MAJOR MAP FOR BACHELOR OF SCIENCE IN MATHEMATICS STATISTICS CONCENTRATION (MATHBS-MATH3) 2020-21 THROUGH 2025-26 CATALOG YEARS

Name: _____ **ID Number:** _____ **Date**: _____ **Anticipated Graduation Semester:** _____

MATHBS-MATH3 Degree Snapshot

Advising Notes

University or College Requirements

Overall Academic Progress (120 total Hrs required):

_____ Eligible Hours in Progress + _____ Hours Completed + _____ Hours Remaining = 120 hours minimum. Additional hours may be required to complete chosen major(s)/minor(s). [Be sure to check In Progress hours in Workday for ineligible courses.)

_____ **Cumulative GPA-** UofA courses only, 2.0 minimum
_____ **Major Residency Rule-** 21 hrs MATH or STAT courses in residence. (Hrs remaining after in-progress)
_____ **MATHBS GPA-** must have 2.0 GPA in all MATH department classes
_____ **Upper-Level Enrollment Requirement-** 30-hrs 30000+ at UofA. (Hrs remaining after in-progress)
_____ **Fulbright College 40-hour rule-** 40-hrs 30000+ or 20000+ w/ prereq (Hrs remaining after in-progress)

State Minimum Core Requirements

University Core in English Composition I (0-3 hrs)
_____ ENGL 10103/101H3 Composition I or exemption _____

University Core in English Composition II (0-3 hrs)
_____ ENGL 10203/102H3 Composition II or exemption _____

University Core in Mathematics (3 hrs)
_____ MATH 11003 College Algebra (or higher MATH) _____

University Core in Science (8 hrs possible overlap with **MATHBS Science Requirement**)
_____ Science w/ lab _____
_____ Science w/ lab _____

University Core in US History or Government (3 hrs)
_____ US HIST/PLSC _____

University Core in Fine Arts (3 hrs)
_____ Fine Art _____

University Core in Humanities (3 hrs)
_____ Humanities _____

University Core in Social Sciences (9 hrs)
_____ Social Science_____
_____ Social Science_____
_____ Social Science_____

Degree Requirements continued on Page 2 with Major Requirements

MAJOR MAP FOR BACHELOR OF SCIENCE IN MATHEMATICS STATISTICS CONCENTRATION (MATHBS-MATH3) 2020-21 THROUGH 2025-26 CATALOG YEARS

Major Requirements

MATHBS Science Requirement (8 hrs see below for list. Possible overlap with **University core in Sciences**)

_____ _____

_____ _____

Programming Foundations I 4 hrs)

_____ CSCE 20004 Programming Foundations I

Calculus III (4 hrs)

_____ MATH 26004 Calculus III (depending on placement, students may be required to take the following prerequisites: College Algebra, pre-calculus or trigonometry, Calculus I, and Calculus II)

Elementary Differential Equations (4 hrs)

_____ MATH 25804 Elementary Differential Equations

Transition to Advanced Mathematics and Transition to Advanced Mathematics Laboratory (4 hrs)

_____ MATH 28003/28001 Transition to Advanced Mathematics

Abstract Linear Algebra (3 hrs)

_____ MATH 30903 Abstract Linear Algebra

Introduction to Abstract Algebra I (3 hrs)

_____ MATH 31103 Introduction to Abstract Algebra I

Advanced Calculus I (3 hrs)

_____ MATH 45103 Advanced Calculus 1

Mathematics Major Seminar (3 hrs)

_____ MATH 49303 Mathematics Major Seminar

MATH3 Concentration

Introduction to Probability (3 hrs)

_____ STAT 30133 Introduction to Probability

Introduction to Mathematical Statistics (3 hrs)

_____ STAT 31133 Introduction to Mathematical Statistics

Statistical Methods (3 hrs)

_____ STAT 30043 Statistical Methods

Statistical Methods lab or Introduction to R (3 hrs)

Choose 1:

_____ STAT 30041 Statistics Methods Laboratory

_____ STAT 41031 Introduction to R

Nonparametric Statistical Methods (3 hrs)

_____ STAT 40333 Nonparametric Statistical Methods

MATH or STAT 30000+ electives for MATHBS (6 hrs)

Take 6 hrs MATH or STAT 30000+ (or CSCE 41303)

_____ _____

_____ _____

General Electives (23-40 hrs. Hours vary based on how much overlap students choose between major and core requirements. If required UNIV 10051 University Perspectives counts here.)

