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.

<table>
<thead>
<tr>
<th>First Math</th>
<th>MATH 210: Calculus I</th>
<th>Foreign Language Requirement</th>
<th>No</th>
<th>Free Elective Hours</th>
<th>No Free Electives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical Course or Benchmark</td>
<td>Course Subject, Number, and Title and Academic Plan Benchmarks</td>
<td>Min Recom Grade</td>
<td>Credit Hours (CH)</td>
<td>Notes</td>
<td></td>
</tr>
<tr>
<td><strong>Bold = UMKC General Education Core Requirement</strong></td>
<td>*Prerequisite May Be Required</td>
<td><strong>Co-Requisite Enrollment Required</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall Semester Year 1: 14 hours</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Anchor I: Reasoning and Values</strong> Click for options</td>
<td></td>
<td>3</td>
<td></td>
<td>MATH 210 satisfies the Focus B: Scientific Reasoning and Quantitative Analysis requirement.</td>
<td></td>
</tr>
<tr>
<td><strong>DISC 100: Reasoning and Values</strong> (Speech and Writing)</td>
<td></td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Focus B: Scientific Reasoning and Quantitative Analysis</strong></td>
<td>MATH 210: Calculus I</td>
<td>B</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Focus Elective</strong> - BIOLOGY 108: General Biology I and BIOLOGY 108L: General Biology I Laboratory OR BIOLOGY 109: General Biology II and BIOLOGY 109L: General Biology II Laboratory</td>
<td>B</td>
<td>3</td>
<td></td>
<td>BIOLOGY 108 satisfies the Focus Elective requirement.</td>
<td></td>
</tr>
<tr>
<td>Completion of 12 term hours minimum toward graduation</td>
<td></td>
<td></td>
<td></td>
<td>ALEKS Math Placement Exam or college credit with a grade of C- or higher in pre-requisite required prior to enrollment in MATH 210.</td>
<td></td>
</tr>
<tr>
<td>Earn 3.00 minimum cumulative GPA</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Earn a B or higher in all BIOLOGY, GEOG, GEOLOGY, PHYSICS, ENV-SCI, CHEM, TCH-ED, and EDUC courses</td>
<td></td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

Spring Semester Year 1: 15 hours

| **Anchor II: Culture and Diversity** Click for options | 3 |
| **DISC 200: Culture and Diversity** (Speech and Writing) | 3 |
| **PHYSICS 240: Physics for Scientists and Engineers I** | B | 5 |
| MATH 220 Calculus II | B | 4 |

Complete Anchor I and DISC 100
Complete 30 total hours toward degree
Earn a cumulative GPA of a 3.00 or higher
Earn a B or higher in all BIOLOGY, GEOG, GEOLOGY, PHYSICS, ENV-SCI, CHEM, TCH-ED, and EDUC courses

Summer Semester Year 1: 0 hours if all previous courses completed
### Fall Semester Year 2: 15 hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Anchor III: Civic and Community Engagement</strong> Click for options</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>DISC 300: Civic and Community Engagement</strong> (Speech and Writing)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>*PHYSICS 250: Physics for Scientists and Engineers II</td>
<td>B 5</td>
<td></td>
</tr>
<tr>
<td>*MATH 250 Calculus III</td>
<td>B 4</td>
<td></td>
</tr>
<tr>
<td>Earn a B or higher in all BIOLOGY, GEOG, GEOLOGY, PHYSICS, ENV-SCI, CHEM, TCH-ED, and EDUC courses</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Spring Semester Year 2: 16 hours

| Focus A: Arts and Humanities | 3       | Recommend HISTORY 206 or 208 to satisfy the **Focus A: Arts and Humanities** requirement. This course will prepare you for the MoGEA. |
| Focus C: Human Actions, Values, and Ethics                           | 3       | Recommend HISTORY 101 or 102 to satisfy the **Focus C: Human Actions, Values, and Ethics** requirement. This course will prepare you for the MoGEA. |
| CHEM 211: General Chemistry I                                       | B 4     |
| CHEM 211L: Experimental General Chemistry I                         | B 1     |
| ENV-SCI 110R: Understanding the Earth                               | B 3     |
| ENV-SCI 110L: Understanding the Earth Laboratory                    | 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 BIOLOGY, GEOG, GEOLOGY, PHYSICS, ENV-SCI, CHEM, TCH-ED, and EDUC courses |         |

