### NATURAL SCIENCES & MATHEMATICS
(20 hours minimum, including at least one MATH course)
- Honors hours must come from at least two groups
- Minimum honors hours: 16

#### Physics & Astronomy
- PHYS 2045 or 2044H University Physics I
- PHYS 2074 or 2074H University Physics II

#### Biology & Anthropology
- ANTH 1013/1011L or 1013H/1011M Biol. Anthropology
- BIOL 1543/1541L or 1543/1541M Principles of Biology
- BIOL 1584 Biology for Majors
- BIOL 1603/1601L or 1603/1601M Principles of Zoology
- BIOL 1813/1811L or 1813/1811M Plant Biology
- BIOL 2033/2031L or 2033/2031M General Microbiology

#### Chemistry
- CHEM 1103/1101L University Chemistry I
- CHEM 1123/1121L or 1123H/1121M University Chemistry II
- CHEM 2033/2031L Chemistry for Majors I
- CHEM 2123/2121L Chemistry for Majors II
- CHEM 3603/3601L or CHEM 3603H/3602M Organic Chem. I
- CHEM 3613/3611L or CHEM 3613H/3612M Organic Chem. II
- CHEM 3703/3702L Organic Chemistry for Majors I
- CHEM 3713/3712L Organic Chemistry for Majors II
- PHYS 1023/1021L or 1023H/1021M Physics & Human Affairs

#### Geology
- GEOS 1113/1111L or 1113H/1111M General Geology
- GEOS 1133/1131L Earth Science

#### Mathematics
- MATH 2554C or 2554H Calculus I
- MATH 2564C or 2564H Calculus II
- MATH 2574C or 2574H Calculus III

### HUMANITIES & SOCIAL SCIENCES
(6 courses • 18 hours)
- Minimum honors hours: 9

#### Social Sciences (1 course • 3 hours)
- ANTH 1023 or 1023H Intro to Cultural Anthropology
- COMM 1023 or 1023H Communication in a Diverse World
- ECON 2013 or 2013H Principles of Macroeconomics
- ECON 2023 or 2023H Principles of Microeconomics
- ECON 2143 or 2143H Basic Economics
- GEO 5003 or 5003H World Regional Geography
- PSYC 2003 or 2003H General Psychology
- SOCI 1013 or 1013H General Sociology

#### World Civilization (2 courses • 6 hours)
- HIST 1113 or 1113H Inst. and Ideas of World Civ. I
- HIST 1123 or 1123H Inst. and Ideas of World Civ. II

#### Fine Arts & Humanities (3 courses – 9 hours) Select one course from Fine Arts & Humanities sections, then select a third course from either section.

#### Fine Arts (select one)
- ARCH 1003 or 1003H Architecture Lecture
- ARHS 1003 or 1003H Art Lecture
- COMM 1003 or 1003H Film Lecture
- DANC 1033 or 1033H Movement and Dance
- ENGL 2023 Creative Writing I
- MLIT 1003 or 1003H Experiencing Music
- MLIT 1013 or 1013H Music & Society (Music Majors Only)
- MLIT 1033 Popular Music
- THTR 1003 or 1003H Theatre Appreciation
- THTR 1013 Musical Theatre Appreciation

#### Humanities (select one)
- AAST 2023 The African American Experience
- CLST 1003 or 1003H Intro to Classical Studies: Greece
- CLST 1013 or 1013H Intro to Classical Studies: Rome
- GNST 2003 or 2003H Intro to Gender Studies
- COMM 1233 or 1233H Media, Community, & Citizenship
- MUSY 2003 or 2003H Music in World Cultures
- PHIL 2003 or 2003H Intro to Philosophy
- WLIT 1113 or 1113H World Literature I
- WLIT 1123 or 1123H World Literature II

### COLLOQUIA & OTHER REQUIREMENTS
(hours vary based on exemptions & language placement)

#### UNIV 1001H: University Perspectives
(Or equivalent course from another University of Arkansas College)

#### English Composition (2 courses • 6 hours)
- ENGL 1013 Composition I
- ENGL 1023 Composition II

#### U.S. History or Government (1 course • 3 hours)
- HIST 2003 History of the American People to 1877
- HIST 2013 History of the American People 1877 to Pres.
- PLSC 2003 or 2003H American Nat’l Government

#### World language through the Intermediate I (2013) level or higher (hours vary)
- __________________________(2003)

#### Honors Colloquia (3 courses • 9 hours)
One from each approved area. No more than three (3) hours of required colloquium may be earned either abroad or in an intersession. An approved list of Honors Colloquia can be found on the Fulbright Honors website.

