

INTEGRATIVE GENOMICS

— ACCELERATED MASTER OF SCIENCE (MSIG)

PROGRAM DESCRIPTION

Leap into the future with the Accelerated Master of Science in Integrative Genomics (MSIG)! Senior students can jumpstart their master's journey with just one more year for the master's degree. Dive into an interdisciplinary adventure blending genomics with biochemistry, ecophysiology, conservation biology, and molecular biology to address fundamental biological questions.

WHY ACCELERATED MSIG PROGRAM? Fast-track your Education. Earn both your bachelor's and master's degree in just five years and gain a competitive advantage for a next step.

Master both classical and next-generation genomics to probe intricate biological and environmental systems. Dive deep into essential bioinformatics and biostatistics tools pivotal to genetics, genomics, and transcriptomics.

Work with your faculty mentor to tailor your academic program and research to align with your interests and career goals.

Elevate your scientific communication skills by publishing your research and presenting at professional conferences.

Former graduates have gone on to careers as: consultants and research associates in biotech industry, research managers in personalized medicine, and wildlife biologists and botanists in state and federal agencies. Other graduates have gone on to doctoral programs, medical, and veterinary schools.

BLACK HILLS STATE UNIVERSITY

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CURRICULUM OVERVIEW

Required courses: Introductory Genomics, Genomics Techniques, Introduction of Bioinformatics, Biometry, Thesis Research in Biology

Electives to explore: Dendrology, Herpetology, Microbial Genomics, Ornithology, Health Psychology, Entomology, Mycology, Neurobiology, Immunology, Biochemistry, Natural Resources Management, and Agrostology

* Classes designated in green are available during the senior year and count toward both the undergraduate and graduate degrees.

WHO CAN APPLY: Seniors, juniors, and 2nd semester sophomores with 3.25 GPA or above.

RESEARCH AND TEACHING ASSISTANTSHIPS AVAILABLE.



FACULTY SPECIALTIES

» Transcription Profiling
» Evolutionary Genomics
» Behavior Genetic Analysis
» Plant Evolutionary Biology
» Reptile and Amphibian Biology
» Fungal Genetics
» Signal Transduction
» Cancer and Stem Cell Biology
» Microbial Ecology
» Biosensors
» Avian Biology