Microbiology is the study of microscopic organisms, including bacteria, viruses, fungi, algae and protozoa. Students in the Department of Microbiology learn about the basic life processes of these organisms, their genetics, biochemical pathways, structural features and reproduction. Applied areas such as industrial, food, sanitary and pathogenic microbiology are also part of the curriculum. The Department of Microbiology prepares students to better understand and solve problems in agriculture, environmental quality, medicine and genetic engineering.

Career Opportunities
Graduates find employment in many sectors of the economy.

- Biotechnology
- Sales or management positions
- Quality assurance for pharmaceutical or food companies
- Medical research involving cancer, inherited diseases, infectious diseases, and immunology
- Solving problems in agriculture and improving the quality of the environment.

Many graduates pursue further education at graduate schools, medical schools or other professional schools.

Research
Most undergraduates in microbiology gain valuable research and work experience before they graduate. Students may intern in government and industrial laboratories or work in University departmental research labs.

Students in the college honors program participate in a two semester research project that culminates in a presentation at the University Undergraduate Research Symposium.

Course Work/Curriculum
Students work closely with faculty advisers to choose courses in line with their interests and career goals. The BS degree (128 hours to graduate) includes:

- Microbiology (21 hours)
  - General Microbiology
  - Medical Microbiology
  - Microbial Diversity
  - Metabolic Regulation and Senior Seminar.
  - Plus two additional courses in basic or applied areas of microbiology, including special research projects, internships or College honors research.

- Biology (12 hours)
  - Introductory Biology
  - Cell Biology
  - Genetics

- Chemistry and Biochemistry (21 hours)
  - General Chemistry
  - Organic Chemistry
  - Biochemistry

- Physics (8 hours)
  - General Physics

- Mathematics (10-11 hours)
  - Calculus, Statistics

- Additional courses are required in humanities and social sciences.

A first year seminar is available for students who begin their college studies as a microbiology major.

Graduate Study
The Department offers the Master of Science, Master of Microbiology, Master of Microbial Biotechnology and the Doctor of Philosophy degrees. Active research programs exist. See the web site for details.

Co-Curricular Activities
The Microbiology Club is active in educational programs on campus and also provides a place for social interaction among students.

Career Services
In addition to faculty advisers, CALS Career Services is available to provide information about career and employment opportunities. The office assists students and alumni with a variety of career needs such as choosing a major, resume tips, and job search strategies.

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