KENT STATE
UNIVERSITY

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 Credit Hours]				
MATH 12002 Analytic Geometry and Calculus I	5			**Fulfills Kent Core Mathematics and Critical Reasoning**
CS 10051 Introduction to Computer Science	4			Fulfills Kent Core Additional
US 10097 Destination Kent State: FYE	1			Not required of transfer students with 25 credits
Kent Core Requirement	6			See Kent Core Summary on page 2
Semester Two: [15 Credit Hours]				
MATH 12003 Analytic Geometry and Calculus II	5			
CS 23021 Computer Science I: Programming and Problem Solving	4			
Kent Core Requirement	6			See Kent Core Summary on page 2
Semester Three: [15-16 Credit Hours]				
MATH 22005 Analytic Geometry and Calculus III	3			
PHY 23101 General University Physics I	5			Fulfills Kent Core Basic Sciences
Foreign Language (Elementary I)	4-5			
Kent Core Requirement	3			See Kent Core Summary on page 2
Semester Four: [15-16 Credit Hours]				
MATH 21001 Linear Algebra with Applications	3			
PHY 23102 General University Physics II	5			Fulfills Kent Core Basic Sciences
Foreign Language (Elementary II)	4-5			
Kent Core Requirement	3			See Kent Core Summary on page 2
Semester Five: [14 Credit Hours]				
MATH 32044 Introduction to Ordinary Differential Equations	3	■		
MATH 42031 Mathematical Models and Dynamical Systems *or* MATH 42201 Introduction to Numerical Computing I	3	■		**Both courses are required; take whichever course is offered within this semester**
MATH 42041 Advanced Calculus *or* MATH 42048 Introduction to Complex Variables	3	■		**Both courses are required; take whichever course is offered within this semester**
Kent Core Requirement	5			See Kent Core Summary on page 2
Semester Six: [15 Credit Hours]				
MATH 42045 Introduction to Partial Differential Equations	3	■		**Offered in spring only every two years (2014, 2016, 2018); consult with department**
MATH 42091 Seminar: Modeling Projects *or* MATH 42202 Introduction to Numerical Computing II	3	■	C	**Both courses are required; take whichever course is offered within this semester; MATH 42091 fulfills writing-intensive course requirement**
Allied Area Electives (upper division)	3	■		See note below
General Elective (3 credits upper division)	6	■		
Semester Seven: [15 Credit Hours]				
MATH 40011 Introduction to Probability Theory and Applications	3	■		
MATH 42031 Mathematical Models and Dynamical Systems *or* MATH 42201 Introduction to Numerical Computing I	3	■		Select course not taken earlier
MATH 42041 Advanced Calculus *or* MATH 42048 Introduction to Complex Variables	3	■		Select course not taken earlier
General Electives (lower or upper division)	6			

Critical requirements are boldface in shaded areas

Course Subject and Title	Credit Hours	Upper Division	Min. Grade	Important Notes
Semester Eight: [16 Credit Hours]				
MATH 40012 Introduction to Statistical Concepts	**3**	■		
MATH 41021 Theory of Matrices	**3**	■		**Offered in spring only**
MATH 42091 Seminar: Modeling Projects *or* **MATH 42202 Introduction to Numerical Computing II**	**3**	■		**Select course not taken earlier; MATH 42091 fulfills writing-intensive course requirement**
Allied Area Elective (upper division)	3	■		See note below
General Elective (lower or upper division)	4			Number of credits required depends on meeting minimum 121 credit hours and minimum 42 upper-division credit 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	MATH 42091	2.0	2.0

* 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*	4 credits fulfilled in this major with CS 10051; may fulfill diversity requirement	2
Basic Sciences (6-7 credit hours) *Must include one laboratory*	Fulfilled in this major with PHY 23102 and PHY 23102	0
Composition (6-8 credit hours) *ENG 11011, 11002, 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 this major with MATH 12002	0
Social Sciences (6 credit hours) *Must be selected from two curricular areas*	May fulfill diversity requirement	6

Note: **Allied area electives:** approved by the major advisor from approved upper-division courses for majors in the following:

BSCI upper-division courses	1-9	MATH upper-division courses	1-9
CHEM upper-division courses	1-9	PHY upper-division courses	1-9
CS upper-division courses	1-9		

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.