# UMKC Major Map: Bachelor of Arts in Middle School Education: Math and Science (grades 5-9)

## First-Time College Students

Complete 12 term hours minimum toward graduation. Earn 3.00 minimum cumulative GPA. Earn a B or higher in all MATH, BIOLOGY, GEOG, GEOLOGY, PHYSICS, PHY-SCI, ENV-SCI, CHEM, TCH-ED, and EDUC courses.

### Critical Courses or Benchmarks

<table>
<thead>
<tr>
<th>Course Subject, Number, and Title and Academic Plan Benchmarks</th>
<th>Min Recom Grade</th>
<th>Credit Hours (CH)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bold = UMKC General Education Core Requirement</strong></td>
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<tr>
<td>*Prerequisite May Be Required</td>
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<tr>
<td><strong>Co-Requisite Enrollment Required</strong></td>
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</table>

## Four-Year Graduation Plan - Courses and Critical Benchmarks

**The following is a sample course of study. It is the Student’s responsibility to ensure that all program requirements are met. This guide is not a substitute for academic advisement. All incoming freshmen must develop an academic plan (which maps out all courses needed to graduate within your intended major/degree). Your academic advisor is available to meet with you and create your specific plan.**

Your path to graduation may vary slightly based on factors such as college credit you earned while in high school, transfer work from other institutions of higher learning and placement in Mathematics. You are responsible for checking prerequisites to any courses. Critical Courses and minimum recommended grades (as noted below) provide feedback regarding major fit and help indicate likelihood of successful completion of chosen academic program and degree.

### Fall Semester Year 1: 14 - 16 hours

- **Anchor I: Reasoning and Values**
  - [www.umkc.edu/core/courses/](http://www.umkc.edu/core/courses/)
  - Credit Hours (CH): 3
- **DISC 100: Reasoning and Values** (Speech and Writing)
  - Credit Hours (CH): 3
- **Focus A: Arts and Humanities**
  - [www.umkc.edu/core/courses/](http://www.umkc.edu/core/courses/)
  - Credit Hours (CH): 3
- **Focus B: Scientific Reasoning and Quantitative Analysis**
  - MATH 110: College Algebra or MATH 125: Trigonometry (not a Focus B) or MATH 210: Calculus I or STAT 235: Elementary Statistics (2 - 4 credit hours)
  - Credit Hours (CH): 3
- **MATH 130: Mathematics for Teachers: Number Systems or TCH-ED 130: Number Systems and Related Topics or MATH 214: Mathematics For Teachers: Algebra**
  - Credit Hours (CH): 3

**Complete 12 term hours minimum toward graduation.**

- Earn 3.00 minimum cumulative GPA.
- Earn a B or higher in all MATH, BIOLOGY, GEOG, GEOLOGY, PHYSICS, PHY-SCI, ENV-SCI, CHEM, TCH-ED, and EDUC courses.

### Spring Semester Year 1: 15 - 17 hours

- **Anchor II: Culture and Diversity**
  - [www.umkc.edu/core/courses/](http://www.umkc.edu/core/courses/)
  - Credit Hours (CH): 3
- **DISC 200: Culture and Diversity** (Speech and Writing)
  - Credit Hours (CH): 3
- **Focus C: Human Actions, Values, and Ethics**
  - [www.umkc.edu/core/courses/](http://www.umkc.edu/core/courses/)
  - Credit Hours (CH): 3
- **MATH 125 or MATH 210 or STAT 235: Trigonometry, Calculus I, or Elementary Statistics (2 - 4 credit hours)**
  - Credit Hours (CH): 2
- **BIOLOGY 102: Biology and Living and BIOLOGY 102L: Biology and Living Laboratory or ENV-SCI 110R: Understanding the Earth and**
  - Credit Hours (CH): 4

**Suggest HISTORY 206 or HISTORY 208 for Focus A: Arts and Humanities. These classes can help prepare student for the MoGEA.**

**ALEKS Math Placement Exam Required prior to enrolling in MATH course.**

[www.umkc.edu/mathplacement/](http://www.umkc.edu/mathplacement/)
UMKC Major Map: Bachelor of Arts in Middle School Education: Math and Science (grades 5-9)

First-Time College Students

Catalog Year: 2015 - 2016

**Anchor III: Civic and Community Engagement**
www.umkc.edu/core/courses/

**DISC 300: Civic and Community Engagement** (Speech and Writing)

- **MATH 224: Mathematics for Teachers: Geometry**
  - B 3

- **BIOLOGY 102: Biology and Living and BIOLOGY 102L: Biology and Living Laboratory or ENV-SCI 110R: Understanding the Earth and ENV-SCI 110L: Understanding the Earth with Lab**
  - B 4

