HORTICULTURE TECHNOLOGY - A.A.S.

College of Applied and Technical Studies
www.kent.edu/cats

About This Program

The Associate of Applied Science degree in Horticulture Technology focuses on the practical skills needed to succeed in the horticulture industry. With flexible scheduling, state-of-the-art facilities and experienced faculty, you'll be prepared for a variety of career opportunities. Enroll now and cultivate your future. Read more...

Contact Information

- Program Director: **Sheren Farag** | sfaragmo@kent.edu | 330-337-4270
- Speak with an Advisor
- Chat with an Admissions Counselor

Program Delivery

- **Delivery:**
  - In person
- **Location:**
  - Salem Campus

Examples of Possible Careers and Salaries*

Farmers, ranchers, and other agricultural managers

- -6.5% decline
- 952,300 number of jobs
- $68,090 potential earnings

First-line supervisors of landscaping, lawn service, and groundskeeping workers

- 11.4% much faster than the average
- 170,700 number of jobs
- $51,010 potential earnings

Landscaping and groundskeeping workers

- 10.1% much faster than the average
- 1,188,000 number of jobs
- $31,730 potential earnings

* Source of occupation titles and labor data comes from the U.S. Bureau of Labor Statistics' Occupational Outlook Handbook. Data comprises projected percent change in employment over the next 10 years; nation-wide employment numbers; and the yearly median wage at which half of the workers in the occupation earned more than that amount and half earned less.

Admission Requirements

The university affirmatively strives to provide educational opportunities and access to students with varied backgrounds, those with special talents and adult students who graduated from high school three or more years ago.

Kent State campuses at Ashtabula, East Liverpool, Geauga, Salem, Stark, Trumbull and Tuscarawas, and the Twinsburg Academic Center, have open enrollment admission for students who hold a high school diploma, GED or equivalent.

Some programs may require that students meet certain requirements before progressing through the program. For programs with progression requirements, the information is shown on the Coursework tab.

For more information on admissions, contact the Regional Campuses admissions offices.

Program Requirements

Major Requirements

Code	Title	Credit Hours
Major Requirements (courses count in major GPA)		
BSCI 16001	HORTICULTURAL BOTANY	3
BSCI 26002	ECOLOGICAL PRINCIPLES OF PEST MANAGEMENT	3
BSCI 26003	PLANT IDENTIFICATION AND SELECTION I	3
or BSCI 26004	PLANT IDENTIFICATION AND SELECTION II	
GEOG 16001	SOIL AND HORTICULTURAL MANAGEMENT	3
HORT 16002	INTRODUCTION TO AGROECOLOGY	3
HORT 16003	INTRODUCTION TO HORTICULTURE TECHNOLOGIES AND SENSORS	1
HORT 26001	OCCUPATIONAL REGULATIONS AND SAFETY	2
HORT 35092	HORTICULTURE PRACTICUM (ELR)	3
Technical Electives, choose from the following:		15
BSCI 26003	PLANT IDENTIFICATION AND SELECTION I	
or BSCI 26004	PLANT IDENTIFICATION AND SELECTION II	
HORT 16004	DRONE TECHNOLOGY FOR HORTICULTURE	
HORT 26002	EMERGING TECHNOLOGIES IN HORTICULTURE AND PLANT SYSTEMS	
HORT 26003	ARBORICULTURE AND URBAN FORESTRY MANAGEMENT	
HORT 26006	SUSTAINABLE HORTICULTURAL SYSTEMS	
HORT 26016	IRRIGATION DESIGN AND MAINTENANCE	
HORT 26020	LANDSCAPE MANAGEMENT	
HORT 26030	TURF GRASS MANAGEMENT	
HORT 26032	GOLF COURSE MANAGEMENT	
HORT 26046	LANDSCAPE DESIGN I	
Additional Requirements (courses do not count in major GPA)		
BSCI 10110	BIOLOGICAL DIVERSITY (ELR) (KBS) (KLAB)	4
or CHEM 10030 & CHEM 10031	CHEMISTRY IN OUR WORLD (KBS) and CHEMISTRY IN OUR WORLD LABORATORY (KBS) (KLAB)	
COMM 15000	INTRODUCTION TO HUMAN COMMUNICATION (KADL)	3
ESCI 21062	ENVIRONMENTAL EARTH SCIENCE (KBS)	3
UC 10001	FLASHES 101	1
Kent Core Composition		3
Kent Core Mathematics and Critical Reasoning		3
Kent Core Humanities and Fine Arts		3
Kent Core Social Sciences		3

General Electives (total credit hours depends on earning 60 credits hour)	1
Minimum Total Credit Hours:	**60**

Graduation Requirements

Minimum Major GPA	Minimum Overall GPA
2.000	2.000

Roadmap

This roadmap is a recommended semester-by-semester plan of study for this major. However, courses designated as critical (!) must be completed in the semester listed to ensure a timely graduation.

