

CURRICULUM IN BIOLOGICAL SCIENCES

YEAR: 2009/2010

YEAR ENTERED SLU: _____

NAME: _____

W# _____

MAJOR HOURS (41) C or Better*

Core Requirements (21 hrs)

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

Upper-level Courses (20 hrs) page 2

 (300/400) _____

 (300/400) _____

 (300/400) _____

 (300/400) _____

CHEMISTRY (16)

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 _____

MATHEMATICS (8-9)

MATH 161 _____ 3 _____
 (ACT < 21 MATH 155 – 5hrs)
 MATH 162 _____ 3 _____
 MATH 163 _____ 3 _____

 or MATH 165 and 200
 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 _____

OTHER ELECTIVES (8)

SOCIAL SCIENCES (6)

(Anth,Econ,Geog,Gov,Psyc,Poli,Soc)
 _____ 3 _____
 _____ 3 _____

PHYSICS (8)

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

OTHER (10-13)

ART ELECTIVE (Mus,Art,Dnc,Thea)
 _____ _____ 3 _____
 LS 102 _____ 1 _____
 COMM211 _____ 3 _____
 HIST _____ 3 _____
 SE 101 _____ 0/3 _____

TOTAL HOURS 121-125

*Grade of "C" or better in all Biology courses is required in order for the course to count towards the B.S. degree in Biological Sciences

**GBIO 441 fulfills requirement for computer literacy

ADDITIONAL COURSES:

	AVERAGES			
	HA	HE	QP	Average
CUM:	_____	_____	_____	_____
(Adj)	_____	_____	_____	_____
MAJOR	_____	_____	_____	_____
(Adj)	_____	_____	_____	_____
SLU:	_____	_____	_____	_____
(Adj)	_____	_____	_____	_____

CURRICULUM in BIOLOGICAL SCIENCES

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

II. Upper-level Courses for Curriculum in Biological Sciences: 20 CREDIT HOURS from the following courses with approval of advisor

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 - minimum 11 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 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

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 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
CONCENTRATION IN ECOLOGY/ENVIRONMENTAL/EVOLUTIONARY BIOLOGY**

YEAR: 2009/2010

YEAR ENTERED SLU: _____

NAME: _____

W# _____

MAJOR HOURS (41) C or Better*

Core Requirements (21 hrs)

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

Upper-level Courses (20 hrs) page 2

 (300/400) _____

 (300/400) _____

 (300/400) _____

 (300/400) _____

 (300/400) _____

CHEMISTRY (16)

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 _____

MATHEMATICS (8-9)

MATH 161 _____ 3 _____
 (ACT < 21 MATH 155 – 5hrs)
 MATH 162 _____ 3 _____
 MATH 163 _____ 3 _____

 or MATH 165 and 200
 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 _____

OTHER ELECTIVES (8)

SOCIAL SCIENCES (6)

(Anth,Econ,Geog,Gov,Psyc,Poli,Soc)
 _____ 3 _____
 _____ 3 _____

PHYSICS (8)

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

OTHER (10-13)

ART ELECTIVE (Mus,Art,Dnc,Thea)
 _____ _____ 3 _____
 LS 102 _____ 1 _____
 COMM211 _____ 3 _____
 HIST _____ 3 _____
 SE 101 _____ 0/3 _____

TOTAL HOURS 121-125

*Grade of "C" or better in all Biology courses is required in order for the course to count towards the B.S. degree in Biological Sciences

**GBIO 441 fulfills requirement for computer literacy

ADDITIONAL COURSES:

AVERAGES

HA HE QP Average

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

CONCENTRATION IN ECOLOGY, ENVIRONMENTAL/EVOLUTIONARY BIOLOGY

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

II. Upper-level courses for Concentration in Ecology, Environmental, Evolutionary Biology: 20 CREDIT HOURS from the following courses with approval of advisor

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 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 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
CONCENTRATION IN MICROBIOLOGY / MOLECULAR BIOLOGY**

YEAR: 2009/2010

YEAR ENTERED SLU: _____

NAME: _____

W# _____

MAJOR HOURS (41) C or Better*

Core Requirements (21 hrs)

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

Upper-level Courses (20 hrs) page 2

 (300/400) _____

 (300/400) _____

 (300/400) _____

 (300/400) _____

CHEMISTRY (20)

