

# COLLEGE OF AGRICULTURAL, CONSUMER & ENVIRONMENTAL SCIENCES

website: <https://aces.illinois.edu>

The College of Agricultural, Consumer & Environmental Sciences plays a key role in national and international research initiatives in biological, physical, social, and economic sciences. The scope of the College has broadened dramatically since its founding in 1867, while its purpose remains focused on advancing scientific knowledge that makes life better, healthier, safer, and more profitable for people in Illinois and around the globe.

The ACES College enrolls more than 2,700 students in its seven departments, leading to a Bachelor of Science degree. Students can select from majors and concentrations that direct the focus of study to their specific interests.

Teaching, research, and outreach opportunities are supported by excellent resources. The College of ACES Library and Information Center houses the college's collection of educational resources, computing facility and the College of ACES career development and placement office, which assists students in personal and career development through internships and placement after graduation. The Family Resiliency Center, Institute for Genomic Biology, Child Development Laboratory and extensive research centers in Champaign-Urbana and across the state are other examples of unique and excellent college resources. For instance, the Morrow Plots, a national historic landmark established in 1876, are the oldest agronomic research plots in the United States. The Morrow Plots are located on campus next to the undergraduate library.

The ACES James Scholar Honors Program and the Jonathan Baldwin Turner Undergraduate Research Program offer excellent opportunities for students to be involved in cutting edge research and solving contemporary challenges. Research is conducted in the broad areas of consumer behavior, biotechnology, environmental quality and protection, financial planning, food science, human nutrition, natural resource systems, and individual and family well-being.

Increasing the international knowledge and experience of students and faculty helps meet the growing demand for graduates who are internationally literate and able to work effectively in different countries, in different languages and with people of different cultures. The academic programs office provides initiative and focus to College international study abroad programs as well as integrating an international dimension to the educational experience.

The distinguished faculty, innovative programs, and pioneering achievements in teaching, research, and outreach activities, together with an enthusiastic and competitive student body, place the College of ACES among the top institutions in the country in a survey of peers.

## Departments and Curricula

The Department of Agricultural and Biological Engineering offers two majors: Agricultural & Biological Engineering/Agricultural Engineering Sciences and Technical Systems Management. Students in the Agricultural and Biological Engineering major earn that degree from

the College of Engineering and have the option of a second degree in Agricultural Engineering Sciences. This major is designed to produce graduates who have a basic engineering education for careers of engineering service to the agricultural, environmental, and biofuels industries. The intent of the program is to provide a combination of engineering theory and applications courses to permit students to pursue goals in academia, government or industry. The graduates are expected to provide engineering solutions in agricultural production, bioprocesses and product utilization, natural resources conservation, and are exposed to current social and cultural concepts and ideas. The Technical Systems Management major is designed to prepare students for careers requiring the application, management, and marketing of engineering technologies. Students study technological systems, business and economics (including organization, operations, management, marketing, and sales), and oral and written communications. Graduates of the TSM program accept positions of employment at highly competitive salaries.

The Department of Agricultural and Consumer Economics offers programs designed to prepare students for business- or policy-related fields with special emphasis on agriculture, consumers, and environmental protection. Students' study is concentrated in one of the following areas: agri-accounting; finance in agribusiness; agribusiness markets and management; consumer economics and finance; environmental economics and policy; farm management; financial planning; policy, international trade and development; and public policy and law.

The Department of Animal Sciences offers undergraduate students unique opportunities to conduct research projects with faculty. In addition, many students gain animal experience by working part-time at the U of I Farms. Internships and field study trips are additional avenues of gaining knowledge and experience. Study Abroad experiences are also strongly encouraged. Areas of concentration are companion animal and equine science; science, pre-veterinary and medical; and food animal production and management.

