

Faculty & facility excellence.

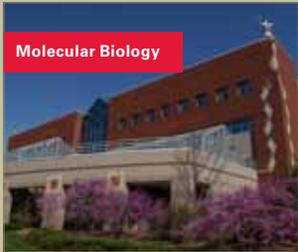
The genetics major is administered by faculty and staff from three departments at Iowa State University. Professors from the Departments of Genetics, Development and Cell Biology (GDCB), Ecology, Evolution and Organismal Biology



(EEOB), and Biochemistry, Biophysics and Molecular Biology (BBMB) teach a diverse array of courses within the Genetics undergraduate major. Our faculty members received their training at some of the most prestigious institutions throughout the country and bring their research expertise into their classrooms.

More than 70 faculty conduct genetics-related research on a wide variety of organisms including bacteria, nematodes, fruit flies, zebrafish, and plants. Research interests range from developmental genetics, genome dynamics, genetic protective mechanisms, the molecular basis for human genetic disorders, interactions between nuclear and chloroplast genomes to regeneration of vertebrate visual systems.

Molecular Biology



Scholarships.

The Genetics program offers scholarships to incoming and currently enrolled students. Details can be found at www.public.iastate.edu/~ugradgen/scholarships.

Students also are eligible to apply for College of Liberal Arts & Sciences or College of Agriculture & Life Sciences scholarships online at

www.ag.iastate.edu/scholarships
www.las.iastate.edu/current_students/scholarships

Genetics: The Secret of Life Learning Community.

Iowa State University is a national leader in providing students the opportunity to participate in one or more learning communities. The Freshman Genetics Learning Community, the Secret of Life, is course-based with students enrolling in clustered courses. The first semester cluster includes a genetics orientation class, chemistry, biology, and English. English and biology course sections are specific to students in genetics and related majors.

Learning communities allow students to make friends and study partners with other students in the same major. Students also are offered peer-mentored learning to assist them outside of class. The Secret of Life Learning Community sponsors events promoting student-student and student-faculty interactions. Sample activities include:

- Field trips to area research facilities
- Genetics book club
- Service learning
- Social activities such as movie nights

Unique as you are.

Iowa State University is one of only about 20 universities in North America to offer an undergraduate major in genetics. Students typically work with the faculty chair of the genetics major and the professional genetics adviser during their first year. Each student is then assigned a faculty adviser for the remainder of his/her studies. Advisers offer counseling on career choices, higher education decisions, and specialization areas that interest the student.

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IOWA STATE UNIVERSITY
College of Agriculture and Life Sciences
College of Liberal Arts and Sciences

Genetics



The World Awaits in Genetics at Iowa State.

Your college experience begins with finding the right major — one that sparks your interests, builds on your talents, and leads to the career you've always wanted. If you are fascinated by the myriad ways in which genetics touches your life, then Genetics at Iowa State is the right major for you.

A major that fits.

Genetics is the study of heredity at various levels from molecules to populations. As a discipline, genetics occupies a pivotal position in modern biology; its understanding is essential for any serious student of life sciences. Outside of academia, genetics touches many everyday aspects of human life. The food we eat and the clothes we wear come from organisms modified by methodical application of standard genetic principles.

The genetics major is offered in both the College of Liberal Arts and Sciences and the College of Agriculture and Life Sciences. Students will build a strong academic foundation through classes in basic life sciences, mathematics, chemistry and physics. As they continue through the program, students will take required classes in molecular genetics, biochemistry, and evolutionary genetics and may choose specialized courses such as human, plant, animal, or microbial genetics depending on their interests.



Student Opportunities.

Students are provided opportunities to network with others in the genetics field through participation in the Secret of Life Learning Community, the Genetics Book Club, and the newly formed Undergraduate Genetics Club.

Upperclassmen typically find opportunities to do research, both paid and for college credit, in faculty laboratories. During the junior or senior year, a seminar course provides more information on career possibilities and assistance with resume writing and preparation of personal statements.

Meet a peer mentor:



Genna Chadderdon
Genetics

Hometown: Bushnell, Illinois

Career goal:
Genna plans to attend graduate school in ecological and evolutionary biology. Through research and outreach, her mission is to create a passion for conservation biology among children.

Key Experiences:
Genna completed an on-campus internship in a herpetology lab, worked in a limnology research lab and helped with a graduate natural resources project.

Genna is also known for being a peer mentor for incoming genetics students. She shares her experiences and offers advice to help new students transition into the scientific community.



Career possibilities:

Students with the B.S. degree find employment in the biotechnology, health, or food industries or in research laboratories. Recent graduates have also developed careers in conservation biology, technical writing, science journalism, technical sales, business, and genetic counseling.

Completion of the B.S. in genetics fulfills the course requirements for most health-related programs such as human medicine, genetic counseling, veterinary medicine, dentistry, or physical therapy as well as graduate programs leading to M.S. or Ph.D. degrees. Students are encouraged to check programs of interest early in their careers for specific entrance requirements.



Genetics Field Trip

Students visit a macular degeneration research center.