Majors and Minors

At the College of Agricultural and Environmental Sciences, you can explore all the elements that make our world a safe and sustainable place to live.

Choose from any of our 27 majors and 41 minors, including an exploratory/undeclared option. You will be learning from today’s top scientists and faculty at an internationally-recognized university with outstanding academics and a diverse and active student community.

This guide will help you get to know all of our majors and choose the one that will help you follow your passion and begin your career path.

**MAJORS**

- Agricultural and Environmental Education
- Agricultural and Environmental Technology
- Animal Biology
- Animal Science
- Animal Science and Management
- Atmospheric Science
- Biotechnology
- Clinical Nutrition
- Community and Regional Development
- Ecological Management and Restoration*
- Entomology
- Environmental Horticulture and Urban Forestry*
- Environmental Policy Analysis and Planning
- Environmental Science and Management
- Environmental Toxicology
- Food Science
- Global Disease Biology
- Human Development
- Hydrology
- International Agricultural Development
- Landscape Architecture
- Managerial Economics
- Marine and Coastal Science
- Nutrition Science
- Plant Sciences
- Sustainable Agriculture and Food Systems
- Sustainable Environmental Design
- Viticulture and Enology
- Wildlife, Fish and Conservation Biology
- Undeclared/Exploratory Program

*These majors are no longer accepting new students. You can specialize in these areas of study through the plant sciences major.

**MINORS**

- Aging and Adult Development
- Agricultural Pest Management
- Agricultural Systems and Environment
- Animal Science—Animal Biology
- Animal Science—Animal Genetics
- Animal Science—Aquaculture
- Animal Science—Dairy/Livestock
- Animal Science—Equine
- Atmospheric Science
- Avian Sciences
- Climate Science and Policy
- Community Development
- Community Nutrition
- Contemporary Leadership
- Environmental Horticulture
- Environmental Policy Analysis and Planning
- Environmental Toxicology
- Fiber and Polymer Science
- Food Service Management
- Forensic Entomology
- Fungal Biology and Ecology
- Geographic Information Systems
- Geographic Studies
- Global Disease Biology
- Human Development
- Hydrology
- Insect Biology
- Insect Ecology and Evolution
- International Agricultural Development
- International Science Studies
- Landscape Restoration
- Managerial Economics
- Medical–Veterinary Entomology
- Nematology
- Nutrition and Food
- Nutrition Science
- Precision Agriculture
- Science and Society
- Soil Science
- Watershed Science
- Wildlife, Fish and Conservation Biology
Agricultural and Environmental Education

Gain a foundation in agricultural and environmental sciences, as well as educational theory and practice, by attaining skills in teaching, communications and outreach.

**Careers:**
- Academic advisor/counselor
- Agricultural communications
- Agriculture curriculum writer
- Agricultural extension educator
- Agricultural sales and/or marketing
- Community organizer/advocate
- Environmental science educator
- High school agricultural education teacher
- Museum educator/docent/outdoor education specialist
- Youth development educator

**Specializations:**
- Agricultural Business and Economics
- Animal Science
- Applied Biological Systems Technology
- Environmental Horticulture
- Environmental Science and Natural Resources
- Plant and Soil Science

**Contact Information:**
2020 Meyer Hall
530-754-7095
asac@ucdavis.edu
animalscience.ucdavis.edu/academics/undergrad/majors/agsc-enviro

Animal Biology

Use the process and principles of science, contemporary thinking in biology and a team approach to solve problems of a biological nature.

**Careers:**
- Epidemiologist
- Fisheries/estuaries biologist
- Geneticist/molecular biologist/genomics
- Physician/health professions
- Professor
- Research scientist
- Teacher/educator
- Veterinarian
- Zoookeeper/zoo manager

**Contact Information:**
160 Hutchison Hall
530-754-7277
abi-advising@ucdavis.edu
abi.ucdavis.edu

Animal Science

Learn about the biology, management and utilization of domestic and captive animals by focusing on modern, efficient and humane ways to make the best use and care of the animals people encounter on a daily basis.

