

# Graduate Studies in Biological Sciences Wichita State University

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## Recent Examples of Graduate Thesis Projects

- Leukemia inhibitory factor involvement in uterine decidualization in the golden hamster.
- Initial isolation and characterization of aerobic heterotrophic prokaryotes from the Great Salt Plains.
- Evaluating cardiac gene expression in maternal phenylketonuria offspring.
- Analysis of neonatal diethylstilbestrol-induced disruption of hamster testis and seminal vesicle.
- Effects of pesticides on kin recognition in the woodhouse toad (*Bufo woodhousii*) tadpoles.
- Unionid mussels of the Walnut River Basin, Kansas: a comparative biogeographical study of past and present distributions.
- West Nile Virus and natural bird populations.



The **Department of Biological Sciences** maintains large common facilities such as environmental growth chambers, refrigerated rooms, a herbarium, and vertebrate study collection. A climate-controlled greenhouse sits atop Hubbard Hall. A large animal care facility is NIH approved and available for housing and surgical procedures. The Bioinformatics Core provides state-of-the-art bioinformatics tools for those interested in biomedical research and systematics. State-of-the-art equipment includes: confocal scanning laser microscope associated with a suite of microscopy equipment, a core laboratory in protein chemistry with peptide synthesis and sequencing machines, a cell culture facility, a host of analytical equipment such as gas chromatographs and high performance liquid chromatographs, a microscopic imaging core facility, and molecular biology equipment for sequencing, electrophoresis, imaging, and mutation analysis.



*Research training for the Master's Degree in Biological Science is available in microbiology, cell, molecular, endocrine, organismal, reproductive, and environmental biology. Applications for graduate study may be made at any time. Graduate teaching assistantships are awarded to qualified students and include a tuition waiver. Application materials for graduate assistantships and fellowships, reviewed four times a year, must be received by the Department of Biological Sciences at least two weeks before awards are announced on April 15, June 15, August 15, and December 15. See our web site or contact the Graduate Coordinator for more detailed information.*

The **Biology Field Station** consists of about 330 acres of native and restored prairie and riparian woodland along a mile reach of the Ninnescah River. This unique habitat offers opportunities for studying grassland restoration, river ecology and general wildlife biology. Current studies include prairie restoration and recovery from overgrazing, the ecology of aquatic invertebrates, behavioral ecology of fitness maximization of birds in the non-breeding season, monitoring of riparian and prairie bird nesting communities, stopover ecology of long distance Neo-tropical avian migrants, incidence of West Nile virus in birds on the station, and monitoring of fish, amphibian, and reptile population dynamics.



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