

**CURRICULUM IN BIOLOGICAL SCIENCES  
INTEGRATIVE BIOLOGY CONCENTRATION**

YEAR: 2013 / 2014

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

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

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

**MAJOR HOURS (41) C or Better<sup>3</sup>**

**Core Requirements (21 hrs)**

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

**<sup>1</sup>MATHEMATICS (9)**

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

or <sup>1</sup>MATH 165 and 200 (8 hrs)

MATH 165 \_\_\_\_\_ 3 \_\_\_\_\_  
 MATH 200 \_\_\_\_\_ 5 \_\_\_\_\_

**<sup>2</sup>SOCIAL SCIENCES (6)**

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

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

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

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**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 (16)**

<sup>3</sup>CHEM 121 \_\_\_\_\_ 3 \_\_\_\_\_  
 CLAB 123 \_\_\_\_\_ 1 \_\_\_\_\_  
 CHEM 122 \_\_\_\_\_ 3 \_\_\_\_\_  
 CLAB 124 \_\_\_\_\_ 1 \_\_\_\_\_  
 CHEM 265 or 261 \_\_\_\_\_ 3 \_\_\_\_\_  
 CLAB 267 or 263 \_\_\_\_\_ 1 \_\_\_\_\_  
 CHEM 266 or 281 \_\_\_\_\_ 3 \_\_\_\_\_  
 CLAB 268 or 283 \_\_\_\_\_ 1 \_\_\_\_\_

**FOR. LANGUAGES (12)**

\_\_\_\_\_ 101 \_\_\_\_\_ 3 \_\_\_\_\_  
 \_\_\_\_\_ 102 \_\_\_\_\_ 3 \_\_\_\_\_  
 \_\_\_\_\_ 201 \_\_\_\_\_ 3 \_\_\_\_\_  
 \_\_\_\_\_ 202 \_\_\_\_\_ 3 \_\_\_\_\_

**ELECTIVES (4)**

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

**OTHER (12)**

ART ELECTIVE (Mus, Art, Dnc, Thea)

\_\_\_\_\_ 3 \_\_\_\_\_  
 LS 102 \_\_\_\_\_ 1 \_\_\_\_\_  
 COMM211 \_\_\_\_\_ 3 \_\_\_\_\_  
 HIST \_\_\_\_\_ 3 \_\_\_\_\_  
 SE 101 \_\_\_\_\_ 2 \_\_\_\_\_

SE 101 is not required of transfer or readmitted students with 30 hours or more. These students are required to take two additional hours of electives (i.e., 6 hrs instead of 4 hrs)

TOTAL HOURS 120

**NOTES:** <sup>1</sup>Students with Math ACT <21 take MATH 155 (5 hrs) in place of MATH 161 (3 hrs); only 3 hrs from MATH 155 count towards the 120 hr degree requirement. MATH 165 and 200 (8 credit hours) may be taken 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., 5 hrs instead of 4 hrs).

<sup>2</sup>One social science course (3 hrs) must be at the 200 level or above.

<sup>3</sup>Grade of "C" or better in CHEM 121, MATH 155/161, and all Biology courses is required. Also, CHEM 121 and MATH 155/161 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)	_____	_____	_____	_____

## INTEGRATIVE 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 Integrative Biology Concentration.**

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

**GROUP A** – minimum one required – Ecology or Evolution

Ecology – GBIO 395 General Ecology 3 hrs and GBIO 397 General Ecology Laboratory 2 hrs

Evolution – GBIO 405 Evolutionary Biology 4 hrs

**GROUP B** – Electives

BOT 205 Introduction to Botany 4 hrs

BOT 347 Vascular Plant Systematics 4 hrs

BOT 401 Plant Pathology 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 314 Genetics Laboratory 2 hrs

