### CURRICULUM IN BIOLOGICAL SCIENCES

#### ECOWLOGY, ENVIRONMENTAL, and EVOLUTIONARY BIOLOGY CONCENTRATION

**YEAR:** 2018 / 2019

**NAME:**

**YEAR ENTERED SLU:**

**W#**

### MAJOR HOURS (41) C or Better

**Core Requirements (21 hrs)**

- **GBIO 151**
- **BIOL 152**
- **GBIO 153**
- **BIOL 154**
- **MIC 205**
- **MICL 207**
- **GBIO 200**
- **MIC 312**
- **MIC 241**
- **GBIO 441**

**Mathematics (9)**

- **1\(^{st}\) MATH 161**
- **MATH 162**
- **MATH 163**
- **MATH 165**
- **MATH 200**

**Social Sciences (6)**

- **Anth, Econ, Geog, Psyc, Poli, Soc**

**Physics (8)**

- **PHYS 191**
- **PLAB 193**
- **PHYS 192**
- **PLAB 194**

**English (12)**

- **ENGL 101**
- **ENGL 102**
- **ENGL 230 or 231 or 232**
- **ENGL 322**

**Chemistry (16)**

- **CHEM 121**
- **CLAB 123**
- **CHEM 122**
- **CLAB 124**
- **CHEM 261**
- **CLAB 263**
- **CHEM 281**
- **CLAB 283**

**Other (12)**

- **ART ELECTIVE: (Mus, Art, Dnc, Thea)**
- **Music**, **Art**, **Dance**, **Theatre**
- **LS 102**
- **COMM 211**
- **HIST**
- **SE 101**

**FUNCTIONAL LANGUAGES (6)**

- **Music**, **Art**, **Dance**, **Theatre**
- **CLAB 101**
- **CLAB 102**

**Electives (10)**

**TOTAL HOURS 120**

**NOTES:**

1 Students with Math ACT <21 take MATH 151 in place of MATH 161. Students who are eligible may take MATH 165 and 200 (8 credit hours) in place of MATH 161, 162, and 163 (9 credit hours). Students who take MATH 165 and 200 are required to take one additional hour of electives (i.e., 11 hrs instead of 10 hrs).

2 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.

3 Students planning on attending medical, dental, or other professional or graduate schools, and students pursuing a minor in Chemistry, should take CHEM 265/267 and CHEM 266/268. Also, CHEM 265/267 can NOT be used as prerequisites for CHEM 281/283.

****GBIO 441 fulfills requirement for computer literacy.

### ADDITIONAL COURSES:  

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### AVERAGES

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**SLU:**

**MAJOR:**

**AVERAGES:**

**HA (Adj)**

**HE**

**QP**

**Average**
ECOLOGY, ENVIRONMENTAL, and EVOLUTIONARY 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 Ecology, Environmental, Evolutionary 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 13 hrs – the following four courses are required
- GBIO 377 Biostatistics 4 hrs
- GBIO 395 General Ecology 3 hrs
- GBIO 397 General Ecology Laboratory 2 hrs
- GBIO 405 Evolutionary Biology 4 hrs

**Group B: Electives** – minimum 7 hrs from these electives. Only one 200 level course may be selected.
- BOT 205 Introduction to Botany 4 hrs
- BOT 347 Vascular Plant Systematics 4 hrs
- BOT 426 Plant Physiology 4 hrs
- BOT 427 Plant Stress Ecophysiology 4 hrs
- BOT 429 Native Plants of Louisiana 4 hrs
- BOT 481 Plant Ecology 4 hrs
- BOT 482 Plant Anatomy 4 hrs
- GBIO 281 Environmental Awareness 3 hrs
- GBIO 404 Ecological Methods 3 hrs
- GBIO 406 Wetlands Ecology 4 hrs
- GBIO 408 Computational Biology 4 hrs
- GBIO 410 Introduction to Population Genetics 4 hrs
- GBIO 418 Community Ecology 4 hrs
- GBIO 434 Molecular Biology and Biotechnology 4 hrs
- GBIO 439 Freshwater & Estuary Biology 4 hrs
- GBIO 442 Marine Biology 4 hrs
- GBIO 481 Biogeography 3 hrs
- GBIO 485 Conservation Biology 4 hrs
- ZOO 301 Invertebrate Zoology 4 hrs
- ZOO 302 Comparative Anatomy of the Vertebrates 4 hrs
- ZOO 392 Animal Physiology 4 hrs
- ZOO 352 Field Zoology 4 hrs
- ZOO 409 General Entomology 4 hrs
- ZOO 456 Ichthyology 4 hrs
- ZOO 458 Fisheries Ecology & Mgmt 4 hrs
- ZOO 457 Invertebrate Ecology 4 hrs
- ZOO 470 Ornithology 4 hrs
- ZOO 465 Animal Development 4 hrs
- ZOO 475 Animal Behavior 4 hrs
- MIC 313 Microbial Ecology 3 hrs
- MIC 438 Soil Microbiology 4 hrs
- MIC 423 Environmental Microbiology 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

Maximum four credit hours from these courses may be applied to concentration elective requirements.

- CMPS 450 Spatial Database & Applications 3 hrs
- GEOG 495 Introduction to GIS 3 hrs
- POLI 446 Politics & the Environment 3 hrs
- SOC 360 Environmental Sociology 3 hrs