U N I V E R S I T Y
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: 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 <br> Hours | Upper <br> Division | Min. <br> Grade | Important Notes |  |
| :--- | :---: | :---: | :---: | :--- | :---: |
| Semester One: [17 Credit Hours] | $\mathbf{4}$ |  | C | Fulfills Kent Core Mathematics and Critical <br> Reasoning |  |
| MATH 14001 Basic Mathematics Concepts I | 3 |  |  | Fulfills Kent Core Social Sciences and global <br> diversity course requirement |  |
| GEOG 17063 World Geography | 3 |  | C | Fulfills Kent Core Basic Sciences |  |
| PHY 11030 Seven Ideas that Shook the Universe |  |  |  |  |  |
| US 10097 Destination Kent State: FYE | 1 |  |  | Not required for transfer students with 25 credits |  |
| Kent Core Requirements | 6 |  |  | See Kent Core Summary on page 3 |  |

Semester Two: [19 Credit Hours]
Requirements: successful completion of Praxis I Reading (174 score), Writing (172 score) and Mathematics (174 score)

| CULT 29535 Education in a Democratic Society | 3 |  | C |  |
| :--- | :---: | :---: | :---: | :--- |
| ANTH 18630 Human Evolution <br> orBSCI 10002 Life on Planet Earth | 3 |  | C | Fulfills Kent Core Basic Sciences |
| CHEM 10030 Chemistry in Our World | 3 |  | C | Fulfills Kent Core Additional |
| HIST 11050 History of Civilization I <br> orHIST 12070 History of the United States: The <br> Formative Period <br> orPAS 23001 Black Experience I: Beginnings-1865 | 3 |  | Fulfills Kent Core Humanities |  |
| MATH 11010 Algebra for Calculus | 3 |  | C | Fulfills Kent Core Additional; enrollment based <br> on placement tests |
| MATH 14002 Basic Mathematics Concepts II | 4 |  | C | See faculty member to waive this course |
| Semester Three: [18 Credit Hours] |  |  | C |  |
| EPSY 29525 Educational Psychology | 4 |  | C | Fulfills Kent Core Basic Sciences |
| BSCI 10120 Biological Foundations | 3 |  |  | Fulfills Kent Core Humanities |
| ENG 22071 Great Books I <br> orENG 22072 Great Books II | 3 |  | C |  |
| MATH 10041 Elementary Probability and Statistics <br> orMATH 30011 Basic Probability and Statistics | 3 |  | C |  |
| MATH 11022 Trigonometry | 2 |  |  | See Kent Core Summary on page 3 |
| Kent Core Requirement | 3 |  |  |  |
| Semester Four: [18 Credit Hours] |  |  |  |  |

## Semester Four: [18 Credit Hours]

Requirements: apply for advanced study; minimum 2.75 cumulative GPA

| CHDS 20092 Field Experience I: Middle Childhood | $\mathbf{1}$ |  | C |  |
| :--- | :--- | :--- | :--- | :--- |
| HDFS 24013 Early Adolescence | $\mathbf{3}$ |  | C |  |
| MATH 12002 Analytic Geometry and Calculus I | 5 |  | C |  |
| CHEM 10060 General Chemistry I and <br> CHEM 10062 General Chemistry Laboratory I <br> or <br> PHY 13001 General College Physics I and <br> PHY 13021 General College Physics Laboratory I | 5 |  | C | CHEM 10062 and PHY 13021 fulfill the Kent <br> Core Basic Sciences Laboratory requirement |
| GEOL 11040 Earth Dynamics and <br> GEOL 11041Earth Dynamics Laboratory <br> or <br> GEOL 11042 Earth History and <br> GEOL 11043 Earth History Laboratory | 4 | C |  |  |

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Critical requirements are boldface in shaded areas

| Course Subject and Title | Credit <br> Hours | Upper <br> Division | Min. <br> Grade | Important Notes |
| :--- | :---: | :---: | :--- | :--- |
| Semester Five: [18 Credit Hours] |  |  |  |  |
| Requirements: admission to advanced study |  |  |  |  |
| MCED 30001 Teaching Mathematics in Middle <br> Childhood I | 3 | $■$ | C | Offered in fall only |
| MCED 30002 Integrated Social Studies and Science <br> in Middle Childhood | 3 | $■$ | C | Offered in fall only |
| MCED 31000 Teaching and Learning in Middle <br> Childhood | 3 | $■$ | C | Offered in fall only |
| MCED 40006 Reading and Writing in Middle <br> Childhood | 6 | $■$ | C | Fulfills writing-intensive course requirement; <br> offered in fall only |
| MATH 34001 Fundamental Concepts of Algebra | 3 | $■$ | C |  |
| Semester Six: [18 Credit Hours] |  |  |  |  |