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 _____

MATHEMATICS (8-9)

MATH 161 _____ 3 _____
 (ACT < 21 MATH 155 – 5hrs)
 MATH 162 _____ 3 _____
 MATH 163 _____ 3 _____

or MATH 165 and 200

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 _____

OTHER ELECTIVES (4)

SOCIAL SCIENCES (6)

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

_____ 3 _____
 _____ 3 _____

PHYSICS (8)

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

OTHER (10-13)

ART ELECTIVE (Mus, Art, Dnc, Thea)

_____ _____ 3 _____
 LS 102 _____ 1 _____
 COMM211 _____ 3 _____
 HIST _____ 3 _____
 SE 101 _____ 0/3 _____

TOTAL HOURS 121-125

*Grade of "C" or better in all Biology courses is required in order for the course to count towards the B.S. degree in Biological Sciences

**GBIO 441 fulfills requirement for computer literacy

ADDITIONAL COURSES:

AVERAGES

	HA	HE	QP	Average
CUM:	_____	_____	_____	_____
(Adj)	_____	_____	_____	_____
MAJOR	_____	_____	_____	_____
(Adj)	_____	_____	_____	_____
SLU:	_____	_____	_____	_____
(Adj)	_____	_____	_____	_____

CONCENTRATION IN MICROBIOLOGY/MOLECULAR BIOLOGY

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

**II. Upper-level courses for Concentration in Microbiology and Molecular Biology
20 CREDIT HOURS from the following courses with approval of advisor**

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

BIOL 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

MAJOR IN HORTICULTURE

YEAR: 2009/2010

YEAR ENTERED SLU: _____

NAME: _____

W# _____

HORTICULTURE (33)

HORT 232* _____ 3 _____
 HORT 301 _____ 4 _____
 HORT 328 _____ 3 _____
 HORT 315 _____ 3 _____
 HORT320 _____ 4 _____

HORT495 _____ 1 _____
 HORT _____ 3 _____
 300/400
 HORT _____ 3 _____
 300/400
 HORT _____ 3 _____
 300/400
 HORT _____ 3 _____
 300/400
 HORT _____ 3 _____
 300/400

BIOLOGY (24)

GBIO 151 _____ 3 _____
 BIOL 152 _____ 1 _____
 GBIO 153 _____ 3 _____
 BIOL 154 _____ 1 _____
 BOT 205 _____ 4 _____
 BOT 401 _____ 3 _____
 BOT 426 _____ 1 _____
 ZOO 309 _____ 4 _____

CHEMISTRY (12)

CHEM 101 or 121 _____ 3 _____
 CLAB 103 or 123 _____ 1 _____
 CHEM 102 or 122 _____ 3 _____
 CLAB 104 or 124 _____ 1 _____
 CHEM 261 or 265 _____ 3 _____
 CLAB 263 or 267 _____ 1 _____

ENGLISH (9)

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

BUSINESS (9)

ACCT 200 _____ 3 _____
 MGMT 351 _____ 3 _____
 MRKT 303 _____ 3 _____

ORIENTATION (0-3)

SE 101 _____ 0/3 _____

SOCIAL SCIENCES (6)

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

_____ 3 _____
 _____ 3 _____

MATHEMATICS (9)

MATH 161 _____ 3 _____
 (ACT<21 MATH 155 – 5hrs)
 MATH 162 _____ 3 _____
 MATH 241 or
 MGMT261 _____ 3 _____

OTHER (9)

ARTS ELEC(Mus,Art,Dnc,Thea)
 _____ 3 _____
 COMM211 _____ 3 _____
 HIST 201 or 202 _____ 3 _____

ELECTIVES (12)

TOTAL HOURS: 123 – 126 (rpt) = repeated courses (T) = TAKING

*Computer Literacy – HORT 232

ADDITIONAL COURSES:

	AVERAGES			
	HA	HE	QP	AVERAGE
CUM:	_____	_____	_____	_____
(Adj)	_____	_____	_____	_____
MAJOR	_____	_____	_____	_____
(Adj)	_____	_____	_____	_____
SLU:	_____	_____	_____	_____
(Adj)	_____	_____	_____	_____

**If you have completed ZOO 102/104 and BOT 101/103, these 4 courses may be used in place of GBIO 151/152/153/154