



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 Div.	Min. Grade	Major GPA	Important Notes
<b>Semester One: [15 Credit Hours]</b>					
<b>CS 10061 Introduction to Computer Programming or DSCI 15310 Computational Thinking and Programming</b>	3			■	
<b>MATH 12002 Analytic Geometry and Calculus I</b>	5			■	<b>Fulfills Kent Core Mathematics and Critical Reasoning</b>
US 10097 Destination Kent State: First Year Experience	1				Not required for transfer students with 25 credits
Kent Core Requirement	3				See Kent Core Summary on page 2
Kent Core Requirement	3				
<b>Semester Two: [16 Credit Hours]</b>					
<b>MATH 12003 Analytic Geometry and Calculus II</b>	5			■	
<b>PHY 23101 General University Physics I</b>	5			■	<b>Fulfills Kent Core Basic Sciences</b>
Kent Core Requirement	3				See Kent Core Summary on page 2
Kent Core Requirement	3				
<b>Semester Three: [17-18 Credit Hours]</b>					
<b>MATH 21001 Linear Algebra with Applications</b>	3			■	
<b>MATH 22005 Analytic Geometry and Calculus III</b>	4			■	
Foreign Language (Elementary I)	4-5				Fulfills College General Requirement
Kent Core Requirement	3				See Kent Core Summary on page 2
Kent Core Requirement	3				
<b>Semester Four: [16 Credit Hours]</b>					
<b>MATH 40011 Introduction to Probability Theory and Application</b>	3	■		■	
Foreign Language (Elementary II)	4-5				Fulfills College General Requirement
Kent Core Requirement	3				See Kent Core Summary on page 2
Kent Core Requirement	3				
Allied Area Elective	3	■		■	See note 1 on page 2
<b>Semester Five: [16 Credit Hours]</b>					
<b>MATH 30055 Mathematic Theory of Interest</b>	3	■		■	
<b>MATH 40012 Statistical Concepts</b>	3	■		■	
Kent Core Requirement	4				See Kent Core Summary on page 2
Allied Area Elective	3	■		■	See note 1 on page 2
General Electives (lower or upper division)	3				
<b>Semester Six: [16 Credit Hours]</b>					
<b>MATH 40055 Actuarial Mathematics I</b>	4	■		■	
<b>MATH 41021 Theory of Matrices</b>	3	■		■	<b>Offered in spring only</b>
Allied Area Electives	6	■		■	See note 1 on page 2
General Electives (lower or upper division)	3				
<b>Semester Seven: [15 Credit Hours]</b>					
<b>MATH 40056 Actuarial Mathematics II</b>	4	■		■	
<b>MATH 42001 Introduction to Analysis I</b>	3	■	C	■	<b>Fulfills writing-intensive course requirement</b>
Allied Area Elective	3	■		■	See note 1 on page 2
General Electives (lower or upper division)	5				
<b>Semester Eight: [10 Credit Hours]</b>					
<b>MATH 40091 Actuarial Seminar</b>	2	■		■	
<b>MATH 42002 Introduction to Analysis II</b>	3	■	C	■	<b>Fulfills writing-intensive course requirement</b>
General Electives (lower or upper division)	5				



### Graduation Requirements Summary

Minimum Total Hours	Minimum Upper-Division Hours	Minimum Kent Core Hours	Global / Domestic Diversity Course	Writing-Intensive	Experiential Learning	Minimum Major GPA	Minimum Overall GPA
121	42	36	PHIL 21002/Kent Core or General Electives	MATH 42001 or 42002	Visit <a href="http://www.kent.edu/catalog/elr">www.kent.edu/catalog/elr</a>	2.000	2.000

### Kent Core Summary

Kent Core Categories	Important Notes	Remaining Credit Hours
<b>Composition (6-8 credit hours)</b> <i>ENG 11002, 11011, 21011; HONR 10197, 10297</i>	Enrollment based on placement test	6-8
<b>Mathematics and Critical Reasoning (3-5 credit hours)</b>	Fulfilled in this major with MATH 12002	0
<b>Humanities and Fine Arts (9 credit hours)</b> <i>Minimum one course from humanities in Arts and Sciences category and minimum one course from fine arts category</i>	May fulfill diversity requirement	9
<b>Social Sciences (6 credit hours)</b> <i>Must be selected from two curricular areas</i>	May fulfill diversity requirement	6
<b>Basic Sciences (6-7 credit hours)</b> <i>Must include one laboratory</i>	5 credits fulfilled in this major with PHY 23101	1-2
<b>Additional (6 credit hours)</b> <i>Must be selected from two Kent Core categories</i>	May fulfill diversity requirement	6

**Note 1: Allied area electives (15 credit hours), approved by the major advisor from the following:**

ACCT upper division courses *	1-15	GEOL upper-division courses	1-15
BMRT courses *	1-15	MATH upper-division courses *	1-15
BSCI upper-division courses	1-15	MIS upper-division courses	1-15
BUS courses *	1-15	PHY upper-division courses	1-15
CHEM upper-division courses	1-15	PHIL 31045 Formal Logic	3
CS upper-division courses	1-15	PHIL 41035 Philosophy of Science	3
ECON upper-division courses *	1-15	PHIL 41045 Metalogic	3
FIN upper-division courses *	1-15		

\* Course may satisfy the professional achievement requirements (e.g., for Fellow status) set by the Society of Actuaries and the Casualty Actuarial Society..

**Note:** All courses taken from the list of major program requirements are used in the calculation of the major GPA.

#### 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](http://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](http://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 (2.000) grade. Visit [www.kent.edu/catalog/wic](http://www.kent.edu/catalog/wic) for course list.

#### Experiential Learning Requirement (ELR)

To provide students with direct engagement in learning experiences that promote academic relevance, meaning and an understanding of real-world issues, students must complete this requirement at Kent State, either as a for-credit course or as a non-credit, non-course experience approved by the appropriate faculty member. Visit [www.kent.edu/catalog/elr](http://www.kent.edu/catalog/elr) 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](http://www.kent.edu/catalog/foreign-languages) for course list.