

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

YEAR: 2021 / 2022

YEAR ENTERED SLU: \_\_\_\_\_

NAME: \_\_\_\_\_

W# \_\_\_\_\_

**MAJOR HOURS (41) C or Better<sup>2</sup>**

**Core Requirements (21 hrs)**

GBIO 151 \_\_\_\_\_ 3 \_\_\_\_\_  
 BIOL 152 \_\_\_\_\_ 1 \_\_\_\_\_  
 GBIO 153 \_\_\_\_\_ 3 \_\_\_\_\_  
 BIOL 154 \_\_\_\_\_ 1 \_\_\_\_\_  
 MIC 205 \_\_\_\_\_ 3 \_\_\_\_\_  
 MICL 207 \_\_\_\_\_ 1 \_\_\_\_\_  
<sup>2</sup>GBIO 200 \_\_\_\_\_ 3 \_\_\_\_\_  
<sup>2</sup>GBIO 312 \_\_\_\_\_ 3 \_\_\_\_\_  
 GBIO 241 \_\_\_\_\_ 1 \_\_\_\_\_  
 GBIO 341 \_\_\_\_\_ 1 \_\_\_\_\_  
 GBIO 441\*\* \_\_\_\_\_ 1 \_\_\_\_\_

**Upper-level Courses (20 hrs) page 2**

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**MATHEMATICS (9)**

<sup>1,2</sup>MATH 161 \_\_\_\_\_ 3 \_\_\_\_\_  
 MATH 162 \_\_\_\_\_ 3 \_\_\_\_\_  
 MATH 163 \_\_\_\_\_ 3 \_\_\_\_\_

or <sup>1</sup>MATH 175 and 200 (10)

MATH 175 \_\_\_\_\_ 5 \_\_\_\_\_  
 MATH 200 \_\_\_\_\_ 5 \_\_\_\_\_

**ENGLISH (12)**

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

**SOCIAL SCIENCES (6)**

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

\_\_\_\_\_ 3 \_\_\_\_\_  
 \_\_\_\_\_ 3 \_\_\_\_\_

**PHYSICS (8)**

PHYS 191 \_\_\_\_\_ 3 \_\_\_\_\_  
 PLAB 193 \_\_\_\_\_ 1 \_\_\_\_\_  
 PHYS 192 \_\_\_\_\_ 3 \_\_\_\_\_  
 PLAB 194 \_\_\_\_\_ 1 \_\_\_\_\_

**CHEMISTRY (20)**

<sup>2</sup>CHEM 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:** <sup>1</sup>Students 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).

<sup>2</sup>Grade 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 4hrs

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