. Students also will design, budget, and present their display garden concepts for the Student Exhibition Garden.

THEORY: 16 hours
LAB: 32 hours
PREREQUISITES: LAND 1012

LAND 2653: Landscape Design & Construction

Landscape Design & Construction assists students in developing a basic framework for observing, analyzing, and creatively combining basic elements of garden design. Students learn basic construction skills needed in landscape designs by designing and then constructing a seasonal garden installation in the Gardens proper. Students also will complete construction documentation, plant procurement, and interpretive material for their display gardens in the Student Exhibition Garden.

THEORY: 32 hours
LAB: 32 hours
PREREQUISITES: LAND 1012, LAND 1612, SOIL 1123

LANDSCAPE DESIGN (continued)

LAND 2693: Capstone Garden Project

This course provides students with an authentic, project-based learning experience through installation and maintenance of a seasonal display garden within the Gardens proper in the Student Exhibition Garden. Students will work in teams to maintain their own ornamental display gardens throughout the growing season and communicate through interpretive material and garden seminars the successes and failures of their respective gardens with the Gardens' guests.

THEORY: 0 hours
LAB: 96 hours
PREREQUISITES: LAND 1012, LAND 1612, LAND 2653

PLANT & SOIL SCIENCE

PLNT 1023: Plant Pathology

Students will study and practice the basic components of an integrated pest management (IPM) program. The biology of diseases is presented. The identification of biological control agents, abiotic/biotic diseases, and associated damage/symptoms/signs is taught. Control recommendations for common diseases are discussed. The information is presented in a field and laboratory environment.

THEORY: 32 hours
LAB: 32 hours
PREREQUISITES: HORT 1013

PLNT 1032: Entomology

Students will study the basic components of an integrated pest management (IPM) program. The biology of pest/beneficial insects and mites is presented. The identification of biological control agents, insect/mite pests in greenhouses and urban landscapes, and associated damage/symptoms/signs is taught. Control recommendations for common pests are discussed.

THEORY: 32 hours
LAB: 0 hours
PREREQUISITES: HORT 1013

PLNT 1031: Entomology Lab

Students will apply lessons learned in PLNT 1032 by scouting, diagnosing plant pests and practicing integrated pest management strategies. The students will be involved in field and laboratory activities ranging from rearing beneficials to spray applications throughout the gardens and conservatories.

THEORY: 0 hours
LAB: 32 hours
PREREQUISITES: HORT 1013, PLNT 1032

PLNT 1223: Weed Identification & Management

Students will study and practice the ecology, biology and identification of major weed species. Students also will learn how to develop effective integrated weed management programs.

THEORY: 32 hours
LAB: 32 hours
PREREQUISITES: HORT 1013, SOIL 1123

PLNT 2413: Plant Ecology & Sustainable Practices

Students will study major conceptual issues and areas of current research in plant ecology, environmental analysis, and sustainable design with focus on the preparation of ecologically based designs for individuals and communities. Topics include distribution and abundance of plant species, hydrology, habitats, ecotypes, animal/plant relationships, management techniques, and current ecological research on environmental issues such as climate change and invasive species.

THEORY: 48 hours
LAB: 0 hours
PREREQUISITES: HORT 1013, LAND 1012, SOIL 1123

SUPPORTING & PROFESSIONAL COURSES

BUSINESS

BUS 1012: Business Management

Students will study business and accounting practices as they pertain to the field of horticulture and landscape design. This course covers business communications, accounting and record keeping, government regulations, labor relations, and business plan development.

THEORY: 32 hours

LAB: 0 hours

CHEMISTRY

CHEM 1112: Chemistry in Horticulture

Introduction to essential concepts of chemistry as applied to horticulture and allied sciences. Selected topics in inorganic, organic, and biochemistry will be discussed.

THEORY: 32 hours

LAB: 0 hours

PREREQUISITES: none

SOILS

SOIL 1123: Fundamentals of Soil Science

Students will study the physical, chemical, and biological properties of soil and how they function to support plant growth. Nutrient management, air/water relationships, and use of county soil survey are included.