The Department of Crop Sciences offers a major in Computer Science and Crop Sciences and a major in Crop Sciences with concentrations of study in plant biotechnology and molecular biology, crop agribusiness, biological sciences, agroecology, plant protection, horticultural food systems, and crops. In each of these concentrations, students receive a strong grounding in science and can apply that knowledge through internship experiences with a wide range of agricultural employers. Each area of study can lead to employment immediately after completion of the B.S. degree, or to graduate or professional study.

The Department of Food Science and Human Nutrition offers concentrations of study in dietetics, food science, hospitality management, and human nutrition. Courses in the department include the applications of biology, engineering, chemistry, physics, and microbiology to the processing, formulation, packaging, and distribution of food.

The Department of Human Development and Family Studies' major allows students to choose to concentrate their study in either child and adolescent development or family studies. The program prepares students for graduate education or employment in areas such as child care services, family life education, social work, human services, marriage and family counseling, pediatric services in hospitals, cooperative extension work or business activities related to children and families. Students select course work according to their interests in human development, such as infancy, early childhood or adolescence, or family studies, such as the marital relationship, parent-child interaction, family

change or conflict and conflict management in the family. Basic courses in these areas are linked to practical experiences in educational and community settings, and most courses emphasize issues related to cultural diversity and gender.

The Department of Natural Resources and Environmental Sciences provides students the opportunity to study ecosystem stewardship & restoration ecology, environmental science & management, fish, wildlife & conservation biology, and human dimensions of the environment. NRES is an interdisciplinary program that brings biological, physical, and social scientists together to teach and discover techniques to improve the health and integrity of urban and natural ecosystems.

Agricultural Communications is a major offered jointly by the Colleges of ACES and Media. The program is administratively housed in the College of ACES. Students specialize in advertising or journalism and go on to careers and graduate study in newspaper and magazine writing and publishing, advertising, broadcasting, and public relations.

The program in Agricultural Education offers the Agricultural Leadership and Science Education major. Students select a concentration of either Agricultural Leadership Education or Agricultural Science Education. This curriculum prepares students for positions requiring expertise in formal and non-formal education. Examples include teaching agriculture in the public schools; cooperative extension work; training and program development; and other education-related positions in agricultural and environmental agencies and businesses. Students completing the agricultural science education concentration will be eligible for Illinois teacher certification in agricultural education, and will have instruction in key pedagogical areas as well as agriculture. For teacher education requirements applicable to all curricula, see the Council on Teacher Education ([www.cote.illinois.edu/](http://www.cote.illinois.edu/) (<http://www.cote.illinois.edu/>)).

The College also offers a program for undeclared students which allows them to explore the many areas of ACES, working with a college advisor to find the right major for their specific interests.

## Admission Requirements

Freshman applicants must meet general course pattern admission requirements of the University.

Applicants for freshman admission are evaluated on the basis of their SAT/ACT scores, high school percentile rank, and statements of personal and professional interest, among other factors. Detailed information on the admission process may be obtained from the Office of Undergraduate Admissions.

Transfer applicants are evaluated on the basis of their transfer grade point averages and completion of core course requisites. Transfer applicants to the Dietetics and Human Nutrition major must have a grade point average of at least 3.0 (A = 4.0); applicants to Agricultural and Consumer Economics and Agricultural Science Education need a minimum GPA of 2.75, and all other curricula require at least a grade point average of 2.5. Applicants are encouraged to consult the Office of Undergraduate Admissions for specific course requirements.

## Graduation Requirements

The minimum number of hours required for graduation varies between 126 and 130 for all curricula within the college. Included in the total must be all courses prescribed in the given curriculum and a sufficient number of electives to obtain the total number.

Each candidate for graduation must have a grade point average of not less than 2.0 (A = 4.0), including grades in courses transferred from other institutions, and a grade point average of not less than 2.0 in all courses taken at the University of Illinois at Urbana-Champaign. Candidates for graduation from Dietetics, Human Nutrition, and Agricultural Science Education must have institutional and overall grade point averages of at least 2.5 (A = 4.0).

