UAteach Checklist

BA Mathematics with UAteach Minor in Secondary Education
Grades 7-12 Mathematics Licensure

This program is designed to fulfill the course requirements for licensure as a secondary school (7-12) teacher in Arkansas. Completion of the program does not guarantee the student's licensure, as passing background checks and Praxis Exams is also required. This checklist has been created as a guide and is not considered to be an official document. For further information about meeting degree and additional licensure requirements, consult your academic advisor.

Students must complete 120 degree credit hours to include the University Core requirements, the Fulbright College of Arts and Sciences Graduation Requirements, the Mathematics Major requirements, and the UAteach program requirements.

University Core: The core courses add up to 24 credit hours, *not* including the math and science requirements. Core math and science requirements (8 hours science & 3 hours math) are satisfied within the mathematics degree plan, within a restricted list. One course **cannot** be used to meet more than one core requirement, such as US History and Social Sciences.	**Hours**
English: _____ENGL 1013 Composition I _____ENGL 1023 Composition II	**6**
US History: 3 semester hours from **one** of the following: Note: The course chosen may not be counted for both the US History requirement and a social science requirement. _____HIST 2003 History of the American People to 1877 _____ PLSC 2003 American National Government _____HIST 2013 History of the American People 1877 to Present	**3**
Social Sciences: 9 semester hours. Select **three** of the following courses from at least two different fields of study. _____AGEC 1103 Principles of Agricultural Microeconomics _____AGEC 2103 Principles of Agricultural Macroeconomics _____ANTH 1023 Intro to Cultural Anthropology _____COMM 1023 Communication in a Diverse World _____ECON 2013 Principles of Macroeconomics _____ECON 2023 Principles of Microeconomics _____ ECON 2143 Basic Economics: Theory and Practice _____GEOG 2003 World Regional Geography _____ GEOG 1123 Human Geography _____HESC 2413 Family Relations _____HESC 1403 Life Span Development _____HIST 1113 Institutions and Ideas of World Civilizations I _____ HIST 1123 Institutions and Ideas of World Civilizations II _____HIST 2003 History of American People to 1877 _____HIST 2013 History of American People 1877 to Present _____HUMN 2114H Honors Birth of Modern Culture, 1600-1900 _____HUMN 1114H Honors Roots of Culture 500 C.E. _____PLSC 2013 Intro to Comparative Politics _____PLSC 2003 American National Government _____PLSC 2203 State and Local Government _____PSYC 2003 General Psychology _____RESM 2853 Leisure and Society _____RSOC 2603 Rural Sociology _____SOCI 2013 General Sociology _____SOCI 2033 Social Problems	**9**
Humanities: 3 semester hours. Select **one** of the following: : _____ PHIL 2003 Intro to Philosophy _____PHIL 2103 Intro to Ethics _____ARCH 1013 Diversity and Design _____CLST 1013 Intro to Classical Studies: Rome _____HUMN 1124H Honors Equilibrium of Cultures, 500-1600 _____HUMN 2124H Honors Twentieth Century Global Culture _____ PHIL 2203 Logic _____ PHIL 3103 Ethics and the Professions _____ Any intermediate I foreign language _____ CLST 1003 Intro to Classical Studies: Greece _____ COMM 1233 Media, Community and Citizenship _____ HUMN 2003 Intro to Gender Studies _____ WLIT 1113 or 1123 World Literature I or II	**3**
Fine Arts: 3 semester hours. Select **one** of the following: _____ ARCH 1003 Basic Course in the Arts: Architecture _____ ARHS 1003 Basic Course in the Arts: Art Lecture _____ COMM 1003 Basic Course in the Arts: Film Lecture _____ MLIT 1003 Basic Course in the Arts: Music Lecture _____ DANC 1003 Basic Course in the Arts: Movement and Dance _____ LARC 1003 Basic Course in the Arts: The American Landscape _____ DRAM 1003 Theater Appreciation _____ MLIT 1013 Music Lecture for Music Majors	**3**
Total number of University Core credit hours required, excluding math and science courses.	**24**

Science Course Requirements (2 courses with labs) The mathematics degree only accepts these courses from the set of University Core science courses _____ ANTH 1013/1011L Intro to Biological Anthropology _____ASTR 2003/2001L Survey of the Universe _____BIOL 1543/1541L Principles of Biology _____BIOL 1603/1601L Principles of Zoology _____BIOL 1613/1611L Plant Biology _____BIOL 2013/2011L General Microbiology _____ CHEM 1103/1101L University Chemistry I _____ CHEM 1123/1121L University Chemistry II _____ GEOL 1113/1111L _____ GEOL 1133/1131L Environmental Geology _____ PHYS 2054 University Physics I* _____ PHYS 2074 University Physics II * *(*these calculus-based physics courses are recommended for future math teachers to deepen their understanding of calculus; taking them also opens the possibility of physics/math licensure)*	**8**
UAteach Course Requirements _____ **ARSC 1201 Step 1: Inquiry Approaches to Teaching (Sp, Fa)** _____ **ARSC 1221 Step 2: Inquiry-Based Lesson Design (Sp, Fa)** _____ **STEM 2103 Knowing and Learning in Science and Mathematics (Fa)** _____ **STEM 2203 Classroom Interactions (Sp)** _____ **MATH 2903 Functions, Foundations and Models (Fa)** _____ **PHYS, BIOL or CHEM 3273 Research Methods (Sp)** *(student chooses the focus area of research)* _____ **STEM 3303 Project-Based Instruction (Fa)** _____ **MATH 3133 History of Math (Sp)** *This satisfies a math elective, too, but the 3 credit hours are only counted once.* **OR… STEM 4333 Perspectives on Science and Mathematics (Sp)** _____ **STEM 4409 Supervised Clinical Teaching in Science and Mathematics Instruction**	**26-29**