THEORY: 32 hours

LAB: 32 hours

PREREQUISITES: none

MATHEMATICS

MATH 1493: Applications of Modern Mathematics

This course will review and apply arithmetic, algebraic, and geometric skills routinely used by professional horticulturists. These mathematical skills are applied to routine problem-solving tasks such as: determining the area of landscape features; estimating quantities of plant materials for landscape plantings; determining the amount and allocation of greenhouse growing area; determining volumes of landscape materials such as mulch, soil, and topdressing material; formulation of root media; determining the volume of growing containers; and fertilizer, pesticide, and growth regulator use calculations.

THEORY: 48 hours

LAB: 0 hours

PREREQUISITES: none

MECHANICAL AGRICULTURE

MCAG 1211: Equipment Operation and Maintenance

Students will study and practice the proper operation, repair, and maintenance of a wide range of heavy and light equipment used in the horticultural field (front-end loaders; backhoes; and 2-cycle and 4-cycle engines used in trucks, mowers, tillers, trimmers, etc.). Students also will be introduced to the basics of equipment selection techniques and methods of inventory stocking and control in a maintenance shop environment.

THEORY: 0 hours

LAB: 32 hours

PREREQUISITES: none

SPEECH

SPCH 1713: Speech Communication

This course is designed to introduce the student to both the theory and the practice of public speaking in a variety of communication contexts. Students will develop the skills necessary to use communication as a problem-solving tool in the community. Special emphasis is placed on the student's performance as a sender and receiver of messages directed at social action. Students will become confident and comfortable speaking in a variety of public forums, with a strong emphasis on development and delivery of computer-aided presentations.

THEORY: 48 hours

LAB: 0 hours

PREREQUISITES: none

Continuing Education Courses

PG students must complete a total of eight (8) courses in the Certificate of Merit in Ornamental Horticulture series, offered through Continuing Education.

Each PG student must take a total of three (3) courses in the Herbaceous Ornamental Plants category, three (3) courses in the Woody Ornamental Plants category, and two (2) courses in the Ornamental Plants category. The final grades received in the first three (3) courses in each of the Herbaceous Ornamental Plants and Woody Ornamental Plants categories will be averaged to calculate the final grade of record for HORT 2613 and HORT 2623, respectively. The final grades received in the first two (2) courses taken in the Ornamental Plants category will be averaged to calculate the final grade of record for HORT 2642. A given Certificate of Merit course may be used as partial fulfillment of the requirements of only one of the PG courses in the list on page 18.

Longwood Gardens will pay for the first eight (8) Certificate of Merit courses, for which each PG student registers. PG students are responsible to pay the published Employee, Student, Volunteer (ESV) rate for any subsequent Certificate of Merit courses for which they register.

HORT 2613 Herbaceous Ornamental Plants

Choose one (1) annual course, one (1) perennial course and one (1) bulb course (3 courses total):

- Annuals & Tender Perennials
- Annuals for Every Garden
- Deer Resistant Bulbs
- Perennials
- Shade Perennials
- Sun Perennials

HORT 2623 Woody Ornamental Plants

The three (3) following courses:

- Broad-leaved Evergreens
- Conifers
- Deciduous Trees

HORT 2642 Ornamental Plants

Ornamental and Native Shrubs OR Deciduous Flowering Shrubs and choose any one (1) course from the above lists and/or the following courses:

- Lawn Alternatives
- Edible Plants
- Small Flowering Trees
- Native Spring Wildflowers
- Green Roof Plants
- Summer Flowering Bulbs

DROP/ADD POLICY FOR CONTINUING EDUCATION COURSES

PG students may drop a Certificate of Merit course no later than the end of the business week following the second class session. No requests to drop a Certificate of Merit course will be granted after the conclusion of the second business week. Students will be responsible for any grade received in a course they fail to drop before the end of the second business week.

PG students may add a Certificate of Merit course after said course commences no later than the start of the second class session. After the second class session, PG students will not be permitted to add a Certificate of Merit course.

Horticulture Internship Descriptions

Professional Gardener Students participate in one-month horticulture internships in Longwood Gardens' vast indoor and outdoor areas.

ARBORICULTURE

Students learn and refine tree care skills amid an excellent collection of century-old specimens, trimmed allées, and woodland areas. The work involves tree climbing and pruning and requires the use of hand tools, chain saws, chippers, and bucket trucks. Duties may include tree trimming and cabling, bracing, hedge pruning, and tree health evaluation.

INDOOR DISPLAY

Students work on seasonally changing displays, including annuals, perennials, tropical plants, and bulbs. Students may work with palms, aquatics, orchids, bananas, roses, ferns, succulents, bonsai, espaliered fruit, and Mediterranean flora. Duties include grooming, planting, and maintaining plant displays.

