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