GBIO 377 Applied Biostatistics 4 hrs

GBIO 395 General Ecology 3 hrs

GBIO 397 General Ecology Laboratory 2 hrs

GBIO 404 Ecological Methods 3 hrs

GBIO 405 Evolutionary Biology 4 hrs

GBIO 406 Wetland Ecology 4 hrs

GBIO 407 Forensic Biology 4 hrs

GBIO 418 Community Ecology 4 hrs

GBIO 439 Introduction to Fresh Water & Estuarine Biology 4 hrs

GBIO 481 Biogeography 3 hrs

GBIO 485 Conservation Biology 4 hrs

GBIO 492 History of Biology 3 hrs

GBIO 495 Biological Electron Microscopy 4 hrs

HORT 301 Introductory Soils 4 hrs

HORT 315 Plant Materials I 3 hrs

HORT 320 Plant Materials II 4 hrs

HORT 328 Plant Propagation 3 hrs

HORT 412 Turf Management 3 hrs

HORT 424 Arboriculture 3 hrs

HORT 426 Coastal Plant Production 3 hrs

HORT 428 Organic Gardening 3 hrs

MIC 313 Microbial Ecology 3 hrs

MIC 325 Advanced General Microbiology 4 hrs

MIC 423 Environmental Microbiology 4 hrs

MIC 436 Pathogenic Bacteria 4 hrs

MIC 457 Dairy & Food Microbiology 4 hrs

MIC 460 Immunology 4 hrs

MIC 461 Bacterial Metabolism 4 hrs

MIC 463 Virology 4 hrs

MIC 465 Recombinant DNA Techniques 4 hrs

ZOO 301 Invertebrate Zoology 4 hrs

ZOO 302 Comparative Anatomy 4 hrs

ZOO 332 Animal Histology 4 hrs

ZOO 352 Field Zoology 4 hrs

ZOO 392 Animal Physiology 4 hrs

ZOO 409 General Entomology 4 hrs

ZOO 453 Ecological Parasitology 4 hrs

ZOO 455 Medical Parasitology 4 hrs

ZOO 456 Ichthyology 4 hrs

ZOO 457 Invertebrate Ecology 4 hrs

ZOO 458 Fisheries Ecology and Management 4 hrs

ZOO 465 Animal Development 4 hrs

ZOO 471 Comparative Endocrinology 4 hrs

ZOO 475 Animal Behavior 4 hrs

ZOO 488 Cytology 3 hrs

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

Maximum of four credit hours of Biochemistry may be used for concentration elective requirements. NOTE: If CHEM 281 and CLAB 283 are taken to fulfill Chemistry requirements, they may not be used for elective requirements.

CHEM 281 Survey of Biochemistry 3 hrs

CLAB 283 Survey of Biochemistry Laboratory 1 hr

CHEM 481 Biochemistry I 3 hrs

CLAB 485 Biochemistry I Laboratory 1 hr

CHEM 482 Biochemistry II 3 hrs

CLAB 486 Biochemistry II Laboratory 1 hr

**CURRICULUM IN BIOLOGICAL SCIENCES  
 ECOLOGY, ENVIRONMENTAL, and EVOLUTIONARY BIOLOGY CONCENTRATION**

YEAR: 2013 / 2014

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

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

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

**MAJOR HOURS (41) C or Better<sup>3</sup>**

**Core Requirements (21 hrs)**

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

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

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**CHEMISTRY (16)**

<sup>3</sup>CHEM 121 \_\_\_\_\_ 3 \_\_\_\_\_  
 CLAB 123 \_\_\_\_\_ 1 \_\_\_\_\_  
 CHEM 122 \_\_\_\_\_ 3 \_\_\_\_\_  
 CLAB 124 \_\_\_\_\_ 1 \_\_\_\_\_  
 CHEM 265 or 261 \_\_\_\_\_ 3 \_\_\_\_\_  
 CLAB 267 or 263 \_\_\_\_\_ 1 \_\_\_\_\_  
 CHEM 266 or 281 \_\_\_\_\_ 3 \_\_\_\_\_  
 CLAB 268 or 283 \_\_\_\_\_ 1 \_\_\_\_\_

**<sup>1</sup>MATHEMATICS (9)**

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

or <sup>1</sup>MATH 165 and 200 (8)

MATH 165 \_\_\_\_\_ 3 \_\_\_\_\_  
 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 \_\_\_\_\_