**Careers:**
- Animal caretaker/zookeeper
- Animal nutritionist
- Aquaculturist
- Farmer/rancher
- Feedlot store manager
- Livestock production manager
- Marketing specialist
- Owner/operator of animal-based businesses
- Pet food manufacturer
- Pharmaceutical sales/consultant
- Small animal facility manager

**Specializations:**
- Aquatic Animals
- Companion Animals
- Dairy
- Equine
- Livestock
- Poultry
- Wildlife

**Contact Information:**
1202 Meyer Hall
530-754-7915
asac@ucdavis.edu
animalscience.ucdavis.edu/academics/undergrad/majors/ansci

Agricultural Science and Management

Incorporate marketing, economics and accounting skills into businesses and careers working with animals and related agricultural industries.

**Careers:**
- Agriculture commodity analyst
- Animal health/veterinarian
- Farmer/rancher
- Feedlot store manager
- Livestock production manager
- Marketing specialist
- Owner/operator of animal-based businesses
- Pet food manufacturer
- Pharmaceutical sales/consultant
- Small animal facility manager

**Contact Information:**
1700 Plant and Environmental Sciences Building
530-752-9603
lawr-advising@ucdavis.edu
lawr.ucdavis.edu

Atmospheric Science

Discover how humans and ecosystems interact with weather, climate and air quality. Gain a predictive understanding of the atmosphere to guide decisions about Earth's most important natural resource—the air we breathe.

**Careers:**
- Air quality specialist/scientist
- Atmospheric chemist
- Atmospheric science researcher
- Broadcast meteorologist
- Climate scientist
- Educator
- Environmental scientist
- Meteorologist
- Renewable energy consultant
- Weather forecaster

**Contact Information:**
1550 Plant and Environmental Sciences Building
530-752-9603
lawr-advising@ucdavis.edu
lawr.ucdavis.edu

Biotechnology

Focus on the mechanics of life processes and their applications to improve human and animal health, food safety, energy production and environmental quality. This multidisciplinary field has an impact on almost every aspect of modern human life.

**Careers:**
- Biobet specialist
- Bioinformatics
- Biomanufacturing
- Biomedical engineer
- Food scientist
- Genetic counselor
- Microbiologist
- Molecular biologist
- Physician
- Plant breeder

**Specializations:**
- Animal Biotechnology
- Bioinformatics
- Fermentation/Microbiology
- Genetic counselor
- Biomanufacturing
- Bioinformatics
- Biofuel specialist

**Contact Information:**
1202 Plant and Environmental Sciences Building
530-752-7976
biotech@ucdavis.edu

Clinical Nutrition

Apply principles of nutrition to guide people to eat healthier diets by means of therapy, education and research in hospitals, schools or communities. Fully accredited.

**Careers:**
- Dietetic technician
- Nutrition educator
- Food and drug investigator
- Food safety specialist
- Food service director
- Health and wellness educator
- Nurse/physician’s assistant
- Degreed nutritionist
- Nutrition policy analyst
- Registered dietitian

**Contact Information:**
3202 Meyer Hall
530-752-2952 or 530-752-7976
nutritionadvising@ucdavis.edu
nutrition.ucdavis.edu

Your studies may take you from high-tech laboratories and classrooms, to fields and orchards brimming with fruits and veggies, to volunteering in community shelters or child development labs, to barns active with newborn animals.
Community and Regional Development
Build skills to manage communities and understand and shape economic and sociocultural forces transforming organizations.


careers:
- Attorney
- Community development coordinator
- Community organizer and advocate
- Economic development analyst
- Human resource manager
- Nonprofit administrator
- Public servant
- Social entrepreneur
- Social worker
- Urban and regional planner

specializations:
- Global Communities
- Organization and Management
- Policy, Planning and Social Services

contact information:
1503 Hart Hall
530-752-2244
https://humanecology.ucdavis.edu/
community-and-regional-development

entomology
Gain an understanding of insects and their diversity, while focusing on the importance of insects to science, the economy, environment and public health.

careers:
- Agricultural inspector
- Apiarist (beekeeper)
- Biostatistician
- Entomologist
- Forensic scientist
- Insect biologist
- Integrated pest management consultant
- Medical/entomological historian
- Museum curator
- Pest control advisor

contact information:
150 and 160 Hutchinson Hall
530-754-7183
etox.ucdavis.edu

environmental policy analysis and planning
Cultivate skills in evaluating environmental policy, transportation and planning, and natural resource management. Develop a deep understanding of the legal, economic, political and scientific issues involved in policy making.