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

### Fall Semester Year 3: 15 hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>*PHYSICS 310 Mechanics I</td>
<td>B 3</td>
<td></td>
</tr>
<tr>
<td>*PHYSICS 350 Modern Physics with Engineering App.</td>
<td>B 3</td>
<td></td>
</tr>
<tr>
<td>GEOL 220 General Geology</td>
<td>B 3</td>
<td></td>
</tr>
<tr>
<td>TCH-ED 385 Teaching and Learning with Technology</td>
<td>B 3</td>
<td></td>
</tr>
<tr>
<td>TCH-ED 403 Educational Psychology</td>
<td>B 3</td>
<td></td>
</tr>
<tr>
<td>Apply to the Teacher Education Program</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete the Content Assessment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Earn a B or higher in all BIOLOGY, GEOG, GEOLOGY, PHYSICS, ENV-SCI, CHEM, TCH-ED, and EDUC courses</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Spring Semester Year 3: 12 hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>*PHYSICS 460 Electricity and Magnetism I</td>
<td>B 3</td>
<td></td>
</tr>
<tr>
<td>*PHYSICS 445LWI Modern Physics Laboratory or *PHYSICS 475LWI Nuclear Physics Laboratories</td>
<td>B 3</td>
<td></td>
</tr>
<tr>
<td>Complete interview for Teacher Education program. All tests need to be complete prior to admission into the</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# UMKC Major Map: Bachelor of Arts in Secondary Education - Physics (single) (grades 9-12)

## Catalog Year: 2015 - 2016

### First-Time College Students

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Grade</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCH-ED 404</td>
<td>Education of the Exceptional Child</td>
<td>B</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 420</td>
<td>Adolescent Development</td>
<td>B</td>
<td>3</td>
</tr>
</tbody>
</table>

**Earn a cumulative GPA of a 3.00 or higher**

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

### Summer Semester Year 3: 10 hours

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Grade</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCH-ED 430</td>
<td>Gateway to Teaching</td>
<td>B</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 428</td>
<td>Cultural Diversity in American Education</td>
<td>B</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 408WI</td>
<td>Advanced Foundations</td>
<td>B</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 422</td>
<td>Practicum I</td>
<td>B</td>
<td>1</td>
</tr>
</tbody>
</table>

**Earn a cumulative GPA of a 3.00 or higher**

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

### Fall Semester Year 4: 14 hours

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Grade</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCH-ED 423</td>
<td>Practicum II</td>
<td>B</td>
<td>2</td>
</tr>
<tr>
<td>TCH-ED 427</td>
<td>Reading in the Secondary School</td>
<td>B</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 435</td>
<td>Special Methods Science</td>
<td>B</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 438</td>
<td>Culturally Responsive Strategies</td>
<td>B</td>
<td>3</td>
</tr>
<tr>
<td>TCH-ED 470</td>
<td>Philosophy &amp; History of Science &amp; Technology</td>
<td>B</td>
<td>3</td>
</tr>
</tbody>
</table>

**Earn a cumulative GPA of a 3.00 or higher**

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

### Spring Semester Year 4: 12 hours

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Grade</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCH-ED 437</td>
<td>Student Teaching – Secondary</td>
<td>B</td>
<td>10</td>
</tr>
<tr>
<td>TCH-ED 495</td>
<td>Science Capstone</td>
<td>B</td>
<td>2</td>
</tr>
</tbody>
</table>

### Graduation Requirements Summary

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Met</th>
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</thead>
<tbody>
<tr>
<td>RooWriter</td>
<td></td>
</tr>
<tr>
<td>Teacher Education Application</td>
<td></td>
</tr>
<tr>
<td>Missouri General Education Assessment (MoGEA)</td>
<td></td>
</tr>
<tr>
<td>Substitute Certification</td>
<td></td>
</tr>
<tr>
<td>Background Check</td>
<td></td>
</tr>
<tr>
<td>Pedagogical Assessment</td>
<td></td>
</tr>
<tr>
<td>Content Assessment</td>
<td></td>
</tr>
<tr>
<td>Disposition Assessment</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Hours (120 minimum)</td>
<td>123</td>
</tr>
<tr>
<td>Total Hours at UMKC (30 hours min)</td>
<td>See advisor</td>
</tr>
<tr>
<td>Major GPA</td>
<td>3.00; 3.00 prof/content</td>
</tr>
<tr>
<td>UMKC GPA</td>
<td>3.00</td>
</tr>
</tbody>
</table>

### Policy and Other Information

- **Summer Semester Year 3: 10 hours**
- **Fall Semester Year 4: 14 hours**
- **Spring Semester Year 4: 12 hours**
- **Apply for graduation.**
- **Apply for certification.**

- **Graduation Requirements Summary**
  - Total Hours (120 minimum): 123
  - Total Hours at UMKC (30 hours min): See advisor
  - Major GPA: 3.00; 3.00 prof/content
  - UMKC GPA: 3.00

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

1273 8/28/2014
The School reserves the right to make changes in courses, degree requirements and course schedules without notice.

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.

Program Description

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 Requirements

- Admission to UMKC (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 an Missouri FBI background check;
- Passed the Missouri General Education Assessment, Content Assessment and Pedagogical Assessment;
- Completed the application for the School of Education (http://education.umkc.edu/teapp)
- Submit 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

Career Opportunities

To learn more about career opportunities for Education majors please visit these web sites:
UMKC Career Services Resources: http://www.career.umkc.edu/?q=node/87
O*Net OnLine: http://www.onetonline.org/find/

Advising Contact Information

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.