KENT STATE
U N I V E R S I T Y

This roadmap is a recommended semester-by-semester plan of study for this major. However, courses and milestones designated as critical (in boldface and shaded areas) must be completed in the semester listed to ensure a timely graduation.

Course Subject and Title	Credit Hours	Upper Division	Min. Grade	Important Notes
Semester One: [16-17 Credit Hours]				
CS 10051 Introduction to Computer Science	**4**		**C**	**Fulfills Kent Core Mathematics and Critical Reasoning**
US 10097 Destination Kent State: FYE	1			Not required of transfer students with 25 credits
Kent Core Requirement	9			See Kent Core Summary on page 2
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**		**C**	
CS 23022 Discrete Structures for Computer Science	**3**			
MATH 12002 Analytic Geometry and Calculus I	**5**			**Fulfills Kent Core Additional**
Kent Core Requirement	3			See Kent Core Summary on page 2
Semester Three: [15 Credit Hours]				
CS 33001 Computer Science II: Data Structures and Abstraction	**3**	■	**C**	
CS 35101 Computer Architecture	**3**	■		
MATH 12003 Analytic Geometry and Calculus II	**5**			
Kent Core Requirement	4			See Kent Core Summary on page 2
Semester Four: [13-15 Credit Hours]				
CS 33101 Structure of Programming Languages	**3**	■		
CS 33211 Operating Systems	**3**	■		
CS 33006 Social and Ethical Issues in Computing	**3**	■	**C**	**Fulfills writing-intensive course requirement**
MATH 21001 Linear Algebra With Applications	3			
General Elective (lower or upper division)	1-3			Students who took MATH 11022 need only 1 credit this semester
Semester Five: [15 Credit Hours]				
CS 43005 Database Systems Design	**3**	■		
CS 45201 Computer Communication Networks	**3**	■		
CS Elective (upper division)	3	■		See note 1 on page 2
Kent Core Requirement	6			See Kent Core Summary on page 2
Semester Six: [15 Credit Hours]				
CS 43901 Software Engineering	**3**	■		
CS 46101 Design and Analysis of Algorithms	**3**	■		
CS Elective (upper division)	3	■		See note 1 on page 2
Kent Core Requirement	6			See Kent Core Summary on page 2
Semester Seven: [16-17 Credit Hours]				
CS 49901 Capstone Project	**4**	■		
CS Elective (40000-level)	3	■		See note 1 on page 2
Foreign Language (Elementary I)	4-5			
General Elective (lower or upper division)	5			See Kent Core Summary below

Critical requirements are boldface in shaded areas

Course Subject and Title	Credit Hours	Upper Division	Min. Grade	Important Notes
Semester Eight: [16-17 Credit Hours]				
CS Electives (40000-level)	6	■		See note 1 below
Foreign Language (Elementary II)	4-5			
General Elective (lower or upper division)	6			Number of credits required depends on meeting minimum 121 credit hours and 42 upper-division hours

Graduation Requirements Summary

Minimum Total Hours	Minimum Upper-Division Hours	Minimum Kent Core Hours	Diversity Course Global / Domestic	Writing-Intensive	Minimum	
					Major GPA	Overall GPA
121	42	36*	Kent Core or General Electives	CS 33006	2.00	2.00

> * In addition to the Kent Core, the College of Arts and Sciences requires for all its BS programs a minimum 8 credit hours of a foreign language.

Kent Core Summary

Kent Core Categories	Important Notes	Remaining Credit Hours
Additional (6 credit hours) *Must be selected from two Kent Core categories*	5 credits fulfilled in this major with MATH 12002; may fulfill diversity requirement	1
Basic Sciences (6-7 credit hours) *Must include one laboratory*		6-7
Composition (6-8 credit hours) *ENG 11002, 11011, 21011; HONR 10197, 10297*	Enrollment based on placement test	6-8
Humanities and Fine Arts (9 credit hours) *Minimum one course from humanities in Arts and Sciences category and minimum one course from fine arts category*	May fulfill diversity requirement	9
Mathematics and Critical Reasoning (3-5 credit hours)	Fulfilled in the major with CS 10051	0
Social Sciences (6 credit hours) *Must be selected from two curricular areas*	May fulfill diversity requirement	6

Note : 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.

Kent Core
Students must complete a minimum 36 credit hours of the Kent Core. Certain courses required in programs and in student's major field may also fulfill the Kent Core. Honors equivalents shall satisfy the Kent Core. None of the courses on the Kent Core list may be taken with a pass/fail grade. Visit www.kent.edu/catalog/kent-core for course list.

Diversity Course Requirement
Students must complete a two-course diversity requirement, consisting of one with a domestic (U.S.) focus and one with a global focus. One course must come from the Kent Core. The second course may be taken as a second Kent Core, within a major or minor, or as a general elective; or, with dean's approval, by completing one semester of study in another country. Visit www.kent.edu/catalog/diversity for course list.

Writing-Intensive Course Requirement
Students must complete a one-course writing-intensive requirement in their major and earn minimum C (2.00) grade.
Visit www.kent.edu/catalog/wic for course list.

Upper-Division Requirement
Students must complete a minimum 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.

Foreign Language
Visit www.kent.edu/catalog/foreign-languages for course list.