ADVISING

For help in selecting courses, and for information about policies and procedures, contact Professional Academic Advisor William Sovich in the CNAS Undergraduate Academic Advising Center, 1223 Pierce Hall, (951) 827-1768. Current course requirements are available online in the UCR General Catalog at http://catalog.ucr.edu.

For information about careers and graduate programs, contact the Department of Plant Pathology and Microbiology (plantpathmicro@ucr.edu) or one of these faculty members:

Dr. Katherine Borkovich (katherine.borkovich@ucr.edu)
Dr. James Borneman (james.borneman@ucr.edu)
Dr. Marylynn Yates (marylynn.yates@ucr.edu)
THE FIELD

Microbiology is the study of microscopic organisms including bacteria, viruses, and fungi. Microorganisms play key roles in ecosystems and human civilization. They can both cause and prevent a wide array of diseases in humans, animals, and plants. Microbes contribute to many environmental processes, from soil formation to detoxifying polluted environments. In industry, they are key components in the manufacturing of foods such as bread and cheese, and they contain a wealth of useful compounds and enzymes for biotechnology and medicine.

THE MAJOR

The Microbiology major is administered by the Department of Plant Pathology and Microbiology. Both B.S. and B.A. degrees are offered. The B.A. provides students with increased ease in meeting requirements for such areas as premedical, predental, or prepharmaceutical sciences; education; and administration.

CAREER OPTIONS

Students earning a bachelor’s degree in Microbiology will be prepared for a number of career options. They may continue studies in the field at the graduate level, or enter professional schools in medicine, pharmacy, optometry, dentistry, nursing, medical laboratory science, and veterinary medicine, among other health professions. They will also be prepared for technical careers in medicine, agriculture, biotechnology, pharmacology, forensics, patent law, and environmental fields. Finally, they will be equipped to pursue a teaching certificate in science.

RESEARCH OPPORTUNITIES

One of the highlights of the program in microbiology at the undergraduate level is the capstone course, MCBL 125, Experimental Microbiology. This class guides students through the process of performing independent experimental research in a microbiology laboratory. Students will acquire skills in formulating hypotheses, designing experiments, analyzing data, and preparing and presenting the results of these efforts in both written and oral form. Although this class focuses on microbiological topics, the skills students will obtain are foundational to success in many careers. Students can build upon their course experience and perform additional research projects in faculty members’ laboratories.

For information on preparation for specific career paths, consult the UCR Career Center, the Health Professions Advising Center, the Science and Math Initiative Program, or one of the department’s faculty members.