**FOR. LANGUAGES (12)**

\_\_\_\_\_ 101 \_\_\_\_\_ 3 \_\_\_\_\_  
 \_\_\_\_\_ 102 \_\_\_\_\_ 3 \_\_\_\_\_  
 \_\_\_\_\_ 201 \_\_\_\_\_ 3 \_\_\_\_\_  
 \_\_\_\_\_ 202 \_\_\_\_\_ 3 \_\_\_\_\_

**ELECTIVES (4)**

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

**<sup>2</sup>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 \_\_\_\_\_

**OTHER (12)**

ART ELECTIVE (Mus, Art, Dnc, Thea)

\_\_\_\_\_ \_\_\_\_\_ 3 \_\_\_\_\_  
 LS 102 \_\_\_\_\_ 1 \_\_\_\_\_  
 COMM211 \_\_\_\_\_ 3 \_\_\_\_\_  
 HIST \_\_\_\_\_ 3 \_\_\_\_\_  
 SE 101 \_\_\_\_\_ 2 \_\_\_\_\_

SE 101 is not required of transfer or readmitted students with 30 hrs or more. These students are required to take two additional hrs of electives (i.e., 6 hrs instead of 4 hrs).

TOTAL HOURS 120

**NOTES:** <sup>1</sup>Students with Math ACT <21 take MATH 155 (5 hrs) in place of MATH 161 (3 hrs); only 3 hrs from MATH 155 count towards the 120 hr degree requirement. MATH 165 and 200 (8 credit hours) may be taken 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., 5 hrs instead of 4 hrs).

<sup>2</sup>One social science course (3 hrs) must be at the 200 level or above.

<sup>3</sup>Grade of "C" or better in CHEM 121, MATH 155/161, and all Biology courses is required. Also, CHEM 121 and MATH 155/161 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)	_____	_____	_____	_____

**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 418 Community Ecology 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 General 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

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

YEAR: 2013 / 2014

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

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

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

**MAJOR HOURS (41) C or Better<sup>3</sup>**

**Core Requirements (21 hrs)**

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

**<sup>1</sup>MATHEMATICS (9)**

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

or <sup>1</sup>MATH 165 and 200 (8)

MATH 165 \_\_\_\_\_ 3 \_\_\_\_\_  
 MATH 200 \_\_\_\_\_ 5 \_\_\_\_\_

**<sup>2</sup>SOCIAL SCIENCES (6)**

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

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

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

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**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)**

<sup>3</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 (12)**

\_\_\_\_\_ 101 \_\_\_\_\_ 3 \_\_\_\_\_  
 \_\_\_\_\_ 102 \_\_\_\_\_ 3 \_\_\_\_\_  
 \_\_\_\_\_ 201 \_\_\_\_\_ 3 \_\_\_\_\_  
 \_\_\_\_\_ 202 \_\_\_\_\_ 3 \_\_\_\_\_

**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 hrs of electives

TOTAL HOURS 120

**NOTES:** <sup>1</sup>Students with Math ACT <21 take MATH 155 (5 hrs) in place of MATH 161 (3 hrs); only 3 hrs from MATH 155 count towards the 120 hr degree requirement. MATH 165 and 200 (8 credit hours) may be taken in place of MATH 161, 162, and 163 (9 credit hours). Students who take MATH 165 and 200 are required to take one hour of electives

<sup>2</sup>One social science course (3 hrs) must be at the 200 level or above.

<sup>3</sup>Grade of "C" or better in CHEM 121, MATH 155/161, and all Biology courses is required. Also, CHEM 121 and MATH 155/161 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 336 Pathogenic Microbiology 4 hrs

MIC 338 Soil Microbiology 4 hrs

MIC 423 Environmental Microbiology 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 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

**CURRICULUM IN BIOLOGICAL SCIENCES  
PLANT SCIENCE CONCENTRATION**

YEAR: 2013 / 2014

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

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

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

**MAJOR HOURS (41) C or Better<sup>3</sup>**

**Core Requirements (21 hrs)**

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

**<sup>1</sup>MATHEMATICS (9)**

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

or <sup>1</sup>MATH 165 and 200 (8 hrs)