Last Updated: July 9, 20205

MAJOR MAP FOR BACHELOR OF SCIENCE IN MATHEMATICS STATISTICS CONCENTRATION (MATHBS-MATH3) 2020-21 THROUGH 2024-25 CATALOG YEARS

Graduation Plan

Use the following additional resources in addition to this major map to complete your graduation plan (Catalog and your Degree Audit in UAconnect). Many students have more than one major minor or pre-professional goal that has additional required classes. This tool allows you to combine all your educational goals in to one plan.

High School credit	List all Advanced Placement International Baccalaureate Dual or Concurrent credit			
Year	**Fall**	**Spring**	**Summer**	**Total**
Year 1				**Total 1st year credit hours (aim for 30):**
Year 2				**Total 2nd year credit hours (aim for 60):**
Year 3				**Total 3rd year credit hours (aim for 90):**
Year 4				**Total 4th year credit hours (Must be at least 120):**

Please visit https://catalog.uark.edu/undergraduatecatalog for an extensive list of core major graduation and pre-requisite requirements. To read more about individual classes visit the courses of instruction page for course descriptions.

Last Updated: June 17, 2024

MAJOR MAP FOR BACHELOR OF SCIENCE IN MATHEMATICS STATISTICS CONCENTRATION (MATHBS-MATH3) 2020-21 THROUGH 2024-25 CATALOG YEARS

Degree Requirement Breakdown by Category

The following information is designed to help you navigate your experience in your degree and answer common questions that may come up for each requirement. All requirements for graduation are documented un the Catalog of Studies.

University or College Requirements		
Academic Requirement Name	**Catalog Requirement**	**Additional Notes**
Overall Academic Progress	• Overall Academic Progress: 120 graduation eligible hours required	• Overall Academic Progress: Students must earn a minimum of 120 credit hours. The total number of hours required to complete specific major and minor combinations may vary beyond 120 hours. • Graduation Eligible Hours: The following classes are not eligible for degree credit- ENGL 00001 ENGL 00101 MATH 00101 MATH 00202 MATH 01101 any duplicate credit where a course is not listed as repeatable in the catalog. These classes may show up in Workday Student as in-progress hours, but they will not post as units satisfying Overall Academic Progress when grades post.
Cumulative GPA	• GPA: must be 2.0 or higher	• GPA: Students must maintain a 2.0 Grade Point Average (GPA) to remain in good standing and be eligible for graduation.
Fulbright College 40-Hour Rule	• Fulbright College 40-hour rule: minimum 40 hours upper-level. Includes all 30000+ courses and 20000+ if the course has prerequisite.	• Fulbright College 40-hour rule: Students must take at least 40 credit hours of upper-level courses. This includes courses numbered 30000 level or above or 20000 level courses if the course has a prerequisite. It is not limited to courses taken in residence.
Upper-Level Enrollment Requirement	• Upper-Level Enrollment Requirement: minimum 30 hours 30000+ taken in residence	• Upper-Level Enrollment Requirement (30-hr rule): Students are required to take at least 30 credit hours of upper-level (30000+) courses in residence. This includes UA faculty-led study abroad classes online/on-campus classes and courses offered through the Global Campus; and all other courses paid toward Fayetteville campus tuition and fees.
MATHBS Residency Rule	• MATHBS Residency Rule: minimum 21 hours MATH or STAT courses taken in residence	• Residency Rule: Students must take at least 50% of their program (i.e. major or minor) requirements in residence. For programs that require classes from other departments this rule is defined only by required classes from the program's home department.
State Minimum Core Requirements		
University Core in English Composition I **0-3 hrs**	• ENGL 10103/101H3 Composition I or SAT/ACT exemption	See Catalog for information about placement and/or exemption.
University Core in English Composition II **0-3 hrs**	ENGL 10203/102H3 Composition II or SAT/ACT exemption	See Catalog for information about placement and/or exemption.

