

The A.M. Program

Director and Professor
Garland Allen

Biology

Faculty research interests range from problems of structure and function at the molecular level through investigation of dynamic processes of development and regulation at the cellular and organ levels, to taxonomic, ecological, and evolutionary analyses at the organismic and populational levels. Accordingly, the variety of areas available to graduate students for concentrated study and research is very wide.

The Ph.D. Programs in Biology

The program listing on this page refers only to the A.M. program in Biology. Ph.D. programs are available through the Division of Biology and Biomedical Sciences; see the following entry for a description of offerings and admission requirements. Normally students enter Ph.D. programs directly from a four year baccalaureate program; a master's degree is not a prerequisite.

The A.M. Program in Biology

The Master of Arts in Biology program provides opportunities for professionals in fields of health and science, secondary school teachers, laboratory technicians, and other scientists to gain further academic training in emerging fields of biological science, prepare for career changes, improve their professional standing, and deepen their understanding of biological topics. Designed to be adaptable to individual students' unique backgrounds and goals, the program provides a flexible curriculum with individual advising and supervision for each student. Courses are offered nights and weekends.

Sponsored jointly by the Graduate School of Arts and Sciences, University College, and the Department of Biology of Washington University, the A.M. in Biology is normally a terminal graduate degree. Courses in the program are taught by faculty from diverse areas of the university as well as from local industry. Field courses take advantage of the Tyson Research Center with its resources for work in wildlife, environment, ecology, and education. In addition the department has close ties with the Washington University School of Medicine, the Missouri Botanical Garden, the St. Louis Zoo, and local biotechnology industries.

Students seeking the A.M. degree in Biology must satisfactorily complete 30 units of graduate work in the biological sciences in courses approved by the Program Committee. Up to six units of related graduate-level course work may be transferred from another university. No more than six units may be earned in research courses. Students may also choose to do a six-unit Masters thesis.

The program is open to qualified applicants with a baccalaureate degree from an accredited institution of higher learning who have completed undergraduate work in biology, mathematics, and chemistry. Applicants with an undergraduate degree in mathematics or engineering should also have taken at least one full-year introductory college course in biology. Applicants must submit a completed application form of the Graduate School of Arts and Sciences including a short essay describing the role of

the program in the applicant's career; a \$35 non-refundable application fee; official transcripts of all previous undergraduate and graduate work and degrees granted; Graduate Record Examination results (written, quantitative, and verbal sections); three letters of reference; and other material that either the student or the Program Committee may consider relevant. Normally applicants are expected to have a cumulative grade point average of B (3.0 on a 4.0 scale) or better in their previous course work. With approval of the program director, students may take up to two courses without being admitted to the program; further enrollment in courses is open only after formal admission.

For more information and application materials, call (314) 935-6778 or visit our website at www.ucollege.wustl.edu.

Selected Graduate Courses	
	438 Virology 3 units.
	4391 ... Modern Genetics 3 units.
4001; 4002 ... Teaching the Science of Nature: Spring; Fall 3 units.	442 The Darwinian Revolution 3 units.
405 Introduction to Molecular Biology 3 units.	448 Plant Physiology Biochemistry 3 units.
406 Introduction to Biochemistry 3 units.	455 Molecular Mechanisms in Embryonic Development 3 units.
412 Conservation Biology and Biodiversity 3 units.	472 Molecular Cell Biology 3 units.
414 Principles of Ecology 3 units.	511 Molecular Basis of Biological Warfare 3 units.
416 Human Genetics: Its Social and Ethical Implications in Historical Perspective 3 units.	530 Molecular Biology of Eukaryotic Systems 3 units.
4201 ... Topics in Biochemistry 3 units.	5393 ... Molecular Mechanisms of Disease 3 units.
4241 ... Immunology 3 units.	
430 Introduction to Cell and Tissue Culture Techniques 3 units.	
435 Introduction to Neurobiology 3 units.	
437 Laboratory on DNA Manipulation 4 units.	

In addition to courses offered by the A.M. Program, graduate courses from other divisions of the University, including the Schools of Engineering and Medicine, may be given credit for the A.M. degree with approval of the Administrative Committee.