



**ARKANSAS STATE**  
UNIVERSITY

**Eight-Semester Degree Plan**  
**Bachelor of Science in Data Science and Data Analytics**  
**2022-2023**

**Data Analytics Emphasis**

Year 1							
Fall Semester				Spring Semester			
Course No.	Course Name	Hrs	Gen Ed	Course No.	Course Name	Hrs	Gen Ed
ENG 1003	Composition I	3	x	ENG 1013	Comp II	3	x
MATH 1023	College Algebra	3	x	COMS 1203	Oral Communication	3	x
CS 1093 or any other FYE course	Making Connections Computer Science, or any other Making Connections (FYE) course	2-3		MATH 2143 MATH 2194	Choose one: Business Calculus Survey of Calculus	3-4	
CS 1013	Intro to Computers	3		CS 1114	Concepts of Programming	4	
HIST 2763 HIST 2773 POSC 2103	Choose one: US History to 1876 US History since 1876 Intro to US Government	3	x	Gen Ed Social Science* GEO 2613 HIST 1013/1023 SOC 2213 PSY 2013 POSC 1003 CMAC 1003	Choose one: Intro to Geography World Civ. to or since 1660 Intro to Sociology Intro to Psychology Intro to Politics Intro to Mass Communication	3	x
<b>Total Hours:</b>		14-15		<b>Total Hours:</b>		16-17	
Year 2							
Fall Semester				Spring Semester			
Course No.	Course Name	Hrs	Gen Ed	Course No.	Course Name	Hrs	Gen Ed
Life Science Gen. Ed. BIOL 1003/ 1001 BIOL 1033/ 1001 BIOL 1063/ 1001 BIO 1503/ 1501 BIO 2013/ 2011 BIO 2103/ 2101 BIO 2203/ 2201	Choose one: Biological Science/ Lab Biology of Sex/ Lab People & Environment/ Lab Biology of Plants/ Lab Biology of the Cell/ Lab Microbio... Nursing & Allied Health/ Lab Human Anatomy & Physiology I/ Lab	4	x	Gen Ed Social Science* GEO 2613 HIST 1013 HIST 1023 SOC 2213 PSY 2013 POSC 1003 CMAC 1003	Choose one: Intro to Geography World Civ. to 1660 World Civ. Since 1660 Intro to Sociology Intro to Psychology Intro to Politics Intro to Mass Communication	3	x
AGST 3503	Geospatial Data Applications (DSDA 101)	3		Physical Science Gen. Ed. CHEM 1013 / 1011 CHEM 1043 / 1041 GEO 1003 / 1001 PHSC 1014 PHSC 1203 / 1201 PHYS 1103 / 1101 PHYS 2034 PHYS 2054	Choose one: General Chemistry I / Lab Fund. Concepts of Chemistry / Lab Environmental Geology / Lab Energy and the Environment Physical Science / Lab Intro to Space Science / Lab University Physics I General Physics I	4	x
Fine Arts: ART 2503 MUS 2503 TEHA 2503	Choose one: Fine Arts – Visual Fine Arts – Music Fine Arts - Theater	3	x	DATA 2004	Programming for Data Analysis	4	
STAT 3233	Applied Stat 1	3			Domain studies Course	3	
PHIL 1103	Intro to Philosophy (Humanities Elective)	3	x		Domain studies course	1	
<b>Total Hours:</b>		16		<b>Total Hours:</b>		15	

Year 3							
Fall Semester				Spring Semester			
Course No.	Course Name	Hrs	Gen Ed	Course No.	Course Name	Hrs	Gen Ed
DATA 3003	Applied Database and Data Mining	3		STAT 3243	Regression Analysis and ANOVA	3	
	Domain studies course	3			Domain studies course	3	
STAT 3133	Applied Categorical Data Analysis	3			Domain studies course	3	
	Domain studies course	3		AGST 3543	Fundamentals of GIS/GPS	3	
	Domain studies course	3			Domain studies course	3	
DATA 3011	Seminar	1					
Total Hours:		16		Total Hours:		15	
Year 4							
Fall Semester				Spring Semester			
Course No.	Course Name	Hrs	Gen Ed	Course No.	Course Name	Hrs	Gen Ed
DATA 4003	Fundamental Concepts in Design of Experiments	3		DATA 4013	Data Science and Data Analytics Capstone	3	
	Choose one:						
POSC 3003	Intro to Political Analysis	3			Upper-level domain studies course	3	
STAT 4483	Statistical Methods using R						
AGEC 4253	Agricultural & Environmental Data Science						
DATA 3023	Data Visualization and Data Communication	3		PHIL 3723	Computers, Ethics, and Society	3	
	Domain studies course	3			Upper-level domain studies course	1-3	
	Upper-level domain studies course	3		DATA 303V	Internship	1	
Total Hours:		15		Total Hours:		11-13	
Total Upper-Level Hours:		45-47		Total Degree Hours:		120	

Students requiring developmental course work based on low entrance exam scores (ACT, SAT, ASSET, COMPASS) may not be able to complete this program of study in eight (8) semesters. Developmental courses do not count toward total degree hours. **Students having completed college level courses prior to enrollment will be assisted by their advisor in making appropriate substitutions. In most cases, general education courses may be interchanged between semesters.** A minimum of 45 hours of upper-level credit (3000-4000 level) is required for this degree. Mandatory state and institutional assessment exams will be required during your degree program. **Failure to participate in required assessments may delay graduation.**

**College coded Color Key for courses (not including Gen Ed)**

1. College of Engineering and Computer Science
- \*\*\*\* There are seven new courses (numbered DATA XXXX) for a total of 18 credits\*\*\*\* (listed in italics)
2. College of Agriculture
3. College of Liberal Arts and Communication
4. College of Science and Mathematics
5. Domain studies courses: Domain studies will be proposed by the participating courses. Proposals will be submitted to the campus curricular process after mid-October.

**Additional Graduation Requirements:**