YEARS 1 AND 2 AT MCC

(UCM Equivalencies in parenthesis)

**COMMUNICATIONS – 9 Credit Hours**
- ENGL 101 Composition and Reading I (ENGL 1020) 3
- ENGL 102 Composition and Reading II (ENGL 1030) 3
- COMM 100 Fundamentals of Speech (COMM 1000) 3
- COMM 102 Fundamental of Human Comm. (Comm Gen Ed) 3

**MATHEMATICS – 3 Credit Hours**
- **MATH 130 Trigonometry (MATH 1112) 3**
- **MATH 131 Calculus I (MATH 1113) 4**

**AMERICAN INSTITUTIONS – 3 Credit Hours**
- HIST 120 (HIST 1350), 121 (HIST 1351), POLS 136 (POLS 1510) 3
- or 137 (POLS 2511)

**SCIENCES – 7 Credit Hours**
- **CHEM 111 General College Chemistry I (CHEM 1131) 5**
- **CHEM 112 General College Chemistry II (CHEM 1132) 5**
- **PHYS 130 General Physics I (PHYS 1101) 5**
- **PHYS 131 General Physics II (PHYS 1102) 5**
- **PHYS 221 Engineering Physics (PHYS 2122) 5**

**WESTERN CIVILIZATIONS – 3 Credit Hours**
- HIST 133 (HIST 1400) or HIST 134 (HIST 1402) 3

**SOCIAL SCIENCES – 3 Credit Hours**
- ANTH 100 (ANTH 1810), ANTH 110 (ANTH 1820), PSYC 140 (PSY 1100), SOCI 160 (SOC 1800), ECON 210 (ECON 1010) or ECON 211 (ECON 1011) 3

**HUMANITIES – 3 Credit Hours**
- ENGL 218 (GNED 1909), 220 (ENGL 2210), 221 (ENGL 2215), 222 (ENGL 2200), 223 (ENGL 2205), 268 (ENGL 2270), PHIL 100 (PHIL 1000), 200 (PHIL 1400), or 203 (PHIL 2300) 3

**HUMANITIES APPRECIATION – 3 Credit Hours**
- ART 108 (ART 1800), ART 150 (ART 1815), ART 151 (ART 1825) 3
- MUSI 108 (MUS 1210), or THEA 106 (THEA 2400), ARAB, FREN, GERM, CHIN, SIGN, SPAN 101 (SPAN 1601), SPAN 102 (SPAN 1602), SPAN 203 (SPAN 2601), or SPAN 204 (SPAN 2602) 3

**COMMON CORE ELECTIVES – 8 Credit Hours**
Take additional common core electives to reach 42 hours of general education. Offerings available at [http://www.mccck.edu/programs/aa/](http://www.mccck.edu/programs/aa/)

**GENERAL DEGREE REQUIREMENTS – 7 Credit Hours**
- COLL 100 First Year Seminar 1
- Global Diversity 3
- CSIS 115 (CIS 1600) or higher

**ELECTIVES – 11 Credit Hours**
- **CHEM 112 General College Chemistry II (CHEM 1132) 5**
- **CHEM 221 Organic Chemistry I (CHEM 3341) 5**
- **CHEM 222 Organic Chemistry II (CHEM 3342) 5**
- **PHYS 131 General Physics II (PHYS 1102) OR 5**
- **PHYS 221 Engineering Physics (PHYS 2122) 5**
- **BIOL 101 General Biology (BIOL 1110) option 3 only 3**
- **MATH 180 Analytic Geometry and Calculus I (MATH 1151) 5**

YEARS 3 AND 4 AT UCM

**MAJOR REQUIREMENTS – 45 Credit Hours**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 3111 Inorganic Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 3212 Quantitative Analysis</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 3421 Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 3920 Communication Skills in Chemistry</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 4231 Instrumental Analysis</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 4531 Physical Chemistry: Thermodynamics &amp; Kinetics</td>
<td>4</td>
</tr>
</tbody>
</table>

Choose one of the following 4 areas - 6-21 Credit Hours

**Area 1 – Chemistry – 6 Credit Hours**
- CHEM 4111 Advanced Inorganic Chemistry 3
- CHEM 4221 Environmental Chemistry 3
- CHEM 4231 Instrumental Analysis 4
- CHEM 4313 Advanced Organic Chemistry 3
- CHEM 4421 Advanced Biochemistry 3
- CHEM 4431 Biochemistry Laboratory 2
- CHEM 4532 Physical Chemistry: Quantum Mechanics and Spectroscopy 4
- CHEM 4800 Forensic Chemistry and Toxicology 3
- CHEM 4910 Research in Chemistry 2

