

# HORTICULTURE

Associate in Applied Science Degree | Career Program | Department of Biological Sciences

## Program Description

Horticulturists are skilled in the cultivation of plants and the care of gardens. They may work in public parks and gardens; they may design, install and maintain the interior landscapes in public buildings and corporate headquarters; or they may work as florists, arranging plants and flowers for special occasions.

Recognizing the need for trained horticulturists, Bronx Community College and The New York Botanical Garden (NYBG) have established a joint program in Horticulture. Students study liberal arts and sciences at the BCC campus. At the NYBG students study both academic courses and field experience in aspects of horticulture.

Graduates earn an AAS degree Horticulture from BCC.

NYBG courses are open only to Horticulture (AAS) students and must be approved by both the Program Director at BCC and the Director of Education at NYBG. Students may take horticulture classes at NYBG only after completion of BIO 11, BIO 12, and CHM 17 at BCC. Additionally, students can begin horticulture classes at NYBG in the summer or fall only. Substitution of Horticulture courses must have the written approval of the BCC Program Director.

The Horticulture program fully articulates with SUNY Empire State College. A copy of the articulation agreement is available on line at the BCC Transfer Planning website.

## Learning Outcomes

Upon successful completion of the Horticulture program requirements, students will be able to:

1. Demonstrate the basic principles of plant growth and apply basic horticultural knowledge and the principles of soil science as they relate to plant growth and plant nutrition.
2. Compare and contrast basic theories, concepts and terminology of plant science in order to apply sustainable horticulture practices and techniques.
3. Demonstrate critical thinking skills when applying basic horticultural knowledge to specific field of study in ornamental horticulture such as gardening, landscaping and greenhouse management.
4. Demonstrate an understanding of business principles as they apply to working in the horticulture industry such as gardening stores, landscaping and greenhouse businesses and institutions.
5. Demonstrate the safe and efficient use of garden, greenhouse, and landscape tools, equipment and materials.

## HORTICULTURE CURRICULUM (PATHWAYS)

60 Credits required for AAS Degree

Curriculum Coordinator: Dr. Adijat Adebola

### Required Core

#### A. English Composition

- ENG 110 Fundamentals of Composition and Rhetoric  
OR ENG 111 Composition and Rhetoric I (3 Credits)

#### C. Life and Physical Sciences

- BIO 11 General Biology I (4 Credits)

### Flexible Core

#### A. World Cultures and Global Issues

- HIS 10 History of the Modern World OR  
HIS 11 Introduction to the Modern World (3 Credits)

#### D. Individual and Society

- COMM 11 Fundamentals of Interpersonal Communication (3 Credits)

#### E. Scientific World

- BIO 12 General Biology II (4 Credits)

#### Additional Flexible Core Requirement – Area E

- CHM 17 Fundamentals of General Chemistry I (4 Credits)

**SUBTOTAL 21**

### Major Requirements

- ART 10 Art Survey OR  
MUS 10 Music Survey (1 Credit)
- BUS 111 Business Mathematics (3 Credits)
- BUS 51 Business Organization and Management (3 Credits)
- PSY 11 Introduction to Psychology OR  
SOC 11 Introduction to Sociology (3 Credits)
- PEA Physical Education-one activity course (1 Credit)

**SUBTOTAL 11**

## Major Requirements

### NYBG Core Requirements<sup>1</sup>

- BOT 11 Basic Botany (1 Credit)
- BOT 12 Plant Form and Function (1 Credit)
- BOT 13 Plant Physiology (1 Credit)
- BOT 41 Entomology (1 Credit)
- GAR 11 Horticultural Techniques I (1 Credit)
- GAR 12 Horticultural Techniques II (1 Credit)
- GAR 13 Pruning (1 Credit)
- GAR 21 Soil Science I (1 Credit)
- GAR 24 Soil Science II (1 Credit)
- GAR 31 Preparation for Pesticide Applicator Certification (2 Credits)
- GAR 32 Diseases of Ornamental Plants (1 Credit)

**TOTAL 12**

## Major Requirements

### General Horticulture Specialization<sup>1</sup>

- BOT 61 Woody Plant Identification: Fall Trees and Shrubs (1 Credit)
- BOT 64 Woody Plant Identification: Spring Trees and Shrubs (1 Credit)

- GAR 41 Plant Propagation I (1 Credit)
- GAR 51 Turf and Grounds Maintenance (1 Credit)
- GAR 81 Plants for Landscaping (1 Credit)
- HRT 13 Turf and Grounds Management I (2 Credits)
- HRT 14 Arboriculture I (2 Credits)
- HRT 15 Perennials and Flower Borders I (2 Credits)
- HRT 16 Greenhouse Operations I (2 Credits)
- HRT<sup>2</sup> Horticulture Field Exp. Electives (1 Credit)
- LND 11 Landscape Design Theory (1 Credit)
- LND 12 Graphics (1 Credit)

**TOTAL 16**

**NOTE: At least two courses must be taken from a list designated as "Writing Intensive" as published each semester in the Registration Guide and Schedule of Classes.**

<sup>1</sup> These core and specialization requirements are given at The New York Botanical Garden.

<sup>2</sup> To be chosen from Horticulture with approval of department.

**NOTE: Course numbers are different in the BCC catalog and the NYBG Catalog.**

