



**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)**

| <b>English/Communication (6 credit hours)</b> |      |                        | <b>UCA<sup>3</sup></b> | <b>Semester</b> | <b>Hours</b> | <b>Grade</b> |
|---|------|------------------------|------------------------|-----------------|--------------|--------------|
| ENGL  | 1311 | English Composition I  | WRTG 1310              |                 | 3            |              |
| ENGL  | 1312 | English Composition II | WRTG 1320              |                 | 3            |              |

| <b>Mathematics (3 credit hours)</b> |      |                 | <b>UCA</b> | <b>Semester</b> | <b>Hours</b> | <b>Grade</b> |
|-------------------------------------|------|-----------------|------------|-----------------|--------------|--------------|
| MATH                                | 1302 | College Algebra | MATH 1390  |                 | 3            |              |

| <b>Lab Sciences (8 credit hours)</b> |           |                             | <b>UCA</b> | <b>Semester</b> | <b>Hours</b> | <b>Grade</b> |
|--------------------------------------|-----------|-----------------------------|------------|-----------------|--------------|--------------|
| 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  |                 |              |              |

| <b>Arts and Humanities (3 credit hours)</b> |      |   | <b>UCA</b> | <b>Semester</b> | <b>Hours</b> | <b>Grade</b> |
|---|------|---|------------|-----------------|--------------|--------------|
| ARTS  | 2300 | <b>Choose one:</b><br>Introduction to Visual Arts                 | ART 2300   |                 | 3            |              |
| MUSC  | 2300 | Introduction to Music   | MUS 2300   |                 |              |              |
| THEA  | 2300 | Introduction to Theatre   | THEA 2300  |                 |              |              |
| ENGL  | 2337 | <b>Choose one:</b><br>World Literature from the Beginning to 1650 | ENGL 2305  |                 | 3            |              |
| ENGL  | 2338 | World Literature from 1650 to the Present                         | ENGL 2306  |                 |              |              |

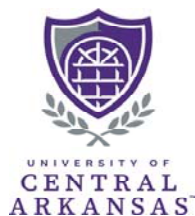
| <b>Social Sciences (6 Credit Hours)</b> |      |   | <b>UCA</b> | <b>Semester</b> | <b>Hours</b> | <b>Grade</b> |
|---|------|---|------------|-----------------|--------------|--------------|
| HIST                                    | 2311 | <b>Choose one:</b><br>US History to 1877        | HIST 2301  |                 | 3            |              |
| HIST                                    | 2312 | US History since 1877                           | HIST 2302  |                 |              |              |
| POLS                                    | 1310 | American National Government                    | PSCI 1330  |                 |              |              |
| HIST                                    | 1311 | <b>Choose one:</b><br>History of Civilization I | HIST 1310  |                 | 3            |              |
| HIST                                    | 1312 | History of Civilization II                      | HIST 1320  |                 |              |              |

| <b>Social Sciences/Oral Communications (6 Credit Hours)</b> |      |   | <b>UCA</b> | <b>Semester</b> | <b>Hours</b> | <b>Grade</b> |
|---|------|---|------------|-----------------|--------------|--------------|
| SPCH  | 1300 | Speech Communications                                       | COMM 1300  |                 | 3            |              |
| ECON  | 2322 | <b>Choose one:</b><br>Principles of Microeconomics          | ECON 2321  |                 | 3            |              |
| ECON  | 2323 | Principles of Macroeconomics                                | ECON 2320  |                 |              |              |
| PSYC  | 2300 | Psychology and the Human Experience                         | PSYC 1300  |                 |              |              |
| SOCI  | 2300 | Introduction to Sociology<br>(or other ASTE Social Science) | SOC 1300   |                 |              |              |

**Computer Science Foundation (25 credit hours)**

|      |      |   | <b>UCA</b> | <b>Semester</b> | <b>Hours</b> | <b>Grade</b> |
|------|------|---|------------|-----------------|--------------|--------------|
| 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>**



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



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

|   |      |   | Semester | Hours | Grade |
|---|------|---|----------|-------|-------|
| BIOL                                    | 1441 | <b>Choose one:</b> <sup>6</sup><br>Principles of Biology II |          | 4     |       |
| CHEM                                    | 1451 | College Chemistry II  |          |       |       |
| 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     |       |
| <b>Choose at least 12 Credit Hours:</b> |      |   |          |       |       |
| 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                                       |          |       |       |
| MATH                                    | 1497 | <b>Choose one:</b><br>Calculus II                           |          | 3-4   |       |
| MATH                                    | 3311 | Statistical Methods   |          |       |       |
| MATH                                    | 4310 | Geometry & Measurement Topics for Elementary Teachers       |          |       |       |
| CSCI                                    | 4390 | Theory of Computation                                       |          |       |       |
| MATH                                    | 2330 | <b>Choose one:</b><br>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>1</sup> Please see your UA-PTC advisor for degree and graduation information.

<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>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>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.

<sup>5</sup> 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>6</sup> This course must 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>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).