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

B.A. in CHEMISTRY

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 in the United States _____ 1
GSTR 310: Und. of Christianity _____ 1
GSTR 332: Scien. Knowl. & 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 either in area 6A or area 6B)[b]:

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

OR

B) World Culture (Non-western) _____ _____ _____
World Culture (Western/non-western)____ _____ _____

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.

[b] Some graduate programs in chemistry require a reading knowledge of a second language. Students without this knowledge are encouraged to satisfy this requirement by completing Perspective 6A (language requirement).

[c] Credit cannot be received for both CHM 131 and 134.

MAJOR COURSES

Core Courses — Term — Credit

CHM 101: Foundations of Chemistry (or waiver) _____ 1
CHM 131: Accel. General Chemistry[c] **OR**
CHM 134: Accel. Environmental Chemistry[c] _____ 1
CHM 221: Organic Chemistry I _____ 1
CHM 222: Organic Chemistry II _____ 1
CHM 311: Quantitative Analysis _____ 1
CHM 345: Biochemistry _____ 1
CHM 370: Advanced LAB I* _____ .5
CHM 371: Advanced LAB II* _____ .5
CHM 470: Advanced LAB III* _____ .5
CHM 471: Advanced LAB IV*[d] _____ .5

Capstone Course

_____ _____: Research Experience[e] _____ 1 or NC

Two additional courses chosen from: CHM 361, 362, 451, 452 (one of which **must** be CHM 361 or 362)[f]

CHM ___: _____ _____ 1
CHM ___: _____ _____ 1

Collateral Courses (Required; count outside the major)
NOTE*: The following should be completed before the second term of junior year, except PHY 218, which may be taken concurrent with CHM 361.*

PHY 217: General Physics I **OR**
PHY 315: Introductory Physics I w/Calculus[g] _____ 1
PHY 218: General Physics II **OR**
PHY 316: Introductory Physics II w/Calculus[g] _____ 1
MAT 115: College Algebra w/Modeling (or waiver)_____ ___
MAT 125: Trigonometry w/Modeling (or waiver) _____ ___
MAT 135: Calculus I (or waiver) _____ ___
MAT 225: Calculus II (or waiver) _____ ___

SHORT TERMS

Dept. & No. — Title — Term — Credit

_____ _____ _____ _____
_____ _____ _____ _____
_____ _____ _____ _____

ELECTIVES (count in 21 credits outside the major, unless course is in the major rubric—may continue on back)

Dept. & No. — Title — Term — Credit

_____ _____ _____ _____
_____ _____ _____ _____
_____ _____ _____ _____
_____ _____ _____ _____

[d] All majors must pass a departmental proficiency exam administered in CHM 471. As part of the lab component, students maintain a portfolio (see *Catalog & Student Handbook*) and are required to make at least two oral presentations—one on & one off campus.

[e] Experiences include CHM 398/498, a Short Term research course, or an approved Summer research project.

[f] Students who plan to attend graduate school in any area related to chemistry should take **both** CHM 361 and 362.

[g] Students with a strong mathematics background may waive (on basis of test scores) PHY 217/218, then take the calculus-based physics sequence of PHY 315/316 instead