

**BEREA COLLEGE**  
**2010 - 2011 CURRICULUM GUIDE (revised 8/20/10)**  
**B.A. in COMPUTER AND INFORMATION SCIENCE**  
**WITH COMPUTER SCIENCE CONCENTRATION**

**NOTE:** This guide is subject to change and represents actions approved by Faculty to date. Please refer often to the 2010-2011 *Online Catalog & Student Handbook (www.berea.edu/cataloghandbook)*, which will be updated with the most current information.

**GENERAL EDUCATION PROGRAM**

**NOTE: No single college course transferred into Berea can meet more than one General Education requirement.**

Core Courses	Term	Credit
MAT 010: Prealgebra <sup>a</sup>	_____	NC
MAT 011: Elementary Algebra I <sup>a</sup>	_____	NC
MAT 012: Elementary Algebra II <sup>a</sup>	_____	NC
GSTR 110: Writing Sem. I: Critical Thinking in the Liberal Arts <sup>b</sup>	_____	_____
GSTR 210: Writing Sem. II: Identity and Diversity in the United States	_____	1
GSTR 310: Understandings of Christianity	_____	1
GSTR 410: Sr. Sem. in Cont. Global Issues	_____	1

**Scientific Knowledge and Inquiry**

GSTR 332: Scientific Knowledge & Inquiry	_____	_____
--	-------	-------

**OR**

Two approved science courses, one of which must be an approved lab course. At this time, only the following courses have been approved to meet this alternative (all of which meet the lab course stipulation): ANR 110, 130, BIO 100, BIO 101, 110, CHM 113, 131, 134, PHY 111, 217, or 315

_____	_____	_____
_____	_____	_____

**Lifetime Health & Fitness: PEH 100 & Phys. Activity**

PEH 100: Introduction to Lifetime Wellness	_____	.50
<i>(if swimming proficiency test not passed, take PED 200)</i>		
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 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):
  - 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.

_____	_____	_____
-------	-------	-------

**MAJOR COURSES**

**Core Courses**

	Term	Credit
CSC 226: Intro to Programming with C++	_____	1
CSC 236: Algorithms, Objects, Data Abstr.	_____	1
CSC 435: Computer Organization	_____	1
TEC 130: Engineering Graphics	_____	1
TEC 265: Electrical Fundamentals	_____	1

**Capstone Course or Experience (counts inside the major)**

Completion of one (1) of the following course credits:

CSC 495: Internship <sup>c</sup>	_____	OR
UGR 010: Undergraduate Research (URCPP) <sup>c</sup>	_____	OR
UGR 020: Undergraduate Research (non-URCPP) <sup>c</sup>	_____	OR
CSC 493: Senior Projects	_____	_____ <sup>d</sup>

**Distribution Courses (Required; count inside the major)**

Four (4) additional course credits, as described; each may only be used to satisfy one credit in this major:

- 1) Two additional CSC course credits selected from CSC 303, 325, 330, 386, 433, 440, and 486
 

CSC _____	_____	1
CSC _____	_____	1
- 2) The two remaining course credits selected from: CSC 100-499, TEC 180, 330, 382, 455, 460, and SENS 320.
 

_____	_____	1
_____	_____	1

**Collateral Courses (Required; counts outside the major)**

One course chosen from the following:

MAT 105: Intro to Discrete Mathematics	OR
MAT 312: Operations Research	_____ 1

*(See additional collateral course required for this concentration below)*

**Concentration Courses (Required; count inside the major)**

In addition to the above Core, Capstone, and Collateral Courses, the following must be completed (**and cannot be used above**):

- a) CSC 440: Design & Analysis of Algorithms \_\_\_\_\_
  - b) CSC 325: Oper. Systems w/Emph. on Unix \_\_\_\_\_
  - c) CSC 303: Theory of Computation **OR**  
 CSC 433: Numerical Analysis \_\_\_\_\_
- AND**
- |   |         |
|---|---------|
| MAT 125: Trigonometry with Applications | OR      |
| MAT 135: Calculus I                     | OR      |
| MAT 225: Calculus II                    | _____ 1 |

<sup>b</sup> Transfer students might waive GSTR 110 if they took College Composition as a degree-seeking student at another college AND earned a grade of B or higher.

<sup>c</sup> In order for CSC 495, URG 010, or UGR 020 to meet the capstone requirement, it must have been approved for this purpose by the Department.

<sup>d</sup> CSC 495 can be 1-3 credits; UGR 010 or UGR 020 are noncredit courses; and CSC 493 is a .5 credit course.

**NOTE: Students who opt for the Concentration in Computer Science cannot also minor in Computer Science. See separate curriculum guide for the Computer and Information Science major without the Computer Science concentration.**

<sup>a</sup> May be waived on basis of test scores.

