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: [15 Credit Hours] |  |  |  |  |
| CS 10061 Introduction to Computer Programming | 3 |  |  |  |
| MATH 12002 Analytic Geometry and Calculus I | 5 |  |  | Fulfills Kent Core Mathematics and Critical Reasoning |
| US 10097 Destination Kent State: FYE | 1 |  |  | Not required for transfer students with 25 credits |
| Kent Core Requirement | 6 |  |  | See Kent Core Summary on page 2 |
| Semester Two: [16 Credit Hours] |  |  |  |  |
| MATH 12003 Analytic Geometry and Calculus II | 5 |  |  |  |
| PHY 23101 General University Physics | 5 |  |  | Fulfills Kent Core Basic Sciences |
| Kent Core Requirement | 6 |  |  | See Kent Core Summary on page 2 |
| Semester Three: [16-17 Credit Hours] |  |  |  |  |
| MATH 21001 Linear Algebra with Applications | 3 |  |  |  |
| MATH 22005 Analytic Geometry and Calculus III | 3 |  |  |  |
| Foreign Language (Elementary I) | 4-5 |  |  |  |
| Kent Core Requirement | 6 |  |  | See Kent Core Summary on page 2 |
| Semester Four: [16 Credit Hours] |  |  |  |  |
| MATH 40011 Introduction to Probability Theory and Application | 3 | $\square$ |  |  |
| Foreign Language (Elementary II) | 4-5 |  |  |  |
| Kent Core Requirement | 6 |  |  | See Kent Core Summary on page 2 |
| Allied Area Elective | 3 | $\square$ |  | See note 1 on page 2 |
| Semester Five: [15 Credit Hours] |  |  |  |  |
| MATH 30055 Mathematic Theory of Interest | 3 | ■ |  |  |
| MATH 40012 Statistical Concepts | 3 | $\square$ |  |  |
| Kent Core Requirement | 3 |  |  | See Kent Core Summary on page 2 |
| Allied Area Elective | 3 | ■ |  | See note 1 on page 2 |
| General Electives (lower or upper division) | 3 |  |  |  |
| Semester Six: [16 Credit Hours] |  |  |  |  |
| MATH 40055 Actuarial Mathematics I | 4 | $\square$ |  |  |
| MATH 41021 Theory of Matrices | 3 | $\square$ |  | Offered in spring only |
| Allied Area Electives | 6 | $\square$ |  | See note 1 on page 2 |
| General Electives (lower or upper division) | 3 |  |  |  |
| Semester Seven: [16 Credit Hours] |  |  |  |  |
| MATH 40056 Actuarial Mathematics II | 4 | ■ |  |  |
| MATH 42001 Introduction to Analysis I | 3 | $\square$ |  | Fulfills writing-intensive course requirement; see note 2 on page 2 |
| Allied Area Elective | 3 | ■ |  | See note 1 on page 2 |
| General Electives (lower or upper division) | 6 |  |  |  |
| Semester Eight: [11 Credit Hours] |  |  |  |  |
| MATH 40091 Actuarial Seminar | 2 | ■ |  |  |
| MATH 42002 Introduction to Analysis II | 3 | $\square$ |  | Fulfills writing-intensive course requirement; see note 2 on page 2 |
| General Electives (lower or upper division) | 6 |  |  |  |

## Graduation Requirements Summary

| Minimum <br> Total Hours | Minimum Upper- <br> Division Hours | Minimum <br> Kent Core Hours | Diversity Course <br> Global / Domestic | Writing-Intensive | Minimum <br> Major GPA |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 121 | 42 | $36^{*}$ | PHIL 21002 or Kent Core / <br> Kent Core or General Electives | MATH 42001 or <br> MATH 42002 | 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 | Remaining <br> Credit Hours |  |
| :--- | :--- | :---: |
| Additional (6 credit hours) <br> Must be selected from two Kent Core categories | May fulfill diversity requirement | 6 |
| Basic Sciences (6-7 credit hours) <br> Must include one laboratory | 5 credits fulfilled in this major with PHY 23101 | $1-2$ |
| Composition (6-8 credit hours) <br> ENG 11002, 11011, 21011; HONR 10197, 10297 | Enrollment based on placement test | $6-8$ |
| Humanities and Fine Arts (9 credit hours) <br> Minimum one course from humanities in Arts and Sciences <br> 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 |  |
| Social Sciences (6 credit hours) <br> Must be selected from two curricular areas | May fulfill diversity requirement | 0 |

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 * | $1-15$ |  |  |
| BSCl 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 2: To satisfy the writing-intensive course requirement (see description below), either MATH 42001or MATH 42002 must be earned with minimum C grade.

## 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.

