This course satisfies the General Education Criteria for:

- analysis of the controversial arguments regarding plant intelligence.
- communication mechanisms used by plants and animals.
- anatomy and physiology, a comparative examination of behavioral responses to the world around them.
- Topics include a basic overview of plant behavior, which focuses on how plants interact with and respond to the world around them. Topics include a basic overview of plant anatomy and physiology, a comparative examination of behavioral and communication mechanisms used by plants and animals, and an analysis of the controversial arguments regarding plant intelligence.

This course satisfies the General Education Criteria for:

Advanced Composition

Nat Sci Tech - Life Sciences
HORT 363  Postharvest Handling Hort Crop  credit: 2 Hours. (https://courses.illinois.edu/schedule/terms/HORT/363/)
Provides theoretical and practical experience in the principles and practices of postharvest handling of cut flowers, ornamentals, fruits, and vegetables, emphasizing factors that impact quality, shelf-life, and safety. Requires two field trips, one to a local produce warehouse and the other to local supermarkets. Offered every fall semester. Prerequisite: HORT 100, CHEM 102, CHEM 103, IB 103.

HORT 393  Horticulture Internship  credit: 1 to 5 Hours. (https://courses.illinois.edu/schedule/terms/HORT/393/)
Supervised experience in a field directly pertaining to a subject matter in horticulture. Approved for S/U grading only. May be repeated in separate terms. Independent Study courses are limited to 12 hours total applying to a degree in ACES. For registration in this course students should contact the Department Undergraduate Program Coordinator. Prerequisite: Sophomore standing, cumulative GPA of 2.0 or above at the time the internship is arranged, and consent of instructor.

HORT 395  Undergrad Research or Thesis  credit: 1 to 4 Hours. (https://courses.illinois.edu/schedule/terms/HORT/395/)
Independent research, special problems, thesis, development and/or design work under the supervision of an appropriate member of the faculty. May be repeated. Independent Study courses are limited to 12 hours total applying to a degree in ACES. Prerequisite: Cumulative GPA of 2.5 or above at the time the activity is arranged and consent of instructor.

HORT 396  Ug Honors Research or Thesis  credit: 1 to 4 Hours. (https://courses.illinois.edu/schedule/terms/HORT/396/)
Individual research, special problems, thesis, development and/or design work under the direction of the Honors advisor. May be repeated. Independent Study courses are limited to 12 hours total applying to a degree in ACES. Prerequisite: Junior standing, admission to the ACES Honors Program, and consent of instructor.

HORT 421  Horticultural Physiology  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/HORT/421/)
Horticultural crop growth is examined in relation to plant structure, environment, and cultural practices. Emphasizes environmental control of whole plant growth as influenced by the supply of the raw materials required for growth: water, carbon dioxide, radiant energy, including the influence of temperature and photoperiod on plant growth and development. The shoot and root interactions with the environment are characterized relative to cultural practices. 4 undergraduate hours. 4 graduate hours. Prerequisite: HORT 100 or IB 103 and junior standing.

HORT 430  Children and Nature  credit: 2 Hours. (https://courses.illinois.edu/schedule/terms/HORT/430/)
Study of research theory and evidence suggesting the importance of children's contact with natural environments including, designed urban greenspaces, managed sustainable landscapes, and wilderness, for healthy child development, ecological literacy, and pro-environmental behavior as adults. Discussion of research implications and applications for redesigning our communities' outdoor spaces, societal values, public policies and education systems to foster children's access to, and bonding with, nature. Same as LA 430. 2 undergraduate hours. 2 graduate hours.

HORT 435  Urban Food Production  credit: 3 Hours. (https://courses.illinois.edu/schedule/terms/HORT/435/)
Explore opportunities and challenges for maximizing the productivity and sustainability of urban food production systems, considering agricultural, environmental, energy, social, and economic issues. Students will examine the science and practice of urban agriculture through scientific and popular literature, case studies, online discussion, and service-learning opportunities. Production systems covered will include both outdoor (e.g., vacant lot urban farms) and controlled environment (e.g., hydroponics and aquaponics) agriculture. 3 undergraduate hours. 3 graduate hours. Prerequisite: HORT 100 or CPSC 112 or equivalent introductory course in plant science.

HORT 442  Plant Nutrition  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/HORT/442/)
Mechanisms and factors affecting the absorption, transport, distribution, and functions of the essential elements required by higher plants. 4 undergraduate hours. 4 graduate hours. Offered in alternate years. Prerequisite: NRES 201 and IB 420.

HORT 447  Horticultural Plant Breeding  credit: 3 Hours. (https://courses.illinois.edu/schedule/terms/HORT/447/)
Methodology, objectives, and constraints of breeding for improved cultivars of flowers, woody ornamentals, turfgrasses, fruits, and vegetables. Emphasis on breeding objectives unique to horticultural commodities such as color, appearance, flavor, shelf-life, nutritional value, and other characteristics that determine product quality. 3 undergraduate hours. 3 graduate hours. Offered in alternate years. Prerequisite: CPSC 352.

HORT 499  Advanced Special Topics  credit: 1 to 4 Hours. (https://courses.illinois.edu/schedule/terms/HORT/499/)
Advanced experimental course on a special topic in horticulture. 1 to 4 undergraduate hours. 1 to 4 graduate hours. Approved for Letter and S/U grading. May be repeated if topics vary.