**Concentration in**
**MICROBIOLOGY**

**GENERAL BIOLOGY COURSE REQUIREMENTS FOR THE BIOLOGY BS DEGREE**

1. BIOL 2000 Molecules and Cells
2. BIOL 2010 Ecology and Evolution
3. BIOL 2040 Investigations in Molecular Cell Biology
4. Category A: Genetics and Genomics. Choose one course from the following
   - BIOL 3050 Genetics
   - BIOL 3060 Introduction to Genetics
   - BIOL 3150 Introduction to Genomics
5. Category B: Physiology and Organismal Biology. Choose one course from the following
   - BIOL 3030 Comparative Vertebrate Physiology
   - BIOL 3210 Plant Biology
   - BIOL 4110 Ornithology
   - BIOL 4330 Human Physiology
   - BIOL 4450 Behavioral Ecology
6. One Advanced Experience course (see current listing on the Biology Checklist)

**ADDITIONAL COURSE REQUIREMENTS TO COMPLETE A CONCENTRATION IN MICROBIOLOGY**

1. BIOL 3090 Foundations of Microbiology or BIOL 4140 Microbiology
2. Choose FOUR courses from the following list:
   - BIOL 3090 Foundations of Microbiology
   - BIOL 4060 Research in Microbial Ecology
   - BIOL 4090 Virology
   - BIOL 4140 Microbiology
   - BIOL 4350 Biological Chemistry or
   - CHEM 4461 Biochemistry I
   - BIOL 4440 Vaccination and Immunity
   - BIOL 4570 Principles of Immunology
   - BIOL 4810 Research in Molecular Microbiology
   - BIOL 4830 Research in Molecular Biology Lab
   - BIOL 4870 Research in Molecular Genetics
   - BIOL 5060 Recombinant DNA Technology
   - BIOL 5071 Microbial Community Ecology
   - BIOL 5100 Microbiome and Human Disease
   - BIOL 5150 Vaccine Development & Public Health
   - BIOL 5230 Immunity and Infectious Disease
   - BIOL 5460 Topics in Microbial Pathogenesis

See the following faculty for advice about course selection and/or post-graduate research in this concentration:
Emrah Altindis
Ismael Ben Fofana
Marc-Jan Gubbels
Charlie Hoffman
Welkin Johnson
Michelle Meyer
Babak Momeni
Heather Olins
Kenneth Williams