- (4 - 5 credit hours)

Summer Semester Year 1: 0 hours if all previous courses completed

Fall Semester Year 2: 13 - 14 hours

- **Anchor III: Civic and Community Engagement**
  - www.umkc.edu/core/courses/
  - 3

- **DISC 300: Civic and Community Engagement** (Speech and Writing)
  - 3

- **MATH 224: Mathematics for Teachers: Geometry**
  - B 3

- **BIOLOGY 102: Biology and Living and BIOLOGY 102L: Biology and Living Laboratory or ENV-SCI 110R: Understanding the Earth and ENV-SCI 110L: Understanding the Earth with Lab**
  - B 4

  - (4 - 5 credit hours)

- Earn a B or higher in all MATH, BIOLOGY, GEOG, GEOLOGY, PHYSICS, PHY-SCI, ENV-SCI, CHEM, TCH-ED, and EDUC courses.

Spring Semester Year 2: 13 hours

- **Focus Elective MATH 210: Calculus I**
  - B 4

- **MATH Elective: Suggest MATH 120, 204, 206, 216, 220, 244, or EDUC 402R (3 - 5 credit hours)**
  - B 3

- **GEOG 319: Descriptive and Synoptic Meteorology**
  - B 4

- **Science Elective: Suggest GEOLOGY 220/220L, GEOG 215, PHY-SCI 110, PHYSICS 150/153L, or PHYSICS 210**
  - B 2

- Complete Anchor II and DISC 200.
- Complete the Missouri General Education Assessment (MoGEA).
- Complete the RooWriter Assessment.
- Complete 60 hours toward degree.
- Earn a cumulative GPA of a 3.00 or higher.
- Earn a B or higher in all MATH, BIOLOGY, GEOG, GEOLOGY, PHYSICS, PHY-SCI, ENV-SCI, CHEM, TCH-ED, and EDUC courses.

Summer Semester Year 2: 0 hours if all previous courses completed

Fall Semester Year 3: 12 hours

- **STAT 235: Elementary Statistics**
  - B 3

- **TCH-ED 470: Philosophy and History of Science and Technology**
  - B 3

- **TCH-ED 385: Teaching and Learning with Technology**
  - B 3

- **TCH-ED 403: Educational Psychology**
  - B 3

- Complete RooWriter Assessment.
  - www.umkc.edu/roowriter

- Earn a B or higher in all MATH, BIOLOGY, GEOG, GEOLOGY, PHYSICS, PHY-SCI, ENV-SCI, CHEM, TCH-ED, and EDUC courses.
### Spring Semester Year 3: 12 hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH Elective: Suggest MATH 120, 204, 206, 216, 220, 244, or EDUC 402R (3 - 5 credit hours)</td>
<td>3</td>
<td>Complete interview for Teacher Education program. All tests need to be complete prior to admission into the program.</td>
</tr>
<tr>
<td>Science Elective: Suggest GEOLOGY 220/220L, GEOG 215, PHY-SCI 110, PHYSICS 150/153L, or PHYSICS 210 (2 - 5 credit hours)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>TCH-ED 404: Education of the Exceptional Child and Youth</td>
<td>3</td>
<td></td>
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<tr>
<td>TCH-ED 420: Adolescent Development</td>
<td>3</td>
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</tbody>
</table>

### Summer Semester Year 3: 13 hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCH-ED 430: Gateway to Teaching</td>
<td>3</td>
<td></td>
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<tr>
<td>EDUC 428: Cultural Diversity And American Education</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>EDRD 439: Content Area Reading And Language Development</td>
<td>3</td>
<td></td>
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<tr>
<td>TCH-ED 408WI: Advanced Foundations</td>
<td>3</td>
<td></td>
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<tr>
<td>TCH-ED 422: Practicum I</td>
<td>1</td>
<td></td>
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</table>

### Fall Semester Year 4: 19 hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCH-ED 416: Reading II: Assessing and Teaching Diverse Learners</td>
<td>4</td>
<td>Apply for graduation</td>
</tr>
<tr>
<td>TCH-ED 423: Practicum II</td>
<td>2</td>
<td>Apply for certification</td>
</tr>
<tr>
<td>TCH-ED 433: Special Methods of Teaching Middle and Secondary Mathematics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>TCH-ED 435: Special Methods of Teaching Middle and Secondary Science</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>TCH-ED 438: Cultural Responsive Strategies for Working With Diverse Student Populations</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>TCH-ED 460: Middle School Curriculum</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>TCH-ED 462: Middle School Principles and Organization</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

