

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	Min. Grade	Major GPA	Attribute	Notes
Semester One [14 Credits]						
!	CHEM 10060 General Chemistry I (4) <i>or</i> CHEM 10970 Honors General Chemistry I (4)	4		■	KBS	
!	CHEM 10062 General Chemistry I Laboratory	1		■	KBS	
!	MATH 12002 Analytic Geometry and Calculus I	5		■	KMC	
	UC 10097 Destination Kent State: First Year Experience ¹	1				
	Kent Core Requirement	3				
Semester Two [16 Credits]						
!	CHEM 10061 General Chemistry II (4) <i>or</i> CHEM 10971 Honors General Chemistry II (4)	4		■	KBS	
!	CHEM 10063 General Chemistry II Laboratory	1		■	KBS	
!	MATH 12003 Analytic Geometry and Calculus II	5		■		
	Kent Core Requirement	3				
	Kent Core Requirement	3				
Semester Three [15-16 Credits]						
!	CHEM 30475 Organic Chemistry Laboratory I ²	1		■	ELR	
!	CHEM 30481 Organic Chemistry I ²	3		■		
!	MATH 12022 Probability and Statistics for Life Sciences (3) <i>or</i> MATH 22005 Analytic Geometry and Calculus III (4)	3 - 4		■		
!	PHY 23101 General University Physics I	5		■	KBS	
	Kent Core Requirement	3				
Semester Four [15 Credits]						
!	CHEM 20050 Career Pathways in Chemistry ³	1				
!	CHEM 30301 Inorganic Chemistry I ³	2		■		
!	CHEM 30476 Organic Chemistry Laboratory II ⁴	1		■		
!	CHEM 30482 Organic Chemistry II ⁴	3		■		
!	PHY 23102 General University Physics II	5		■	KBS	
	ECON 22060 Principles of Microeconomics	3		■	KSS	
Semester Five [14 Credits]						
!	CHEM 30105 Analytical Chemistry I ⁵	3		■		
!	CHEM 30107 Analytical Chemistry Laboratory I ⁵	1	C ⁶	■	WIC	
!	CHEM 40302 Inorganic Chemistry II	2		■		
!	CHEM 40567 Physical Chemistry for Life Sciences ^{5,7}	4		■		
	Foreign Language ⁸	4 - 5				
Semester Six [15 Credits]						
!	CHEM 30106 Analytical Chemistry II ³	2		■		
!	CHEM 30108 Analytical Chemistry II Laboratory ³	2	C ⁶	■	WIC	
!	CHEM 40568 Elementary Physical Chemistry Laboratory ³	1		■		
!	PHY 22564 Introduction to Materials Physics ³	3		■		
	Concentration Elective ⁹	3		■		
	Foreign Language ⁸	4 - 5				
Semester Seven [15 Credits]						
	Concentration Electives ⁹	9		■		
	Kent Core Requirement	3				
	Kent Core Requirement	3				
Semester Eight [16 Credits]						
!	CHEM 40364 Intermediate Inorganic Chemistry Lab ³	1		■		
	Concentration Elective ⁹	3		■		
	General Electives ¹⁰	12				

Graduation Requirements Summary

Minimum Total Hours	Minimum Upper-Division Hours 30000 – 40000 level course	Minimum Kent Core Hours	Minimum	
			Major GPA	Overall GPA
120	42	36	2.000	2.000

1. UC 10097 not required of transfer students with 25 credits (excluding College Credit Plus) for students age 21+ at time of admission.
2. Offered in fall and summer only.
3. Offered in spring only.
4. Offered in spring and summer only.
5. Offered in fall only.
6. A minimum grade of C must be earned to fulfill the writing-intensive requirement.
7. CHEM 30107 and CHEM 30108 can be substituted for CHEM 40567 and 2 credit hours of concentration electives.
8. Fulfills College General Requirement.
9. Concentration Electives (15 credit hours), choose from the following:

ACCT 23020 Introduction to Financial Accounting (3)	CHEM 40451 Organic Materials Chemistry (3) **
CHEM 30284 Introductory Biological Chemistry (4)	CHEM 40557 Physical Chemistry Laboratory (2)
CHEM 40092 Internship in Chemistry (1-9) * or	CHEM 40559 Nanomaterials (3) **
CHEM 40796 Individual Investigation (1-8)	CHEM 40571 Surface Chemistry (2) **
CHEM 40113 Chemical Separations (3)	PLST 48401 Patent Law (3)
CHEM 40352 Inorganic Materials Chemistry (3) **	TECH 43080 Industrial and Environmental Safety (3)

* Students are strongly encouraged to take CHEM 40092.

** At least one of the following courses must be chosen: CHEM 40352, CHEM 40451, CHEM 40559, CHEM 40571.

10. Number of general elective credits required depends on meeting minimum 120 credit hours and minimum 42 upper-division hours.

University Requirements: Bachelor's degree-seeking students must meet Kent Core (general education requirements), diversity, writing-intensive and experiential learning requirements. For more information about these requirements, please read the following sections in the University Catalog: Kent Core – www.kent.edu/catalog/kent-core; Diversity Course Requirement – www.kent.edu/catalog/diversity; Writing-Intensive Course Requirement – www.kent.edu/catalog/wic; Experiential Learning Requirement – www.kent.edu/catalog/elr.

Attribute Legend: **DD** Diversity–Domestic; **DG** Diversity–Global; **ELR** Experiential Learning; **KAD** Kent Core Additional; **KBS** Kent Core Basic Sciences; **KCM** Kent Core Composition; **KFA** Kent Core Fine Arts; **KHU** Kent Core Humanities; **KMC** Kent Core Mathematics and Critical Reasoning; **KSS** Kent Core Social Sciences; **WIC** Writing Intensive