

**CURRICULUM IN BIOLOGICAL SCIENCES
MICROBIOLOGY / MOLECULAR BIOLOGY CONCENTRATION**

YEAR: 2022 / 2023

YEAR ENTERED SLU: _____

NAME: _____

W# _____

MAJOR HOURS (41) C or Better²

Core Requirements (21 hrs)

GBIO 151 _____ 3 _____
 BIOL 152 _____ 1 _____
 GBIO 153 _____ 3 _____
 BIOL 154 _____ 1 _____
 MIC 205 _____ 3 _____
 MICL 207 _____ 1 _____
²GBIO 200 _____ 3 _____
²GBIO 312 _____ 3 _____
 GBIO 241 _____ 1 _____
 GBIO 341 _____ 1 _____
 GBIO 441** _____ 1 _____

MATHEMATICS (9)

^{1,2}MATH 161 _____ 3 _____
 MATH 162 _____ 3 _____
 MATH 163 _____ 3 _____

or ¹MATH 175 and 200 (10)

MATH 175 _____ 5 _____
 MATH 200 _____ 5 _____

SOCIAL SCIENCES (6)

(Anth, Econ, Geog, Psyc, Poli, Soc, CJ)

_____ 3 _____
 _____ 3 _____

Upper-level Courses (20 hrs) page 2

ENGLISH (12)

ENGL 101
 or 121H _____ 3 _____
 ENGL 102
 or 122H _____ 3 _____
 ENGL 230 or 231 or 232
 _____ 3 _____
 ENGL 322 _____ 3 _____

PHYSICS (8)

PHYS 191 _____ 3 _____
 PLAB 193 _____ 1 _____
 PHYS 192 _____ 3 _____
 PLAB 194 _____ 1 _____

CHEMISTRY (20)

²CHEM 121 _____ 3 _____
 CLAB 123 _____ 1 _____
 CHEM 122 _____ 3 _____
 CLAB 124 _____ 1 _____
 CHEM 265 _____ 3 _____
 CLAB 267 _____ 1 _____
 CHEM 266 _____ 3 _____
 CLAB 268 _____ 1 _____
 CHEM 481 _____ 3 _____
 CLAB 485 _____ 1 _____

FOR. LANGUAGES (6)

_____ 101 _____ 3 _____
 _____ 102 _____ 3 _____

ELECTIVES (6)

OTHER (12)

ART ELECTIVE (Mus, Art, Dnc, Thea)

_____ _____ 3 _____
 LS 102 _____ 1 _____
 COMM211 _____ 3 _____
 HIST _____ 3 _____
 SE 101 _____ 2 _____

SE 101 is not required for transfer or readmitted students with 30 hrs or more. These students are required to take two additional hrs of electives (i.e., 8 hrs instead of 6 hrs)

TOTAL HOURS 120

NOTES: ¹Students with Math ACT <21 take MATH 151 in place of MATH 161. Students who are eligible may take MATH 175 and 200 (10 credit hours) in place of MATH 161, 162, and 163 (9 credit hours). Students who take MATH 175 and 200 are required to take one less hour of electives (i.e., 5 hrs instead of 6 hrs).

²Grade of "C" or better in CHEM 121, MATH 151 or 161, and all Biology courses is required. Also, CHEM 121 and MATH 151 or 161 are prerequisites for GBIO 200, and GBIO 200 is a prerequisite for GBIO 312.

**GBIO 441 fulfills requirement for computer literacy

ADDITIONAL COURSES:

AVERAGES

HA HE QP Average

CUM: _____
 (Adj) _____
 MAJOR _____
 (Adj) _____
 SLU: _____
 (Adj) _____

MICROBIOLOGY / MOLECULAR BIOLOGY CONCENTRATION

I. Core Courses (page 1): 21 CREDIT HOURS (Grade of "C" or better required in all courses)

II. Upper-level courses for the Microbiology and Molecular Biology Concentration.

20 CREDIT HOURS from the following courses with approval of advisor (Grade of "C" or better required in all courses)

GROUP A: Fundamental courses – total 8 hrs – the following two courses are required

MIC 325 Advanced General Microbiology 4 hrs

MIC 461 Bacterial Metabolism 4 hrs

GROUP B: Electives – minimum 12 hrs

MIC 313 Microbial Ecology 3 hrs

MIC 338 Soil Microbiology 4 hrs

MIC 423 Environmental Microbiology 4 hrs

MIC 436 Pathogenic Bacteria 4 hrs

MIC 457 Dairy and Food Microbiology 4 hrs

MIC 460 Immunology 4 hrs

MIC 463 Virology 4 hrs

MIC 465 Recombinant DNA Techniques 4 hrs

CHEM 482 Biochemistry II 3 hrs

CLAB 486 Biochemistry II Laboratory 1 hr

BOT 401 Plant Pathology 4 hrs

BOT 426 Plant Physiology 4 hrs

BOT 458 General Mycology 3 hrs

GBIO 314 Genetics Laboratory 2 hrs

GBIO 377 Applied Biostatistics 4hrs

GBIO 408 Computational Biology 4 hrs

GBIO 434 Molecular Biology and Biotechnology 4 hrs

GBIO 495 Electron Microscopy 4 hrs

ZOO 392 Animal Physiology 4 hrs

ZOO 455 Medical Parasitology 4hrs

ZOO 465 Animal Development 4 hrs

ZOO 471 Comparative Endocrinology 4hrs

ZOO 499 Neurobiology 4 hrs

(NOTE: * these electives require PRIOR approval of student's advisor and Department Head.)

*GBIO 409 Internship – Variable credits, 1 to 3 hours (Max 3 hours total)

*GBIO 450 Research Problems – Variable credits, 1 to 4 hours (Max 4 hours total)

*GBIO 493 Special Topics in Biology – Variable credits, 2 to 4 hours