### Spring Semester Year 4: 12 hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCH-ED 461: Student Teaching In Middle School</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>
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First-Time College Students
Catalog Year: 2015 - 2016

<table>
<thead>
<tr>
<th>Course</th>
<th>Grade</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCH-ED 493: Mathematics Capstone</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

Graduation Requirements Summary

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Total Degree Credit Hours</th>
<th>Upper Level (3xx/4xx) Hour Requirement</th>
<th>Minimum Hour / Residency Req.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Degree Credit Hours</td>
<td>124</td>
<td>36</td>
<td>30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Value</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Major GPA</td>
<td>3.00</td>
<td>UM GPA</td>
<td>3.00</td>
</tr>
<tr>
<td>UM GPA</td>
<td>3.00</td>
<td>Other GPA Requirements</td>
<td>3.00 professional/content</td>
</tr>
</tbody>
</table>

Policy

Non-course requirements

- RooWriter
- Teacher Education Application
- Missouri General Education Assessment (MoGEA)
- Substitute Certification
- Background Check
- Pedagogical Assessment
- Content Assessment
- Disposition Assessment

Met

The School reserves the right to make changes in courses, degree requirements and course schedules without notice.

Non-course requirements

RooWriter
Teacher Education Application
Missouri General Education Assessment (MoGEA)
Substitute Certification
Background Check
Pedagogical Assessment
Content Assessment
Disposition Assessment

Students are expected to maintain a quality of achievement significantly above minimum UMKC standards for degree work. Individual student progress will be monitored throughout the program. Satisfactory progress is required of all students for retention in the program. Students are expected to maintain academic standards, perform satisfactorily in courses, refrain from academic dishonesty, comply with the established University and teacher education timetables and requirements, and refrain from unethical or unprofessional behavior or behaviors that obstruct the training process or threaten the welfare of the student or others. Other circumstances involving student behavior will be addressed by the faculty on an individual basis.

Academic and Career Advising

Questions? Call the School of Education Student Services office at 816-235-2234 or e-mail education@umkc.edu. Those with speech or hearing impairments may use Relay Missouri, 1-800-735-2966 (TT) or 1-800-735-2466 (voice). UMKC is an equal opportunity/affirmative action institution.

To learn more about career opportunities for Education majors please visit these links:
UMKC Career Services Resources: http://www.career.umkc.edu/
O*Net OnLine: http://www.onetonline.org/

Program Description and Admission Requirements

The School of Education, organized officially as a separate academic division in 1954, was the result of the University of Kansas City's involvement in professional education since 1940. At that early date the University was offering an M.A. in education, heavily liberal-arts laden, with most classes conducted in the summer and evenings. An undergraduate major in elementary education was established in 1952, and the first University of Kansas City doctoral program, the Ph.D. in education, was inaugurated with the organizing of the school in 1954. Since 1954, the school has grown to include three disciplinary divisions with 19 programs, offering bachelor of arts, master of arts, educational specialist, education doctorate and doctor of philosophy degree programs. Several degree and certification programs are offered in cooperation with the School of Biological Sciences, the Conservatory of Music and the College of Arts and Sciences. The mission of the School of Education is to recruit, prepare and support outstanding teachers, mental health professionals and administrators who will create lifelong opportunities through education for America's diverse urban communities. This mission is centered on six key values which embody the knowledge, skills and dispositions expected of our candidates across the School of Education. The
goals defined by individual programs are more specific subsets of these broader goals:

- Academic excellence.
- Strategic innovation.
- Inquiry leading to reflective decision making and problem solving.
- Skilled and knowledgeable professionals working collaboratively.
- Democracy, diversity and social justice.
- Caring and safe environments.

Admission to UMKC ([http://umkc.edu/admission](http://umkc.edu/admission))

- Completed the majority of specific pre-education and subject area course work prior to start of the professional education semesters;
  - Attained a cumulative grade point average of at least 3.00;
  - Attained a subject-area grade point average of at least 3.00 (middle school, secondary, and K-12);
  - Submitted acceptable results from a Missouri FBI background check;
  - Passed the Missouri General Education Assessment, Content Assessment and Pedagogical Assessment;
  - Completed the application for the School of Education for Bachelor’s degree seekers:
  - Submitted a score from the ACT or SAT; (if graduated from High School in past 5 years)
  - Pass RooWriter Exam before taking the required writing intensive course.

Instructions are available at the School of Education web site: [http://education.umkc.edu/teapp](http://education.umkc.edu/teapp)