GRADUATE EDUCATION

Master of Science in Biology with concentrations in Biology, Microbiology, Paleobiology/Paleozoology

The Biology master of science degree program is designed to provide a broad-based education in biology while developing research skills. Areas of particular interest to the faculty include anatomy, biochemistry, cell biology, conservation biology, developmental biology, ecology, genetics, immunology, microbiology, natural history, physiology, and systematics.

Students successfully completing the M.S. program are encouraged to seek doctoral degrees. The program has some financial support available in the form of Graduate Assistantships and Tuition Scholarships. Decisions on offers of support are initiated at the end of March for the following academic year. In order to receive full consideration, applicants are encouraged to submit all materials by March 1, although support is sometimes available for students who apply after that date.

Program Admission Requirements

Students applying for admission to graduate study must:
1. Submit a general GRE score.
2. Have a 3.0 overall grade point average (4.0 system) in mathematics and science courses.
3. Have an undergraduate major in biological sciences or related discipline, with courses in general chemistry and organic chemistry (microbiology concentrators will accept one semester of organic and one semester of biochemistry), and one year of physics.
4. A course in calculus and/or a course in probability and statistics is recommended.
5. Have 2-3 letters of recommendation submitted on their behalf.

Core Course Requirements

The core requirements are as follows:
1. All students must take Biology Research (5000) their first fall semester.
2. BIOL 5500 BIometry is required.
3. Two semesters of Seminar (5700) are required. (All students are expected to attend an extra semester regularly.)
4. Students will take at least two of the Topics courses (5100, 5200, 5300, 5400). Selection of the appropriate courses will be made in consultation with the student’s advisory committee and the graduate coordinator.
5. BIOL 5900 Thesis is required.

The student will choose a major professor as early as possible, at least by the end of the first semester. To facilitate this selection, during their first semester students will interview faculty members to determine their research interests and explore the potential for student participation in ongoing research programs. The major professor, in consultation with the student, recommends at least two additional members of the student’s advisory committee. Members outside the program may also be added. The advisory committee will meet with the student to set up the plan of study based on the student’s background and interests. The program must be approved by one of the program coordinators. The student’s advisory committee will meet with the student at least once per semester to assess progress, check the plan of study being followed, make suggestions and provide supervision as needed. The advisory committee’s composition is not binding, and it may be changed upon written request. The student is responsible to maintain acceptable progress toward the completion of all degree requirements.

All students pursuing an M.S. in Biology are required to complete a thesis. A minimum of 30 semester credits are required for the degree. The thesis (writing) comprises three of the 30 credits. BIOL 5900 and/or 5910 may be taken for a total of nine credits.

Before admission to candidacy, the student must meet the minimum requirements of the Graduate School and the student’s advisory committee. Before graduation the student must satisfactorily complete a written qualifying examination preferably near the end of the third semester. One reevaluation is allowed. Failure to complete this examination will result in removal from the program. The evaluation will include emphasis on interrelationships, problem solving, and analysis. Final evaluation involves an oral presentation of the thesis and an oral examination in the area of specialization.

For biology students we offer a concentration in biology and paleobiology/paleontology. For information on the biology or paleontology concentration contact: Dr. Tom Laughlin, Biological Sciences Graduate Coordinator, 309 Hall Brown, 423-436-4489, tm Laughlin, East Tennessee State University, Johnson City, TN 37614.

For health sciences students, we offer a concentration in microbiology. For information on the microbiology concentration contact: Dr. Eric M. Hunt, Health Sciences Graduate Coordinator, 309 Hall Brown, 423-436-4489, ehunt@etsu.edu or refer to: www.etsu.edu/bi/health

Based on a student’s interests in topics for a thesis, our biology graduate students may choose to work with several faculty members based on the student’s interests.

The following information depicts which professors specialize in each major field of study.

FACULTY (BIOLOGICAL SCIENCES)

Cell & Molecular Biology, including Physiology & Biochemistry:

Ahmed, Zufiir (Adjunct)
Caballo, Olga (Adjunct)
Champney, W. Scott (Adjunct)
Clem, J. (Adjunct)
Emst-Fonberg, Mary Lou (Adjunct)
Han, Zheng (Adjunct)
Johnson, David A. (Adjunct)
Jones, Thomas C. (Adjunct)
Jopiik, Karl (Adjunct)
Kavanna, Ekaterina (Adjunct)
Kumar, Divendra Kumar (Adjunct)
McIntosh, Cecilia (Dean, Graduate School)
Miller, Hugh (Adjunct)
Moore, Daniel (Adjunct)
Mueller, J. (Adjunct)
Robinson, Michael E. (Adjunct)
Stewart, James (Director of Research at the Southern Appalachia)
Szerszen, Michael (Adjunct)
Yampolsky, Lev (Adjunct)
Zou, Yue (Adjunct)

Development:

Breu, Kevin F. (Adjunct)
Jopiik, Karl (Adjunct)
Kavanna, Ekaterina (Adjunct)
McIntosh, Cecilia (Dean, Graduate School)
Pyles, Rebecca (Dean, Honors College)
Robinson, J. Leonard (Adjunct)
Stewart, James (Director of Research at the Southern Appalachia)

Ecology & Evolution, including Paleobiology & Paleontology:

Aripo, D. (Adjunct)
Donaldson, James T. (Adjunct)
Franklin, Jay (Sociology/Anthropology)
Jones, Thomas C. (Adjunct)
Karas, Irina (Adjunct)
Laughlin, Thomas (Adjunct)
Levy, Foster (Adjunct)
Liu, Yusheng (Christopher)
McDowell, Simon (Adjunct)
Moore, Daniel (Adjunct)
Nelson, Diane (Adjunct)
Schubert, Blaine W. (Adjunct)
Zavada, Michael S. (Adjunct)

Geology:

Levy, Foster (Adjunct)
Yampolsky, Lev (Adjunct)

Quantitative Biology & Modeling:

Gardner, Robert (Adjunct)
Jones, Thomas (Adjunct)
Jopiik, Karl (Adjunct)
Karas, Irina (Adjunct)
Moore, Daniel (Adjunct)
Yampolsky, Lev (Adjunct)

FACULTY (HEALTH SCIENCES)

Microbiology:

Chakraborty, Ranjan (Adjunct)
Curns, W. David (Adjunct)
Forsman, Allan (Adjunct)
Gallagher, Michael (Adjunct)
Lampson, Bent (Adjunct)
Musser, Eric (Adjunct)
Osborne, John (Adjunct)
Powers, Laraine (Adjunct)
Williams, Hurl (Adjunct)

If you have questions regarding the Department of Health Sciences, please do not hesitate to contact us.

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Department of Health Sciences
East Tennessee State University
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Johnson City, TN 37614

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If you have questions regarding the Department of Biological Sciences, please do not hesitate to contact us.

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http://etsu.edu/biology

http://etsu.edu/health