

**CURRICULUM IN BIOLOGICAL SCIENCES
INTEGRATIVE BIOLOGY CONCENTRATION**

YEAR: 2015 / 2016

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 _____

Upper-level Courses (20 hrs) page 2

CHEMISTRY (16)

²CHEM 121 _____ 3 _____
 CLAB 123 _____ 1 _____
 CHEM 122 _____ 3 _____
 CLAB 124 _____ 1 _____
³CHEM 261 _____ 3 _____
³CLAB 263 _____ 1 _____
³CHEM 281 _____ 3 _____
³CLAB 283 _____ 1 _____

TOTAL HOURS 120

NOTES: ¹Students with Math ACT score of 19 – 20 take MATH 151 in place of MATH 161. Students with Math ACT score of ≥ 21 take MATH 161. Students with Math ACT score ≥ 25 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., 5 hrs instead of 4 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.

³or CHEM 265/267 and 266/268 for pre-medical and pre-dental students

**GBIO 441 fulfills requirement for computer literacy

¹MATHEMATICS (9)

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

or ¹MATH 165 and 200 (8 hrs)

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)

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 hours or more. These students are required to take two additional hours of electives (i.e., 6 hrs instead of 4 hrs)

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 410 Introduction to Population Genetics 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: 2015 / 2016

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 _____

Upper-level Courses (20 hrs) page 2

CHEMISTRY (16)

²CHEM 121 _____ 3 _____
 CLAB 123 _____ 1 _____
 CHEM 122 _____ 3 _____
 CLAB 124 _____ 1 _____
³CHEM 261 _____ 3 _____
³CLAB 263 _____ 1 _____
³CHEM 281 _____ 3 _____
³CLAB 283 _____ 1 _____

¹MATHEMATICS (9)

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

or ¹MATH 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)

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: ¹Students with Math ACT score of 19 – 20 take MATH 151 in place of MATH 161. Students with Math ACT score of \geq 21 take MATH 161. Students with Math ACT score \geq 25 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., 5 hrs instead of 4 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.

³or CHEM 265/267 and 266/268 for pre-medical and pre-dental students

**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 410 Introduction to Population Genetics 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: 2015 / 2016

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 _____

¹MATHEMATICS (9)

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

or ¹MATH 165 and 200 (8)

MATH 165 _____ 3 _____
 MATH 200 _____ 5 _____

SOCIAL SCIENCES (6)

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

_____ 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 (12)

_____ 101 _____ 3 _____
 _____ 102 _____ 3 _____
 _____ 201 _____ 3 _____
 _____ 202 _____ 3 _____

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 hrs of electives

TOTAL HOURS 120

NOTES: ¹Students with Math ACT score of 19 – 20 take MATH 151 in place of MATH 161. Students with Math ACT score of ≥ 21 take MATH 161. Students with Math ACT score ≥ 25 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., 5 hrs instead of 4 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 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: 2015 / 2016

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 _____

¹MATHEMATICS (9)

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

or ¹MATH 165 and 200 (8 hrs)

MATH 165 _____ 3 _____
 MATH 200 _____ 5 _____

SOCIAL SCIENCES (6)

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

_____ 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 (16)

²CHEM 121 _____ 3 _____
 CLAB 123 _____ 1 _____
 CHEM 122 _____ 3 _____
 CLAB 124 _____ 1 _____
³CHEM 261 _____ 3 _____
³CLAB 263 _____ 1 _____
³CHEM 281 _____ 3 _____
³CLAB 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: ¹Students with Math ACT score of 19 – 20 take MATH 151 in place of MATH 161. Students with Math ACT score of ≥ 21 take MATH 161. Students with Math ACT score ≥ 25 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., 5 hrs instead of 4 hrs).

²Grade of "C" or better in CHEM 121, MATH 151 or 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.

³or CHEM 265/267 and 266/268 for pre-med and pre-dent students

**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
2015 - 2016**

Date: _____

Student: _____

Advisor: _____

W# _____

<u>BIOLOGY (41) C or Better*</u>	(41)
Core Requirements (21 hrs)	
*GBIO 151	3
*BIOL 152	1
*GBIO 153	3
*BIOL 154	1
*MIC 205 or 223	3
*MICL 207 or 224	1
* ² GBIO 200	3
* ² GBIO 312	3
*GBIO 241	1
*GBIO 341	1
*GBIO 441	1

<u>CHEMISTRY</u>	(16)
* ² CHEM 121	3
*CLAB 123	1
*CHEM 122	3
*CLAB 124	1
*CHEM 261	3
*CLAB 263	1
*CHEM 281	3
*CHEM 283	1

<u>ENGLISH</u>	(9)
ENGL 101	3
*ENGL 102	3
ENGL 230 or 231 or 232	3

<u>¹MATHEMATICS</u>	(6)
* ^{1,2} MATH 161 (or MATH 151)	3
*MATH 162 or 165	3

<u>EDUCATION</u>	(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

<u>SOCIAL STUDIES</u>	(6)
HIST 417	3
Social Science	3

<u>OTHER</u>	(9)
SE 101	2
LS 102	1
COMM 210	3
ART elective (Mus,Art,Dnc,Thea)	3

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.

¹Students with Math ACT score of 19 – 20 take MATH 151 in place of MATH 161. Students with Math ACT score of ≥ 21 take MATH 161.

²CHEM 121 and MATH 151 or 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