careers:
- Air pollution analyst
- Energy policy specialist
- Environmental advocate
- Environmental attorney
- Legislative assistant
- Natural resource analyst
- Transportation planner
- Urban and regional planner
- Water quality specialist
- Writer/journalist

specializations:
- City and Regional Planning
- Climate Change Policy
- Conservation Management
- Energy and Transportation Planning
- Environmental Policy and Politics
- Integrative Policy
- Water Management

contact information:
2154 Wickson Hall
530-752-7183
deap.ucdavis.edu

environmental science and management
Learn about environmental toxins, their environmental fate and their biological effects on humans and other species. Understand how the use of environmental toxins is regulated and monitored.

careers:
- Bioremediation specialist or occupational safety manager
- Environmental attorney or policy advisor
- Environmental chemist
- Environmental consultant
- Forensic scientist
- Graduate student
- Pharmacist
- Physician
- Public health scientist
- Risk assessment analyst
- Research scientist/technician
- Sensory scientist

specializations:
- Ecotoxicology and Environmental Chemistry
- Forensic Science and Regulatory Toxicology
- Molecular and Biomedical Toxicology

contact information:
4111 Meyer Hall
530-754-4101
gdb-advise@ucdavis.edu

food science
Explore innovative approaches to grow, process, package, store and distribute food while building skills to improve the convenience, nutrition, safety, stability, sustainability, taste and value of foods. Institute of Food Technologies (IFT) approved program.

careers:
- Biotechnology manager
- Chef
- Food production/supply chain manager
- Food safety specialist
- Microbiologist
- Process development engineer
- Product development scientist
- Quality assurance specialist
- Safety/quality assurance
- Sensory scientist

specializations:
- Brewing Science

contact information:
1204 Robert Mondavi Institute–South Building
530-752-3250
bftvadvising@ucdavis.edu
foodscience.ucdavis.edu

human development
Understand interactions among biological, psychological, social and contextual processes in humans throughout the life cycle.

careers:
- Childcare director
- Community health educator
- Counselor/psychologist
- Human resources director
- Medical director
- Media specialist
- Social worker

contact information:
1303 Hart Hall
530-752-2244
humanecology.ucdavis.edu/
academic-planning-resources
Sustainable Environmental Design
Prepares students to be leaders and practitioners in the pursuit of more sustainable communities. Emphasizes critical thinking, problem-solving, interdisciplinary leadership and application of design and planning strategies to create more livable, equitable and ecologically sound communities and regions.
CAREERS:
- Transportation planner
- Sustainability manager/ (GIS) specialist
- Geographic Information Systems
- Environmental policy analyst
- Environmental educator
- Environmental designer
- Community development coordinator
- Ecological restoration specialist
- Environmental designer
- Environmental educator
- Environmental policy analyst
- Geographic Information Systems (GIS) specialist
- Sustainability manager/ coordinator
- Transportation planner

Contact Information:
135 Hunt Hall
530-754-8628
csed.ucdavis.edu

Wildlife, Fish and Conservation Biology
Understand the relationships between the needs of wildlife, people and the environment, and how these relationships are vital for the maintenance of ecological diversity, recreational resources and food supplies.
CAREERS:
- Aquaculture specialist
- Conservation biologist
- Educator
- Environmental attorney
- Fisheries biologist
- Forest/park ranger
- Marine biologist
- Veterinarian
- Wildlife rehabilitator
- Zoo biologist

Specializations:
- Fish Biology
- Wildlife and Conservation Biology
- Wildlife Health
- Individualized

Contact Information:
1086 Academic Surge
530-754-6796
wfsadvising@ucdavis.edu
wfs.ucdavis.edu

Undeclared/Exploratory Program
Explore academic options, personal interests, strengths and career goals. This pre-major advising program assists students in defining and focusing academic interests.
Contact Information:
165 Minn Hall
530-752-0108
casexplaining@ucdavis.edu
caes.ucdavis.edu

Viticulture and Enology
Study biological and physical aspects involved with grape and wine production and gain hands-on experience with grape growing and winemaking practices.
CAREERS:
- Cellar manager
- Chemist
- Enologist/laboratory manager
- Marketing specialist
- Microbiologist
- Sales representative
- Sensory scientist
- Tasting room manager
- Vineyard manager
- Winemaker

Contact Information:
1204 Robert Mondavi Institute—South Building
530-752-3250
bftvadvising@ucdavis.edu
wineserver.ucdavis.edu

Resources

UC Davis Admission Requirements
ucdavis.edu/admissions/undergraduate

UC Davis offers a rigorous and rewarding academic environment, so make sure you meet or exceed our admission requirements to increase your chances for success in our college.

