

## ***MINOR PROGRAM IN MOLECULAR BIOLOGY***

### **Required Courses**

BC 401	Comprehensive Biochemistry I [3]
BC 403	Comprehensive Biochemistry II [3]
BC 404	Comprehensive Biochemistry Lab [2]
BC 463	Molecular Genetics [3] or MIP 450 Microbial Genetics [3]
BC 493	Senior Seminar [1]
CHEM 111	General Chemistry I [4]
CHEM 112	General Chemistry I Lab [1]
CHEM 113	General Chemistry II Lab [3]
CHEM 114	General Chemistry II Lab [1]
CHEM 341	Organic Chemistry I [3]
CHEM 343	Organic Chemistry II [3]
CHEM 344	Organic Chemistry Lab [2]
LIFE 102	Attributes of Living Systems [4]
LIFE 201B/203	Intro Genetics/Lab/Rec [5]; LIFE 210, 212 Eukaryotic Cell Biology/Lab/Rec [5] or BZ 310 Cell Biology [4] and either SOCR 330/331 Principles of Genetics/Lab [4] or BZ 350 Molecular & General Genetics [4]
MATH 155	Calculus for Biological Scientists I [4] or MATH 160 Calculus for Physical Scientists [4]
MIP 300	General Microbiology [3]
MIP 342	Immunology [4]
PH 121/122	General Physics I/II [10] or PH 141/142 Physics for Scientists & Engineers I/II [10]
STAT 301	Introduction to Statistical Methods [3] or STAT 307 Introduction to Biostatistics [3]

### **Course Electives (Minimum of one Course)**

BC 465	Molecular Regulation of Cell Function [3]
BC346	Population & Evolutionary Genetics [3]
BC 402	Molecular Cytogenetics [4]
BZ 403	Comparative Endocrinology [3]
BZ 433	Behavioral Genetics [3]
MIP 420	Medical and Molecular Virology [4]
MIP 443	Microbial Physiology [4]

### **Lab Electives (Minimum of 4 Credits)**

BC 475	Mentored Research [3]
BC 495	Independent Study [variable credit]
BC 499A	Thesis, Lab Research-Based [3]
BC 499B-D	Thesis, Literature-Based [3]
BZ 495	Independent Study [variable credit]
MIP 302	General Microbiology Lab [2]
MIP 343	Immunology Lab [2]
MIP 425	Virology and Cell Culture Lab [2]
MIP 495	Independent Study [variable credit]