



2+2 Degree Plan Checklist
Associate of Science in Liberal Arts and Sciences
BS in Mathematics (Data Science)



University of Arkansas-Pulaski Technical College¹
Associate of Science in Liberal Arts and Sciences²

General Education Requirements (35 credit hours)

English/Communication (9 credit hours)				UCA³	Semester	Hours	Grade
ENGL	10103	English Composition I		WRTG 1310		3	
ENGL	10203	English Composition II		WRTG 1320		3	
SPCH	10003	Speech Communications		COMM 1300		3	

Mathematics (3 credit hours)				UCA	Semester	Hours	Grade
MATH	11003	College Algebra		MATH 1390		3	

Lab Sciences (8 credit hours)				UCA	Semester	Hours	Grade
BIOL	10031/10043	Biology for Non-Majors and Lab (or other ASLAS Life Science with Lab)		BIOL 1400		4	
PHSC	10043/10031	Physical Science and Lab (or other ASLAS Physical Science with Lab)		PHYS 1400		4	

Arts and Humanities (3 credit hours)				UCA	Semester	Hours	Grade
ARHS	10003	Choose one: Introduction to Visual Art Introduction to Music Introduction to Theatre (or other ASLAS Arts and Humanities)		ART 2300		3	
MUSC	10003			MUS 2300			
THTR	10003			THEA 2300			

Literature (3 credit hours)				UCA	Semester	Hours	Grade
ENGL	21103	Choose one: World Literature from the Beginning to 1650 World Literature from 1650 to the Present (or other ASLAS Literature)		ENGL 2305		3	
ENGL	21203			ENGL 2306			

History/Government (3 Credit Hours)				UCA	Semester	Hours	Grade
HIST	21103	Choose one: US History to 1877 US History since 1877 American National Government		HIST 2301		3	
HIST	21203			HIST 2302			
PLSC	20003			PSCI 1330			

Social Sciences (6 credit hours)				UCA	Semester	Hours	Grade
GEOG	21103	Choose two: Cultural Geography Psychology and the Human Experience Introduction to Sociology (or other ASLAS Social Science)		GEOG 1320		6	
PSYC	11003			PSYC 1300			
SOCI	10103			SOC 1300			

Mathematics Major and Computer Science Minor (25 credit hours)⁴

				UCA	Semester	Hours	Grade
CPSI	25174	Introduction to Computer Science I		CSCI 1470		4	
CPSI	26474	Introduction to Computer Science II		CSCI 1480		4	
CPSI	27373	Data Structures		CSCI 2320		3	
MATH	12003	Trigonometry		MATH 1392		3	
MATH	14004	Calculus I		MATH 1496		4	
MATH	15004	Calculus II		MATH 1497		4	
		ASLAS Approved Elective				3	

Total Hours: 60⁵

2+2 Degree Plan Checklist
Associate of Science in Liberal Arts and Sciences
BS in Mathematics (Data Science)

University of Central Arkansas
Bachelor of Science in Mathematics (Data Science)
UCA Courses (60 credit hours)⁶

			Semester	Hours	Grade
MATH	2341	Introduction to Mathematical Computation		3	
MATH	2471	Calculus III		4	
MATH	3311	Statistical Methods		3	
MATH	3320	Linear Algebra (UD UCA Core: I)		3	
MATH	3381	Data Cleaning & Visualization		3	
MATH	3392	Multivariate Analysis		3	
MATH	4371	Introduction to Probability (UD UCA Core: R)		3	
MATH	4373	Regression Analysis		3	
MATH	4391	Machine Learning (UD UCA Core: Z)		3	
MATH	3391	Choose one: Nonparametric Statistics		3	
MATH	4372	Introduction to Statistical Inference			
MATH	4374	Introduction to Stochastic Processes			
MATH	4381	Special Problems in Mathematics			
MATH	4392	Time Series and Forecasting			
MATH	3331	Choose one: Ordinary Differential Equations I (UD UCA Core: C)		3	
MATH	3360	Introduction to Rings & Fields			
MATH	3362	Introduction to Group Theory			
MATH	3391	Nonparametric Statistics			
MATH	4306	Modeling & Simulation (UD UCA Core: Z)			
MATH	4315	Introduction to Partial Differential Equations			
MATH	4316	Fundamentals of Applied Math for Fluid Mechanics & Granular Materials			
MATH	4330	Mathematical Modeling in Biology			
MATH	4340	Numerical Methods			
MATH	4362	Advanced Calculus I (UD UCA Core: Z)			
MATH	4363	Advanced Calculus II			
MATH	4372	Introduction to Statistical Inference			
MATH	4374	Introduction to Stochastic Processes			
MATH	4375	Introduction to Topology I			
MATH	4381	Special Problems in Mathematics			
MATH	4385	Complex Analysis			
MATH	4392	Time Series and Forecasting			
CSCI		Upper Division Computer Science Minor Course		3	
CSCI		Upper Division Computer Science Minor Course		3	
		Upper Division Core Requirement (UD UCA Core: C)		3	
		Upper Division Core Requirement (UD UCA Core: D)		3	
		General Electives		11	

Total Hours: 120⁷

¹ Please see your UA-PTC advisor for degree and graduation information.

² Agreement requirements are guaranteed in accordance with the academic year of initial enrollment at UA-PTC, not to precede the academic year during which the agreement first took effect. A period of non-enrollment of 12 months or more requires that the student adhere to the agreement revision corresponding with the academic year of re-enrollment.

³ UCA course is either guaranteed by ACTS (acts.adhe.edu) or by UCA Department Chair approval (if blank, elective credit will be awarded).

⁴ This agreement recommends a minor in Computer Science.

⁵ Students completing the AS in Liberal Arts and Sciences degree requirements, as shown above, with a minimum 2.0 cumulative GPA, will have satisfied the UCA Lower-Division Core and will be admitted to the BS in Mathematics (Data Science) degree program as a junior.

⁶ In order to receive important communications about transferring to UCA, students are encouraged to create a UCA student account at admissions.uca.edu/apply/. For more information about the 2+2 program, students may also send email inquiries to ucatransfer@uca.edu.

⁷ This agreement requires 120 credit hours as follows: maximum 60 at UA-PTC and remaining 60 at UCA (40 of which must be upper-division).