

Course Code: AGB 104 (IAI AG 905)

Course Title: Introduction to Horticultural Science

Department: Agricultural Technologies

Effective Date: Summer 2026

PCS Code: 1.1 - Baccalaureate/Transfer

CIP Code: 01.1103

Repeatability: 0

Credit Hours

Catalog Notation: 3-2-4

Credit Hour Distribution:

Lecture: 3

Lab: 2

Clinical: 0

Total: 4

General Course Information

Catalog Description

Horticultural crop biology, technology, and industry. Includes classification, plant structure, growth and development, environmental factors, mechanisms of propagation, plant improvement, harvesting, marketing, geography, and aesthetics of horticultural crops (fruits, vegetables, greenhouse, turf, nursery, floral, and landscape).

General Course Objectives

- To develop an awareness of the significance of horticulture to humankind.
- To provide the student with a working knowledge of the fundamental principles of plant growth.
- To provide the ability to apply these fundamentals to the solution of practical problems in horticulture.

Minimum Placement Levels

English	Reading	Math
Placement out of ENG 098	Placement into CCS 098	Placement into MAT 060

Prerequisites

None

Methods of Evaluation

The minimum methods of evaluation include 3 one-hour examinations, weekly homework and laboratory assignments, and 1 cumulative final examination.

Instructional Materials and Additional Supplies

Horticulture: Principles and Practices, by Acquaah, George. Current edition.

Course Content

General Learning Outcomes (GLOs)

- Technology: Students will demonstrate the ability to evaluate, select, and appropriately use current and emerging tools.

Course Segments and Student Learning Outcomes

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Historical Perspective, Scope, and Importance - Local to Global; Careers and Opportunities	<ol style="list-style-type: none"> 1. Compare historical practices to current-day practices. 2. Analyze career opportunities in horticulture. 	3	2	0
Morphological Classification of Horticultural Plants	<ol style="list-style-type: none"> 1. Identify the botany principles associated with horticulture plant growth and development. 2. Explain the structure of horticulture plants. 3. Explain plant nomenclature and classification, including hybrids. 	10	6	0
Plant Growth and Environmental Factors	<ol style="list-style-type: none"> 1. Identify plant anatomy (roots, stems, leaves, flowers, and seeds). 2. Describe the environmental factors affecting plant growth and development (light, temperature, nutrient supply, moisture, atmosphere, and soils). 3. Demonstrate various growing media used in horticultural production (soil and soilless media), and how water moves through media. 	10	6	0
Plant Growth and Development from Propagation to Marketing the Crop	<ol style="list-style-type: none"> 1. Demonstrate propagation methods (asexual and sexual). 2. Explain the plant growth processes of both ornamental and food crops. 3. Demonstrate pest management of horticulture crops (interior plants, insects, diseases, weeds, nutrient management, and pruning practices). 	16	12	0
Storage and Marketing of Crops	<ol style="list-style-type: none"> 1. Describe the harvest and storage methods used in food crops. 	6	4	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
45	30	0