

Critical requirements are boldface in shaded areas

Course Subject and Title	Credit Hours	Upper Division	Min. Grade	Important Notes		
Semester One: [16-20 Credit Hours]						
CS 10051 Introduction to Computer Science	4		С			
ENG 11011 College Writing I <i>or</i> LER Humanities or Fine Arts	3			Enrollment based on placement tests; ENG 11011 fulfills LER Composition. Visit www.kent.edu/catalog and search "LER" for course lists		
US 10097 Destination Kent State: FYE	1			Not required for transfer students with 25 credits		
LER Basic Sciences	2-3			Visit www.kent.edu/catalog and search		
LER Basic Sciences Laboratory	1			"LER" for course list		
LER Mathematics and Critical Reasoning	3-5			Recommended: MATH 11010 Algebra for Calculus <u>OR</u> (if MATH 11010 is bypassed) PHIL 21002 Introduction to Formal Logic		
General Elective (lower or upper division)	2-3			Recommended: MATH 11022 Trigonometry, which is prerequisite for MATH 12002; students with sufficient trig background may take 3-credit elective in semester 4		
Semester Two: [15 Credit Hours]						
CS 23021 Computer Science I: Programming and Problem Solving	4		С			
CS 23022 Discrete Structures for Computer Science	3					
MATH 12002 Analytic Geometry and Calculus I	5					
LER Humanities or Fine Arts <i>or</i> ENG 11011 College Writing I	3			Enrollment based on placement tests; ENG 11011 fulfills LER Composition. Visit www.kent.edu/catalog and search "LER" for course lists		
Summer I	1					
If not taken in the first two semesters, CS 10051, 23021	l and 230	22 should	be taken	in the summer to remain on track		
Semester Three: [17 Credit Hours]						
Required: completion of CS 10051, LER Mathematics a	and minin	num 9 hou	rs in majo	or to graduate in four years		
CS 33001 Computer Science II: Data Structures and Abstraction	3		С			
CS 35101 Computer Architecture	3					
MATH 12003 Analytic Geometry and Calculus II	5					
ENG 21011 College Writing II <i>or</i> General Elective (lower or upper division)	3			ENG 21011 fulfills LER Composition. Should fulfill diversity requirement if not		
LER Social Sciences	3			satisfied earlier; visit <u>www.kent.edu/catalog</u> and search "LER" and "diversity" for course lists		
Semester Four: [13-15 Credit Hours]						
Required: completion of CS 23021, CS 23022 and mini	mum 17	hours in m	ajor to gr	aduate in four years		
CS 33101 Structure of Programming Languages	3					
CS 33211 Operating Systems	3					
CS 46101 Design and Analysis of Algorithms	3					
MATH 21001 Linear Algebra With Applications	3					
General Elective (lower or upper division) or	1-3			Students taking MATH 11022 need only 1 credit. ENG 21011 fulfills LER Composition.		
ENG 21011 College Writing II				credit. ENG 21011 Idillis EEN Composition.		



Roadmap: Computer Science - Bachelor of Science [AS-BS-CS] College of Arts and Sciences Department of Computer Science Catalog Year: 2009-2010

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Semester Five: [15 Credit Hours]											
Required: completion of CS 33001, CS 35101 and minimum 26 hours in major to graduate in four years											
CS 33006 Social and Ethical Issues in Computing	3		С	Fulfills writing-intensive course requirement							
CS 43005 Database Systems Design	3										
CS Elective (upper division)	3	-		See note 1 below							
LER Basic Sciences	3			Should fulfill diversity requirement if not satisfied earlier; visit <u>www.kent.edu/catalog</u> and search "LER" and "diversity" for course lists							
LER Humanities	3										
Semester Six: [15 Credit Hours]											
Required: completion of CS 33211, CS 46101, MATH 12002 and minimum 35 hours in major to graduate in four years											
CS 43901 Software Engineering	3										
CS 45201 Computer Communication Networks	3										
CS Elective (upper division)	3			See note 1 below							
LER Fine Arts	3			Should fulfill diversity requirement if not							
LER Social Sciences	3			satisfied earlier; visit <u>www.kent.edu/catalog</u> and search "LER" and "diversity" for course lists							
Summer III	I	L									
If not yet taken, MATH 21001should be taken in the sur	nmer to r	emain on t	rack								
Semester Seven: [14-15 Credit Hours]											
Required: minimum 46 hours in major to graduate in for	ur years;	apply for N	lay or Au	gust graduation							
CS 49901 Capstone Project	4										
CS Elective (40000-level)	3			See note 1 below							
Foreign Language Elementary I	4-5										
LER Additional	3			Visit www.kent.edu/catalog and search "LER"							
Semester Eight: [16-17 Credit Hours]											
Required: completion of CS 33101, CS 49901, MATH 2	1001and	minimum	58 hours	in major to graduate in four years							
CS Electives (40000-level)	6			See note 1 below							
Foreign Language Elementary I	4-5										
LER Additional	3			Should fulfill diversity requirement if not satisfied earlier; visit www.kent.edu/catalog and							
General Elective (lower or upper division)	3			search "LER" and "diversity" for course lists							

Graduation Requirements Summary

Total Hours	Upper-Division	Liberal Education	Diversity Course	Writing-Intensive	Minimum	
	Hours	Requirements Hours	Global / Domestic	witting-intensive	Major GPA	Overall GPA
121	42	36	LER or General Electives	CS 33006	2.00	2.00

Note 3: Any CS 3/40000-level elective course, along with one or more of the following courses, can be taken to satisfy this requirement: MATH 22005 *Analytic Geometry and Calculus II*, MATH 40011 *Introduction to Probability Theory and Application* and PHY *12411 Introduction to Computer Hardware*. Additionally, with the CS undergraduate advisor's prior permission, other select courses from outside the department may be counted. These courses must be computer science-related and/or integrate into the student's program of study.

Liberal Education Requirements (LER)

Students must complete a minimum 36 credit hours of Liberal Education Requirements. Colleges or degree programs may specify certain courses to fulfill the requirements. Courses in the students' major field will not count toward the completion of any LER. Honors equivalents shall satisfy the LER. None of the courses on the LER list may be taken with a pass/fail grade.



Diversity Course Requirement

Students must complete a two-course diversity requirement, consisting of one with a domestic focus and one with a global focus. One course must be come from the LER and cannot be in the student's major. The second course may be taken as a second LER; or within a major or minor; or as a general elective; or, with dean's approval, by completing one semester of study in another country.

Writing-Intensive Course Requirement

Students must complete a one-course writing-intensive requirement in their major and earn minimum C (2.00) grade.

Upper-Division Requirement

In general, baccalaureate programs require the successful completion of at least 39 upper-division (numbered 30000 to 49999) credit hours of coursework. Programs in the College of Arts and Sciences require a minimum of 42 hours of upper-division coursework.