**Area 2 – Chemistry: ACS Certified – 16 Credit Hours**
- CHEM 4231 Instrumental Analysis 4
- CHEM 4532 Physical Chemistry: Quantum Mechanics and Spectroscopy 4
- CHEM 4910 Research in Chemistry 2
- Electives from the following: 6
  - CHEM 4111 Advanced Inorganic Chemistry 3
  - CHEM 4221 Environmental Chemistry 3
  - CHEM 4313 Advanced Organic Chemistry 3
  - CHEM 4421 Advanced Biochemistry 3
  - CHEM 4431 Biochemistry Laboratory 2
  - CHEM 4800 Forensic Chemistry and Toxicology 3

**Area 3 – Biochemistry – 22 Credit Hours**
- BIOL 3511 Genetics 4
- BIOL 4514 Molecular Biology 3
- BIOL 4515 Molecular Technology 3
- CHEM 4231 Instrumental Analysis 4
- CHEM 4421 Advanced Biochemistry 3
- CHEM 4431 Biochemistry Laboratory 2

**Course fulfills a major requirement at UCM and if not taken as part of AA must be taken at UCM**

**Minimum Hours Required for A.A.: 60**
**Minimum Hours Required for B.S.: 120**
VALIDITY OF THIS TRANSFER GUIDE
This guide is based on the UCM 2017 Undergraduate Catalog and is subject to change. This guide is a recommendation only and your actual program may vary. Time to degree completion and course sequencing will depend on any credits transferred to UCM and on planned placement in math, reading, and writing. See the current UCM Undergraduate Catalog and MCC Course Catalog for a complete listing of academic policies, curriculum, prerequisites, and course descriptions.

GENERAL EDUCATION REQUIREMENTS
Students who hold an Associate in Arts Degree from MCC or have met the Missouri 42-hour General Education Core requirements are considered to have fulfilled all UCM General Education requirements, except specific general education classes required by this major. Lists of General Education Requirements can be found in the UCM Catalog. For those students with an associate degree other than the Associate of Arts or who have not completed the A.A. degree, transfer courses are evaluated on a course-by-course basis.

REQUIREMENTS FOR THIS MAJOR
- Minimum of 120 hours
- Minimum of 30 hours of upper-level credit (3000/4000 level). Courses taken at a two-year college MAY be articulated for an upper-level course but WILL NOT count towards upper-level hour requirements.
- Minimum of 12 hours of upper-level credit (3000/4000 level) in major
- No minor is required for this degree.
- No modern language is required for this degree.

RESIDENCY REQUIREMENTS FOR A DEGREE AT UCM
A candidate for any bachelor’s degree must have earned the following minimum hours at UCM:
- 30 hours overall
- 20 upper-level hours (3000/4000 level courses)
- 15 hours in the major
- 9 upper-level hours in the major
- 9 hours in minor (if applicable)
- 1 upper-level hour in minor (if applicable)
- The last 12 semester hours required for the degree

GPA REQUIRED FOR GRADUATION
Students must achieve a minimum GPA of 2.00 in all GPAs to qualify for graduation. This includes cumulative GPA, UCM GPA, major GPA, and minor GPA (if applicable). Some degrees have additional GPA requirements.

DUAL ADMISSION
Students are encouraged to apply for dual admission during their first semester at MCCKC to coordinate associate degree completion with degree requirements at UCM. To learn more visit www.ucmo.edu/undergrad/dualadmissions.cfm.

GENERAL EDUCATION ASSESSMENT
All UCM students are required to pass a General Education Assessment (GEA). Students transferring in more than 45 hours are required to take the test during their first semester at UCM. Testing Services can be contacted by phone at (660) 543-4919 or by email at testingservices@ucmo.edu. To learn more visit www.ucmo.edu/assessment/documents/ged_education.pdf.

CATALOGS

TRANSFER WORK
Arrange for all transfer work to be posted at UCM at the time of application. An official transcript must be received at UCM directly from each school attended. Individual transfer equivalencies can be found online at www.ucmo.edu/corequiv. Transcripts can be sent to: University of Central Missouri, Office of Admissions, Ward Edwards 1400, Warrensburg, MO 64093

UCM TRANSFER ADVISORS
UCM advisors for programs in the College of Health, Science, and Technology (CHST) are located in the CHST Advising Center located in Administration 105. Contact your advisor by calling (660)543-4554 or by email chstadvising@ucmo.edu.

UCM DEPARTMENT CONTACT
The Department of Biochemistry and Chemistry is located in W.C. Morris, room 417. You can contact them by telephone at (660) 543-4948. To learn more visit www.ucmo.edu/chemphys.