Last Updated: June 17, 2024

MAJOR MAP FOR BACHELOR OF SCIENCE IN MATHEMATICS STATISTICS CONCENTRATION (MATHBS-MATH3) 2020-21 THROUGH 2024-25 CATALOG YEARS

University Core in Mathematics **3 hrs**	Choose 1: • MATH 11003 College Algebra • MATH 11103 Quantitative Reasoning (MATH majors should not take this course)	Based on ACT/SAT or other math placement scores students may need to enroll in additional remediation related courses. See catalog or math placement website for additional information.
University Core in Science **8 hrs**	Choose 2: (each class will have a required lecture and lab component): • ANTH 10143/ANTH 10141 Intro to Biological Anthropology (or ANTH 101H3/101H1) • ASTR 20003/20001 Survey of the Universe (or ASTR 200H3/200H1) • BIOL 10004 Biological Principles • BIOL 10103/10101 Principles of Biology (or BIOL 154H3/154H1) • BIOL 10104 Biology for Majors • BIOL 10303/10301 Plant Biology • BIOL 10503/10501 Principles of Zoology • BIOL 24003/24001 Human Anatomy • BIOL 24103/24101 Human Physiology • CHEM 10003/10001 Chemistry in the Modern World • CHEM 12103/12101 Fundamentals of Chemistry • CHEM 12073/12071 Chemistry for Majors I • CHEM 12283/12281 Chemistry for Majors II • CHEM 14103/14101 University Chemistry I • CHEM 14203/14201 University Chemistry II (or CHEM 142H3/142H1) • ENSC 10003/10001 Environmental Science (or ENSC 100H3/100H1) • ENTO 10203/10201 Insects Science and Society • GEOL 11103/11101 Physical Geology (or GEOL 111H3/111H1) • GEOL 11203/11201 Earth Science • GEOS 11504 Introduction to Geology for Science Majors • PHYS 10243/10241 Physics and Human Affairs (or PHYS 102H3/102H1) • PHYS 10304 Physics for Elementary Education Majors • PHYS 10404 Physics for Architects I • PHYS 10504 Physics for Architects II • PHYS 20103/20101 College Physics I • PHYS 20203/20201 College Physics II	Some classes will have pre-requisites

Last Updated: June 17, 2024

MAJOR MAP FOR BACHELOR OF SCIENCE IN MATHEMATICS STATISTICS CONCENTRATION (MATHBS-MATH3) 2020-21 THROUGH 2024-25 CATALOG YEARS