## Scholarship Information

A number of scholarships for undergraduate students enrolled in the College of ACES are made available through the generous support of alumni and friends of the College. Incoming and currently enrolled ACES students are eligible for consideration for merit-based awards that are awarded annually by the College. Additional information on scholarships for ACES students can be found at [academics.aces.illinois.edu/scholarships](http://academics.aces.illinois.edu/scholarships) (<http://academics.aces.illinois.edu/scholarships>).

## Departments

- Agricultural & Biological Engineering (<https://abe.illinois.edu>)
- Agricultural & Consumer Economics (<https://ace.illinois.edu>)
- Animal Sciences (<https://ansc.illinois.edu>)
- Crop Sciences (<https://cropsciences.illinois.edu>)
- Food Science & Human Nutrition (<https://fshn.illinois.edu>)
- Human Development & Family Studies (<https://hdfs.illinois.edu>)
- Natural Resources & Environmental Sciences (<https://nres.illinois.edu>)

## Division

- Nutritional Sciences (<https://nutrsci.illinois.edu>)

## Programs

- Agricultural Communications Program (<https://agcomm.illinois.edu>)
- Agricultural Education Program (<https://aged.illinois.edu>)

## Undergraduate Majors & Concentrations

Agricultural & Biological Engineering, BS ([http://catalog.illinois.edu/undergraduate/eng\\_aces/agricultural-biological-engineering-bs](http://catalog.illinois.edu/undergraduate/eng_aces/agricultural-biological-engineering-bs))

- **Agricultural Engineering Concentration** ([http://catalog.illinois.edu/undergraduate/eng\\_aces/agricultural-biological-engineering-bs/agricultural-engineering](http://catalog.illinois.edu/undergraduate/eng_aces/agricultural-biological-engineering-bs/agricultural-engineering))
- **Biological Engineering Concentration** ([http://catalog.illinois.edu/undergraduate/eng\\_aces/agricultural-biological-engineering-bs/biological-engineering](http://catalog.illinois.edu/undergraduate/eng_aces/agricultural-biological-engineering-bs/biological-engineering))

Agricultural & Consumer Economics, BS (<http://catalog.illinois.edu/undergraduate/aces/agricultural-consumer-economics-bs>)

- **Agri-Accounting Concentration** (<http://catalog.illinois.edu/undergraduate/aces/agricultural-consumer-economics-bs/agri-accounting>)
- **Agribusiness Markets & Management Concentration** (<http://catalog.illinois.edu/undergraduate/aces/agricultural-consumer-economics-bs/agribusiness-markets-management>)
- **Consumer Economics & Finance Concentration** (<http://catalog.illinois.edu/undergraduate/aces/agricultural-consumer-economics-bs/consumer-economics-finance>)
- **Environmental Economics & Policy Concentration** (<http://catalog.illinois.edu/undergraduate/aces/agricultural-consumer-economics-bs/environmental-economics-policy>)
- **Farm Management Concentration** (<http://catalog.illinois.edu/undergraduate/aces/agricultural-consumer-economics-bs/farm-management>)
- **Finance in Agribusiness Concentration** (<http://catalog.illinois.edu/undergraduate/aces/agricultural-consumer-economics-bs/finance-agribusiness>)
- **Financial Planning Concentration** (<http://catalog.illinois.edu/undergraduate/aces/agricultural-consumer-economics-bs/financial-planning>)
- **Policy, International Trade & Development Concentration** (<http://catalog.illinois.edu/undergraduate/aces/agricultural-consumer-economics-bs/policy-international-trade-development>)
- **Public Policy & Law Concentration** (<http://catalog.illinois.edu/undergraduate/aces/agricultural-consumer-economics-bs/public-policy-law>)

