## Math Major

120 hours, with 40 hours 3000-4000 level courses, are required for this degree. A minor is not required.

| Fall Semester, Year 1 Hours |  |  | Spring Semester, Year 1 |  | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ENGL 1013 ACTS ENGL 1013 | Composition I | 3 | ENGL 1023 ACTS ENGL 1023 | Composition II | 3 |
| MATH 1043 ACTS MATH 1103 | College Algebra | 3 | MATH 2255 ACTS MATH 2405 | Calculus I | 5 |
| MATH 1033 <br> ACTS MATH 1203 | Trigonometry | 3 | *(5) | History or Gov. General Ed Req | 3 |
| *(1) | Fine Arts Apprec. General Ed Req | 3 | *(2) | Social Sciences Gen Ed Req.\#2 | 3 |
| *(2) | Social Sciences Gen Ed Req. \# 1 | 3 |  | Communication Gen Ed Requ | 3 |
| Total |  | 15 | Total |  | 17 |
| Fall Semester, Year 2 Hours |  |  | Spring Semester, Year 2 |  | Hours |
| MATH 3495 | Calculus II | 5 | MATH 3545 | Calculus III | 5 |
| *(6) <br> MATH 3403 <br> or <br> MATH 3233 | Probability and Statistics(fall odd) <br> History of Mathematics(fall even) | 3 | *(4) | Humanities Gen Ed Req | 3 |
| * 7 ) | CHEM or PHYS Supportive Requirement with lab | 4 | *(7) | CHEM or PHYS Supportive Requirement with lab | 4 |
|  | Minor Requirement or Elective | 3 |  | Minor Requirement or Elective | 3 |
| Total |  | 15 | Total |  | 15 |
| Fall Semester,Year 3 |  | Hours | Spring Semester, Year 3 |  | Hours |
| *(6) <br> MATH 3403 <br> or <br> MATH 3233 | Probability and Statistics(fall odd) <br> History of Mathematics(fall even) | 3 | MATH 3463 or MATH 4453 | Linear Algebra (spring even) or Differential Equations (spring odd) | 3 |
| MATH 3454 or MATH 3413 | Abstract Algebra (fall odd) or Number Theory (fall even) | 3 | *(6) <br> MATH 3423 <br> or <br> MATH 3513 | College Geometry (spring odd) or Discrete Mathematics (spring even) | 3 |
| CIS 2203 | Programming Logic and Design | 3 |  | Minor Requirement or Electives | 6 |
|  | Elective | 3 | CS or CIS*(8) | Programming Language course | 3 |
|  | Elective | 3 |  |  |  |
| Total |  | 15 | Total |  | 15 |
| Fall Semester, Year 4 Hours |  |  | Spring Semester, Year 4 |  | Hours |
| MATH 3454 or MATH 3413 | Abstract Algebra (fall odd) or <br> Number Theory (fall even) | 3 | MATH 3463 or MATH 4453 | Linear Algebra (spring even) or <br> Differential Equations (spring odd) | 3 |
|  | Minor Requirement or Elective | 3 | *(6) <br> MATH 3423 <br> or <br> MATH 3513 | College Geometry (spring odd) or Discrete Mathematics (spring even) | 3 |
|  | Elective,(or Minor Req. if needed) | 3 |  |  |  |
|  | Elective | 3 |  |  |  |
|  | Gen Ed Science Req. with lab if needed, or Elective | 3-4 | MATH 4711 | Mathematics Seminar | 1 |
|  |  |  |  | Minor Requirement or Elective | 3 |
|  |  |  |  | Minor Requirement or Elective | 3 |
|  |  |  |  | Electives as needed to reach 120 hours and 40 hours 3000-4000 level credit | 1-3 |
| Total |  | 15-16 | Total |  | 14-16 |

See the reverse page for courses that are marked with an asterisk and a number for possible course selections.

A student with a good math background may elect to take Calculus I as the first college math course. If this is the case, College Algebra and Trigonometry may be waived; however, additional hours must be taken to reach the 120 hours needed for graduation.

Students required to enroll in remedial courses will need to take additional hours per term, or attend summer school.

A minor is required for this major. Any minor may be chosen; however, the most common minors selected for this major are Chemistry, Physics, Natural Sciences, or Teaching and Learning (recommended for those planning on entering the MAT program). For those planning to teach, it is recommended that elective courses include additional science hours. Some minors may require more than 18 hours. Some minors may be completed with fewer hours since some courses are listed as supportive requirements. See the current catalog and your advisor for specific minor requirements.*
*(1) Fine Arts Appreciation can be either ART 1053 Art Appreciation (ACTS ARTA 1003) or MUS 1113 Music Appreciation (ACTS MUSC 1003)
*(2) Social Sciences Gen Ed Requirements can be filled with two courses of the following from two different disciplines: ANTH 2203 (ACTS ANTH 2013) Cultural Anthropology, CJ 1013(ACTS CRJU 1023) Introduction to Criminal Justice, ECON 2203 (ACTS ECON 2103) Principles of Macroeconomics, ECON 2213 (ACTS ECON 2203) Principles of Microeconomics, GEOG 2213 (ACTS GEOG 1103) Geography I , GEOG 2223 Geography II, HIST 1013 (HIST 1113) Surv of Civ I, HIST 1023 (ACTS HIST 1123) Survey of Civ II, PSY 1013 (ACTS PSYC 1103) Introduction to Psychology, SOC 2213 (ACTS SOCI 1013) Introduction to Sociology, SWK 1013 Introduction to Social Work. If you are applying to medical school at UAMS and other colleges of medicine, you should take PSY 1013 (ACTS PSYC 1103) Introduction to Psychology, SOC 2213 (ACTS SOCI 1013) Introduction to Sociology to complete your social science electives. These courses will be required courses at most colleges of medicine and material from these courses will be on the MCAT exam. It may be a good idea to take PSY 2203 Statistical Methods as a general elective to help prepare you for material that will be on the new MCAT exams.
*(3) Speech General Ed Requirement can be: COMM 1023( ACTS SPCH 1003) Public Speaking, COMM 2283 Business and Prof. Speech, or COMM 2203 Interpersonal Communication
*(4) Humanities General Ed. Requirement can be: ENGL 2283(ACTS ENGL 2113) World Lit I or ENGL 2293( ACTS ENGL 2123) World Lit II
*(5) History or Government General Ed. Requirement can be: HIST 2213(ACTS HIST 2113) American History I, HIST 2223(ACTS HIST 2123) American History II, or PSCI 2213 (ACTS PLSC 2003) American National Government
*(6) Students who plan to teach should use MATH 3233 History of Math, MATH 3423 College Geometry, and MATH 3513 Discrete Mathematics as math electives. Number Theory is not a required course; however, is a viable elective. If a student elects not to take Number Theory as an elective, additional elective hours may be needed to reach the 120 hour minimum.
*(7) You may take PHYS 2203/2231 (ACTS PHYS 2014) General Physics or PHYS 2313/2231 (ACTS PHYS2034) University Physics, but not both.
*(8) Programming language can be chosen from: CS 3003 Scientific Computing, CIS 3243 Introduction to Java Programming, CIS 3423 COBAL, CIS 3433 Introduction to C\# Programming, or CIS 3443 Object Oriented Programming Languages

