

Roadmap: Middle Childhood – Mathematics and Science – Bachelor of Science in Education

[EH-BSE-MCED-MTSC]
College of Education, Health and Human Services
School of Teaching, Learning and Curriculum Studies
Catalog Year: 2012-2013

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.

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Course Subject and Title	Credit Hours	Upper Div.	Min. Grade	Major GPA	Important Notes	
Semester One: [17 Credit Hours]						
MATH 14001 Basic Mathematics Concepts I	4		С		Fulfills Kent Core Mathematics and Critical Reasoning	
GEOG 17063 World Geography	3				Fulfills Kent Core Social Sciences and global diversity course requirement	
PHY 11030 Seven Ideas that Shook the Universe	3		С		Fulfills Kent Core Basic Sciences	
US 10097 Destination Kent State: First Year Experience	1				Not required for transfer students with 25 credits	
Kent Core Requirements	3				See Kent Core Summary on page 3	
Kent Core Requirements	3					
Semester Two: [19 Credit Hours]						
Requirements: successful completion of Praxis I Reading		core),		g (172 :	score) and Mathematics (174 score	
CULT 29535 Education in a Democratic Society	3		С			
ANTH 18630 Human Evolution or BSCI 10002 Life on Planet Earth	3		С		Fulfills Kent Core Basic Sciences	
CHEM 10030 Chemistry in Our World	3		С		Fulfills Kent Core Additional	
HIST 11050 History of Civilization I or HIST 12070 History of the United States: The Formative Period or PAS 23001 Black Experience I: Beginnings-1865	3			•	Fulfills Kent Core Humanities	
MATH 11010 Algebra for Calculus	3		С		Fulfills Kent Core Additional; enrollment based on placement tests	
MATH 14002 Basic Mathematics Concepts II	4		С		Fulfills Kent Core Mathematics and Critical Reasoning	
Semester Three: [19 Credit Hours]						
Requirement: minimum 2.750 cumulative GPA by the end	of terr	n				
EPSY 29525 Educational Psychology	3		С			
BSCI 10120 Biological Foundations	4		С		Fulfills Kent Core Basic Sciences	
ENG 22071 Great Books I or ENG 22072 Great Books II	3				Fulfills Kent Core Humanities	
MATH 10041 Elementary Probability and Statistics or MATH 30011 Basic Probability and Statistics	3		С			
MATH 11022 Trigonometry	3		С		Fulfills Kent Core Mathematics and Critical Reasoning	
Kent Core Requirement	3				See Kent Core Summary on page 3	
Semester Four: [18 Credit Hours]						
Requirement: minimum 2.750 cumulative GPA						
Note: apply online for advanced study by the second Frid	ay of t	he tern	1			
CHDS 20092 Field Experience I: Middle Childhood	1		С		Fulfills experiential learning requirement	
HDFS 24013 Early Adolescence	3		С			
MATH 12002 Analytic Geometry and Calculus I	5		С			
CHEM 10060 General Chemistry I <i>and</i> CHEM 10062 General Chemistry Laboratory I <i>or</i> PHY 13001 General College Physics I <i>and</i> PHY 13021 General College Physics Laboratory I	5		С	•	Fulfills the Kent Core Basic Sciences	
GEOL 11040 Earth Dynamics <i>and</i> GEOL 11041Earth Dynamics Laboratory <i>or</i> GEOL 11042 Earth History <i>and</i> GEOL 11043 Earth History Laboratory	4		С	•	T WILLIAM THE TACK COLO DUSING SUIGNICES	