GREENHOUSE PRODUCTION

Students gain greenhouse experience in propagation, pruning, and general care of ornamental plants for use in the Conservatory displays. Assignments include potting and transplanting seedlings, cuttings, bulbs, and mature plants as well as pinching, tying, and changing plantings in the Conservatory displays.

GROUNDSKEEPING

Students learn how the lawns and grounds of a public garden are maintained. Participants mow lawns, weed and edge beds, prune shrubs and trees, prepare soil and compost, and assist in other general and special maintenance projects important to outdoor display horticulture.

NURSERY MANAGEMENT

Students learn propagation, potting, labeling, record-keeping, pruning, and transplanting techniques through involvement with the day-to-day operation of Longwood's nursery. In this internship, PG students prune, maintain, and evaluate woody and herbaceous plant material and conduct general maintenance including weeding and mulching. Additionally, students prepare trees and shrubs for transport and installation in the display gardens by hand digging, ball-and-burlapping, or using a tree spade.

OUTDOOR DISPLAY

Students maintain herbaceous and woody plants in several sections of the Gardens. Duties include planting, weeding, mulching, watering, pruning, staking, and fertilizing. Students may work with woody plants, herbs, bulbs, ground covers, roses, vegetables, and fruits in some of Longwood's most intensively cultivated areas. In addition, students may prepare trees and shrubs for transporting from the nursery to the display area by hand digging, ball-and-burlapping, or using a tree spade.

PERIMETER

Students work alongside the perimeter maintenance crew on invasive plant management and removal, installation of plant material in natural areas, seasonal maintenance of meadows, wetlands, and forests. In addition, students in this internship may work with the groundskeeping and arboriculture crews on winter pruning of tree species.

RESEARCH

Research involves evaluation and development of new ornamental plants for greenhouse and outdoor display. Student duties include plant maintenance, plant propagation, data collection, labeling, and record keeping. Students may also work with the plant curatorial staff.

INTEGRATED PEST MANAGEMENT

Students gain practical experience by assisting the Plant Health Care Division staff in scouting for and diagnosing pest problems throughout the gardens—indoors and outdoors. Students perform applied research projects, design and implement pest sampling and monitoring programs, and develop lectures and displays concerning IPM. Students may apply a variety of biological, cultural, and chemical controls, and evaluate the effectiveness of these treatments. A Pennsylvania Pesticide Applicator's License may be required and can be obtained while at Longwood.

CURATORIAL (PLANT RECORDS)

Students gain exposure to a wide variety of plants in virtually all parts of the garden. The student works closely with the Curatorial staff on diverse projects including plant acquisition, identification, labeling, inventory, mapping, and plant trials data collecting.

Study Abroad

HORT 2813

Each class of PG students will travel abroad as a group for 7-10 days during the second year of the PG Program, usually in spring. Students are responsible for raising half the funds for the trip through plant and vegetable sales, book sales, honey sales, and other means of fundraising. Additional funding is provided by Longwood Gardens. Students are not required to take personal time for this study abroad trip. A student must be in good academic standing (not on Academic Probation) to participate in the trip. Each student must secure his/her passport at least six months prior to the trip.

The Study Abroad trip is an integral component of the PG Program. The primary goal is to provide PG students with an opportunity to visit public and private gardens, commercial greenhouses, nurseries, botanical centers, etc. Students plan and organize the trip under the guidance of the Coordinator of Domestic & International Studies, and are always accompanied by at least one chaperone.

During the trip, students will be required to keep an online journal, including digital photographs to chronicle their experience. Upon returning, PG students will give a formal presentation, including the use of digital media, to Longwood staff, instructors, and Longwood's guests.

Past classes of PG students have chosen to study abroad in England, the Netherlands, Germany, and Spain.

Professional Gardener Program Policies

Students are expected to become familiar with all policies and procedures as outlined in Longwood's Employee Policy Manual and Longwood's Student Orientation Manual. The following section is meant to complement, not replace, the guidelines set forth in those manuals by supplementing and highlighting key issues that pertain to Professional Gardener students.

