

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

| Critical | Course Subject and Title | Credit Hours | Upper Div. | Min. Grade | Major GPA | Type | Term Taken |
|------------------------------------|--|--------------|------------|------------|-----------|------|------------|
| Semester One [15 Credits] | | | | | | | |
| ! | CHEM 10060 General Chemistry I and CHEM 10062 General Chemistry I Laboratory or CHEM 10960 Honors General Chemistry | 5 | | | ■ | KBS | |
| ! | MATH 11010 Algebra for Calculus | 3 | | | ■ | KMC | |
| | US 10097 Destination Kent State: First Year Experience ¹ | 1 | | | | | |
| | Kent Core Requirement | 3 | | | | | |
| | Kent Core Requirement | 3 | | | | | |
| Semester Two [14 Credits] | | | | | | | |
| ! | CHEM 10061 General Chemistry II and CHEM 10063 General Chemistry II Laboratory or CHEM 10961 Honors General Chemistry | 5 | | | ■ | KBS | |
| ! | MATH 11022 Trigonometry | 3 | | | ■ | KMC | |
| | Kent Core Requirement | 3 | | | | | |
| | Kent Core Requirement | 3 | | | | | |
| Semester Three [18 Credits] | | | | | | | |
| ! | CHEM 20481 Basic Organic Chemistry I ² or CHEM 30481 Organic Chemistry I ² | 3 - 4 | | | ■ | | |
| ! | CHEM 30475 Organic Chemistry Laboratory I ² | 1 | ■ | | ■ | | |
| ! | PHY 13001 General College Physics I | 4 | | | ■ | KAD | |
| ! | PHY 13021 General College Physics Laboratory I | 1 | | | ■ | KBS | |
| ! | MATH 12002 Analytic Geometry and Calculus I | 5 | | | ■ | KAD | |
| | Foreign Language ³ | 4 - 5 | | | | | |
| Semester Four [14 Credits] | | | | | | | |
| ! | CHEM 20482 Basic Organic Chemistry II ⁴ or CHEM 30482 Organic Chemistry II ⁴ | 2-3 | | | ■ | | |
| ! | CHEM 30301 Inorganic Chemistry I ⁵ | 2 | ■ | | ■ | | |
| ! | CHEM 30476 Organic Chemistry Laboratory II ⁶ | 1 | ■ | | ■ | | |
| ! | PHY 13002 General College Physics II | 4 | | | ■ | KBS | |
| ! | PHY 13022 General College Physics Laboratory II | 1 | | | ■ | KBS | |
| | Foreign Language ³ | 4 - 5 | | | | | |
| Semester Five [17 Credits] | | | | | | | |
| ! | CHEM 40567 Basic Concepts of Physical Chemistry ⁷ | 4 | ■ | | ■ | | |
| | CHEM 30105 Analytical Chemistry I ⁷ | 3 | ■ | | ■ | | |
| | CHEM 30107 Analytical Chemistry Laboratory I ⁸ | 1 | ■ | C | ■ | WIC | |
| | Foreign Language ³ | 3 - 5 | | | | | |
| | Kent Core Requirement | 3 | | | | | |
| | Kent Core Requirement | 3 | | | | | |
| Semester Six [14 Credits] | | | | | | | |
| | CHEM 30284 Introductory Biological Chemistry ⁶ | 4 | ■ | | ■ | | |
| | CHEM 40568 Elementary Physical Chemistry Laboratory ⁵ | 1 | ■ | | ■ | | |
| | Foreign Language ³ | 3 - 5 | | | | | |
| | Kent Core Requirement | 3 | | | | | |
| | College General Requirement (must be from Kent Core Social Sciences) ⁹ | 3 | | | | | |
| Semester Seven [15 Credits] | | | | | | | |
| ! | CHEM 40302 Inorganic Chemistry II ⁷ | 2 | ■ | | ■ | | |
| | CHEM Electives ¹⁰ | 1 - 3 | ■ | | ■ | | |
| | General Electives ¹¹ | 12 | ■ | | | | |
| Semester Eight [13 Credits] | | | | | | | |
| | General Electives (2-10 credit hours must be upper division) ¹¹ | 13 | | | | | |

Graduation Requirements Summary

| Minimum Total Hours | Minimum Upper-Division Hours | Minimum Kent Core Hours | Minimum | |
|---------------------|------------------------------|-------------------------|-----------|-------------|
| | | | Major GPA | Overall GPA |
| 120 | 42 | 36 | 2.000 | 2.000 |

