

# 2+2 Degree Plan Checklist Associate of Science in Technology and Engineering Bachelor of Science in Computer Science



### University of Arkansas-Pulaski Technical College<sup>1</sup> Associate of Science in Technology and Engineering<sup>2</sup>

#### **General Education Requirements (38 credit hours)**

English,	/Communicati	on (6 credit hours)	UCA <sup>3</sup>	Semester	Hours	Grade
ENGL	1311	English Composition I	WRTG 1310		3	
ENGL	1312	English Composition II	WRTG 1320		3	
Mathematics (3 credit hours)		UCA	Semester	Hours	Grade	
MATH	1302	College Algebra	MATH 1390		3	
Lab Sciences (8 credit hours)		UCA	Semester	Hours	Grade	
BIOL	1102/1302	Biological Science and Lab	BIOL 1440		4	
CHEM	1105/1305	General Chemistry 1 and Lab	CHEM 1450		4	
PHYS	1102/1302	College Physics 1 and Lab	PHYS 1410		4	
Arts and Humantities (3 credit hours)			UCA	Semester	Hours	Grade
		Choose one:				
ARTS	2300	Introduction to Visual Arts	ART 2300		3	
MUSC	2300	Introduction to Music	MUS 2300		3	
THEA	2300	Introduction to Theatre	THEA 2300			
		Choose one:				
ENGL	2337	World Literature from the Beginning to 1650	ENGL 2305		3	
ENGL	2338	World Literature from 1650 to the Present	ENGL 2306			
Social S	ciences (6 Cre	dit Hours)	UCA	Semester	Hours	Grade
		Choose one:				
HIST	2311	US History to 1877	HIST 2301		2	
HIST	2312	US History since 1877	HIST 2302		3	
POLS	1310	American National Government	PSCI 1330			
		Choose one:				
HIST	1311	History of Civilization I	HIST 1310		3	
HIST	1312	History of Civilization II	HIST 1320			
Social Sciences/Oral Communications (6 Credit Hours)		UCA	Semester	Hours	Grade	
SPCH	1300	Speech Communications	COMM 1300		3	
		Choose one:				
	2322	Principles of Microeconomics	ECON 2321			
ECON	1	Principles of Macroeconomics	ECON 2320		_	
ECON ECON	2323				3	
	2323 2300	Psychology and the Human Experience	PSYC 1300		J	
ECON		· ·	PSYC 1300 SOC 1300		3	

### Computer Science Foundation (25 credit hours)

			UCA	Semester	Hours	Grade
CIS	2514	Introduction to Computer Science I	CSCI 1470		4	
CIS	2644	Introduction to Computer Science II	CSCI 1480		4	
CIS	2653	Computer Organization and Assembly Language	CSCI 2340		3	
CIS	2733	Data Structures	CSCI 2320		3	
MATH	1303	Trigonometry	MATH 1392		3	
MATH	1404	Calculus I	MATH 1496		4	
MATH	2320	Introduction to Statistics and Probability	MATH 2311		3	
		ASTE Approved Elective			1	

Total Hours: 60<sup>4</sup>



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### University of Central Arkansas Bachelor of Science in Computer Science UCA Courses (60 credit hours)<sup>5</sup>

			Semester	Hours	Grade
		Choose one: <sup>5</sup>			
BIOL	1441	Principles of Biology II		4	
CHEM	1451	College Chemistry II		4	
PHYS	1420	College Physics 2			
CSCI	3330	Algorithms		3	
CSCI	3360	Database Systems (UD UCA Core: C)		3	
CSCI	3370	Principles of Programming Languages		3	
CSCI	3380	Computer Architecture		3	
CSCI	3381	Object-Oriented Software Development		3	
CSCI	4300	Operating Systems		3	
CSCI	4321	Ethical Implications (UD UCA Core: D, R)		3	
CSCI	4490	Software Engineering (UD UCA Core: Z)		4	
		Choose at least 12 Credit Hours:			
CSCI	3V75	Internship			
CSCI	3335	Networking			
CSCI	3345	Human-Computer Interaction			
CSCI	3382	Multi-Core & Multithreaded Programming			
CSCI	3385	Artificial Intelligence			
CSCI	4V95	Independent Study			
CSCI	4305	Linux/Unix Systems			
CSCI	4310	Numerical Methods for Data Science			
CSCI	4315	Information Security (UD UCA Core: R)			
CSCI	4340	Introduction to Parallel Programming		12	
CSCI	4350	Computer Graphics			
CSCI	4352	Introduction to Game Programming			
CSCI	4353	Introduction to Multimedia Computing			
CSCI	4357	Programming Mobile Devices			
CSCI	4360	Discrete Math for Computer Science			
CSCI	4365	Web Technology			
CSCI	4370	Data Mining			
CSCI	4371	Machine Learning			
CSCI	4372	Data Clustering			
CSCI	4390	Theory of Computation			
		Choose one:			
MATH	1497	Calculus II			
MATH	3311	Statistical Methods		3-4	
MATH	4310	Geometry & Measurement Topics for Elementary Teachers			
CSCI	4390	Theory of Computation			
		Choose one:			
MATH	2330	Discrete Structures I		3	
CSCI	4360	Discrete Math for Computer Science			
MATH	3320	Linear Algebra (UD UCA Core: I)		3	
		General Electives		9-10	

Total Hours: 120<sup>7</sup>

<sup>&</sup>lt;sup>1</sup> Please see your UA-PTC advisor for degree and graduation information.

<sup>&</sup>lt;sup>2</sup> 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.

<sup>&</sup>lt;sup>3</sup> UCA course is either guaranteed by ACTS (acts.adhe.edu) or by UCA Department Chair approval (if blank, elective credit will be awarded).

<sup>&</sup>lt;sup>4</sup> Students completing the AS in Technology and Engineering degree requirements, as shown above, with a minimum 2.0 cumulative GPA, will have satisfied the UCA Lower-Division Core and be admitted to the BS in Computer Science degree program as a junior.

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

<sup>&</sup>lt;sup>6</sup> This course <u>must</u> complete a lab science sequence begun at UA-PTC (i.e. if CHEM 1405 was taken at UA-PTC, the student can choose CHEM 1451 at UCA; if PHYS 1402 was taken at UA-PTC, the student can choose PHYS 1420; BIOL 1441 would complete the required BS Math/Science sequence as well).

<sup>&</sup>lt;sup>7</sup> 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).