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.

<table>
<thead>
<tr>
<th>Critical Course Subject and Title</th>
<th>Credit Hours</th>
<th>Min. Grade</th>
<th>Major GPA</th>
<th>Attribute</th>
<th>Notes</th>
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<tr>
<td><strong>Semester One [17 Credits]</strong></td>
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<tr>
<td>! MATH 14001 Basic Mathematics Concepts I</td>
<td>4</td>
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<tr>
<td>GEOG 17063 World Geography</td>
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<td>PHY 11030 Seven Ideas that Shook the Universe</td>
<td>3</td>
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<td>JS 10097 Destination Kent State: First Year Experience</td>
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<td>Kent Core Requirement</td>
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<td><strong>Semester Two [19 Credits]</strong></td>
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<td>CULT 29535 Education in a Democratic Society</td>
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<td>ANTH 18630 Human Evolution</td>
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<td>CHEM 10030 Chemistry in Our World</td>
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<td>HIST 11050 World History: Ancient and Medieval</td>
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<tr>
<td>or HIST 12070 Early America: From Pre-Colonization to Civil War and Reconstruction</td>
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<tr>
<td>or PAS 23001 Black Experience I: Beginnings-1865</td>
<td>3</td>
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<td>DG/KHU</td>
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<td>MATH 11010 Algebra for Calculus</td>
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<tr>
<td>MATH 14002 Basic Mathematics Concepts II</td>
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<td><strong>Semester Three [19-20 Credits]</strong></td>
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<td>Requirement: minimum 2.750 cumulative GPA by the end of term</td>
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<td>! EPSY 29525 Educational Psychology</td>
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<tr>
<td>BSCI 10120 Biological Foundations</td>
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<td>ENG 22071 Great Books to 1700</td>
<td>3</td>
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<td>or ENG 22072 Great Books since 1700</td>
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<td>MATH 10041 Introductory Statistics (4)</td>
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<td>or MATH 30011 Basic Probability and Statistics (3)</td>
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<td>MATH 11022 Trigonometry</td>
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<td>Requirement: minimum 2.750 cumulative GPA; Note: apply online for advanced study by the second Friday of the term</td>
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<td>! CES 20092 Field Experience I: Middle Childhood</td>
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<td>! HDFS 24013 Early Adolescence</td>
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<td>! MATH 12002 Analytic Geometry and Calculus I</td>
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<td>CHEM 10060 General Chemistry I and CHEM 10062 General Chemistry Laboratory I</td>
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<td>or PHY 13001 General College Physics and PHY 13021 General College Physics Laboratory I</td>
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<td>GEOL 11040 How the Earth Works and GEOL 11041 How the Earth Works Laboratory</td>
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<td>or GEOL 11042 Earth and Life Through Time and GEOL 11043 Earth and Life Through Time Laboratory</td>
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<td><strong>Semester Five [18 Credits]</strong></td>
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<td>Requirement: minimum 2.750 cumulative GPA</td>
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<td>! MCED 30001 Teaching Mathematics in Middle Childhood</td>
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<td>! MCED 30002 Integrated Social Studies and Science in Middle Childhood</td>
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<td>! MCED 31000 Teaching and Learning in Middle Childhood</td>
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<td>! MCED 40006 Reading and Writing in Middle Childhood</td>
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<td>MATH 34001 Fundamental Concepts of Algebra</td>
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<td><strong>Semester Six [18 Credits]</strong></td>
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<td>Requirement: minimum 2.750 cumulative GPA; Note: apply for student teaching</td>
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<td>! MCED 40001 Teaching Mathematics in Middle Childhood II</td>
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<td>! MCED 40002 Teaching Science in Middle Childhood II</td>
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<td>! MCED 40007 Teaching Reading With Literature in Middle Childhood</td>
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<td>! MCED 41000 Curriculum and Organization in Middle Childhood</td>
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<tr>
<td>! MATH 34002 Fundamental Concepts of Geometry</td>
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<td>PSYC 11762 General Psychology</td>
<td>3</td>
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<td><strong>Semester Seven [18 Credits]</strong></td>
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<tr>
<td>Requirement: minimum 2.750 cumulative GPA; Note: apply for graduation</td>
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<tr>
<td>! MCED 40005 Effective Use of Phonics in Reading</td>
<td>3</td>
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Page 1 of 2 | Last Updated: 5-May-15/JSK
Roadmap: Middle Childhood Education - Mathematics and Science
Bachelor of Science in Education
Education, Health and Human Services
School of Teaching, Learning and Curriculum Studies
Catalog Year: 2015-2016

