BEREA COLLEGE
2009 - 2010 CURRICULUM GUIDE (revised 10/23/09)

B. A. – BIOLOGY

NOTE: This guide is subject to change and represents actions approved by Faculty to date. Please refer often to the *2009-2010 Online Catalog & Student Handbook (www.berea.edu/cataloghandbook),* which will be updated with the most current information.

GENERAL EDUCATION PROGRAM

Core Courses	**Term**	**Credit**
MAT 010: Prealgebra[a]	_____	NC
MAT 011: Elementary Algebra I[a]	_____	NC
MAT 012: Elementary Algebra II[a]	_____	NC
GSTR 110: Writing Sem. I: Critical Thinking in the Liberal Arts	_____	1
GSTR 210: Writing Sem. II: Identity and Diversity in the United States	_____	1
GSTR 310: Understandings of Christianity	_____	1
GSTR 332: Scientific Knowledge & Inquiry	_____	1
GSTR 410: Sr. Sem. in Cont. Global Issues	_____	1

Lifetime Health & Fitness: PEH 100 & Phys. Activity

PEH 100: Introduction to Lifetime Wellness _____ .50
(if swimming proficiency test not passed, one of next two courses must be PED 200)
PED 2___: _____ _____ .25
PED 2___: _____ _____ .25

Practical Reasoning Across the Curriculum (PR & PRQ)

Two courses—at least one firmly grounded in math or statistics (PRQ); the other can be an approved practical reasoning (PR) course or another PRQ course.

_____ ____: _____ _____ 1
_____ ____: _____ _____ 1

Perspectives—Six Areas Required

Students will satisfy each of the six Perspective areas by taking or waiving a course, or through an approved experience. Individual courses may be approved to satisfy more than one Perspective, but no single course may satisfy more than two Perspective areas.

1. Arts _____ _____ _____
2. Social Science _____ _____ _____
3. Western History _____ _____ _____
4. Religion _____ _____ _____
5. Afr. Amer., Appal., Women's _____ _____ _____
6. International (two courses required):

Major requires two terms in same modern language

A) Same Non-English Language _____ _____ _____
Same Non-English Language _____ _____ _____
(one course may be waived by placement exam)

Active Learning Experience (ALE)

An approved experience, taken for credit or as noncredit
_____ ____: _____ _____ _____

Writing Competency Requirement (thru Spring 2009)
(NOTE: Required for students entering in/before Spring 2009—not required for those entering in/after Fall 2009)
Students may satisfy this requirement by passing the Writing Competency Examination administered in Fall and Spring, or by successfully completing GST 150: College Composition *or ENG 104:* Advanced ESL.
_____ ____: _____ _____ _____

[a] May be waived on basis of test scores.

MAJOR COURSES

Core Courses	**Term**	**Credit**
BIO 110: Modern Biology	_____	1
BIO 113: Experimental Zoology	_____	1
BIO 114: Botany	_____	1
(For admission to the Major, a minimum combined GPA of 2.37 must be earned for the above three courses; this is not a graduation requirement)		
BIO 330: Genetics	_____	1
BIO ____: Field Course[c]	_____	1

Capstone Course for ALL Concentrations

BIO 494: Evolution _____ 1

Collateral Courses for ALL Concentrations (Required; count outside the major)

CHM 131: Accel. General Chemistry[b] **OR**
CHM 134: Accel. Environmental Chemistry _____ 1
CHM 221: Organic Chemistry I _____ 1
CHM 222: Organic Chemistry II _____ 1
MAT 115: College Algebra w/Modeling (or waiver) _____ ___

AND

Two terms of same modern foreign language (not Latin)
(See Perspective 6A in General Education.)

Biology Area Concentrations (Choose from A, B, or C)
NOTE FOR ALL CONCENTRATIONS: At least three of the four courses chosen below and on next page must be taken in Fall, Spring, or Summer terms.