ACADEMIC POLICY

CUMULATIVE GRADUATION/RETENTION GPA

Professional Gardener Program students are required to pass all academic courses in order to graduate from the Program. The minimum cumulative Graduation/Retention GPA is 2.00 (1.70 for students with less than 20 units attempted).

ACADEMIC NOTICE

A student with less than 20 units attempted and 1.70 to 1.99 cumulative Graduation/Retention GPA will be placed on "Academic Notice." A student on Academic Notice must raise his/her cumulative Graduation/Retention GPA to 2.00 by the time he/she has attempted 20 units or more, or he/she will be dismissed from the PG program. Dismissal from the program is final. There will be no opportunity for reinstatement after dismissal.

ACADEMIC PROBATION

A minimum course grade of 65% (D) in each course and a minimum Semester GPA of 2.00 must be attained in order to remain in good standing. A student who fails a course or falls below the minimum Semester GPA will be placed on "Academic Probation" and will have one semester to rectify his/her standing.

Course Failure

In order for a student placed on Academic Probation for receiving a failing grade in a course to rectify his/her academic standing, he/she must re-take the failed course or take a course deemed equivalent by the Education Department Head and achieve the minimums stated above. The original course grade will remain on the student's transcript; however, the subsequent course grade will be used to calculate the student's cumulative Graduation/Retention GPA. Only one opportunity to re-take a course will be granted throughout the entire two-year program. A student who fails to achieve the minimum course grade while on Academic Probation will be dismissed from the program. Dismissal from the program is final. There will be no opportunity for reinstatement after dismissal.

GPA Below 2.00

In order for a student placed on Academic Probation for receiving a Semester GPA below 2.00 to rectify his/her academic standing, he/she must maintain a minimum cumulative Graduation/Retention GPA of 2.00 and achieve a Semester GPA of 2.00 or above for all subsequent semesters. A student who receives a Semester GPA below 2.00 for two academic semesters or who fails to achieve the minimum cumulative Graduation/Retention GPA will be dismissed from the program. Dismissal from the program is final. There will be no opportunity for reinstatement after dismissal.

PASS-NO PASS OPTION

Certain courses, e.g. HORT 1711, are offered only on a Pass-No Pass basis. A grade of "NP" is given for unsatisfactory work, including that evaluated as "D+" or below in courses on the Pass-No Pass grading system. Neither credit hours nor grade-points for "P" or "NP" will be used in calculating grade-point averages.

COURSE EXEMPTIONS

Longwood Gardens recognizes that students enter the PG program with various backgrounds and experiences. Although all PG students are expected to enroll in all courses, under certain circumstances, a student may apply to be exempt from a course by demonstrating to the satisfaction of the course instructor, the Coordinator of Domestic & International Studies, and the Education Department Head an equivalent level of knowledge and understanding of the course content either by:

1. Receiving a passing grade of "C" or better, as defined by the respective institution, in a college/university course taken for degree or credit at an accredited college or university
2. Achieving a passing grade of "C" (73-76%) or better on
 - a. an equivalency exam
 - b. an equivalency project
 - c. or both an equivalency exam and an equivalency project.

The equivalency exam and/or project must be completed at least two weeks prior to the start of the semester with the course in question. A student who receives a passing grade of "C" (73-76%) or better will be awarded Course Exemption and receive "qualifying units" for the course and a grade of "P" on his/her transcript; however, no grade-points will be accumulated for the course, and the qualifying units will not be used in GPA calculations. Nothing will be recorded on the student's transcript if he/she achieves less than a "C" on the equivalency assessment. A student who is unable to demonstrate an equivalent level of knowledge and understanding of the course content must take and pass the course in question.

COURSE GRADE OF "INCOMPLETE"

Under extenuating health or family emergency situations, a grade of "I" can be assigned for incomplete work in a course. This grade is only available to a student who has satisfactorily completed at least two-thirds of the coursework and has averaged "D" (65-66%) or better on this work. The course instructor will determine what coursework must be completed to satisfy the requirements for the

course. The student will have six months in which to satisfy those requirements and complete the course. Upon successful completion of the course, the new grade will be appended to the existing "I" (e.g. "I/B") on the student's transcript. The new grade will be used to calculate Semester and Cumulative Graduation/Retention GPAs.

If a course is not completed within the allotted time, the "I" becomes permanent, and the student must re-take the incomplete course or take a course deemed equivalent by the Education Department Head and achieve the minimums stated above. A student will be granted the opportunity to re-take only one course throughout the entire two-year program. The original course grade of "I" will remain on the student's transcript; however, the subsequent course grade will be used to calculate the student's cumulative Graduation/Retention GPA.

