B.S. COMPUTER SCIENCE (Comprehensive Major) 8/30/2012
2012 FOUR YEAR CURRICULUM GUIDE
DEPARTMENT OF MATHEMATICS & COMPUTER SCIENCE

Year 1	Fall Semester			Year 1	Spring Semester	
Course #	**Title**	**Cr**		**Course #**	**Title**	**Cr**
CS 121	Computer Programming I	4		CS 122	Computer Programming II (sp only)	4
MATH 223	Discrete Mathematics I (fa only) (Core 1)	3		MATH 224	Discrete Mathematics II (sp only)	3
AOS 101	Accent on Success	1		COM 101	Human Communication (Core 5)	3
ENG 101	Composition I (Core 2)	3		ENG 102	Composition II (Core 5)	3
HS/FCS 180	Lifetime Wellness (Core 3)	2		CORE/GPS*	Institutional Requirement (Core 6)	3
CORE/GPS*	Institutional Requirement (Core 4)	3				
	TOTAL	**16**			**TOTAL**	**16**

Year 2	Fall Semester			Year 2	Spring Semester	
Course #	**Title**	**Cr**		**Course #**	**Title**	**Cr**
MATH 205	The Calculus I (fa only) *or* MATH 201/202	5		CS 301	Computer Architecture (sp only)	3
CS 230	Data Structures (fa only)	3		CS 303	Computer Algorithms (sp only)	3
CORE/GPS*	Institutional Requirement (Core 8)	3		MATH 307	Linear Algebra (sp only)	3
CORE	Institutional Requirement (Core 9)	3		ELECTIVE	Science Elective (1)	3
				ELECTIVE	General Elective	3
	TOTAL	**14**			**TOTAL**	**15**

Year 3	Fall Semester			Year 3	Spring Semester	
Course #	**Title**	**Cr**		**Course #**	**Title**	**Cr**
CS 302	Theory of Computation (fa only)	3		CS 499	Software Development (sp even) *or* CS Elective	3
CS 304	Programming Languages (fa only)	3		CORE	Institutional Requirement (Core 12)	3
CS 421	Operating Systems (fa odd) *or* CS Elective	3		CORE	Institutional Requirement (Core 13)	3
CORE	Institutional Requirement (Core 10)	3		ELECTIVE	Science Elective (2)	3
CORE	Institutional Requirement (Core 11)	3		ELECTIVE	General Elective	3
	TOTAL	**15**			**TOTAL**	**15**

Year 4	Fall Semester			Year 4	Spring Semester	
Course #	**Title**	**Cr**		**Course #**	**Title**	**Cr**
CS ELECTIVE	CS Elective or CS 421 Operating Systems (fa odd)	3		CS ELECTIVE	CS Elective or CS 499 Software Development (sp even)	3
CORE	Institutional Requirement (Core 14)	3		ELECTIVE	CS/MATH/IS Elective	3
CORE	Institutional Requirement (Core 15)	3		CORE	Institutional Requirement (Core 17)	3
CORE	Institutional Requirement (Core 16)	3		CORE	Institutional Requirement (Core 18)	3
ELECTIVE	Science Elective (3)	3		ELECTIVE	General Elective	3
	TOTAL	**15**			**TOTAL**	**15**

121 hours

**The Global Competency Requirement offers three tracks to completion. Students must complete one track. Three GPS courses are included in this guide, but students completing the requirement with fewer courses, or with study abroad, can substitute other elective courses to complete their degree studies. Students may take as many as 4 courses to fulfill the Global Competency Requirement. See http://www.ashland.edu/students/academics/core-curriculum/gps for details. Students taking language courses in the Modern Languages track are advised to start those courses in Year 1. The Global Studies or Study Abroad tracks can be taken Year 2 or later. In any case, discuss your options early with your faculty advisor or the professional advisor. This curriculum guide includes 9 hours of general electives, 6 hours of required computer science electives, 7-8 hours of required science electives, and 3 hours of required computer science, mathematics, or business electives.*