### Four Year Graduation Plan – Courses & 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. For more information see the University Catalog at umkc.edu/catalog.

Please Note: Completing ENGLISH 110 (English Comp I) or COMM-ST 110 (Speech) or equivalents; SAT verbal 690; ACT English 30 or AP English Language/composite score of 4.2 will waive the DISC 100 requirement.

Students must have successfully passed (with a “B” or better) Pre-calculus or a combination of a College Algebra and Trigonometry or have taken four (4) units of high school mathematics including trigonometry in high school to be prepared for major math sequence. Students who do not place into MATH 266: Accelerated Calculus I may have to complete preparatory math coursework, adding 3 – 8 hours to the total hours required for the degree.

<table>
<thead>
<tr>
<th>First Math Course:</th>
<th>MATH 266 Accelerated Calculus I</th>
<th>Foreign Language Requirement:</th>
<th>None</th>
<th>General Elective Hours:</th>
<th>None</th>
</tr>
</thead>
</table>

**Critical Course**

<table>
<thead>
<tr>
<th>Course Subject, Number, &amp; Title and Academic Plan Benchmarks</th>
<th><strong>Bold = UMKC General Education Core requirement</strong></th>
<th>Min. Recom. Grade</th>
<th>Credit Hours</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CHEM 211/211L General Chemistry plus Lab</strong></td>
<td>B</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MATH 266 Accelerated Calculus I</strong></td>
<td>B</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DISC 100 Reasoning &amp; Values</strong> (Speech &amp; Writing) <strong>Click for options</strong></td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ANCHOR I Reasoning &amp; Values</strong> (ANCH 150 Computing &amp; Engineering in Society Recommended) <strong>Click for Options</strong></td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete Shop Safety Course (see advisor for options)</td>
<td>1</td>
<td></td>
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</tr>
</tbody>
</table>

Complete 16 term credit hours.
Must earn minimum 2.00 term and cumulative GPA.

**Spring Semester Year 1: 17 hours**

<table>
<thead>
<tr>
<th>Course Subject, Number, &amp; Title and Academic Plan Benchmarks</th>
<th><strong>Bold = UMKC General Education Core requirement</strong></th>
<th>Min. Recom. Grade</th>
<th>Credit Hours</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MATH 268 Accelerated Calculus II</strong></td>
<td>B</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PHYSICS 240 Physics for Science &amp; Engineering I</strong> (Focus B)</td>
<td>B</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEC-ENGR 130 Engineering Graphics</td>
<td></td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIV-ENGR 111 First Year Cornerstone</td>
<td></td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Focus C Human Values &amp; Ethical Reasoning</strong> (HISTORY 101, 102, or POL-SCI 210 recommended) <strong>Click for options</strong></td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Complete 17 term credit hours.
Must earn minimum 2.00 term and cumulative GPA.

**Summer Semester Year 1: 0 hours**

Complete 33 hours towards degree.
Maintain 2.00 minimum GPA.
Complete ANCHOR I & DISC 100.

May use summer term to lighten fall or spring course loads, or to catch-up on math coursework.
### Fall Semester Year 2: 16 hours
- **MATH 250 Calculus III**  
  - B 4  
- **CIV-ENGR 275 Engineering Statics**  
  - B 3  
- **E&C-ENGR 216 Engineering Computation**  
  -  
- **PHYSICS 250 Physics for Science & Engineering II (Focus Elective)**  
  - B 5  

PHYSICS 250 Required for degree, may not substitute PHYSICS 220.

Complete 16 term credit hours.  
Must earn minimum 2.00 term and cumulative GPA.

### Spring Semester Year 2: 16 hours
- **MATH 345 Differential Equations**  
  - B 4  
- **CIV-ENGR 276 Strength of Materials**  
  - B 3  
- **CIV-ENGR 351 Fluid Mechanics**  
  -  
- **DISC 200 Culture & Diversity** (Speech & Writing)  
  - Click for options  
- **ANCHOR II Culture & Diversity**  
  - Click for options  

Take the RooWriter Assessment after completing DISC 200 and before reaching 90 credit hours.

Complete 16 term credit hours.  
Must earn minimum 2.00 term and cumulative GPA.

### Summer Semester Year 2: 3 hours
Complete 65 credit hours towards degree.  
Complete ANCHOR II & DISC 200  
Maintain 2.00 minimum GPA.

May use summer term to lighten fall or spring course loads, or to catch-up on math coursework.