GRADING SYSTEM

Grade Course	Percent	Course Grade-Points (per course's semester units)
A	93-100	4.00
A-	90-92	3.67
B+	87-89	3.33
B	83-86	3.00
B-	80-82	2.67
C+	77-79	2.33
C	73-76	2.00
C-	70-72	1.67
D+	67-69	1.33
D	65-66	1.00
F	<65	0.00

GRADE-POINT AVERAGE (GPA) CALCULATION

The semester units of each course, as indicated by the last digit of the respective course number, are multiplied by the grade-points earned in that course to calculate the course grade-points. The total number of course grade-points earned is divided by the total number of units attempted to calculate the GPA. A grade of "I" is not included in GPA calculations.

When calculating cumulative Graduation/Retention GPA, the original grade of a repeated course is excluded.

GRADE REPORT & OFFICIAL TRANSCRIPT

A Grade Report will be printed at the end of each semester and distributed to each student.

Additional copies may be requested from the Office of Domestic & International Studies. Grade Reports are provided free-of-charge and can be mailed directly to insurance carriers or other organizations upon a student's request.

An Official Transcript is available upon request from the Office of Domestic & International Studies. Transcripts are provided free-of-charge and can be mailed directly to prospective employers upon a student's request.

ATTENDANCE

Attendance is mandatory for all class sessions, including Continuing Education plant identification courses and "plant walk" labs that are used to satisfy the academic requirements of the PG Program. Students are responsible for all content, quizzes, exams, and assignments for each class session. Unexcused absences will result in a grade of "0" for any assignments, quizzes, or exams conducted during the absence. Excused absences for medical and/or personal reasons will be assessed on a case-by-case basis at the discretion of the instructor, Coordinator of Domestic & International Studies, and Education Department Head. Students are responsible for any and all content, quizzes, exams, and assignments missed during an excused absence, and it is the student's responsibility to schedule make-up sessions with the instructor.

LEARNING DISABILITIES

In accordance with the Americans with Disabilities Act (ADA) of 1990 and Section 504 of the Rehabilitation Act of 1973, Longwood Gardens ensures that enrolled students with a documented disability are protected from discrimination and assured equal access to educational programs. Longwood Gardens will make every effort to accommodate students with documented learning disabilities by providing reasonable accommodations to ensure that the student has equal opportunity for success in the Professional Gardener Program.

DEFINITIONS

1. Student with a learning disability: any student who has or is regarded to have a physical or mental impairment that substantially limits his/her ability to perform adequately in a classroom environment
2. Classroom accommodation: any alteration in the manner in which a specific class is conducted at the request of a student. Alterations may include, but are not limited to: testing time limits, providing special tutoring, and/or providing course materials in alternative formats (e.g. audio notes). Appropriate classroom accommodations will be made after consulting with a psycho-educational consultant.

DETERMINATION OF ELIGIBILITY

Any student with a prior diagnosis of a learning disability that may have a current impact on academic performance should present the Coordinator of Domestic & International Studies and/or the Education Department Head recent documentation of the presence of the disability in question and prior accommodations that were made in an academic environment. Documentation from a licensed psychologist within the past three years is the only documentation deemed acceptable. As necessary, Longwood Gardens' Office of Human Resources and Risk Management and the Office of the Education Department will consult with appropriate psycho-educational professionals to develop appropriate accommodations and communicate those accommodations to course instructors.

ACADEMIC DISHONESTY POLICY†

STATEMENT OF POLICY

All students must be honest and forthright in their academic studies. To steal the words or ideas of another, to cheat on an assignment, or to allow or assist another to commit these acts corrupts the educational process. Students are expected to do their own work and neither give nor receive unauthorized assistance.

Any violation of this standard must be reported to the Coordinator of Domestic & International Studies. The course instructor, in consultation with the Coordinator of Domestic & International Studies, and the Education Department Head, will decide the appropriate course of action based upon the severity of the act, which may include a grade of "F" on the associated assignment; a course grade of "F"; a course grade of "F!", indicating that a student received a failing grade as a result of academic dishonesty; or dismissal from the PG Program. Students who receive one "F!" and, then, violate the Academic Dishonesty Policy for a second time will be dismissed from the PG Program. Dismissal from the program is final. There will be no opportunity for reinstatement after dismissal.