Apply
ucdavis.edu/admissions/undergraduate/apply

The UC application for undergraduate admission and scholarships is available on August 1 and can be submitted October 1–November 30.

Financial Assistance
financialaid.ucdavis.edu

Financial aid options are available for students at all income levels. Explore how scholarships, grants, work-study and other forms of assistance can help you reach your academic goals.

CA&ES Undergraduate Academic Programs
coes.ucdavis.edu/students

CA&ES offers a supportive network of faculty, staff and peer advisors who will provide you with advising from the moment you step on campus until graduation. We offer a variety of programs and classes, such as Career Discovery Groups and Aggie Jumpstart, to help you explore majors and careers, define your educational goals and provide guidance to help you stay on track. We also offer opportunities for you to connect with fellow students and gain leadership skills through events and student organizations.

Internships
icc.ucdavis.edu

Many CA&ES students explore potential careers through internships both on and off campus. Our college offers opportunities for students to build on classroom learning in our animal facilities, greenhouses, laboratories and at the Student Farm. Our students also try out jobs in industry, in environmental endeavors and with community organizations. The UC Davis Internship and Career Center will help you get hands-on experience and find your career direction.

Career Discovery Groups
caes.ucdavis.edu/students/cdg

Career Discovery Groups, a partnership between the College of Agricultural and Environmental Sciences and the Internship and Career Center, give first-year and new transfer students an opportunity to explore career possibilities and make academic choices for future success.

Aggie Jumpstart
caes.ucdavis.edu/students/aggie-jumpstart

Aggie Jumpstart is a CA&ES program created to promote inclusive academic excellence and student success through community building, leadership and advising. In partnership with the Retention Initiatives and the Internship and Career Center, Aggie Jumpstart works to address barriers for first-generation, low-income and underserved students and provides students a network of UC Davis staff, faculty and other campus communities.
Preparatory subject matter at a glance

<table>
<thead>
<tr>
<th>Biological Science</th>
<th>Chemistry</th>
<th>Computer Science</th>
<th>Math</th>
<th>Physics</th>
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<td>Agricultural and Environmental Education</td>
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<td>1A/B or 17A/B or 21A/B</td>
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<td>Atmospheric Science</td>
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<td>2A/B and 8A/B</td>
<td>Plant Sciences 21 or</td>
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<td>Entomology</td>
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<td>Environmental Toxicology**</td>
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<td>Global Disease Biology</td>
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<td>Human Development</td>
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<td>Landscape Architecture</td>
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<td>Managerial Economics</td>
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<td>Marine and Coastal Science</td>
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<td>Sustainable Environmental Design</td>
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<tr>
<td>Viticulture and Entology</td>
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<tr>
<td>Wildlife, Fish and Conservation Biology</td>
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</tbody>
</table>

*Required courses for this subject vary by specialization within the major. See additional information in the General Catalog at catalog.ucdavis.edu.

**For Environmental Toxicology there is also a writing requirement, Writing 101 or 104 A-1.

***Determined by area of interest. Students can consult with dean's office advisors or intended major advisors to discuss preparation based on interests.
What’s next?

Get to know UC Davis CA&ES!
ciaes.ucdavis.edu/news/social-media

Visit our Welcome Center
visit.ucdavis.edu/tourreg
Schedule a campus tour with our friendly student guides.

Take a virtual tour
ucdavis.edu/virtual-tour

Discover more about our college
ciaes.ucdavis.edu/students/why-study-here

Follow us on social media and see what’s happening at the college and with our students.

CA&ES Dean’s Office
One Shields Ave
Davis, CA 95616-8571

530-752-0108
ciaes.ucdavis.edu

Visit us on campus at
150 Mrak Hall.