Rev. 10/14/2022

2022-2023 Degree Map-Bachelor of Science in Applied Statistics: Data Science option

This map is a term-by-term sample course schedule. The Sample Schedule serves as a general guideline to help you build a full schedule each term. See course descriptions and prerequisites at http://www.atu.edu/catalog/

Possible careers include: Data Scientist, Data Analyst, Business Analyst, Quantitative Analyst, Statistical Analyst, Statistical Programmer, Statistician, Operation research analyst

#Prerequisite Courses: ENGL 0303_____ MATH 0803_____ MATH 1003_____ MATH 0903_____ MATH 1110_____ MATH 1203 _____MATH 1914_____

Sample Schedule — Milestones/Notes

Semester 1	Hrs.	Grade	Semester 1
ENGL 1013- Comp I (ACTS=ENGL 1013)	3	#	
U.S. History & Government	3		
MATH 1001- Orientation to Mathematics	1		
MATH 2914- Calculus I (ACTS= MATH 2405)	4	#	# C or > required for Gen Ed.
BUAD 2003- Business Information Systems	3		
Total hours	14	GPA	

Semester 2	Hrs.		Semester 2
ENGL 1023- Comp II (ACTS= ENGL 1023)	3	#	
Fine Arts & Humanities	3		
BDA 2003- Business Problem Solving	3		
MATH 2924- Calculus II (ACTS= MATH2505)	4	#	
STAT 2163- Intro to Statistical Methods	3		
Total hours	16	GPA	

Semester 3	Hrs.		Semester 3
Social Science	3		
MATH 2703- Discrete Mathematics	3		
MATH 2934- Calculus III (ACTS= MATH 2603)	4		
STAT 2304- Programming Language for Data Science	4		
			SEE Catalog
Total hours	14	GPA	

Semester 4	Hrs.		Semester 4
BDA 3053- Business Data Analysis	3		
COMS 1013- Programming I	3	#	
COMS 1011- Programming I Lab	1		Pass/Fail
STAT 3153- Applied Statistics	3		
STAT 3113- Regression Analysis	3		
*MATH/STAT Elective (See Note 1)	3		SEE Catalog
Total hours	16	GPA	MATH ADVISOR ASSIGNED

Sample Schedule — Milestones/Notes

Semester 5	Hrs.	Grade	Semester 5
Fine Arts & Humanities	3		
Science with lab	4		
COMS 2203- Programming II	3		
MATH 4003- Linear Algebra I	3		
STAT 4163- Mathematical Statistics	3		
Total hours	16	GPA	

Semester 6	Hrs.		Semester 6
COMM 2173- Business & Professional Speaking	3		
Science with lab	4		
COMS 2213- Data Structures	3		
STAT 4153- Experimental Design and Analysis	3		
MATH/STAT Elective (3000-4000) SEE Catalog	3		SEE Catalog & Note 1
Total hours	16	GPA	APPLY FOR GRADUATION

Semester 7	Hrs.		Semester 7
Social Science	3		
STAT 4113- Categorical Data Analysis	3		
COMS Elective (3000-4000) (See Note 2)	3		SEE Catalog
General Elective	3		
STAT 4383- Machine Learning	3		
Total hours	15	GPA	

Semester 8	Hrs.		Semester 8
MATH 4971- Mathematics Senior Seminar	1		
COMS Elective (3000-4000) (See Note 2)	3		Graduation Requirements:
MATH/STAT Elective (3000-4000) SEE catalog	3		
MATH/STAT Elective (3000-4000) SEE catalog	3		Min. hours 3000-4000 level courses: 40
General Elective	3		No more than 4 PE activity hours
			Min. hours required:120
			2.00+ GPA
Total Hours	13	GPA	No more than 12 hours of "D" grades

The Arkansas Course Transfer System (ACTS) is designed to assist in planning the academic progress of students. This system contains information about the transferability of courses within Arkansas public colleges and universities. The Arkansas Course Transfer System can be accessed at https://www.adhe.edu/students-parents/colleges-universites/transfer-info.-for-students/

General Electives: 6 hours (1000-4000 level)

# indicates a "C" or better is required

Note 1: Select courses from: STAT 3183, MATH 4123, STAT 4393 or MATH/STAT course at 3000-4000 approved by advisor.

Note 2: Select courses from: COMS 3233, COMS 3243, COMS 4353 or COMS course at 3000-4000 approved by advisor.

Fine Arts and Humanities
ART 2123 Experiencing Art (ACTS=ARTA1003)
MUS 2003 Introduction to Music (ACTS=MUSC1003)
TH 2273 Introduction to Theatre (ACTS=DRAM 1003)
ENGL 2173 Introduction to Film
JOUR 2173 Introduction to Film
ENGL 2183 Honors Introduction to Film
ENGL 2003 Introduction to World Literature (ACTS=ENGL2113)
ENGL 2013 Intro. to American Literature (ACTS=ENGL2653)
ENGL 2023 Honors World Literature
PHIL 2003 Introduction to Philosophy (ACTS=PHIL1103)
PHIL 2043 Honors Introduction to Philosophy
PHIL 2053 Introduction to Critical Thinking (ACTS=PHIL 1003)

U.S. History & Government
HIST 1903 Survey of American History
HIST 2003 United States History to 1877 (ACTS=HIST2113)
HIST 2043 Honors United States History to 1877
HIST 2013 United States History since 1877 (ACTS=HIST2123)
POLS 2003 American Government (ACTS=PLSC2003)

Communication Courses
COMM 1003 Intro to Speech Comm
COMM 2003 Public Speaking
COMM 2173 Business and Professional Speaking

Social Sciences
HIST 1503 World History to 1500 (ACTS=HIST1113)
HIST 1513 World History since 1500 (ACTS=HIST1123)
HIST 1543 Honors World History to 1500
HIST 2003 U.S. History to 1877 (ACTS=HIST2113)
HIST 2013 U.S. History since 1877 (ACTS=HIST2123)
HIST 2043 Honors U.S. History to 1877
HIST 1903 Survey of American History
POLS 2003 American Government (ACTS=PLSC2003)
ECON 2003 Principles of Economics I (ACTS=ECON2103)
ECON 2103 Honors Principles of Economics I
ECON 2013 Principles of Economics II (ACTS=ECON2203)
SOC 1003 Introductory Sociology (ACTS=SOCI1013)
PSY 2003 General Psychology (ACTS=PSYC1103)
ANTH 1213 Intro. to Anthropology (ACTS=ANTH1013)
ANTH 2003 Cultural Anthropology (ACTS=ANTH2013)
GEOG 2013 Regional Geography of the World (ACTS=GEOG2103)
AMST 2003 American Studies
FIN 2013 Personal Finance
LEAD 1003 Introduction to Leadership