### Fall Semester Year 3: 17 hours
- **CIV-ENGR 319 Engineering Computation & Statistics**  
  -  
- **CIV-ENGR 321 Structural Analysis**  
  -  
- **CIV-ENGR 378WI Civil Engineering Materials**  
  -  
- **CIV-ENGR 467 Construction Management**  
  -  
- Complete Fundamentals of Surveying (see advisor for options)  
  -  
- **Focus A Arts & Humanities**  
  - Click for options  

Complete 17 term credit hours.  
Must earn minimum 2.00 term and cumulative GPA.

### Spring Semester Year 3: 16 hours
- **CIV-ENGR 335 Soil Mechanics**  
  -  
- **CIV-ENGR 318 Geographic Info Sys for Engineers**  
  -  
- **CIV-ENGR 497 Engineering Hydrology**  
  -  
- **CIV-ENGR**  
  - Click for options  
- **CIV-ENGR**  
  - Click for options  

Complete the Fundamentals of Engineering (FE) exam.  
Complete the HElighten exit exam.  
Complete the OSHA Construction Safety course online.  
Apply for graduation.

Complete 15 term credit hours.  
Must earn minimum 2.00 term and cumulative GPA.

### Summer Semester Year 3: 0 hours
Complete 98 credit hours towards degree.  
Complete RooWriter Assessment  
Maintain 2.00 minimum GPA.

May use summer term to lighten fall or spring course loads.
**Fall Semester Year 4: 14 hours**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIV-ENGR 411 System Design I</td>
<td>2</td>
</tr>
<tr>
<td>CIV-ENGR 422WI Reinforced Concrete</td>
<td>3</td>
</tr>
<tr>
<td>CIV-ENGR 432 Foundation Engineering</td>
<td>3</td>
</tr>
<tr>
<td>CIV-ENGR 3XX/4XX Elective</td>
<td>3</td>
</tr>
<tr>
<td>CIV-ENGR 3XX/4XX Elective</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete Senior Exit Survey.

Complete 14 term credit hours.
Must earn minimum 2.00 term and cumulative GPA.

**Spring Semester Year 4: 15 hours**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIV-ENGR Click for options</td>
<td>3</td>
</tr>
<tr>
<td>CIV-ENGR 3XX/4XX Elective</td>
<td>3</td>
</tr>
<tr>
<td>CIV-ENGR 3XX/4XX Elective</td>
<td>3</td>
</tr>
<tr>
<td>ANCHOR 311 System Design II</td>
<td>3</td>
</tr>
<tr>
<td>DISC 300 Civic &amp; Community Engagement</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete 15 term credit hours.
Must earn minimum 2.00 term and cumulative GPA.

**Graduation Requirements Summary**

<table>
<thead>
<tr>
<th>Total Hours</th>
<th>Total Hours at UMKC</th>
<th>Upper Lvl Hrs in Major at UMKC</th>
<th>Total Upper Level (300/400) hours</th>
<th>Major GPA</th>
<th>UMKC GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>126</td>
<td>30 minimum</td>
<td>12 minimum</td>
<td>36 minimum</td>
<td>2.00 minimum</td>
<td>2.00 minimum</td>
</tr>
</tbody>
</table>

**Other Information**

A minimum of 30 hours must be earned at the University of Missouri-Kansas City, regardless of the number and level of hours earned at another institution. Undergraduate degree-seeking students are required to earn credit in at least 36 credit hours of coursework numbered 300 and above at UMKC. In the case of transfer credit, the coursework must be numbered as junior-senior level work by the transferring institution.

**Non-course requirements**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>Missouri Higher Education Civics Achievement Examination</td>
<td></td>
</tr>
<tr>
<td>RooWriter Assessment</td>
<td></td>
</tr>
<tr>
<td>HEighten exit exam</td>
<td></td>
</tr>
<tr>
<td>Civil Engineering Department Senior Exit Degree Completion Survey</td>
<td></td>
</tr>
<tr>
<td>OSHA Construction Safety 10 Hour Course (online)</td>
<td></td>
</tr>
</tbody>
</table>

**Policy**

The University reserves the right to make changes in courses 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 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.

**Advising Contact Information**

UMKC School of Computing & Engineering
DST Student Services Center
336 Flarsheim Hall
5110 Rockhill Road
Career Opportunities

UMKC Career Services – career.umkc.edu | 816-235-1636 | 2nd Floor, Atterbury Student Success Center
O*Net OnLine – OnetOnline.org Learn about careers related to your major, income potential, and more.