	• PHYS 20304 University Physics I (or PHYS 203H4) • PHYS 20404 University Physics II (or PHYS 204H4)	
University Core in US History or Government **3 hrs**	Choose 1: * • HIST 20003 History of the American People to 1877 • HIST 20103 History of the American People 1877 to Present • PLSC 20003 American National Government (or PLSC 200H3)	*Some courses may appear as options in multiple areas of the State Minimum Core. You can only count each course one time in State Minimum Core categories.
University Core in Fine Arts **3 hrs**	Choose 1: * • ARCH 10003 Architecture Lecture (or ARCH 100H3) • ARHS 10003 Art Lecture (or ARHS 100H3) • COMM 10003 Film Lecture (or COMM 100H3) • DANC 10003 Movement and Dance • ENGL 20103 Creative Writing 1 • HUMN 211H4 Honors Birth of Modern Culture 1600-1900 (honors only) • LARC 10003 The American Landscape (or LARC 100H3) • MUSC 10003 Experiencing Music (or MUSC 100H3) • MLIT 10103 Music and Society (music majors only. Or MLIT 101H3) • MLIT 13303 Popular Music • THTR 10003 Theatre Appreciation (or THTR 100H3) • THTR 10103 Musical Theatre Appreciation (or THTR 101H3) • THTR 16803 Acting I • THTR 18803 Acting 1 for Theatre majors	*Some courses may appear as options in multiple areas of the State Minimum Core. You can only count each course one time in State Minimum Core categories.
University Core in Humanities **3 hrs**	Choose 1: * • AAST 20203 The African American Experience • ANTH 10303 Introduction to Archeology • ARCH 10103 Diversity and Design (or ARCH 101H3) • CLST 10003 Introduction to Classical Studies: Greece (or CLST 100H3) • CLST 10103 Introduction to Classical Studies: Rome (or CLST 101H3) • COMM 12303 Media Community and Citizenship (or COMM 123H3)	*Some courses may appear as options in multiple areas of the State Minimum Core. You can only count each course one time in State Minimum Core categories.

Last Updated: June 17, 2024

	• DANC 10003 Dance Appreciation • DASC 21303 Data Privacy & Ethics • ENGL 11103 World Literature: Beginnings to 1650 CE (or ENGL 111H3) • ENGL 11203 World Literature: 1650 CE to Present (or ENGL 112H3) • ENGL 12103 Introduction to Literature (or ENGL 121H3) • ENGL 20103 Creative Writing I • GNST 20003 Introduction to Gender Studies (or GNST 200H3) • HUMN 112H4 Honors Equilibrium of Cultures 500-1600 (Honors only) • HUMN 22103 Introduction to World Religions • LALS 20103 Introduction to Latin American and Latino Studies • MRST 20103 Introduction to Medieval and Renaissance Studies • MUSY 20003 Music in World Cultures (or MUSY 200H3) • PHIL 20003 Introduction to Philosophy (or PHIL 200H3) • PHIL 21003 Introduction to Ethics • PHIL 22003 Logic • PHIL 23003 Human Nature and the Meaning of Life • PHIL 31003 Ethics and the Professions • THTR 10003 Theatre Appreciation (or THTR 100H3) • THTR 10103 Musical Theatre Appreciation (or THTR 101H3) • Any Intermediate level world language numbered at the 20000 level	
University Core in Social Sciences **9 hrs**	Choose 3: * • AGEC 11003 Principles of Agriculture Microeconomics (or AGEC 110H3) • AGEC 21003 Principles of Agriculture Macroeconomics (or AGEC 210H3) • ANTH 10203 Intro to Cultural Anthropology (or ANTH 102H3) • COMM 10203 Communication in a Diverse World (or ANTH 102H3)	Students must take classes from at least two departments. *Some courses may appear as options in multiple areas of the State Minimum Core. You can only count each course one time in State Minimum Core categories.

Last Updated: June 17, 2024

	• ECON 21003 Principles of Macroeconomics (or ECON 210H3) • ECON 22003 Principles of Microeconomics (or ECON 220H3) • ECON 21403 Basic Economics: Theory and Practice (or ECON 214H3) • GEOG 11103 Human Geography (or GEOG 111H3) • GEOG 21003 World Regional Geography (or GEOG 210H3) • HDFS 14003 Life Span Development (HDFS 140H3) • HDFS 24103 Family Relations (or HDFS 241H3) • HDFS 26003 Rural Families & Communities (HDFS 260H3) • HIST 11193 Institutions and Ideas of World Civilizations I (or HIST 111H3) • HIST 11293 Institutions and Ideas of World Civilizations II (or HIST 112H3) • HIST 20003 History of the American People to 1877 • HIST 20103 History of the American People 1877 to Present • HIST 20903 Animals in World History • HUMN 111H4 Honors Roots of Culture to 500 C.E. (Honors only) • HUMN 211H4 Honors Birth of Modern Culture 1600-1900 (honors only) • INST 20103 Introduction to International and Global Studies • INST 211H4 Honors Pathways to Global and Social Change • JOUR 10203 Media and Society • PLSC 20003 American National Government (or PLSC 200H3) • PLSC 20103 Intro to Comparative Politics • PLSC 21003 State and Local Government • PLSC 28103 Intro to International Relations (or PLSC 281H3) • PSYC 20003 General Psychology (or PSYC 200H3) • RESM 28503 Leisure and Society (or RESM 285H3)	

