UNIVERSITY OF CENTRAL MISSOURI

MCC ASSOCIATE IN ARTS

to

UCM COMPUTER SCIENCE, OPTION 2: COMPUTER SCIENCE, BACHELOR OF SCIENCE

YEARS 1 AND 2 AT MCC

Complete the Associate in Arts (A.A.) degree and include the following courses in the A.A. course of study:

**UCM equivalencies in parenthesis**  
**American Institutions:**
Select two course; one must be a HIST prefix

**Communications:**
ENGL 101  Composition & Reading I (ENGL 1020)  3
ENGL 102  Composition & Reading II (ENGL 1030)  3
SPDR 100*  Fundamentals of Speech (COMM 1000)  3

**Humanities:**
Select one 3-hour course in each of any three different areas
One course must be in literature or philosophy

**Mathematics:**
MATH 180*  Analytic Geometry & Calculus I (MATH 1151)  5

**Natural Sciences:**
Select one biological science with a lab
Select one physical science with a lab

**Social Sciences:**
Select one course from two different areas

**Computer:**
CSIS 123*  Programming Fundamentals (CS 1100)  3

**Electives:** The following classes fulfill a major requirement at UCM and elective requirement in the A.A.
If not taken at MCC, must be taken at UCM.

CSIS 223*  Object-Oriented Programming (CS 1110)  3
CSIS 250*  Assembler Programming (CS 2200)  3
CSIS 271*  Data Structures & Alg. Anal. (CS 2300)  3
MATH 141*  Discrete Structures for CS (CS 1400)  3
MATH 150*  Analytic Geometry & Calculus II (MATH 1152)  5
Choose from one of the following*:

PHED 126  Lifetime Fitness I  2
PHED 157  Principles of Health  3
PHIL 203  Ethics  3
PSYC 144  Adjustment & Personality  3
SPDR 103  Interpersonal Comm.  3

Minimum Hours Required for A.A.: 62
Students must complete a Writing Intensive course AND either a Human Diversity course or Learning Community as part of the degree requirements.

YEARS 3 AND 4 AT UCM

**Major Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CS 1100*  Computer Programming I</td>
<td>3</td>
</tr>
<tr>
<td>CS 1110*  Computer Programming II</td>
<td>3</td>
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<tr>
<td>CS 1400*  Discrete Structures</td>
<td>3</td>
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<tr>
<td>CS 2200*  Introduction to Computer Organization</td>
<td>3</td>
</tr>
<tr>
<td>CS 2300*  Data Structures</td>
<td>3</td>
</tr>
<tr>
<td>CS 2500  C &amp; UNIX Systems Programming</td>
<td>3</td>
</tr>
<tr>
<td>CS 3100  Programming Languages</td>
<td>3</td>
</tr>
<tr>
<td>CS 3200  Computer Architecture</td>
<td>3</td>
</tr>
<tr>
<td>CS 4300  Algorithm Design &amp; Analysis</td>
<td>3</td>
</tr>
<tr>
<td>CS 4500  Operating System</td>
<td>3</td>
</tr>
<tr>
<td>CS 4600  Database Theory &amp; Applications</td>
<td>3</td>
</tr>
<tr>
<td>CS 4910  Software Engineering</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1151*  Calculus &amp; Analytic Geometry I</td>
<td>5</td>
</tr>
<tr>
<td>MATH 3311  Introduction to Math Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Area 2: Computer Science**

MATH 1152*  Calculus & Analytic Geometry II  5
MATH 2153  Calculus & Analytic Geometry III
MATH 3710  Linear Algebra
MATH 4450  Introduction to Graph Theory  3
Eelectives from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CS 2100  Web Programming</td>
<td>3</td>
</tr>
<tr>
<td>CS 2800  Interactive Systems Design</td>
<td>3</td>
</tr>
<tr>
<td>CS 3110  Object-Oriented Programming in C++</td>
<td>3</td>
</tr>
<tr>
<td>CS 4020  Internship in CS</td>
<td>3</td>
</tr>
<tr>
<td>CS 4100  SAS Programming</td>
<td>3</td>
</tr>
<tr>
<td>CS 4420  Systems Simulation &amp; Modeling</td>
<td>3</td>
</tr>
<tr>
<td>CS 4700  Artificial Intelligence</td>
<td>3</td>
</tr>
<tr>
<td>CS 4800  Computer Networking</td>
<td>3</td>
</tr>
<tr>
<td>CS 4810  Computer Graphics</td>
<td>3</td>
</tr>
<tr>
<td>CS 4820  Computer Security</td>
<td>3</td>
</tr>
</tbody>
</table>