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Course Subject and Title	Credit Hours	Upper Div.	Min. Grade	Major GPA	Important Notes	
Semester Five: [18 Credit Hours]						
Requirement: admission to advanced study; minimum 2.750 cumulative GPA						
MCED 30001 Teaching Mathematics in Middle Childhood I	3	-	С	-		
MCED 30002 Integrated Social Studies and Science in Middle Childhood	3	•	С	-	Offered in fall only	
MCED 31000 Teaching and Learning in Middle Childhood	3	•	С	-		
MCED 40006 Reading and Writing in Middle Childhood	6	•	С	•	Fulfills writing-intensive course requirement; offered in fall only	
MATH 34001 Fundamental Concepts of Algebra	3		С			
Semester Six: [18 Credit Hours]						
Requirement: apply for student teaching; minimum 2.750	cumul	ative G	PA			
MCED 40001 Teaching Mathematics in Middle Childhood II	3		С			
MCED 40002 Teaching Science in Middle Childhood II	3	•	С	-	Offered in spring only	
MCED 40007 Teaching Reading With Literature in Middle Childhood	3	•	С	•	Chered in Spring Only	
MCED 41000 Curriculum and Organization in Middle Childhood	3	•	С	•		
MATH 34002 Fundamental Concepts of Geometry	3		С			
PSYC 11762 General Psychology	3				Fulfills Kent Core Social Sciences and domestic diversity requirement	
Semester Seven: [18-21 Credit Hours]						
Requirement: minimum 2.750 cumulative GPA						
MCED 40005 Effective Use of Phonics in Reading	3		С			
HED 42575 Health and Learning: Strategies for Students and Teachers	3		С			
ITEC 19525 Educational Technology	3		С			
MATH 12003 Analytic Geometry and Calculus II or MATH 21001 Linear Algebra with Applications or MATH 31011 Discrete Mathematics	3-5		С	•		
SPED 23000 Introduction to Exceptionalities	3		С		Fulfills domestic diversity course requirement	
Science Elective	3-4		С		See note 1 on page 3	
Semester Eight: [12 Credit Hours]						
Requirement: minimum 2.750 cumulative GPA						
MCED 42358 Student Teaching in Middle Childhood	9		S		Fulfills experiential learning requirement	
MCED 49525 Inquiry into Professional Practice: Middle Childhood	3	•	С	•		

Graduation Requirements Summary

Minimum Total Hours	Minimum Upper- Division Hours	Minimum Kent Core Hours	Global / Domestic Diversity Course	Writing- Intensive	Experiential Learning	Minimum Overall GPA
139	39	36	GEOG 17063 / SPED 23000	MCED 40006	CHDS 20092 and MCED 42358	2.750



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Kent Core Summary

Kent Core Categories	Important Notes	Remaining Credit Hours
Composition (6-8 credit hours) ENG 11002, 11011, 21011; HONR 10197, 10297	Enrollment based on placement test; a grade of C is required in both courses	6-8
Mathematics and Critical Reasoning (3-5 credit hours)	Fulfilled in this major with MATH 14001 or MATH 11022	0
Humanities and Fine Arts (9 credit hours) Minimum one course from humanities in Arts and Sciences and minimum one course from fine arts	6 credit hours are fulfilled in this major with ENG 22071 or 22072; and HIST 11050 or 12070. Remaining credit hours must be from the Fine Arts category	3
Social Sciences (6 credit hours) Must be selected from two curricular areas	Fulfilled in this major with GEOG 17063 and PSYC 11762	0
Basic Sciences (6-7 credit hours) Must include one laboratory	Fulfilled in this major with ANTH 18630 BSCI 10002 and 10120; CHEM 10062 or PHY 13021	0
Additional (6 credit hours) Must be selected from two Kent Core categories	Fulfilled in this major with CHEM 10030 and MATH 11010	0

Note 1: Science electives (3-4 credit hours), choose from the following

BSCI 10110 Biological Diversity	4	GEOG 41073 Conservation of Natural Resources	3
BSCI 20021 Basic Microbiology	3	GEOL 21080 Oceanography	3
BSCI 30275 Local Flora	4	GEOL 41073 Geology of Ohio	3
BSCI 30560 Invertebrate Zoology	4	PHY 21040 Physics in Entertainment and Arts	3
GEOG 31062 Fundamentals of Meteorology	3	PHY 21430 Frontiers in Astronomy	3

Note on Licensure:

- 1. Successful complete Praxis II "Principles of Learning and Teaching grades 5–9" (passing score 168) and Praxis II specialty tests "Middle Childhood Mathematics" (passing score 143) and "Middle Childhood Science" (passing score 144).
- 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 www.kent.edu/catalog/kent-core 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 www.kent.edu/catalog/diversity for course list.

Writing-Intensive Course Requirement

Students must complete a one-course writing-intensive requirement in their major and earn minimum C (2.000) grade. Visit www.kent.edu/catalog/wic for course list.

Experiential Learning Requirement

To provide students with direct engagement in learning experiences that promote academic relevance, meaning and an understanding of real-world issues, students must complete this requirement at Kent State, either as a for-credit course or as a non-credit, non-course experience approved by the appropriate faculty member. Visit www.kent.edu/catalog/elr 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.