A. Field & Organismal Biology (count inside the major)
Four approved course credits, chosen from:

BIO 220: Comparative Vertebrate Anatomy	_____	1
BIO 324: Parasitology[d]	_____	1
BIO 326: Invertebrate Zoology[d]	_____	1
BIO 327: Herpetology[d]	_____	1
BIO 332: Mammalogy	_____	1
BIO 342: Field Botany[d]	_____	1
BIO 344: Dendrology & Forest Ecology[d]	_____	1
BIO ____: F&O Short Term course[c]	_____	1
BIO 386/486: F&O Field Station/Spec. Topics[c]	_____	1

NOTE FOR ALL CONCENTRATIONS: At least three of the four courses chosen above and on the next page must be taken in Fall, Spring, or Summer terms.

[b] Students interested in the biomedical sciences, especially pre-med, pre-dental, and students pursuing the Molecular, Cellular, and Systems Biology Concentration, should take CHM 131. Students cannot receive earned credit for both CHM 131 and CHM 134.

[c] See *Catalog & Student Handbook* for courses that meet this requirement.

[d] Meets core field course requirement.

NOTE: Courses that are used to meet the Core requirements cannot also be used to meet area concentration requirements.

(continued on next page)

B.A. BIOLOGY (CONTINUED)

Biology Concentrations, continued

NOTE FOR ALL CONCENTRATIONS: At least three of the four courses chosen below and on the previous page must be taken in Fall, Spring, or Summer terms.

B. Molecular, Cellular, and Systems Biology (count inside the major)
Four approved course credits required, chosen from:

BIO 222: Microbiology[b]	_____	1
BIO 323: Human Physiology	_____	1
BIO 325: Neurobiology	_____	1
BIO 331: Developmental Biology	_____	1
BIO 441: Cell & Molecular Biology	_____	1
CHM 345: Biochemistry	_____	1
CHM 370: Advanced Laboratory I **AND**	_____	.5
CHM 371: Advanced Laboratory II	_____	.5
BIO ____: MC&S Short Term course[d]	_____	1
BIO 386/486: MC&S Special Topics[d]	_____	1

C. General Biology (count inside the major)
Four approved course credits, including one course from each group.

Group 1: MOLECULAR, CELLULAR, & SYSTEMS

BIO 222: Microbiology	_____	1
BIO 441: Cell & Molecular Biology	_____	1
BIO ____: MC&S Short Term course[c]	_____	1
BIO 386/486: MC&S Special Topics[c]	_____	1

Group 2: TISSUES & SYSTEMS

BIO 323: Human Physiology	_____	1
BIO 325: Neurobiology	_____	1
BIO 331: Developmental Biology	_____	1
BIO ____: T&S Short Term course[c]	_____	1
BIO 386/486: F&S Field Station/Special Topics[c]	_____	1

Group 3: FIELD & ORGANISMAL

BIO 220: Comparative Vertebrate Anatomy	_____	1
BIO 324: Parasitology[d]	_____	1
BIO 326: Invertebrate Zoology[d]	_____	1
BIO 327: Herpetology[d]	_____	1
BIO 332: Mammalogy	_____	1
BIO 342: Field Botany[d]	_____	1
BIO 344: Dendrology & Forest Ecology[d]	_____	1
BIO ____: F&O Short Term course[c]	_____	1
BIO 386/486: F&O Field Station/Spec. Topics[c]	_____	1

Group 4: One additional Fall or Spring Term course, approved Summer or Short Term course; one of the courses noted above; or another course, as approved:
BIO ____: _____ _____ 1

[c] See *Catalog & Student Handbook* for courses that meet this requirement.

[d] Meets core field course requirement.

NOTE: Courses that are used to meet the Core major requirements cannot also be used to meet area concentration requirements.

SHORT TERMS

Dept. & No.	Title	Term	Credit
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

ELECTIVES (count in 21 credits outside the major, unless in the BIO rubric)
*Students preparing for graduate or professional school also should complete as electives **CHM 341 and CHM 345, MAT 135/220, and PHY 217 & PHY 218**. Also, **PSY 205/305 and its PSY 100 prerequisite** are recommended strongly, especially for students in Field and Organismal Biology*.

Dept. & No.	Title	Term	Credit
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____