WELCOME TO MICROBIOLOGY

Department Head, Heidi Goodrich-Blair, Ph.D.
M409 Walters Life Science Building
hgblair@utk.edu
(865) 974-3441
http://micro.utk.edu/

Departmental Mission: The Department of Microbiology at UT Knoxville is dedicated to providing the quality education, through both teaching and research, necessary to meet the needs of this growing field. Our faculty members aggressively pursue research in many areas of the science: immunology; virology; microbial ecology; microbial pathology; microbial genetics; and others. Research projects are continuously conducted through collaboration with and support from various prominent sources, such as the National Institutes of Health (NIH), the United States Department of Energy (DOE), Environmental Protection Agency (EPA), and National Science Foundation (NSF). Undergraduate students gain valuable experience in the lab by working under a professor; faculty also work extensively with post-graduate level students, often publishing numerous articles on their collaborative experimentation and study. Focus may be on such notable areas as virus research, the impact of microbes on marine and freshwater food webs, or how microbes cause disease.

What Microbiologists Do: Microbiologists work in almost every industry—from food, agriculture and pollution control to biotechnology, pharmaceuticals and health. They also work in government agencies and labs, such as the National Institutes of Health, the Environmental Protection Agency, water treatment facilities, and hospitals. And they work in education as teachers and researchers.

4-Year Sample Curriculum

Freshman Year		Junior Year	
English Composition	6	Microbiology 321-329	5
Math 141-142 or Math 151-152	6-8	Microbiology (major)	3
Biology 150-159-160	8	BCMB 401	4
Chemistry 120-130	8	Humanities	3
General Electives	3-5	Written & Oral Communication	6
		Upper Level Distribution	3
		Social Sciences	3
Sophomore Year		**Senior Year**	
Biology 220-229-240	8	Microbiology (major)	12
Chemistry 350-360-369	8	Social Sciences	3
Physics 221- 222	8	Humanities	3
Foreign Language (intermed)	6	Upper Level Distribution	3
General Electives	2	Non-US History Sequence	6
General Electives	3-5		

Microbiology majors are encouraged to take advantage of the many opportunities to conduct original research under the guidance of microbiology faculty by enrolling in courses such as MICR 400 (laboratory problems in microbiology), 401 (undergraduate research in microbiology) and 402 (microbiology Seniors Honor Thesis). For more information about the Microbiology department and concentration see: http://web.bio.utk/micro/

Students are eligible to declare their biology major upon completion of BIOL 150, CHEM 120-130 with a minimum grade of C and overall GPA of 2.0. Contact Dr. James Caponetti (jcaponet@utk.edu).

On-Line Career Search Sites:

Careers in Microbiology
http://www.microbeworld.org/careers

Careers in Biotechnology and Pharmaceutical
http://www.sciencemag.org/careers

Careers in Science and Engineering
www.nap.edu/

Guide to Non-traditional careers in Science
www.aibs.org/

Current Areas of Research Interest

Bacterial/Fungal Physiology
Bioinformatics
Microbial Pathogenesis
Immune Regulation
Molecular Immunology
Molecular Virology
Microbial Ecology
Parasitology
Prokaryotic/Eukaryotic Molecular Genetics

Research Faculty

Jeff Becker – Fungal physiology/pathogenicity
Alison Buchan – Microbial ecology
Elizabeth Fozo – Pathogenesis
Vitaly Ganusov – Computational immunology
Heidi Goodrich-Blair- Molecular Parasitology
Terry Hazen- Microbial ecology
Jeremiah Johnson- Bacterial pathogenesis
Igor Jouline – Bioinformatics
Colleen Jonsson – Molecular virology
Sarah Lebeis – Immunology and microbial ecology
Karen Lloyd – Microbial ecology
Frank Loeffler – Microbial ecology
Jill Mikucki – Microbial ecology
Todd Reynolds – Fungal physiology/pathogenicity
Tim Sparer – Molecular virology
Chunlei Su – Parasitology
Steven Wilhelm – Microbial ecology
Erik Zinser – Microbial ecology