

Roadmap: Integrated Science - Physics - Bachelor of Science in Education

[EH-BSE-ISCI-PHY] College of Education, Health and Human Services School of Teaching, Learning and Curriculum Studies Catalog Year: 2010-2011

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]						
CHEM 10060 General Chemistry I	4		С			
CHEM 10062 General Chemistry Laboratory I	1		С	Fulfills Kent Core Basic Sciences		
MATH 11010 Algebra for Calculus	3			Fulfills Kent Core Mathematics and Critical Reasoning		
PSYC 11762 General Psychology	3			Fulfills Kent Core Social Sciences		
US 10097 Destination Kent State: FYE	1			Not required of transfer students with 25 hours		
Kent Core Requirement	3			See Kent Core Summary on page 2		
Semester Two: [13 Credit Hours]						
Requirement: pass Praxis I Reading (score 174), Writing	ng (score	172) and I	Mathema	tics (score 174)		
CULT 29535 Education in a Democratic Society	3		С			
CHEM 10061 General Chemistry II	4		С	Fulfille Kant Care Davis Sciences		
CHEM 10063 General Chemistry Laboratory II	1		С	Fulfills Kent Core Basic Sciences		
MATH 11022 Trigonometry	2		С			
SOC 12050 Introduction to Sociology	3			Fulfills Kent Core Social Sciences		
Semester Three: [16 Credit Hours]						
PHY 23101 General University Physics I	5		С	Fulfills Kent Core Additional		
CHEM 20481 Basic Organic Chemistry I	4		С			
MATH 12002 Analytical Geometry and Calculus I	5			Fulfills Kent Core Additional		
Kent Core Requirement	3			See Kent Core Summary on page 2		
Semester Four: [17 Credit Hours]			1			
MATH 12003 Analytic Geometry and Calculus II	5		С			
PHY 23102 General University Physics II	5		С			
BSCI 10110 Biological Diversity	4		С	Fulfills Kent Core Basic Sciences		
PHIL 11001 Introduction to Philosophy	3			Fulfills Kent Core Humanities and global diversity course requirement		
Semester Five: [17 Credit Hours]						
Requirement: minimum 2.75 cumulative GPA by end of	f term					
BSCI 10120 Biological Foundations	4		С	Fulfills Kent Core Basic Sciences		
EPSY 29525 Educational Psychology	3					
GEOL 11040 Earth Dynamics	3					
GEOL 11041 Earth Dynamics Laboratory	1			Fulfills Kent Core Basic Sciences		
PHY 21430 Frontiers in Astronomy <i>or</i> PHY 24001 Astronomy	3		С			
Kent Core Requirement	3			See Kent Core Summary on page 2		
Semester Six: [18 Credit Hours]						
Requirement:: apply and be accepted for Advanced St	udy; minir	num 2.75	cumulativ	re GPA		
PHY 30020 Intermediate Physics Laboratory	2		С			
GEOG 41073 Conservation of Natural Resource	3		С			
GEOL 11042 Earth History	3		С	Fulfille Kont Coro Basia Sciences		
GEOL 11043 Earth History Laboratory	1		С	Fulfills Kent Core Basic Sciences		
SPED 23000 Introduction to Exceptionalities	3		С	Fulfills domestic diversity course requirement		
Kent Core Requirement	3			See Kent Core Summary on page 2		

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Critical requirements are boldface in shaded areas

Course Subject and Title	Credit Hours	Upper Division	Min. Grade	Important Notes			
Semester Seven: [12 Credit Hours]							
Requirement: apply for student teaching							
ADED 32142 Principles of Teaching Adolescents	3		С	Fulfills writing-intensive course requirement; offered in fall only			
ITEC 19525 Educational Technology	3		С				
CI 47330 Reading and Writing in Adolescence	3		С				
GEOG 31062 Fundamentals of Meteorology	3		С				
Semester Eight: [16 Credit Hours]							
ADED 32277 Teaching Science in Secondary Schools	3		С	Offered in spring only			
BSCI 30140 Cell Biology	4		С				
BSCI 30156 Elements of Genetics	3		С				
MATH 10041 Elementary Probability and Statistics or MATH 30011 Basic Probability and Statistics	3						
PHY 36001 Introduction Modern Physics I	3		С				
Semester Nine: [13-14 Credit Hours]							
Requirements: apply for graduation							
ADED 42277 Topics in Secondary School Science	3		С				
ADED 42292 Field Work Practicum	3		С				
CHEM 40567 Basic Concepts of Physical Chemistry	4		С				
PHY 32511 Electronics <i>or</i> PHY 36002 Applications of Modern Physics	3-4		С				
Semester Ten: [12 Credit Hours]							
ADED 42357 Secondary Student Teaching	9		s				
ADED 49525 Inquiry into Professional Practice	3		С				

Graduation Requirements Summary

Minimum	nimum Minimum Upper- Kent Core Hours		Diversity Course	Writing-Intensive	Minimum	
Total Hours	Division Hours	Kent Cole Hours	Global / Domestic	whiting-intensive	Major GPA	Overall GPA
148	39	36	PHIL 11001 / SPED 23000	ADED 32142	2.6	2.75

Kent Core Summary

Kent Core Categories	Important Notes	Remaining Credit Hours
Additional (6 credit hours) Must be selected from two Kent Core categories	Fulfilled in this major with MATH 12002 and PHY 23101	0
Basic Sciences (6-7 credit hours) Must include one laboratory	Fulfilled in the major with BSCI 10110 and 10120; CHEM 10060, 10061, 10062 and 10063; GEOL 11040 and 11041	0
Composition (6-8 credit hours) ENG 11002, 11011, 21011; HONR 10197, 10297	Enrollment based on placement test; a grade of C must be earned for both courses	6-8
Humanities and Fine Arts (9 credit hours) Minimum one course from humanities in Arts and Sciences category and minimum one course from fine arts category	3 credit hours are fulfilled in this major with PHIL 11001	6
Mathematics and Critical Reasoning (3-5 credit hours)	Fulfilled in this major MATH 11010	0
Social Sciences (6 credit hours) Must be selected from two curricular areas	Fulfilled in this major PSYC 11762 and SOC 12050	0

Special Notes for Degree/Major:

- 1. Pass Praxis II "Principles of Learning and Teaching" and specialty test.
- 2. Apply for teaching license (pick up licensure packet in 304 White Hall).



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 <u>www.kent.edu/catalog/kent-core</u> 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 <u>www.kent.edu/catalog/diversity</u> 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 <u>www.kent.edu/catalog/wic</u> 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.

