Roadmap: Biotechnology - Bachelor of Science



College of Arts and Sciences Department of Biological Sciences Catalog Year: 2014-2015



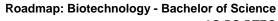
This roadmap is a recommended semester-by-semester plan of study for this major. However, courses and milestones designed as critical (!) must be completed in the semester listed to ensure a timely graduation

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Critical	Course Subject and Title	Credit Hours	Upper Div.	Min. Grade	Major GPA	Туре	Term Taken
Semest	er One [14 Credits]						
!	BSCI 10120 Biological Foundations	4				KBS	
!	CHEM 10060 General Chemistry I	4				KBS	
!	CHEM 10062 General Chemistry I Laboratory	1				KBS	
	MATH 12002 Analytic Geometry and Calculus I	4-5			_	KMC	
	or MATH 12021 Calculus for Life Sciences	4-5			-		
	US 10097 Destination Kent State: First Year Experience ¹	1					
Semest	er Two [15 Credits]						
	BSCI 30140 Cell Biology	4					
	BTEC 10210 Introduction to Biotechnology	3			•		
	CHEM 10061 General Chemistry II	4			•	KBS	
	CHEM 10063 General Chemistry II Laboratory	1				KBS	
	Kent Core Requirement	3					
Semest	er Three [18 Credits]						
	BSCI 30171 General Microbiology	4			•		
	CHEM 20481 Basic Organic Chemistry I	4					
	PHIL 21001 Introduction to Ethics	3				DG/KHU	
	Foreign Language ²	4 - 5					
	Kent Core Requirement	3					
Semest	er Four [16 Credits]						
	BSCI 30156 Elements of Genetics	3					
	CS 10051 Introduction to Computer Science	4				KMC	
	PHY 13001 General College Physics I	4				KBS	
	PHY 13021 General College Physics Laboratory I	1				KBS	
	Foreign Language ²	4 - 5					
Semest	er Five [14 Credits]						
	BSCI 40158 Molecular Biology	3					
	BUS 10123 Exploring Business	3					
	MATH 30011 Basic Probability and Statistics	3					
	or MATH 12022 Probability and Statistics for Life Sciences				_		
	Kent Core Requirement	3					
	General Electives ³	2					
Semest	er Six [16 Credits]						
	CHEM 30284 Introductory Biological Chemistry	4					
	PHIL 30015 Medicine and Morality	3					
	Kent Core Requirement	3					
	Kent Core Requirement	3					
	Approved Elective ⁴	3					
Semest	er Summer III [2 Credits]						
	BTEC 40192 Internship in Biotechnology	2 - 6					
	or BTEC 40196 Individual Investigation						
Semest	er Seven [16 Credits]						
	BTEC 40191 Seminar: Recent Developments in Biotechnology	1					
	BTEC 40210 Case Studies in Biotechnology	3					
	BTEC 40220 Bioinformatics	3	-		-		
	CHEM 40248 Advanced Biological Chemistry	3					
	Kent Core Requirement	3					
0	Approved Elective 4	3					
semest	er Eight [9 Credits]					EL D	
	BTEC 40192 Internship in Biotechnology	4 - 6			•	ELR	
	or BTEC 40196 Individual Investigation in Biotechnology CHEM 40251 Advanced Biological Chemistry Laboratory 5	2	_		_	WIC	
		2	-	С	-	VVIC	
	Approved Elective ⁴	3					

Graduation Requirements Summary

Minimum Total Hours	Minimum Upper-Division Hours	Minimum Kent Core Hours	Minimum		
Willimum Total Hours	wiiniinum opper-bivision nours	Millimum Kent Core Hours	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. Fulfills College General Requirement
- 3. Credits required depends on meeting minimum 120 credit hours and minimum 42 upper-division credit hours





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4. Approved Elective (9 credits)

Choose from the following:	
BSCI 30518 Vertebrate Anatomy (4)	BSCI 40143 Eukaryotic Cell Biology (3)
BSCI 40164 Molecular Systematics and Phylogenetics (4)	BSCI 40174 Immunology (3)
CHEM 30105 Analytical Chemistry I (3)	CHEM 30107 Analytical Chemistry Laboratory I (1)
CHEM 30301 Inorganic Chemistry I (2)	CHEM 30475 Organic Chemistry Laboratory I (1)
CHEM 40567 Basic Concepts of Physical Chemistry (4)	PSYC 41363 Biopsychology (3)
Upper-division courses approved by program director (1 - 9)	

^{5.} A minimum C (2.000) grade must be earned to fulfill the writing-intensive requirement.

University Requirements Summary

Туре	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 12002	fulfilled
	Kent Core III. Humanities Minimum one course from humanities in Arts and Sciences; may fulfill diversity requirement	PHIL 21001	fulfilled
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
	Kent Core V. Humanities or Fine Arts One additional course from either the humanities or fine arts category, may fulfill diversity requirement.	visit <u>www.kent.edu/catalog/kent-core</u>	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
	Kent Core VII. Basic Sciences Must include one laboratory	BSCI 10120, CHEM 10060, CHEM 10062	fulfilled
	Kent Core VIII. Additional May fulfill diversity requirement	CS 10051, CHEM 10061, CHEM 10063, PHY 13001, PHY 13021	fulfilled
	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	PHIL 21001	fulfilled
ELR	Experiential Learning Requirement Either course or non-course experience approved by the appropriate faculty member	BTEC 40192 may fulfill this requirement if taken; visit www.kent.edu/catalog/elr	one course or activity
	Writing-Intensive Course Requirement Minimum C (2.000) grade	CHEM 40251	fulfilled