MAJOR MAP FOR BACHELOR OF SCIENCE IN MATHEMATICS STATISTICS CONCENTRATION (MATHBS-MATH3) 2020-21 THROUGH 2024-25 CATALOG YEARS

	• SOCI 10103 General Sociology (or SOCI 201H3) • SOCI 20103 Social Problems • STEM 20003 The Art of STEM Communication	
	Major Requirements	
MATHBS Science Requirement **8 hrs**	**Choose 1 sequence of 2 classes from the same department:** **Biology:** Choose 1: • BIOL 10103/10101 Principles of Biology • BIOL 10304 Biology for Majors** Then choose 1 from below: • BIOL 10503/10501 Principles of Zoology • BIOL 10303/10301 Plant Biology • BIOL 20003/2000, General Microbiology** **Chemistry:** combinations of University Chemistry and Chemistry for majors 1 & 2 will be accepted • CHEM 14103/14101 University Chemistry I • CHEM 14203/14201 University Chemistry II **OR** • CHEM 12073/12071 Chemistry for Majors I** • CHEM 12283/12281 Chemistry for Majors II** **Geosciences:** Choose 1: • GEOL 11103/1110, Physical Geology • GEOS 11504 Introduction to Geology for Majors** AND • GEOL 11203/11201 Earth Science **Physics:** • PHYS 10304 University Physics I • PHYS 10404 University Physics II	**students may overlap classes taken here with University core in Sciences, but BIOL 20003/20001 is not a core science **Older catalogs do not list these sciences as options. Students wanting to take these options should update to the 2025-26 or lor a later catalog.
Programming Foundations I **4 hrs**	CSCE 20004 Programming Foundations I	
Calculus III **4 hrs**	MATH 26004 Calculus III	**Students must earn a C or higher to use a MATH class as a pre-requisite for another MATH class.**

Last Updated: June 17, 2024

MAJOR MAP FOR BACHELOR OF SCIENCE IN MATHEMATICS STATISTICS CONCENTRATION (MATHBS-MATH3) 2020-21 THROUGH 2024-25 CATALOG YEARS

		Depending on placement, students may be required to take the following prerequisites: • MATH 11003 College Algebra • MATH 13304 pre-calculus or MATH 12003 trigonometry • MATH 24004 Calculus I or MATH 24005 Calculus I with Review • MATH 25004 Calculus II
Elementary Differential Equations **4 hrs**	MATH 25804 Elementary Differential Equations	**Students must earn a C or higher to use a MATH class as a pre-requisite for another MATH class.**
Transition to Advanced Mathematics and Transition to Advanced Mathematics Laboratory **4 hrs**	MATH 28003/28001 Transition to Advanced Mathematics	**Students must earn a C or higher to use a MATH class as a pre-requisite for another MATH class.** **MATH 28003 should be taken as early as possible. While older catalogs do not list it as a requirement, MATH 28001 is a co-requisite class that needs to be taken along with MATH 28003.
Abstract Linear Algebra **3 hrs**	MATH 30903 Abstract Linear Algebra	**Students must earn a C or higher to use a MATH class as a pre-requisite for another MATH class.** **Students may not receive credit for both MATH 30903 and MATH 30803
Introduction to Abstract Algebra I **3 hrs**	MATH 31103 Introduction to Abstract Algebra I	**Students must earn a C or higher to use a MATH class as a pre-requisite for another MATH class.**
Advanced Calculus I **3 hrs**	MATH 45103 Advanced Calculus 1	**Students must earn a C or higher to use a MATH class as a pre-requisite for another MATH class.** ***Students may not receive credit for both MATH 35103 and 45103 in the major.
Mathematics Major Seminar **3 hrs**	MATH 49303 Mathematics Major Seminar	**Students must earn a C or higher to use a MATH class as a pre-requisite for another MATH class.**
MATH3 Concentration		
Introduction to Probability **3 hrs**	STAT 30133, Introduction to Probability	**Students must earn a C or higher to use a MATH class as a pre-requisite for another MATH class.** *Pre 2022 catalogs also count STAT 51033 in lieu of STAT 30133.

