

Critical requirements are boldface in shaded areas

Course Subject and Title	Credit Hours	Upper Division	Min. Grade	Important Notes
Semester One: [17 Credit Hours]				
With the selection of appropriate concentration electives, this program meets the minimum requirements for certification by the American Chemical Society				
BSCI 10120 Biological Foundations	4			
CHEM 10060 General Chemistry I <i>or</i> CHEM 10960 Honors General Chemistry	4-5			
CHEM 10062 General Chemistry I Laboratory	0-1			Take only if CHEM 10060 is selected
MATH 12021 Calculus for Life Sciences	4			Is approved as proficiency to fulfill LER Mathematics and Critical Reasoning; enrollment based on placement
ENG 11011 College Writing I <i>or</i> LER Humanities	3			Enrollment based on placement tests; ENG 11011 fulfills LER Composition. Visit www.kent.edu/catalog and search "LER" for course lists
US 10097 Destination Kent State: FYE	1			Not required for transfer students with 25 credits
Semester Two: [14 Credit Hours]				
CHEM 10061 General Chemistry II <i>or</i> CHEM 10961 Honors General Chemistry	4-5			If CHEM 10060 was taken; select CHEM 10061; If CHEM 10960 was taken, select CHEM 10961
CHEM 10063 General Chemistry II Laboratory	0-1			Take only if CHEM 10061 is selected
MATH 12022 Probability and Statistics for Life Sciences	3			
LER Humanities <i>or</i> ENG 11011 College Writing I	3			Enrollment based on placement tests; ENG 11011 fulfills LER Composition. Should fulfill diversity requirement; visit www.kent.edu/catalog and search "LER" and "diversity" for course lists
LER Humanities or Fine Arts	3			
Semester Three: [15 Credit Hours]				
BSCI 30156 Elements of Genetics	3	■		
CHEM 30475 Organic Chemistry Laboratory I	1	■		
CHEM 30481 Organic Chemistry I	3	■		Offered in fall only
PHY 13001 General College Physics I	4			Fulfills LER Additional
PHY 13021 General College Physics Laboratory I	1			Fulfills LER Basic Sciences
ENG 21011 College Writing II	3			Fulfills LER Composition
Semester Four: [15 Credit Hours]				
BSCI 30140 Cell Biology	4			
CHEM 30301 Inorganic Chemistry I	2	■		Offered in spring only
CHEM 30476 Organic Chemistry Laboratory II	1	■		Offered in spring only
CHEM 30482 Organic Chemistry II	3	■		Offered in spring only
PHY 13002 General College Physics II	4			Fulfills LER Basic Sciences
PHY 13022 General College Physics Laboratory II	1			
Semester Five: [15-16 Credit Hours]				
CHEM 30105 Analytical Chemistry I	3	■		Offered in fall only
CHEM 30107 Analytical Chemistry Laboratory I	1	■	C	Fulfills writing-intensive course requirement; offered in fall only
CHEM 40567 Basic Concepts of Physical Chemistry	4	■		Offered in fall only
Foreign Language Elementary I	4-5			
LER Social Sciences	3			Should fulfill diversity requirement if not satisfied earlier; visit www.kent.edu/catalog and search "LER" and "diversity" for course lists

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Semester Six: [16-17 Credit Hours]				
BSCI 30171 General Microbiology	4	■		
CHEM 40245 Biochemical Foundations of Medicine	4	■		Typically offered in spring and summer only
CHEM 40568 Elementary Physical Chemistry Laboratory	1	■		Offered in spring only
Foreign Language Elementary II	4-5			
LER Fine Arts	3			Should fulfill diversity requirement if not satisfied earlier; visit www.kent.edu/catalog and search "LER" and "diversity" for course lists
Semester Seven: [15 Credit Hours]				
CHEM 40248 Advanced Biological Chemistry	3	■		Offered in fall only
LER Additional	3			Should fulfill diversity requirement if not satisfied earlier; visit www.kent.edu/catalog and search "LER" and "diversity" for course lists
LER Social Sciences	3			
Concentration Elective (upper division)	6	■		See note below
Semester Eight: [12-14 Credit Hours]				
CHEM 40251 Advanced Biological Chemistry Laboratory	2	■	C	Fulfills writing-intensive course requirement; offered in spring only
CHEM 40263 Physical Biochemistry	3	■		Offered in spring only
Concentration Elective (upper division)	2	■		See note below
General Electives (lower or upper division)	5-7			Number of credits required depends on meeting minimum 121 credit hours and 42 upper-division hours

Graduation Requirements Summary

Total Hours	Upper-Division Hours	Liberal Education Requirements Hours	Diversity Course Global / Domestic	Writing-Intensive	Minimum Major GPA	Minimum Overall GPA
121	42	45	LER or General Electives	CHEM 30107 or CHEM 40251	2.0	2.0

Note: Concentration electives (8 credit hours), choose from the following:

BSCI 40143 Eukariotic Cell Biology	3	CHEM 40303 Inorganic Chemistry III ^S	2
BSCI 40158 Molecular Biology	3	CHEM 40365 Biological Inorganic Chemistry	3
BSCI 40174 Immunology ^S	3	CHEM 40477 Intermediate Organic Chemistry Laboratory ^F	1
BTEC 40191 Seminar: Recent Development in Biotechnology	1	CHEM 40483 Intermediate Organic Chemistry ^F	1
CHEM 30106 Analytical Chemistry II ^S	2	CHEM 40796 Individual Investigation	1-4
CHEM 40295 Special Topics in Biochemistry	1-3	CHEM department-approved upper-division electives	1-8
CHEM 40302 Inorganic Chemistry II ^F	2		

^F Offered in fall only ^S Offered in spring only

Liberal Education Requirements (LER)

Students must complete a minimum 36 credit hours of Liberal Education Requirements. Colleges or degree programs may specify certain courses to fulfill the requirements. Courses in the students' major field will not count toward the completion of any LER. Honors equivalents shall satisfy the LER. None of the courses on the LER list may be taken with a pass/fail grade.

Diversity Course Requirement

Students must complete a two-course diversity requirement, consisting of one with a domestic focus and one with a global focus. One course must be come from the LER and cannot be in the student's major. The second course may be taken as a second LER; or within a major or minor; or as a general elective; or, with dean's approval, by completing one semester of study in another country.

Writing-Intensive Course Requirement

Students must complete a one-course writing-intensive requirement in their major and earn minimum C (2.00) grade.

Upper-Division Requirement

In general, baccalaureate programs require the successful completion of at least 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.