Biological Sciences, MS

Biological Sciences Department (http://www.uah.edu/science/departments/biology)

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Department Chair: Debra M. Moriarity, PhD

The graduate faculty, in cooperation with the graduate faculty of Alabama A&M University, offers an M.S. in Biological Sciences with emphasis in cell biology, environmental biology, genetics and molecular biology, biotechnology, bioinformatics, microbiology, or physiology.

Admissions Requirements
In addition to fulfilling admission requirements set by the School of Graduate Studies, applicants must also have:

- Taken the general GRE exam and TOEFL when applicable
- Biology degree or related course work
- At least one advanced (upper division) class in any of the following: biochemistry, cell biology, ecology, evolution, genetics, molecular biology, or physiology course
- A minimum cumulative GPA of 3.0 as well as in the major area of concentration

Applicants demonstrating potential for graduate study in the Biological Sciences, but having some deficiencies in their previous academic work may be admitted on a conditional basis. See the Biological Sciences (http://www.uah.edu/science/departments/biology) webpage for application information.

Program Requirements
A minimum of 25 percent of Biological Sciences course requirements must be met at the cooperating institution. A minimum of 50 percent of the graduate program must be taken at the 600-level. The graduate program of study cannot include more than 6 semester hours each of BYS 691 or BYS 692. Three semester hours of graduate seminar can be counted toward fulfillment of the graduate program. Titled BYS 691 courses offered on an ad hoc basis and instructed as part of the didactic curriculum are exempt from the 6 semester hour maximum.

Students may elect one of the following three plans for the Master's degree:

Plan I – Master of Science with Thesis
Students will complete coursework (minimum of 24 semester hours) and perform original research that will be described in their thesis (minimum of 6 semester hours of BYS 699), for a total of 30 semester hours. Students will complete a comprehensive written examination, and final oral examination (seminar presentation of thesis work and master’s committee examination of thesis work).

Plan II – Master of Science without Thesis
Students will complete an approved program of study (minimum of 33 semester hours), complete a written comprehensive final examination, and write and present a master's report for the supervisory committee. The report is usually in the form of a literature review, survey, and/or experimentation about some pertinent topic.

Plan III – Master of Science with Education (Two Choices)

Traditional Program
Students with Alabama Class B certification will complete coursework without specialization in the Department of Biological Sciences (24 semester hours), and in the Department of Education (12 semester hours), complete a written comprehensive final examination, and write and present a master’s report for the supervisory committee. The report is usually in the form of a literature review, survey, and/or experimentation about some pertinent topic. Graduates will be recommended for Alabama Class A teaching certification.

Non-traditional Fifth Year Program
Students with an accredited baccalaureate degree other than teacher education, seeking initial certification (those that do not have a Class B – baccalaureate level teaching certification) will complete coursework in the Department of Education (21 semester hours, including an internship) and the Department of Biological Sciences (24 semester hours) as well as complete a written comprehensive final examination and write a master’s report. The master’s report is usually in the form of a literature review, survey, and/or experimentation about some pertinent topic.