Last Updated: June 17, 2024

MAJOR MAP FOR BACHELOR OF SCIENCE IN MATHEMATICS STATISTICS CONCENTRATION (MATHBS-MATH3) 2020-21 THROUGH 2024-25 CATALOG YEARS

Introduction to Mathematical Statistics **3 hrs**	STAT 31133 Introduction to Mathematical Statistics	**Students must earn a C or higher to use a MATH class as a pre-requisite for another MATH class.**
Statistical Methods **3 hrs**	STAT 30043 Statistical Methods	**Students must earn a C or higher to use a MATH class as a pre-requisite for another MATH class.**
Statistical Methods lab or Introduction to R **3 hrs**	Choose 1: • STAT 30041 Statistics Methods Laboratory • STAT 41031 Introduction to R	**Students must earn a C or higher to use a MATH class as a pre-requisite for another MATH class.**
Nonparametric Statistical Methods **3 hrs**	STAT 40333 Nonparametric Statistical Methods	
MATH or STAT 30000+ electives for MATHBS **6 hrs**	Take 6 hrs MATH or STAT 30000+ (or CSCE 41303)	**Students must earn a C or higher to use a MATH class as a pre-requisite for another MATH class.**
UPPER-LEVEL COURSE REQUIREMENT **0 hrs ***	~~Completion of **8 additional hours at the 30000-level or higher** not in Mathematics or Statistics chosen with department approval.*~~	***This requirement was removed from the 2024-25 catalog.** The department does not enforce this requirement in any catalog years. Students still need 120 total hours in their degree but may take any general electives they would like in lieu of this requirement. ***For this reason, this requirement is not listed in the degree snapshot on page 1.***
General Electives **23-40 hrs**	Hours will vary depending on possible overlap in major and whether a student is exempt from ENGL 10103, ENGL 10203, and UNIV 10051.*	Some general electives may need to be upper-level to meet college and university residency requirements. * UNIV 10051 (or an equivalent course) is required for all incoming freshmen. Some students may have taken one of the following courses instead: AFLS 102H3 ARSC 12001, BUSI/WCOB 11101, BUSI/WCOB 111H1, GNEG 11101, GNEG 111H1, HIST 1003(H), HIST 10001, HIST 100H1, PLSC 10003, PLSC 100H3, STEM 12001. Students who transfer to the University of Arkansas with at least 24 credit hours are not required to take UNIV 10051.
Honors	**Minimum Requirements for Honors:** • Maintain cumulative grade point average of 3.5. • Complete Honors Capstone Project • Complete all required Honors Courses See Catalog for full description of requirements.*	**Honors Capstone Project Timeline:** Honors students should consistently work with their academic advisor and thesis advisor to ensure they stay on track with their honors requirements, but can consult the Fulbright Honors SharePoint for important dates. ***** Students following honors requirements from a catalog earlier than 2025-26 should consult with their academic advisor to confirm requirements.

Last Updated: June 17, 2024