

# CROP SCIENCES: HORTICULTURAL FOOD SYSTEMS, BS

for the degree of Bachelor of Science Major in Crop Science, Horticultural Food Systems Concentration

**department website:** <https://cropsciences.illinois.edu/>  
**department faculty:** <https://cropsciences.illinois.edu/people/faculty/>  
**overview of college admissions & requirements:** Agricultural, Consumer & Environmental Sciences (<http://catalog.illinois.edu/schools/aces/academic-units/#academicunitstext>)  
**college website:** <https://aces.illinois.edu/>

This concentration provides students with a strong foundation in plant sciences along with specialized knowledge in horticultural fruit and vegetable crop systems at urban, local, and commercial scales. Graduates from this program are prepared for careers as crop consultants, crop protection and production specialists; entrepreneurs in urban and local food systems; greenhouse or farm managers; and as community gardening and horticultural educators. This concentration will also prepare students for graduate studies leading to careers in research, extension, and education. A minimum of 126 total hours is required.

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## Prescribed Courses including Campus General Education

Code	Title	Hours
<b>Composition I and Speech</b>		
RHET 105	Writing and Research	4
	or equivalent - see College Composition I requirement (3 or 4)	
CMN 101	Public Speaking	3
<b>Advanced Composition</b>		
Select from campus approved list.		3-4
<b>Cultural Studies</b>		
Select one course from Western culture, one from non-Western culture, and one from U.S. minority culture from campus approved lists.		9
<b>Foreign Language</b>		
Coursework at or above the third level is required for graduation.		
<b>Quantitative Reasoning I</b>		
Select one of the following:		4-5
MATH 220	Calculus	
MATH 221	Calculus I	
MATH 234	Calculus for Business I	
<b>Quantitative Reasoning II</b>		
CPSC 241	Intro to Applied Statistics	3
<b>Natural Sciences and Technology</b>		
See Specific Concentration Requirements		

<b>Humanities and the Arts</b>		
Select from campus approved list		6
<b>Social and Behavioral Sciences</b>		
ACE 100	Introduction to Applied Microeconomics <sup>1</sup>	3-4
	or ECON 102 Microeconomic Principles	
Select from campus approved list.		3-4
<b>ACES required</b>		
ACES 101	Contemporary Issues in ACES	2
<b>Required Concentration</b>		<b>58-79</b>
Concentration prescribed courses. See specific concentration requirements.		
<b>Total Hours</b>		<b>126</b>

<sup>1</sup> ACE 100 or ECON 102 are not required for the Biological Sciences Concentration.

## Concentration Requirements

Code	Title	Hours
<b>Natural Science and Technology Required</b>		<b>15-16</b>
CHEM 102 & CHEM 103	General Chemistry I and General Chemistry Lab I	
CHEM 104 & CHEM 105	General Chemistry II and General Chemistry Lab II	
CHEM 232	Elementary Organic Chemistry I	
	or CPSC 382 Organic Chem of Biol Processes	
IB 103	Introduction to Plant Biology	
<b>Concentration Required Core Courses:</b>		<b>29</b>
CPSC 102	Foundational Skills in Crop Sciences	
CPSC 226		
CPSC 270	Applied Entomology	
CPSC 498	Crop Sci Professional Developmpt	
HORT 100	Introduction to Horticulture	
HORT 240	Plant Propagation	
HORT 360	Vegetable Crop Production	
HORT 361	Small Fruit Production	
HORT 362	Tree Fruit Production	
NRES 201	Introductory Soils	
PLPA 204		
<b>Select 7 or 8 hours from the following specialized courses:</b>		<b>7-8</b>
CPSC 352	Plant Genetics	
HORT 341	Greenhouse Mgmt and Production	
HORT 442	Plant Nutrition	
CPSC 484	Plant Physiology	
	or IB 420 Plant Physiology	
NRES 438	Soil Nutrient Cycling	
	or NRES 488 Soil Fertility and Fertilizers	
<b>Select 15 hours from the following focus area electives:</b>		<b>15</b>
ACE 231	Food and Agribusiness Mgt	
CPSC 261	Biotechnology in Agriculture	
CPSC 431	Plants and Global Change	
CPSC 437	Principles of Agroecology	
HORT 180		
HORT 205	Local Food Systems	

HORT 301	
HORT 341	Greenhouse Mgmt and Production <sup>1</sup>
HORT 344	Planting for Biodiversity and Aesthetics
HORT 363	Postharvest Handling Hort Crop
HORT 421	Horticultural Physiology <sup>1</sup>
HORT 434	
HORT 435	Urban Food Production
HORT 442	Plant Nutrition <sup>1</sup>
HORT 447	Horticultural Plant Breeding
HORT 475	
TSM 311	Humanity in the Food Web
Total ACES prescribed and elective hours must total 35 hours, of which 20 must be completed in residence.	
<b>Total Required Concentration Hours:</b>	<b>51-52</b>

<sup>1</sup> May only be applied here if not used as a Specialized Course.