

# GENETICS AND GENOMICS, B.S.

Genetics and genomics is a bachelor's program for students seeking to understand how genes shape life, from fundamental cellular functions to population dynamics, and for students preparing to apply genetic and genomic concepts in such areas as medicine, biotechnology, biomedical research, agriculture, journalism, and public policy.

Advances in genome sequencing, bioinformatics, and our ability to manipulate the DNA of many organisms, including humans, have brought genetics to the forefront of many issues facing our society. These advances drive the growing need for health care providers, scientists and other professionals with a strong foundation in genetic and genomic analysis. Through coursework and diverse research opportunities, genetics and genomics majors gain broad insight into inheritance, gene function, genome organization, evolution, cutting-edge genetic technologies and therapies, and more.

A B.S. degree with a major in genetics and genomics positions students for many jobs in the biotechnology industry. Genetics and genomics majors are well prepared to pursue research-focused Ph.D. programs that provide further training for careers in biomedical and agricultural research. Genetics and genomics majors are highly competitive for admission to top medical schools, where there is a growing focus on personalized medicine, and genetic counseling programs.