**General Education Requirements**  
COMM 1000* Public Speaking  3
Free Electives**  8

* Course must be taken at UCM if not taken as part of A.A. degree.
** Exact hours may vary depending on transfer coursework
* Any one of these courses will fulfill the Personal Interaction Gen Ed at UCM

Minimum Hours Required for B.S.: 120

Updated: March 2012
# MCC Associate in Arts to UCM Computer Science, Option 2: Computer Science, Bachelor of Science

This guide is based on the UCM 2011 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 (www.ucmo.edu/academics/catalog) and the current MCC Course Catalog (http://mcssc.edu/catalog/Catalog112.pdf) 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:

- Personal Interaction: This requirement may be fulfilled by appropriate transfer courses.
- Integrative Studies: This requirement is fulfilled by any course in Division IV of UCM's General Education program and must be taken at UCM.
- Any major required general education course not previously taken.

For those students with an Associate Degree other than the Associate in Arts or who have not completed the A.A., transfer courses are evaluated on a course-by-course basis.

## Credits Required for B.S.

- Minimum of 120 hours
- Minimum of 30 hours of upper-level credit
- Minimum of 12 upper-level hours in major

^Courses taken at a two-year college MAY be articulated for an upper-level course by WILL NOT count towards upper-level hour requirements.

## Minor Required

No

## Modern Language Required

No

## GPA Required for Graduation

Students must achieve a minimum GPA of 2.00 in all grade point averages to qualify for graduation. This includes cumulative GPA, UCM GPA, major GPA, and minor GPA (if applicable). Some degree programs have additional GPA requirements.

## Residency Requirements to Receive a Degree from UCM

- 30 hours must be completed at UCM
- 20 upper-level hours must be completed at UCM
- 15 hours, 9 hours of which must be upper-level, in major must be from UCM,
- 9 hours, 1 hour of which must be upper-level, in minor must be from UCM (if applicable)
- The last 12 semester hours must be earned at UCM

## General Education Assessment (GEA)

All UCM students are required to pass a General Education Assessment test. Students transferring in more than 45 hours are required to take the test during their first semester at UCM. Learn more about the GEA at: www.ucmo.edu/assessment/documents/gened_policy.pdf

## Transfer Work

Arrange for all transfer work to be posted at UCM. An official transcript must be received at the UCM Office of Admissions directly from each school attended. The Office of Admissions is located in the Ward Edwards Building, Room 1400 - (660) 543-4290. Individual transfer equivalencies can be found online at www.ucmo.edu/corequiv.

## UCM Undergraduate Catalog

The current UCM Undergraduate Catalog can be found at: www.ucmo.edu/academics/catalogs

## UCM Transfer Advisors

UCM Transfer Advisors are housed in the Office of Transfer and Transition Services located in the Ward Edwards Building, Room 1900 - (660) 543-4721 or transition@ucmo.edu. Visit the Transfer and Transition Services website to find out who your transfer advisor is: www.ucmo.edu/transition/advisors.cfm.

## UCM Department Contact

The Department of Mathematics and Computer Science is located in the Morris Building, Room 222 - (660) 543-4930. The department website can be found at www.ucmo.edu/math-cs/

## UCM Professional Academic Advisor for this Degree

Bill Runyan is located in the Administration Building, Room 105 - (660) 543-4554 or chstadvising@ucmo.edu. The CHST Advising website can be found at www.ucmo.edu/chst/advising.