ACADEMIC VIOLATIONS

1. **Plagiarism:** *the inclusion of someone else's words, ideas, or data as one's own. When a student submits academic work that includes another's words, ideas, or data, whether published or unpublished, the source of that information must be acknowledged with complete and accurate references and, if verbatim statements are included, with quotation marks as well. By submitting work as his/her own, a student certifies the originality of all material not otherwise acknowledged. Plagiarism includes, but is not limited to:*
 - a. The quotation or other use of another person's words, ideas, opinions, thoughts, or theories (even if paraphrased into one's own words) without acknowledgment of the source; or
 - b. The quotation or other use of facts, statistics, or other data or materials that are not clearly common knowledge without acknowledgment of the source.
2. **Fabrication:** *the use of invented information or the falsification of research or other findings. Fabrication includes, but is not limited to:*
 - a. The false citation or acknowledgment of a direct or secondary source, including the incorrect documentation of a source;
 - b. The citation, in a bibliography or other list of references, of sources that were not used to prepare the academic work;
 - c. The inclusion in an academic work of falsified, invented, or fictitious data or information, or the deliberate and knowing concealment or distortion of the true nature, origin, or function of such data or information; or
 - d. The unauthorized submission of an academic work prepared totally or in part by another.

† (ADAPTED FROM THE UNIVERSITY OF DELAWARE POLICY MANUAL)

3. Cheating: *an act or an attempted act of deception by which a student seeks to misrepresent that he/she has mastered information that has not been mastered or knowingly and willingly assists another in this process. Cheating includes, but is not limited to:*

- a. Copying of all or any portion of another's academic work and submitting it, in part or in its entirety, as one's own;
- b. Allowing another person to copy one's own academic work—whether intentionally or recklessly;
- c. The unauthorized use or possession of a class textbook, notes, or any other material or electronic device to complete or prepare an academic work;
- d. The unauthorized collaboration with any other person on an academic exercise, including collaboration on a take-home or make-up academic exercise;
- e. The unauthorized use of electronic instruments, such as cell phones, PDAs, or personal response systems (clickers) to access or share information; or
- f. The unauthorized completion for another person of an academic work, or permitting someone else to complete an academic work for oneself, including through the use of personal response systems (clickers).

4. Academic Misconduct: *any other act that impinges or disrupts the educational process.*

Academic misconduct includes, but is not limited to:

- a. The unauthorized possession, copying, distribution, sale, or other transfer of all or any part of an academic exercise or the answers or solutions to an academic exercise, whether or not the exercise has been administered;
- b. Changing, altering, attempting to change or alter, or assisting another in changing or altering any grade or other academic record, including grades or records contained in a grade book or computer file, that is received for or in any way attributed to academic work;
- c. Entering any building, facility, office, or other property, or accessing any computer file or other record or storage for the purpose of obtaining the answers or solutions to an academic exercise or to change a grade;
- d. Continuing to work on an academic exercise after the specified allotted time has elapsed; or
- e. Bribing another person to obtain an academic exercise, including answers to questions of an un-administered academic exercise.

WITHDRAWING FROM THE PG PROGRAM

If a PG student should decide to withdraw from the Program, he/she should initiate the withdrawal in person with the Coordinator of Domestic & International Studies, the Education Department Head, and the Human Resources Administrator. Should a PG student be unable to appear in person, the withdrawal may be initiated through postal mail or FAX to the Office of Domestic & International Studies.

Prior to Week 9: *A student who withdraws from the PG Program prior to the start of the ninth week of a semester, or proportionate period of a short course, will receive a grade of "W" (withdrawn) on his/her academic record. Neither credit hours nor grade-points for "W" will be used in calculating grade-point averages.*

Weeks 9 and 10: *A student who withdraws during weeks nine or ten of a semester, will receive a grade of "WP" (withdrawn-passing) or "WF" (withdrawn-failing), where passing is defined as a grade of "D" (65-66%) or above, as assigned by the instructor of each course. Neither credit hours nor grade-points for "WP" or "WF" will be used in calculating grade-point averages.*

After Week 10: *A student who withdraws from the PG Program after the end of the tenth week of a semester, will receive a grade of "A," "A-," "B+," "B," "B-," "C+," "C," "C-," "D+," "D," "F," "P," or "NP" as assigned by the instructor of the course. The assigned grades will be used in semester and cumulative GPA calculations.*

A student wishing to return to the PG Program must submit his/her application by the deadline for application to the PG Program as published on the Longwood Gardens web site. The student's application will be evaluated on the same criteria as all others received in that year's application pool. Readmission is not guaranteed.