Agricultural & Biological Engineering, BS and Agricultural Engineering & Agricultural Science, BSAG ([http://catalog.illinois.edu/undergraduate/eng\\_aces/agricultural-biological-engineering-bs-agricultural-engineering-agricultural-science-bsag](http://catalog.illinois.edu/undergraduate/eng_aces/agricultural-biological-engineering-bs-agricultural-engineering-agricultural-science-bsag)) (Dual Degree Program)

Agricultural Communications, BS ([http://catalog.illinois.edu/undergraduate/aces\\_media/agricultural-communications-bs](http://catalog.illinois.edu/undergraduate/aces_media/agricultural-communications-bs))

- **Advertising Concentration** ([http://catalog.illinois.edu/undergraduate/aces\\_media/agricultural-communications-bs/advertising](http://catalog.illinois.edu/undergraduate/aces_media/agricultural-communications-bs/advertising))
- **Journalism Concentration** ([http://catalog.illinois.edu/undergraduate/aces\\_media/agricultural-communications-bs/journalism](http://catalog.illinois.edu/undergraduate/aces_media/agricultural-communications-bs/journalism))

Agricultural Leadership & Science Education, BS (<http://catalog.illinois.edu/undergraduate/aces/agricultural-leadership-science-education-bs>)

- **Agricultural Leadership Education Concentration** (<http://catalog.illinois.edu/undergraduate/aces/agricultural-leadership-science-education-bs/agricultural-leadership>)
- **Agricultural Science Education Concentration** (<http://catalog.illinois.edu/undergraduate/aces/agricultural-leadership-science-education-bs/agricultural-science>)

Animal Sciences, BS (<http://catalog.illinois.edu/undergraduate/aces/animal-sciences-bs>)

- **Companion Animal & Equine Science Concentration** (<http://catalog.illinois.edu/undergraduate/aces/animal-sciences-bs/companion-equine-science>)
- **Food Animal Production & Management Concentration** (<http://catalog.illinois.edu/undergraduate/aces/animal-sciences-bs/food-animal-production-management>)
- **Science, Pre-Veterinary & Medical Concentration** (<http://catalog.illinois.edu/undergraduate/aces/animal-sciences-bs/science-pre-veterinary-medical>)

Computer Science & Crop Sciences, BS ([http://catalog.illinois.edu/undergraduate/eng\\_aces/computer-science-crop-sciences-bs](http://catalog.illinois.edu/undergraduate/eng_aces/computer-science-crop-sciences-bs))

Crop Sciences, BS (<http://catalog.illinois.edu/undergraduate/aces/crops-sciences-bs>)

- **Agroecology Concentration** (<http://catalog.illinois.edu/undergraduate/aces/crops-sciences-bs/agroecology>)
- **Biological Sciences Concentration** (<http://catalog.illinois.edu/undergraduate/aces/crops-sciences-bs/biological>)
- **Crop Agribusiness Concentration** (<http://catalog.illinois.edu/undergraduate/aces/crops-sciences-bs/crop-agribusiness>)
- **Crops Concentration** (<http://catalog.illinois.edu/undergraduate/aces/crops-sciences-bs/crops>)
- **Horticultural Food Systems Concentration** (<http://catalog.illinois.edu/undergraduate/aces/crops-sciences-bs/horticultural-food-systems>)
- **Plant Biotechnology & Molecular Biology Concentration** (<http://catalog.illinois.edu/undergraduate/aces/crops-sciences-bs/plant-biotechnology-molecular-biology>)
- **Plant Protection Concentration** (<http://catalog.illinois.edu/undergraduate/aces/crops-sciences-bs/plant-protection>)

Food Science & Human Nutrition, BS (<http://catalog.illinois.edu/undergraduate/aces/food-science-human-nutrition-bs>)