- Humanities
- Social Science
- Natural Science or Mathematics

* Students who complete University Chemistry I followed by Honors University Chemistry II will receive eight hours of honors science credit. Chemistry I & II for Majors, Organic Chemistry I & II for Majors, and BIOL 1584 also count as honors science credit.
### NATURAL SCIENCES & MATHEMATICS
(20 hours minimum, including at least one MATH course)
- Honors hours must come from at least two groups
- Minimum honors hours: 16

- **Physics & Astronomy**
  - PHYS 2054 or 2054H University Physics I
  - PHYS 2074 or 2074H University Physics II

- **Biology & Anthropology**
  - BIOL 1543/1541L or 1543/1541M Principles of Biology
  - BIOL 1584 Biology for Majors* 
  - BIOL 1603/1601L or 1603/1601M Principles of Zoology
  - BIOL 1613/1611L or 1613/1611M Plant Biology
  - BIOL 203/2011L or 203/2011M General Microbiology

- **Chemistry**
  - CHEM 1103/1101L University Chemistry I *
  - CHEM 1123/1121L or 1123/1121M University Chemistry II *
  - CHEM 1203/1201L Chemistry for Majors I
  - CHEM 1223/1221L Chemistry for Majors II
  - CHEM 3603/3601L or CHEM 3603H/3602M Organic Chemistry I
  - CHEM 3613/3611L or CHEM 3613H/3612M Organic Chemistry II
  - CHEM 3703/3702L Organic Chemistry for Majors I *
  - CHEM 3713/3712L Organic Chemistry for Majors II *
  - PHYS 1023/1021L or 1023/1021M Physics & Human Affairs

- **Geology**
  - GEOS 1113/1111L or 1113H/1111M General Geology
  - GEOS 1133/1131L Earth Science

- **Mathematics**
  - MATH 2554C or 2554H Calculus I
  - MATH 2564C or 2564H Calculus II
  - MATH 2574C or 2574H Calculus III

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### HUMANITIES & SOCIAL SCIENCES
(5 courses • 18 hours)
- Minimum honors hours: 9

- **Social Sciences (1 course • 3 hours)**
  - ANTH 1023 or 1023H Intro to Cultural Anthropology
  - COMM 1023 or 1023H Communication in a Diverse World
  - ECON 1023 or 1023H Principles of Macroeconomics
  - ECON 2023 or 2023H Principles of Microeconomics
  - ECON 2143 or 2143H Basic Economics
  - GEOS 2003 or 2003H World Regional Geography
  - PSYC 2003 or 2003H General Psychology
  - SOCI 2013 or 2013H General Sociology

- **Humanities (3 courses – 12 hours)**
  - HUMN 1114H Roots of Culture to 500 C.E.
  - HUMN 1124H Equilibrium of Cultures, 500-1600
  - HUMN 2114H Birth of Modern Culture, 1600 - 1900

- **Fine Arts (1 course – 3 hours)**
  - ARCH 1003 or 1003H Architecture Lecture
  - ARHS 1003 or 1003H Art Lecture
  - COMM 1003 or 1003H Film Lecture
  - DANC 1003 or 1003H Movement and Dance
  - ENGL 2023 Creative Writing I
  - MLIT 1003 or 1003H Experiencing Music
  - MLIT 1013 or 1013H Music & Society (Music Majors Only)
  - MLIT 1333 Popular Music
  - THTR 1003 or 1003H Theatre Appreciation
  - THTR 1013 Musical Theatre Appreciation

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### COLLOQUIA & OTHER REQUIREMENTS
(hours vary based on exemptions & language placement)

- **UNIV 1001H**: University Perspectives
  (Or equivalent course from another University of Arkansas college)

- **English Composition (2 courses • 6 hours)**
  - ENGL 1013 Composition I
  - ENGL 1023 Composition II

- **U.S. History or Government (1 course • 3 hours)**
  - HIST 2003 History of the American People to 1877
  - HIST 2013 History of the American People 1877 to Pres.
  - PLSC 2003 or 2003H American Nat’l Government

- **World language through the Intermediate I (2003) level or higher (hours vary)**
  - ______________(2003)

**Honors Colloquia (3 courses • 9 hours)**
One from each approved area. No more than three (3) hours of
required colloquia may be earned either abroad or in an intersession.
An approved list of Honors Colloquia can be found on the Fulbright
Honors website.