	Semester One		Credits
!	BSCI 16001	HORTICULTURAL BOTANY	3
!	HORT 16002	INTRODUCTION TO AGROECOLOGY	3
!	HORT 16003	INTRODUCTION TO HORTICULTURE TECHNOLOGIES AND SENSORS	1
!	HORT 26001	OCCUPATIONAL REGULATIONS AND SAFETY	2
	UC 10001	FLASHES 101	1
	Kent Core Requirement		3
		Credit Hours	**13**
	Semester Two		
	BSCI 10110 or CHEM 10030 ***and*** CHEM 10031	BIOLOGICAL DIVERSITY (ELR) (KBS) (KLAB) or CHEMISTRY IN OUR WORLD (KBS) ***and*** CHEMISTRY IN OUR WORLD LABORATORY (KBS) (KLAB)	4
!	BSCI 26003 or BSCI 26004	PLANT IDENTIFICATION AND SELECTION I or PLANT IDENTIFICATION AND SELECTION II	3
	Technical Electives		6
	Kent Core Requirement		3
		Credit Hours	**16**
	First Summer Term		
	HORT 35092	HORTICULTURE PRACTICUM (ELR)	3
		Credit Hours	**3**
	Semester Three		
	COMM 15000	INTRODUCTION TO HUMAN COMMUNICATION (KADL)	3
!	GEOG 16001	SOIL AND HORTICULTURAL MANAGEMENT	3
	Technical Electives		6
	Kent Core Requirement		3
		Credit Hours	**15**
	Semester Four		
!	BSCI 26002	ECOLOGICAL PRINCIPLES OF PEST MANAGEMENT	3
	ESCI 21062	ENVIRONMENTAL EARTH SCIENCE (KBS)	3
	Technical Elective		3
	Kent Core Requirement		3
	General Elective		1
		Credit Hours	**13**
		Minimum Total Credit Hours:	**60**

University Requirements

All students in an applied or technical associate degree program at Kent State University must complete the following university requirements for graduation.

NOTE: University requirements may be fulfilled in this program by specific course requirements, please see Program Requirements for details.

Code	Title	Credit Hours
Flashes 101 (UC 10001)		1
	Course is not required for students with 30+ transfer credits (excluding College Credit Plus) or age 21+ at time of admission.	
Kent Core (see table below)		15
Total Credit Hour Requirement		60
	Some associate degrees require students to complete more than 60 credit hours.	

Kent Core Requirements

Kent Core Composition (KCMP)	3
Kent Core Mathematics and Critical Reasoning (KMCR)	3
Kent Core Humanities and Fine Arts (KHUM/KFA)	3
Kent Core Social Sciences (KSS)	3
Kent Core Basic Sciences (KBS/KLAB)	3
Total Credit Hours:	**15**

Program Learning Outcomes

Graduates of this program will be able to:

1. List and define plant characteristics, use, identification and taxonomy and differentiate between a wide range of horticulturally important plant species, including both woody and herbaceous species.
2. Apply proper safety procedures and their application in the workplace.
3. Apply principles of agroecology and sustainable horticultural practices that reduce the environmental footprint of horticultural production and contribute to long-term sustainability.
4. Articulate pest identification, taxonomy, integrated pest management (IPM) and control strategies that use ecologically sustainable approaches.
5. Discuss the integration and utilization of advanced technologies (e.g., sensors, drones and artificial intelligence applications) to enhance precision farming practices in horticulture, for optimizing crop yields, resource efficiency and environmental sustainability.
6. Design and maintain landscapes using a range of plant materials, hardscape features and sustainable practices.
7. Discuss soil science's role in horticultural production; and interpret soil test results, analyze soil conditions and implement corrective measures for optimal plant growth.
8. Explain concepts of tree biology, identification, planting and maintenance practices, including pruning, tree risk assessment and disease management.

Full Description

The Associate of Applied Science degree in Horticulture Technology prepares students for diverse careers in horticulture-related professions. This program focuses on providing a strong educational foundation that enables graduates to excel in landscape management, turf management,

urban forestry, nursery and greenhouse operations. Students develop a knowledge of plant characteristics, safety procedures in the workplace, agroecology, sustainable horticultural practices, pest management, advanced technology integration for precision farming, landscape design and maintenance, soil science and tree care.

The Horticulture Technology major emphasizes practical experience through hands-on training in outdoor labs. Students are required to complete an internship.

The degree program articulates with Kent State's Bachelor of Applied Horticulture degree.