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The Biology Graduate Program

Chicago State University's M.S. program in biological sciences has been designed to fill a unique niche on the landscape of graduate programs in the life sciences. Our program provides both a much-needed bridge from undergraduate to doctoral and professional programs and specialized training for students seeking employment in a biological research setting. We also offer advanced training for science educators wishing to broaden or deepen their knowledge in the life sciences.

Our program centers on a solid foundation of core courses emphasizing genomics, critical analysis of scientific literature, statistical analysis of scientific data, and hypothesis-driven thesis writing. In addition to the core courses, each student chooses an area of concentration from one of the following tracks: Applied Physiology,

Check list for M.S. in Biological Sciences (BIOA, BIOE, BIOM)

Requirements for admission to the Graduate College:

Laboratory/Field Thesis timeline

1. Student successfully completes BIOL 5090 and BIOL 5015
2. Student chooses thesis advisor
3. Student successfully completes BIOL 5100 and BIOL 5040
4. Student presents thesis proposal to thesis committee and committee approves proposal
5. Student registers for BIOL 5700
6. Faculty concerns are communicated through thesis committee
7. Thesis committee meets formally with student at least once per semester
8. Student presents “progress report” seminar between times of proposal defense and thesis defense (followed by committee critique)
9. Written thesis submitted to thesis committee
10. Committee-approved thesis submitted for department review for 14 calendar days prior to thesis defense date. The 14-day period must occur while school is in session.
11. Successful thesis presentation and oral defense
12. Revision of written thesis, if warranted, based on department faculty input
13. Uploading of department-approved thesis to ProQuest

Format for Biology MS Thesis Proposals

Every M.S. laboratory/field thesis proposal must contain the following sections in the order listed:

1. Title and Author
2. Abstract
3. Background and Significance
4. Specific Aims
5. Preliminary data (if applicable)

**DEPARTMENT OF BIOLOGICAL SCIENCES
TENURED AND TENURE-TRACK FACULTY
RESEARCH INTERESTS**

Walid Al-Ghoul, Ph.D. (walghoul@csu.edu)– Pathophysiology, Neurobiology, and Chronobiology. Investigation of the pathophysiological dynamics of major trauma/burn injury using advanced histological, cellular and molecular approaches, such as fluorescent microscopic imaging, flow cytometry, tissue culture, Western blotting, and rtPCR with emphasis on markers of inflammation, extra-pineal/peripheral circadian clock parameters, gut leakiness, gut associated immune factors, and emerging anti-inflammatory remedies.

Anser Azim, Ph.D. (aazim@csu.edu)- Our lab is interested in how different Toll like receptors and actin cytoskeleton regulate different transcription factors in macrophage gene expression. We also address molecular causes of Lou Gehrig's disease (also known as ALS). We use primary cell culture and animal models.

Christopher Botanga, Ph.D. (cbotanga@csu.edu)- Functional Genomics and Reverse Genetics; we use a variety of platforms, including molecular