## BEREA COLLEGE 2017-2018 CURRICULUM GUIDE **B.S. in TECHNOLOGY AND APPLIED DESIGN:** With an Engineering and Technology Education Concentration

(32 credits required for graduation)

NOTE: This guide is subject to change and represents actions approved by Faculty to date. Please refer often to the 2016-2017 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 C	redit		
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 Divers	sity	4		
in the United States GSTR 310: Understandings of Christianity		1 1		
GSTR 410: Sr. Sem. in Cont. Global Issues		1		
		•		
Scientific Knowledge and Inquiry GSTR 332: Scientific Knowledge & Inquiry				
OR				
Two approved science courses, from two dif (BIO, ANR, CHM, PHY), one of which must be course. At this time, only the following course approved to meet this alternative (all of which course stipulation): ANR 110, 130, BIO 100, 113, 131, 134, PHY 111, 127, or 221	<u>e an app</u> s have b meet th	oroved lab een e lab		
;;;				
Wellness & Fitness				
HLT 100: Introduction to Lifetime Wellness		.50		
OR		.00		
WELL 101: Principles of Wellness I		.50		
AND Two activity courses:				
HHP 2:		.25		
HHP 2:		.25		
(if swimming proficiency test not passed, take	e HHP 20	)0)		
<b>Practical Reasoning Across the Curriculum</b> Two courses—at least one firmly grounded in math the other can be an approved practical reasoning (P another PRQ course.	or statistic	s (PRQ);		
;		1		
i		1		
Perspectives—Six <u>Areas</u> Required Students will satisfy each of the six areas by taking or through an approved experience. Individual cours approved to satisfy more than one Perspective, but may satisfy more than two Perspective areas. 1. Arts	es may be	Э		
2. Social Science				
3. Western History				
4. Religion				
<ul><li>5. Afr. Amer., Appal., Women's6.</li><li>6. International (two courses either in area 6A)</li></ul>	or area 6	SB).		
A) Same Non-English Language		<i>)</i> .		
Same Non-English Language				
(one course may be waived by placement	exam)			
OR B) World Culture (Non-western)				
World Culture (Western/non-western)				
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Active Learning Experience (ALE) An approved experience, taken for credit or as noncredit.				

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MAJOR COURSES				
Core Courses	Term Credit			
TAD 130: Design and Documentation	1			
TAD 140: Design & Production Tech in Woods	1			
TAD 180: Graphic Communication & Design	1			
TAD 245: Materials, Process, & Testing	1			
TAD 265: Electricity and Electronics	1			
TAD 275: Energy & Power Technology	1			
Capstone Course				
TAD 488: Research in Technology	1			
Distribution Courses (Required; count inside th Three (3) advanced courses chosen from the follow 330, 340, 345 (also SENS), 352, 382, 455, 460, 47 courses approved by the Program	ving: TAD 0, or other 1			
Collateral Courses (Required; count outside the	maior)			
EDS150: Int-Ed: Thinking about Lrng, Tchg	1 1			
PHY 127 or higher	1			
MAT 115 or higher	1			
AND				
Two (2) courses chosen from the following: ART 110, CSC 111,				
CSC 124, CSC 126, SENS 100 or other TAD courses				
;;	1			
	1			
AND				

One (1) course chosen from the following: ANR 130 or 140, BIO 100 or 110, CHM 101, EDS 228, or WGS 310 1

### ELECTIVES (count in 20 credits outside the major, unless in TAD rubric)

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Dept. & No.	Title	Term Credit
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NOTE: In addition to completing specified course requirements, each student must satisfy departmental standards for written and oral communication.

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

<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.

# Learning Goal 1: Develop understanding and skills within the Discipline and throughout the Liberal Arts

Learning Outcome 1.1: Demonstrate critical thought, problem solving, analysis and synthesis Learning Outcome 1.2: Demonstrate a desire for life-long learning and inquiry Learning Outcome 1.3: Connect learning in technology and applied design across all disciplines Learning Outcome 1.4: Demonstrate learning by addressing real world problems and challenges.

# Learning Goal 2: Develop a contemporary, global understanding of Technology and Applied Design.

<u>Learning Outcome 2.1:</u> Demonstrate knowledge and understanding of the world of work.

Learning Outcome 2.2: Demonstrate appropriate skills and knowledge toward specific application(s) of technology and applied design.

<u>Learning Outcome 2.3</u>: Demonstrate an understanding of the impact of technology and applied design has on humans and our natural world.

### Learning Goal 3: Preparation for Responsible Engagement

<u>Learning Outcome 3.1:</u> Demonstrate an awareness for individual action, ethical consciousness and a commitment to service.

Learning Outcome 3.2: Exhibit preparedness to live thoughtfully in our natural and human made environments. Learning Outcome 3.3: Demonstrate understanding of the importance of human collaboration and cooperation.