COLLEGE OF ARTS AND SCIENCES: GENERAL EDUCATION REQUIREMENTS
Bachelor of Science (BS) Degree

PROFICIENCIES
Courses taken to fulfill the proficiency requirements cannot be used in cognates to fulfill the Areas of Knowledge requirement seen below.

ENGLISH COMPOSITION* (6 credits)
ENG 105** (3) ____________
ENG 106 (3) ____________
*Certain AP/IB scores may be used to fulfill the Composition requirement as credit. If Transfer students transfer one of the two above, but not both, they may take ENG 208 to complete the requirement. **Unless exempted by SAT/V or ACT/V scores (does not include credits).

MATHEMATICS, COMPUTING, & STATISTICS (9 - 12 credits)
Students must complete one of these calculus sequences*: MTH 161/162, MTH 140/141/162, OR MTH171/172
(6-9) __/__/__
Students must take one of the following and must be approved by the major department:
(a) a computing course, or (b) a statistics course
Prerequisites apply to MTH courses. *Unless exempted by AP/IB, or UM placement test. UM placement test does not include credits.

SECOND LANGUAGE (3 - 9 credits)
Students must take at least three credits in a language other than English at the 200-level or higher.
Prerequisites may be required. Courses taken in order to meet this requirement, including necessary prerequisite courses to the 200 level courses, cannot be used in cognates seen below. See the University Bulletin for full details.

WRITING ACROSS THE CURRICULUM
In addition to ENG 105, 106 (and/or 208), students must complete four writing intensive courses, with one writing course in the student’s discipline as defined by the major department. Writing courses are marked as “Writing” in the class listings each semester. Transfer students must take at least two of the four writing courses at UM. See the University Bulletin for more information.

AREAS OF KNOWLEDGE

COGNATES (minimum 27 credits)
Students must complete a minimum of three cognates, one from each of the three areas of the University curriculum: Arts & Humanities; People & Society; and Science, Technology, Engineering & Mathematics (STEM). A cognate is a minimum of 9 credit hours, however it can be more. Each major and minor fulfills the cognate requirement in one Area of Knowledge. See the University Bulletin for more details.

Arts & Humanities (A&H) Cognate: ____________________________________________________________________________ (9) __/__/__
Courses: ________________________________________________________________ __________________________

People & Society (P&S) Cognate: ____________________________________________________________________________ (9) __/__/__
Courses: ________________________________________________________________ __________________________

Science, Technology, Engineering, & Mathematics (STEM) Cognate: ____________________________________________________________________________ (9) __/__/__
Courses: ________________________________________________________________ __________________________

NATURAL SCIENCE (3 credits)
Three credits must be earned from one of the following departments: Biology, Chemistry, Geological Sciences, or Physics. These credits may double count with any other requirement, e.g., courses in the STEM cognate. These credits must be earned in courses that count toward a major in that department.

MAJOR/MINOR
All students must complete requirements for an A&S’ major AND either: 1) any University offered minor, OR 2) another University offered major.
BS degree candidates must major in one of the STEM fields: Biochemistry and Molecular Biology, Biology, Chemistry, Computer Science, Ecosystem Science and Policy, Geological Sciences, Mathematics, Microbiology and Immunology, Neuroscience, Physics, or Psychology. Check the University Bulletin or consult an advisor for major and minor requirements.

ELECTIVES
Elective courses may be needed to reach the minimum of 120 credits required for the degree. Some courses, such as exercise or physical activity courses in the School of Education are not counted towards an Arts and Sciences’ degree. Students should always consult with an advisor.

Please note: In any required General Education Requirement, applicable prerequisites must be completed before upper division courses may be taken.