



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
<b>Semester One: [15 Credit Hours]</b>				
<b>MATH 12002 Analytic Geometry and Calculus I</b>	<b>5</b>			<b>Fulfills Kent Core Mathematics and Critical Reasoning</b>
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	5			See Kent Core Summary on page 2; ECON 22060 is recommended
<b>Semester Two: [15 Credit Hours]</b>				
<b>MATH 12003 Analytic Geometry and Calculus II</b>	<b>5</b>			
CS 23021 Computer Science I: Programming and Problem Solving	4			
Kent Core Requirement	6			See Kent Core Summary on page 2; ECON 22061 is recommended
<b>Semester Three: [15-16 Credit Hours]</b>				
<b>MATH 22005 Analytic Geometry and Calculus III</b>	<b>3</b>			
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
<b>Semester Four: [15-16 Credit Hours]</b>				
<b>MATH 21001 Linear Algebra with Applications</b>	<b>3</b>			
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
<b>Semester Five: [15 Credit Hours]</b>				
ACCT 23020 Introduction to Financial Accounting	3			
MATH 32044 Introduction to Ordinary Differential Equations	3	■		
MATH 40011 Introduction to Probability Theory and Applications	3	■		
MATH 42031 Mathematical Models and Dynamical Systems <i>or</i> MATH 42201 Introduction to Numerical Computing I	3	■		Both courses are required; take whichever course is offered within this semester
Kent Core Requirement	3			See Kent Core Summary on page 2
<b>Semester Six: [15 Credit Hours]</b>				
FIN 36053 Business Finance	3	■		
MATH 40012 Introduction to Statistical Concepts	3	■		
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 <i>or</i> 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
General Elective (upper division)	3	■		



**Critical requirements are boldface in shaded areas**

Course Subject and Title	Credit Hours	Upper Division	Min. Grade	Important Notes
<b>Semester Seven: [15 Credit Hours]</b>				
<b>MATH 40051 Topics in Probability Theory and Stochastic Processes</b>	3	■		<b>Offered in fall only</b>
<b>MATH 42031 Mathematical Models and Dynamical Systems</b> <i>or</i> <b>MATH 42201 Introduction to Numerical Computing I</b>	3	■		<b>Select course not taken earlier</b>
Kent Core Requirement	3			See Kent Core Summary on page 2
General Elective (3 credits must be upper division)	6	■		
<b>Semester Eight: [15 Credit Hours]</b>				
<b>MATH 41021 Theory of Matrices</b>	3	■		<b>Offered in spring only</b>
<b>MATH 42091 Seminar: Modeling Projects</b> <i>or</i> <b>MATH 42202 Introduction to Numerical Computing II</b>	3	■		<b>Select course not taken earlier; MATH 42091 fulfills writing-intensive course requirement</b>
Allied Area Elective (upper division)	3	■		See note below
General Electives (lower or upper division)	6			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	Minimum 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
<b>Additional (6 credit hours)</b> <i>Must be selected from two Kent Core categories</i>	Fulfilled in this major with CS 10051. ECON 22061 is recommended to fulfill prerequisite requirement for FIN 36053	3
<b>Basic Sciences (6-7 credit hours)</b> <i>Must include one laboratory</i>	Fulfilled in this major with PHY 23102 and PHY 23102	0
<b>Composition (6-8 credit hours)</b> <i>ENG 11011, 11002, 21011; HONR 10197, 10297</i>	Enrollment based on placement test	6-8
<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>Mathematics and Critical Reasoning (3-5 credit hours)</b>	Fulfilled in this major with MATH 12002	0
<b>Social Sciences (6 credit hours)</b> <i>Must be selected from two curricular areas</i>	May fulfill diversity requirement. ECON 22060 is recommended to fulfill prerequisite requirement for FIN 36053	6

**Note:** **Allied area electives (3 credit hours)**, approved by the major advisor from approved upper-division courses for majors in the following:

BSCI upper-division courses	1-9	ECON 32041 Intermediate Macroeconomic Theory and Policy	3
CHEM upper-division courses	1-9		
CS upper-division courses	1-9	ECON 32050 Applied Econometrics	3
MATH upper-division courses	1-9	FIN 36054 Intermediate Business Finance	3
PHY upper-division courses	1-9	FIN 36059 Investments	3
ECON 32025 Money, Credit and Banking	3	FIN 46054 Financial Risk Management	3
ECON 32040 Intermediate Microeconomic Theory and Applications	3	FIN 46055 Options and Futures Markets	3
		FIN 46064 International Business Finance	3
		FIN 46067 Portfolio Analysis	3



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**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 (2.00) grade.

Visit [www.kent.edu/catalog/wic](http://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](http://www.kent.edu/catalog/foreign-languages) for course list.