MATH 165 \_\_\_\_\_ 3 \_\_\_\_\_  
 MATH 200 \_\_\_\_\_ 5 \_\_\_\_\_

**<sup>2</sup>SOCIAL SCIENCES (6)**

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

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

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

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**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 (16)**

<sup>3</sup>CHEM 121 \_\_\_\_\_ 3 \_\_\_\_\_  
 CLAB 123 \_\_\_\_\_ 1 \_\_\_\_\_  
 CHEM 122 \_\_\_\_\_ 3 \_\_\_\_\_  
 CLAB 124 \_\_\_\_\_ 1 \_\_\_\_\_  
 CHEM 265 or 261 \_\_\_\_\_ 3 \_\_\_\_\_  
 CLAB 267 or 263 \_\_\_\_\_ 1 \_\_\_\_\_  
 CHEM 266 or 281 \_\_\_\_\_ 3 \_\_\_\_\_  
 CLAB 268 or 283 \_\_\_\_\_ 1 \_\_\_\_\_

**FOR. LANGUAGES (12)**

\_\_\_\_\_ 101 \_\_\_\_\_ 3 \_\_\_\_\_  
 \_\_\_\_\_ 102 \_\_\_\_\_ 3 \_\_\_\_\_  
 \_\_\_\_\_ 201 \_\_\_\_\_ 3 \_\_\_\_\_  
 \_\_\_\_\_ 202 \_\_\_\_\_ 3 \_\_\_\_\_

**ELECTIVES (4)**

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

**OTHER (12)**

ART ELECTIVE (Mus, Art, Dnc, Thea)

\_\_\_\_\_ 3 \_\_\_\_\_  
 LS 102 \_\_\_\_\_ 1 \_\_\_\_\_  
 COMM211 \_\_\_\_\_ 3 \_\_\_\_\_  
 HIST \_\_\_\_\_ 3 \_\_\_\_\_  
 SE 101 \_\_\_\_\_ 2 \_\_\_\_\_

SE 101 is not required of transfer or readmitted students with 30 hours or more. These students are required to take two additional hours of electives (i.e., 6 hrs instead of 4 hrs).

TOTAL HOURS 120

**NOTES:** <sup>1</sup>Students with Math ACT <21 take MATH 155 (5 hrs) in place of MATH 161 (3 hrs); only 3 hrs from MATH 155 count towards the 120 hr degree requirement. MATH 165 and 200 (8 credit hours) may be taken 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., 5 hrs instead of 4 hrs).

<sup>2</sup>One social science course (3 hrs) must be at the 200 level or above.

<sup>3</sup>Grade of "C" or better in CHEM 121, MATH 155/161, and all Biology courses is required. Also, CHEM 121 and MATH 155/161 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)	_____	_____	_____	_____

## PLANT SCIENCE CONCENTRATION

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

**II. Upper-level Courses for Plant Science Concentration.**

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

Electives – 20 hrs

- BOT 205 Introduction to Botany 4 hrs
  - BOT 347 Vascular Plant Systematics 4 hrs
  - BOT 401 Plant Pathology 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 377 Applied Biostatistics 4 hrs
  - GBIO 395 General Ecology 3 hrs
  - GBIO 397 General Ecology Laboratory 2 hrs
  - GBIO 404 Ecological Methods 3 hrs
  - GBIO 405 Evolutionary Biology 4 hrs
  - GBIO 406 Wetland Ecology 4 hrs
  - GBIO 418 Community Ecology 4 hrs
  - GBIO 485 Conservation Biology 4 hrs
  - HORT 301 Introductory Soils 4 hrs
  - HORT 315 Plant Materials I 3 hrs
  - HORT 320 Plant Materials II 4 hrs
  - HORT 328 Plant Propagation 3 hrs
  - HORT 412 Turf Management 3 hrs
  - HORT 424 Arboriculture 3 hrs
  - HORT 426 Coastal Plant Production 3 hrs
  - HORT 428 Organic Gardening 3 hrs
  - HORT 490 Survey of the Horticulture Industry 4 hrs
  - ZOO 409 General Entomology 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
  - \*HORT 495 Seminar – 1 hour