COMPENSATION & BENEFITS

Refer to the "Student Orientation Manual" for full descriptions of all Policies & Procedures, Student Requirements, Compensation, Student Benefits, Safety, Red Lion Row Community, and Emergency Contact Procedure.

PROFESSIONAL GARDENER STIPEND

Professional Gardener students receive a stipend via direct deposit on Thursdays on a biweekly schedule. Each student should enroll in direct deposit during orientation.

PG Alumni Association

The Professional Gardener Alumni Association (PGAA) was organized in 1976 to promote communication and to disseminate information among graduates of the PG Program as well as others in horticulture. Each current PG student is an honorary member of the PGAA and can become a full member upon graduation.

The Executive Board of the PGAA is a volunteer committee of PG alumni who meet quarterly. Officers of the Executive Board are elected by the PGAA membership and serve a two-year term.

The Executive Board publishes *The Grapevine*, a quarterly newsletter highlighting alumni events and activities, organizes and hosts a bi-annual PG reunion for members at Longwood Gardens, leads periodic community service events for PGAA members and honorary members, and awards an annual travel grant to a graduating student of the PG Program.

PGAA ANNUAL SYMPOSIUM

In addition, a subcommittee of the Executive Board organizes and hosts an annual symposium each February, entitled Today's Horticulture, which has become well known in the Mid-Atlantic region as the annual kick-off to the gardening season. All PG students must participate in the PGAA Symposium and associated Plant Sale.

today's
Horticulture



Friday, February 3, 2012

HOSTED BY:

Longwood Gardens • Chanticleer Foundation
The Professional Gardener Alumni Association

LONGWOOD GARDENS BALLROOM • Kennett Square, Pennsylvania

2012 GARDEN HIGHLIGHTS

ORCHID EXTRAVAGANZA • JANUARY 20–MARCH 25

Immerse yourself in a dazzling world of orchids as we transform our Conservatory into a lush oasis showcasing the divas of the plant world. The popular International Orchid Show and Sale returns March 23-25 as vendors from around the world create extraordinary displays.

SPRING BLOOMS • MARCH 31–MAY 20

Hundreds of thousands of outdoor bulbs come to life to paint the landscape in glorious spring color. Tulips, dogwoods, wisteria and more herald spring's arrival indoors and out. Breathe in the fresh air and relish the beauty of the Gardens as spring is ushered in.

FESTIVAL OF FOUNTAINS • MAY 26–SEPTEMBER 2

Experience our renowned illuminated fountain shows on select summer evenings as the Gardens burst with summer blooms and stunning waterlilies. Outdoor concerts featuring popular artists fill the gardens with music and fun! Don't miss our Fireworks & Fountains shows: May 26, July 3 & 21, August 11, September 1 & 29.

NEW: *Light* INSTALLATIONS BY BRUCE MUNRO • JUNE 9–SEPTEMBER 29

Experience the Gardens in a whole new light through the evocative and imaginative art of Bruce Munro, British artist and light designer. Never before seen in the United States, this debut exhibition illuminates the Gardens with large-scale, site-specific light installations. Both indoors and outdoors, by day and by night, Light will change the way you see gardens.

AUTUMN'S COLORS • SEPTEMBER 8–NOVEMBER 18

Celebrate the harvest season with fall foliage, thousands of blooming chrysanthemums, and a Garden Railway. See the Thousand Bloom Mum, the largest in North America from October 27 through November 18 during the Chrysanthemum Festival where thousands of blooming mums are artfully displayed.

A LONGWOOD CHRISTMAS • NOVEMBER 22–JANUARY 6, 2013

No one does holiday splendor, music, and magic like Longwood Gardens. Thousands of poinsettias, paperwhites, amaryllis, and elegantly decorated trees adorn Longwood's four acres of warm indoor gardens. Daily performances and evening concerts highlighting the sounds of the season. Outside, 500,000 lights create a holiday wonderland. Tickets must be purchased in advance for this popular display holiday season.