Requirements: apply for student teaching

| MCED 40001 Teaching Mathematics in Middle <br> Childhood II | 3 | $■$ | C | Offered in spring only |
| :--- | :---: | :---: | :---: | :--- |
| MCED 40002 Teaching Science in Middle <br> Childhood II | 3 | $■$ | C | Offered in spring only |
| MCED 40007 Teaching Reading With Literature in <br> Middle Childhood | 3 | $■$ | C | Offered in spring only |
| MCED 41000 Curriculum and Organization in Middle <br> Childhood | 3 | $■$ | C | Offered in spring only |
| MATH 34002 Fundamental Concepts of Geometry | 3 | $\square$ | C |  |
| PSYC 11762 General Psychology | 3 |  |  | Fulfills Kent Core Social Sciences and domestic <br> diversity requirement |

Semester Seven: [18-21 Credit Hours]

| MCED 40005 Effective Use of Phonics in Reading | $\mathbf{3}$ | $\boldsymbol{\square}$ | C |  |
| :--- | :---: | :---: | :---: | :--- |
| HED 42575 Health and Learning: Strategies for <br> Students and Teachers | 3 | $■$ | C |  |
| ITEC 19525 Educational Technology | 3 |  | C |  |
| MATH 12003 Analytic Geometry and Calculus II <br> orMATH 21001 Linear Algebra with Applications <br> orMATH 31011 Discrete Mathematics | $3-5$ |  | C |  |
| SPED 23000 Introduction to Exceptionalities | 3 |  | C | Fulfills domestic diversity course requirement |
| Science Elective | $3-4$ |  | C | See note 1 on page 3 |

Semester Eight: [12 Credit Hours]

| MCED 42358 Student Teaching in Middle Childhood | 9 | $■$ | S |  |
| :--- | :---: | :---: | :---: | :---: |
| MCED 49525 Inquiry into Professional Practice: <br> Middle Childhood | 3 | $■$ | C |  |

Graduation Requirements Summary

| Minimum <br> Total Hours | Minimum Upper- <br> Division Hours | Minimum <br> Kent Core Hours | Diversity Course <br> Global / Domestic | Writing-Intensive | Minimum <br> Major GPA |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 138 | 39 | 36 | GEOG 17063 / SPED 23000 | MCED 40006 | 2.00 | 2.75 |

While it is possible to complete this program in four years by taking $16-18$ credits each semester, it is more probable that $41 / 2$ years will be needed.

## Kent Core Summary

| Kent Core Categories | Important Notes | Remaining Credit Hours |
| :---: | :---: | :---: |
| Additional ( 6 credit hours) <br> Must be selected from two Kent Core categories | Fulfilled in this major with CHEM 10030 and MATH 11010 | 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 |
| 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 |
| 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 | 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 |
| Mathematics and Critical Reasoning (3-5 credit hours) | Fulfilled in this major with MATH 14001 | 0 |
| Social Sciences (6 credit hours) <br> Must be selected from two curricular areas | Fulfilled in this major with GEOG 17063 and PSYC 11762 | 0 |

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

| BSCI 10110 Biological Diversity | 4 | GEOL 21080 Oceanography | 3 |
| :--- | :--- | :--- | :--- |
| BSCI 20021 Basic Microbiology | 3 | GEOL 41073 Geology of Ohio | 3 |
| BSCI 20275 Local Flora | 4 | PHY 21040 Physics in Entertainment and Arts | 3 |
| BSCI 30560 Invertebrate Zoology | 4 | PHY 21430 Frontiers in Astronomy | 3 |
| GEOG 31062 Fundamentals of Meteorology | 3 | PHY 24001 Astronomy | 3 |
| GEOG 41073 Conservation of Natural Resources | 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 (2.00) grade.
Visit www.kent.edu/catalog/wic 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.