1. US 10097 is not required of transfer students with 25 credits or students age 21+ at time of admission.

2. Offered in fall and summer only

3. Fulfills College General Requirements. Foreign Language Note: Students pursuing a Bachelor of Arts degree in the College of Arts and Sciences must have the equivalent of Elementary I and II in any language, plus one of the following options:
- Intermediate I and II of the same language
 - Elementary I and II of a second language
 - Any combination of two courses from the following list:
 - Intermediate I of the same language
 - MCLS 10001 Introduction to Structural Concepts for Language Students
 - MCLS 20000 Global Literacy and Cultural Awareness
 - MCLS 20091 Seminar: Global Literacy Case Studies
- All students with prior foreign language experience should take the foreign language placement test to determine the appropriate level at which to start. Some students may begin their university foreign language experience beyond the Elementary I level and will complete the requirement with fewer credit hours and fewer courses. This may be accomplished by: (1) passing a course beyond Elementary I through Intermediate II level or (2) receiving credit through Credit by Exam (CBE), the College Level Examination Program (CLEP), the Advanced Placement (AP) exam or credit through the International Baccalaureate (IB) program; or (3) being designated a "native speaker" of a non-English language (consult with the College of Arts and Sciences Advising Office for additional information). When students complete the requirement with fewer than 14 credit hours and four courses, they will complete remaining hours with general electives.
- If CHEM 20481 was taken, select CHEM 20482; If CHEM 30481 was taken, select CHEM 30482. Courses typically offered in spring and summer only.
 - Offered in spring only
 - Offered in spring and summer only
 - Offered in fall only
 - A minimum C (2.000) grade must be earned in CHEM 30107 to fulfill the writing-intensive requirement.
 - One additional course taken from the Kent Core Social Sciences courses in the following Arts and Sciences disciplines: Anthropology (ANTH), Applied Conflict Management (CACM), Geography (GEOG), Criminology and Justice Studies (JUS), Political Science (POL), Psychology (PSYC) or Sociology (SOC). The course may not be from the student's major.
 - CHEM Electives (1-3 credits)

| Choose from the following: | |
|--|---|
| CHEM 30050 Introduction to Materials Chemistry (2) | CHEM 30106 Analytical Chemistry II (2) |
| CHEM 40248 Advanced Biological Chemistry (3) | CHEM 40303 Inorganic Chemistry III (2) |
| CHEM 40477 Intermediate Organic Chemistry Laboratory (1) | CHEM 40483 Intermediate Organic Chemistry (1) |
| CHEM 40796 Individual Investigation (1 - 2) | Chemistry Department-approved electives (1 - 3) |

- 14-22 upper-division credit hours. Number of upper division credits required depends on meeting minimum 120 credit hours and minimum 42 upper-division credit hours

University Requirements Summary

| Type | Categories | Course(s) Satisfying Category | Remaining Requirements |
|------|---|---|------------------------|
| KCM | Kent Core I. Composition Enrollment based on placement test | visit www.kent.edu/catalog/kent-core | 6 |
| KMC | Kent Core II. Mathematics and Critical Reasoning Enrollment based on placement test | MATH 11010 or MATH 11022 | fulfilled |
| KHU | Kent Core III. Humanities Minimum one course from humanities in Arts and Sciences; may fulfill diversity requirement | visit www.kent.edu/catalog/kent-core | 3 |
| KFA | Kent Core IV. Fine Arts Minimum one course from the fine arts; may fulfill diversity requirement | visit www.kent.edu/catalog/kent-core | 3 |
| KFH | Kent Core V. Humanities or Fine Arts One additional course from either the humanities or fine arts category, may fulfill diversity requirement. | visit www.kent.edu/catalog/kent-core | 3 |
| KSS | Kent Core VI. Social Sciences Must be selected from two curricular areas; may fulfill diversity requirement | visit www.kent.edu/catalog/kent-core | 6 |
| KBS | Kent Core VII. Basic Sciences Must include one laboratory | CHEM 10060 and 10062 (or CHEM 10960), CHEM 10061 and 10063 (or CHEM 10961), PHY 13002, PHY 13021, PHY 13022 | fulfilled |
| KAD | Kent Core VIII. Additional May fulfill diversity requirement | MATH 12002, PHY 13001 | fulfilled |
| DD | Domestic Diversity Course Requirement Either domestic or global diversity must be from Kent Core | visit www.kent.edu/catalog/diversity | one course |
| DG | Global Diversity Course Requirement Either domestic or global diversity must be from Kent Core | visit www.kent.edu/catalog/diversity | one course |
| ELR | Experiential Learning Requirement Either course or non-course experience approved by the appropriate faculty member | visit www.kent.edu/catalog/elr | one course or activity |
| WIC | Writing-Intensive Course Requirement Minimum C (2.000) grade | CHEM 30107 | fulfilled |