- **Dietetics Concentration** (<http://catalog.illinois.edu/undergraduate/aces/food-science-human-nutrition-bs/dietetics>)
- **Food Science Concentration** (<http://catalog.illinois.edu/undergraduate/aces/food-science-human-nutrition-bs/food>)
- **Hospitality Management Concentration** (<http://catalog.illinois.edu/undergraduate/aces/food-science-human-nutrition-bs/hospitality-management>)
- **Human Nutrition Concentration** (<http://catalog.illinois.edu/undergraduate/aces/food-science-human-nutrition-bs/human>)

Human Development & Family Studies, BS (<http://catalog.illinois.edu/undergraduate/aces/human-development-family-studies-bs>)

- **Child and Adolescent Development Concentration** (<http://catalog.illinois.edu/undergraduate/aces/human-development-family-studies-bs/child-adolescent-development>)
- **Family Studies Concentration** (<http://catalog.illinois.edu/undergraduate/aces/human-development-family-studies-bs/family-studies>)

Natural Resources & Environmental Sciences, BS (<http://catalog.illinois.edu/undergraduate/aces/natural-resources-environmental-sciences-bs>)

- **Ecosystem Stewardship & Restoration Ecology** (<http://catalog.illinois.edu/undergraduate/aces/natural-resources-environmental-sciences-bs/ecosystem-stewardship-restoration-ecology>)
- **Environmental Science & Management** (<http://catalog.illinois.edu/undergraduate/aces/natural-resources-environmental-sciences-bs/environmental-science-management>)
- **Fish, Wildlife & Conservation Biology** (<http://catalog.illinois.edu/undergraduate/aces/natural-resources-environmental-sciences-bs/fish-wildlife-conservation-biology>)
- **Human Dimensions of the Environment** (<http://catalog.illinois.edu/undergraduate/aces/natural-resources-environmental-sciences-bs/human-dimensions-environment>)

Technical Systems Management, BS ([http://catalog.illinois.edu/undergraduate/eng\\_aces/technical-systems-management-bs](http://catalog.illinois.edu/undergraduate/eng_aces/technical-systems-management-bs))

## Undergraduate Minors

- Adult Development (<http://catalog.illinois.edu/undergraduate/aces/minors/adult-development>)
- Agricultural Safety & Health (<http://catalog.illinois.edu/undergraduate/aces/minors/agricultural-safety-health>)
- Animal Sciences (<http://catalog.illinois.edu/undergraduate/aces/minors/animal-sciences>)
- Crop & Soil Management (<http://catalog.illinois.edu/undergraduate/aces/minors/crop-soil-management>)
- Environmental Economics & Law (<http://catalog.illinois.edu/undergraduate/aces/minors/environmental-economics-law>)
- Food & Agribusiness Management (<http://catalog.illinois.edu/undergraduate/aces/minors/food-agribusiness-management>)
- Food & Environmental Systems (<http://catalog.illinois.edu/undergraduate/aces/minors/food-environmental-systems>)
- Food Science (<http://catalog.illinois.edu/undergraduate/aces/minors/food-science>)
- Horticulture (<http://catalog.illinois.edu/undergraduate/aces/minors/horticulture>)
- International Development Economics (<http://catalog.illinois.edu/undergraduate/aces/minors/international-development-economics>)
- International Minor in Agricultural, Consumer, & Environmental Sciences (<http://catalog.illinois.edu/undergraduate/aces/minors/international-agricultural-consumer-environmental-sciences>)
- Leadership Studies (<http://catalog.illinois.edu/undergraduate/aces/minors/leadership-studies>)
- Natural Resource Conservation (<http://catalog.illinois.edu/undergraduate/aces/minors/natural-resource-conservation>)
- Nutrition (<http://catalog.illinois.edu/undergraduate/aces/minors/nutrition>)
- Spatial and Quantitative Methods in Natural Resources & Environmental Sciences (<http://catalog.illinois.edu/undergraduate/aces/minors/spatial-quantitative-methods-natural-resources-environmental-sciences>)
- Technical Systems Management (<http://catalog.illinois.edu/undergraduate/aces/minors/technical-systems-management>)