BIOTECHNOLOGY MINOR

Required Courses
BIO/CHEM 202  Orientation to Biotechnology  2
Select from the following:  4-5
  BIO 161  Introduction to Cell and Molecular Biology
  BOT 121  General Botany
  MCRO 221  Microbiology
  MCRO 224  General Microbiology I
Select from the following:  3-5
  BIO 303  Survey of Genetics
  BIO 351  Principles of Genetics
  CHEM 373  Molecular Biology
Select from the following:  5
  CHEM 313  Survey of Biochemistry and Biotechnology
  CHEM 371  Biochemical Principles
Laboratory elective- select from the following:  3-5
  ASCI 403  Applied Biotechnology in Animal Science
  BIO/CHEM 475  Molecular Biology Laboratory
  CHEM 474  Protein Techniques Laboratory

Approved Electives
Select from the following:  6-11

  Animal Biotechnology
  ASCI 403  Applied Biotechnology in Animal Science
  ASCI 406  Applied Animal Embryology and Assisted Reproduction
  ASCI 440  Immunology and Diseases of Animals
  ASCI 503  Advanced Molecular Techniques in Animal Science
  DSCI 330  Artificial Insemination and Embryo Biotechnology

  Bioinformatics
  BIO/CHEM 441  Bioinformatics Applications
  CSC 448  Bioinformatics Algorithms

  Cell and Molecular Biology/Microbial Biotechnology
  BIO 426  Immunology
  BIO 452  Cell Biology
  BIO/CHEM 475  Molecular Biology Laboratory
  BIO 476  Gene Expression Laboratory
  CHEM 474  Protein Techniques Laboratory
  CHEM 528  Nutritional Biochemistry
  MCRO 225  General Microbiology II
  MCRO 320  Emerging Infectious Diseases
  MCRO 402  General Virology
  MCRO 433  Microbial Biotechnology

  Engineering-related Biotechnology
  BRAE 448  Bioconversion
  ENGR 581  Biochemical Engineering

  ENVE 443  Bioremediation Engineering

Ethics
  PHIL 339  Biomedical Ethics
  or PHIL 341  Professional Ethics
  or SCM 451  Ethics in the Sciences

  Pharmaceutical Biotechnology
  CHEM 377  Chemistry of Drugs and Poisons
  CHEM 477  Biochemical Pharmacology

  Plant Biotechnology
  BOT 323  Plant Pathology

Total units  28