- **Humanities**
- **Social Science**
- **Natural Science or Mathematics**

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* Students who complete University Chemistry I followed by Honors
University Chemistry II will receive eight hours of honors science credit.
Chemistry I & II for Majors, Organic Chemistry I & II for Majors, and
BIOL 1584 also count as honors science credit.
J. WILLIAM FULBRIGHT COLLEGE OF ARTS AND SCIENCES

MAJOR REQUIREMENTS for a BACHELOR OF SCIENCE IN MATHEMATICS

MINIMUM DEGREE CREDIT HOURS REQUIRED TO GRADUATE = 120 (CORE + MAJOR + GENERAL ELECTIVES)

NATURAL SCIENCES (2 courses – 8 hours)
Choose from one of the following natural science sequences:
- BIOL 1543/1541L Principles of Biology
- BIOL 1603/1601L Principles of Zoology
- BIOL 1613/1611L Plant Biology
- BIOL 2103/2011L General Microbiology
- CHEM 1103/1101L University Chemistry I
- CHEM 1123/1121L University Chemistry II
- GEOS 1113/1111L General Geology
- GEOS 1133/1131L Earth Science
- PHYS 2054 University Physics I
- PHYS 2074 University Physics II

MATHEMATICS CORE (8 courses – 24 hours)
- MATH 2574 Calculus III
- MATH 2584 Elementary Differential Equations
- MATH 2803 Transition to Advance Math
- MATH 3093 Abstract Linear Algebra
- MATH 3113 Intro to Abstract Algebra
- MATH 4513 Advanced Calculus I
- MATH 4933 Mathematics Major Seminar

Note: It is recommended that MATH 2803 be taken as early as possible in the program.

Note: A 2.00 cumulative GPA on all work completed in the Department of Mathematical Sciences is required for graduation with a B.A. or B.S. degree.

- Students must complete one option from the three listed below (Applied, Pure, or Statistics) -

OPTION 1: APPLIED (6 courses – 18-19 hours)
- STAT 3013 Intro to Probability and Statistics
- MATH 4423 Intro to Partial Differential Equations
- MATH 4353 Numerical Linear Algebra
- MATH 4363 Numerical Analysis

Two additional MATH or STAT electives numbered 3000 or higher. (Students may also take CSCE 4133 Algorithms)

OPTION 2: PURE (6 courses – 18 hours)
- MATH 4113 Intro to Abstract Algebra II
- MATH 4523 Advanced Calculus II
- MATH 4443 Complex Variables

MATH or STAT electives numbered 3000 or higher. (Students may also take CSCE 4133 Algorithms)

OPTION 3: STATISTICS (6 courses – 19 hours)
- MATH 4353 Numerical Linear Algebra
- STAT 4003/4001L Statistical Methods
- STAT 4033 Nonparametric Statistical Methods

MATH or STAT electives numbered 3000 or higher. (Students may also take CSCE 4133 Algorithms.)

Note: STAT 5103 Intro to Probability Theory and STAT 5113 Statistical Inference are strongly recommended.

COMPUTER PROGRAMMING (1 course – 4 hours)
- CSCE 2004 Programming Foundations I

ADDITIONAL REQUIREMENTS (choose one below)
- Completion of eight hours numbered 3000+ not in MATH/STAT with department approval.
- Completion of UA Teach curriculum.
- Completion of College Honors core.

MATH/STAT ELECTIVES

Note: STAT 5103 Intro to Probability Theory and STAT 5113 Statistical Inference are strongly recommended.

- 2.00 cumulative GPA on all work completed in the Department of Mathematical Sciences is required for graduation with a B.A. or B.S. degree.