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.

Your path to graduation may vary 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.

<table>
<thead>
<tr>
<th>Course Subject and Title</th>
<th>Hrs.</th>
<th>Can be Upper Division</th>
<th>Transfer Course</th>
<th>Minimum Grade if Required</th>
<th>Date Completed</th>
<th>Final Grade</th>
<th>Pre-requisites met</th>
<th>Additional Critical Tracking Notes</th>
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<td><strong>Fall Semester Year 1:</strong> 14 hours</td>
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<td>First Year Writing—GER A.1.</td>
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<td>Phys &amp; Bio Science lecture—GER F.2. &lt;or&gt; other GER</td>
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<td>Math 120, Precalculus (GER B.1.)</td>
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<td>A&amp;S 100—GER D.</td>
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<td>Math 210, Calculus I (GER B.2)</td>
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<td>Phys &amp; Bio Science lecture and lab component—GER F.2. (Physics 240, Physics for Sci and Eng) strongly recommended</td>
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<td>May use summer semester to lighten fall and spring course loads.</td>
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<td>Math 220, Calculus II</td>
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<td>Sophomore-level Writing course—GER A.2.</td>
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<td>Math 250, Calculus III</td>
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<td>Math 301, On Solid Ground: Sets and Proof</td>
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<td>Math 410, Modern Algebra*</td>
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<td>Humanities—GER F.3b. &lt;or&gt; other GER</td>
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<td><strong>Summer Semester Year 3:</strong></td>
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<td><strong>Fall Semester Year 4:</strong> 17 hours</td>
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<td>Math 402, Advanced Analysis I</td>
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<td>Math 420, Linear Algebra II*</td>
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<td>Cluster—GER F.4. &lt;or&gt; other GER</td>
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<td><strong>Spring Semester Year 4:</strong> 12-14 hours</td>
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<td>Writing Intensive course—GER A.4. (Math 464WI recommended)</td>
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*See note on Math 410 and 420.
Major Map: Mathematics and Statistics BS

Catalog Year: 2011-2012

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.

Graduation Requirements Summary:

<table>
<thead>
<tr>
<th>Total Hours (120 minimum)</th>
<th>Total Upper-level (300/400) Hours (36 minimum)</th>
<th>Final Consecutive Hours at UMKC (30 hours minimum)</th>
<th>Major GPA (2.0 minimum)</th>
<th>University of Missouri GPA (2.0 minimum)</th>
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</thead>
</table>

All students completing a Bachelor of Arts or a Bachelor of Science in the College of Arts and Sciences must successfully complete the following requirements in order to graduate:

Please see this website for a detailed listing of approved courses to fulfill the following General Education Requirements (GER):
http://www.umkc.edu/catalog/College_of_Arts_and_Sciences_General_Education_Requirements.html#192793

A. Communication (12 credit hours)
1. First Year Writing course
2. Sophomore-level Writing Intensive course
3. Passage of the UMKC Written English Proficiency Test (WEPT), the pre-requisite for any Junior/Senior-level (300/400) Writing Intensive course
4. Junior/Senior-level (300/400) Writing Intensive (WI) course
5. Oral argumentation course

B. Mathematical, Symbolic and Logical Reasoning (6 credit hours minimum)
1. First-level Mathematics course or demonstrated competency equivalent to four units (years) of high school math, beginning with Algebra I or higher
2. Second-level Mathematics course requiring extensive use of mathematical, symbolic or logical reasoning

C. Foreign Language and Culture (16 credit hours)
1. Three semesters of the same foreign language, required for all B.A. degrees (but not for B.S. degrees, as of Spring 2002)
2. Cultural Perspectives of an interdependent global environment

D. Computer and Information Technology (3 credit hours)
Competence equivalent to a programming course or software application course that includes substantial computer experience

E. Literature and Philosophy (6 credit hours)
1. Literature course
2. Philosophy course

F. Distribution Requirements for General Education
1. Social and Behavioral Sciences (three courses, 9 hours), chosen from at least two different departments:
   a. Constitution Requirement—One course covering the United States Constitution and the Missouri State Constitution
   b. Distribution Electives—Two courses from the social and behavioral sciences
2. Physical & Biological Sciences (two courses, 8 hours minimum, including one lab component)
3. Humanities and Fine Arts (two courses, 6 hours):
   a. Fine Arts course
   b. Humanities course
4. Interdisciplinary Cluster Course (one course, 3 hours). Every student is required to complete a junior/senior interdisciplinary cluster course.
   A maximum of 3 hours of one-credit activity courses in physical education may be applied toward the 120 total minimum

All students completing a Bachelor of Science degree in Mathematics and Statistics must meet the following conditions:

- A BS major must complete a minimum of 60 credits of combined math and science, but is not required to take foreign language.
- A math major must satisfactorily complete at least four courses at the 300-level or above in the mathematics department at UMKC.
- *Note on Math 410 and 420: The major requires Math 410 or Math 420. A student may take both, but often one of these is replaced by another Math/Stat 3xx-4xx Elective.
  - “Math/Stat 3xx-4xx Elective” refers to any MATH or STAT 300-level or 400-level course. The only 300-level elective which is not already on the map is MATH 345 (Ordinary Differential Equations). All of these electives are each 3 credits except MATH 345 (4 credits). MATH 345 is currently offered every semester (including Summer). Many other electives are only offered Fall or Spring. MATH 464 WI (History of Math) is an elective which also satisfies a gen-ed Writing Intensive requirement.