<table>
<thead>
<tr>
<th>Critical</th>
<th>Course Subject and Title</th>
<th>Credit Hours</th>
<th>Min. Grade</th>
<th>Major GPA</th>
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<tr>
<td></td>
<td>HED 42575 Health and Learning: Strategies for Students and Teachers</td>
<td>3</td>
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<td>ITEC 19525 Educational Technology</td>
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<td>MATH 12003 Analytic Geometry and Calculus II or MATH 21001 Linear Algebra with Applications or MATH 3111 Discrete Mathematics</td>
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<td>SPED 23000 Introduction to Exceptionalities</td>
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<td></td>
<td>Science Elective ²</td>
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**Semester Eight [12 Credits]**

Requirement: minimum C grade in all professional courses and minimum 2.750 cumulative GPA

<table>
<thead>
<tr>
<th>Critical</th>
<th>Course Subject and Title</th>
<th>Credit Hours</th>
<th>Min. Grade</th>
<th>Major GPA</th>
<th>Attribute</th>
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<td>! MCED 42358 Student Teaching in Middle Childhood</td>
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<td>! MCED 49525 Inquiry into Professional Practice: Middle Childhood</td>
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**Graduation Requirements Summary**

<table>
<thead>
<tr>
<th>Minimum Total Hours</th>
<th>Minimum Upper-Division Hours 30000 – 40000 level course</th>
<th>Minimum Kent Core Hours</th>
<th>Minimum Overall GPA</th>
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<tr>
<td>139</td>
<td>39</td>
<td>36</td>
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1. US 10097 is not required of transfer students with 25 credits (excluding College Credit Plus and dual-enrollment credit) or students age 21+ at time of admission.

2. Science electives (3 credit hours)

Choose from the following below

<table>
<thead>
<tr>
<th>Critical</th>
<th>Course Subject and Title</th>
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<th>Min. Grade</th>
<th>Major GPA</th>
<th>Attribute</th>
<th>Notes</th>
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<tbody>
<tr>
<td></td>
<td>BSCI 10110 Biological Diversity (4)</td>
<td>GEOG 41073 Conservation of Natural Resources (3)</td>
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<td></td>
<td>BSCI 20021 Basic Microbiology (3)</td>
<td>GEOL 21080 All About the Oceans (3)</td>
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<td>BSCI 30275 Local Flora (4)</td>
<td>GEOL 41073 Geology of Ohio (3)</td>
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<td>BSCI 30560 Invertebrate Zoology (4)</td>
<td>PHY 21040 Physics in Entertainment and Arts (3)</td>
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<td>GEOG 31062 Fundamentals of Meteorology (3)</td>
<td>PHY 21430 Frontiers in Astronomy (3)</td>
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</table>

**Special Major Notes:**

- Minimum C grade must be earned in both Kent Core Composition courses.
- Licensure Requirement (not required for graduation):
  Candidates seeking Ohio licensure are required to pass specific assessments in order to apply for licensure. See Ohio Department of Education-Educator Preparation website for more information on assessments specific to licensure type. Taking and passing the licensure tests prior to graduation is encouraged but not required.

**University Requirements:** Bachelor's degree-seeking students must meet Kent Core (general education requirements), diversity, writing-intensive and experiential learning requirements. For more information about these requirements, please read the following sections in the University Catalog:

- Kent Core – [www.kent.edu/catalog/kent-core](http://www.kent.edu/catalog/kent-core)
- Diversity Course Requirement – [www.kent.edu/catalog/diversity](http://www.kent.edu/catalog/diversity)
- Writing-Intensive Course Requirement – [www.kent.edu/catalog/wic](http://www.kent.edu/catalog/wic)
- Experiential Learning Requirement – [www.kent.edu/catalog/elr](http://www.kent.edu/catalog/elr)

**Attribute Legend:** DD Diversity–Domestic; DG Diversity–Global; ELR Experiential Learning; KAD Kent Core Additional; KBS Kent Core Basic Sciences; KCM Kent Core Composition; KFA Kent Core Fine Arts; KHU Kent Core Humanities; KMC Kent Core Mathematics and Critical Reasoning; KSS Kent Core Social Sciences; WIC Writing Intensive