**CURRICULUM IN BIOLOGICAL SCIENCES  
BIOLOGY EDUCATION CONCENTRATION  
2013 - 2014**

Date: \_\_\_\_\_

Student: \_\_\_\_\_

Advisor: \_\_\_\_\_

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

<b><u>BIOLOGY (41) C or Better*</u></b>	(41)
<b>Core Requirements (21 hrs)</b>	
*GBIO 151	___3___
*BIOL 152	___1___
*GBIO 153	___3___
*BIOL 154	___1___
*MIC 205 or 223	___3___
*MICL 207 or 224	___1___
* <sup>3</sup> GBIO 200	___3___
* <sup>3</sup> GBIO 312	___3___
*GBIO 241	___1___
*GBIO 341	___1___
*GBIO 441	___1___

<b><u>CHEMISTRY</u></b>	(16)
* <sup>3</sup> CHEM 121	___3___
*CLAB 123	___1___
*CHEM 122	___3___
*CLAB 124	___1___
*CHEM 261	___3___
*CLAB 263	___1___
*CHEM 281	___3___
*CLAB 283	___1___

<b><u>ENGLISH</u></b>	(9)
ENGL 101	___3___
*ENGL 102	___3___
ENGL 230 or 231 or 232	___3___

<b><u><sup>1</sup>MATHEMATICS</u></b>	(6)
* <sup>1,3</sup> MATH 161 (or MATH 155)	___3___
*MATH 162 or 165	___3___

<b><u>EDUCATION</u></b>	(33)
**EDUC 203	___2___
**EDUC 212	___1___
*EDUC 407	___3___
*EDUC 472	___3___
*EDUC 475	___1___
*EDUC 490	___6___
*EDUC 486	___9___
*EPSY 311	___3___
*EPSY 315	___3___
*SPED 210	___2___

<b><u>SOCIAL STUDIES</u></b>	(6)
HIST 417	___3___
<sup>2</sup> Social Science	___3___

<b><u>OTHER</u></b>	(9)
SE 101	___2___
LS 102	___1___
COMM 210	___3___
ART elective (Mus,Art,Dnc,Thea)	___3___

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**TOTAL HOURS** 120

SE 101 is not required for transfer or readmitted Southeastern students with 30 hours or more. These students are required to take two hours of electives.

\*A grade of C or better is required in these courses.

\*\*A grade of B or better is required in these courses.

<sup>1</sup>Students with Math ACT <21 take MATH 155 (5 hrs) in place of MATH 161 (3 hrs); only 3 hrs from MATH 155 count towards the 120 hr degree requirement.

<sup>2</sup>One course (3 hrs) selected from ECON, GEOG, ANTH, POLI, PSYC, or SOC. The 200 level or above requirement for social sciences is fulfilled with EPSY311

<sup>3</sup>CHEM 121 and MATH 155/161 are prerequisites for GBIO 200, and GBIO 200 is a prerequisite for GBIO 312.

**I. Core Courses (page 1): 21 CREDIT HOURS**

## **II. Upper-level Courses for the Biology Education Concentration**

**20 CREDIT HOURS** from the following courses with approval of the Biology Education Advisor

\*A grade of C or better is required in these courses

### **GROUP A** – required courses (12 hrs)

- \*GBIO 395 General Ecology 3 hrs
- \*GBIO 397 General Ecology Laboratory 2 hrs
- \*GBIO 405 Evolutionary Biology 4 hrs
- \*GBIO 498 Biological Science for Teachers 3 hrs

### **GROUP B:** Electives (8 hrs)

- \*ZOO 302 Comparative Anatomy 4 hrs
- \*ZOO 392 Animal Physiology 4 hrs
- \*PHYS 191 General Physics 3 hrs
- \*PLAB 193 General Physics Laboratory 1 hr
- \*PHYS 192 General Physics 3 hrs
- \*PLAB 194 General Physics Laboratory 1 hr