Additional Requirements: • 40-hour rule: 40 hours of coursework must be at the 3000 level or higher. • 30-hour rule: 30 hours of coursework must be completed at the University of Arkansas. These courses must be at the 3000 level or higher and required for the completion of a degree program. • 24-hour rule: 30 hours of coursework must be completed in Fulbright College including 24 hours of credit at the 3000 or 4000 level. • The Fulbright College writing requirement for non-honors students is typically completed in MATH 4933. _____ UNIV 1001: University Perspectives (freshman year)	**1**
	Hours
Courses for Mathematics Major B.A. _____*MATH 2554* Calculus I (*not required for the major, but pre-service teachers typically take both Calculus I and II)* _____*MATH 2564* Calculus II* _____MATH 2574 Calculus III _____MATH 2803 Transition to Advanced Mathematics _____CSCE 2004 Programming Foundations I	**20**
_____MATH 3093 Abstract Linear Algebra _____MATH 3113 Introduction to Abstract Algebra I _____ MATH 3513 Elementary Analysis _____MATH 4933 Math Major Senior Seminar	**12**
In addition to the list of math courses above, select 12 hours of MATH or STAT electives at the '3000 level or above.' Some recommended courses include: _____ MATH 3773 Foundations of Geometry _____MATH 3133 History of Math *(also counts toward a UAteach requirement, but only counts once as 3 hours toward 120 total)* _____STAT 3013 Introduction to Probability ____ MATH 2584 Differential Equations *(because of the prerequisite, the Math Department considers this an upper level course)* _____MATH 3103 Combinatorial and Discrete Mathematics	**12-13**
Free electives as needed to complete 120 hour requirement.	**13-17**
Total number of credit hours to complete degree	**120**

BA Mathematics
Grades 7-12 Mathematics Licensure

Sample Degree Guide – Fill in University Core (24) and other Electives to reach 120 credit hours

Fall Semesters		Hours	Spring Semesters		Hours
			Freshman Year		
ARSC 1201	Step 1 Inquiry Approaches to Teaching	1	ARSC 1221	Step 2 Inquiry-Based Lesson Design	1
MATH 2554	Calculus I	4	MATH 2564	Calculus II	4
	Science with Lab	4	MATH 2803	Transition to Advanced Mathematics	3
	CORE ELECTIVE	3		Science with Lab	4
ENGL 1013	Composition I	3	ENGL 1023	Composition II	3
UNIV 1001	University Perspectives	1			
	TOTAL	16		TOTAL	15
			Sophomore Year		
STEM 2103	Knowing and Learning	3	STEM 2203	Classroom Interactions	3
MATH 2903	Functions, Foundations, and Models	3	MATH 2584	Differential Equations (elective)	4
MATH 2574	Calculus III	4	CSCE 2004	Programming Foundations I	4
	CORE ELECTIVE	3	MATH 3093	Abstract Linear Algebra	3
	CORE ELECTIVE	3			
	TOTAL	16		TOTAL	14
			Junior Year		
MATH 3113	Introduction to Abstract Algebra	3	PHYS/CHEM/BIOL 3273	Research Methods	3
STAT 3013	Intro to Probability (elective)	3	MATH 3133	History of Math *(satisfies math elective and UAteach requirement)*	3
MATH 3773	Foundations of Geometry (elective)	3	MATH 3513	Elementary Analysis	3
	CORE ELECTIVE	3		CORE ELECTIVE	3
	CORE ELECTIVE	3			
	TOTAL	15		TOTAL	12
			Senior Year		
STEM 3303	Project-Based Instruction	3	STEM 4409	Teaching Internship (all day for 12 weeks + weekly evening seminar on UA campus)	9
MATH 4933	Math Major Seminar	3	STEM 4333 *(night class)*	Perspectives on Science & Math *(take this if you have not taken History of Math)*	3
	TOTAL	6		TOTAL	12

Some considerations for free electives:

Prepare for computer science licensure by passing the PRAXIS EXAM for Computer Science. CSCE 2004 (already required by the math degree), CSCE 2014, and CSCE 3193 will prepare you for the exam. Three more CSCE electives (numbered above 2000) will earn you a minor in Computer Science.

If University Physics I and II are chosen for science courses, only two more courses are required (PHYS 2094/2090L and PHYS 3614) along with PHYS 3273 (UAteach course) for a minor in physics, and preparation for Math/Physics licensure.

Take additional courses for a BS in Mathematics.

Coaching endorsement (24 credit hours) or CIED courses from College of Education & Health Professions

Spanish courses