## EXHIBIT E2

## Adequacy Study 2024

## Learning Expectations

Prepared for the House and Senate Committees
on Education
Table of Contents
Introduction ..... 1
Academic Standards ..... 1
Required Courses ..... 2
Input from Arkansas Educators ..... 5
Graduation Requirements and Smart Core ..... 6
Graduation Requirements in Comparison States ..... 7
College and Career Readiness ..... 9
Advanced Courses. ..... 10
Advanced Placement and International Baccalaureate ..... 10
Research Review ..... 12
Concurrent Courses ..... 13
Review of Research ..... 15
Arkansas Computer Science Initiative ..... 16
2023 Legislation ..... 18
Incorporating the LEARNS Act ..... 18
Other 2023 Legislation ..... 18
Appendix A: 38 Required Courses ..... 20
Appendix B: Smart Core Courses ..... 21

## Introduction

The State of Arkansas has expressed the intent of what public school students should learn in law, rule, and in the definition of adequacy as adopted by the Senate and House Education Committees in the biennial adequacy study process.
Act 930 of 2017, codified in Arkansas Code §6-15-2901 et seq., created the Arkansas Educational Support and Accountability Act and directs the Department of Education (ADE) to establish "academic standards that define what students shall know and be able to demonstrate in each content area." Furthermore, instruction in all public schools is to be based on the academic standards "to prepare students to demonstrate the skills and competencies necessary for successful academic growth and high school graduation." The standards, the law further states, shall be reviewed periodically "to ensure that the Arkansas academic standards are rigorous and prepare students for college, career, and community engagement."

The Arkansas Rules Governing Standards for Accreditation of Arkansas Public Schools and School Districts, effective July 2020, address curriculum and instruction in Standard 1-A. In addition to specifying that each public school district's board of directors annually adopt and implement a curriculum aligned to the Arkansas Academic Standards, the courses to be taught at each grade level are listed. These include an overview of the "required 38 units" that are to be offered at the high school (grades 9-12) level.

Finally, the adequacy definition approved by the Senate and House Education Committees in its 2020 Educational Adequacy Study includes this language in its first paragraph:
The standards included in the state's curriculum and career and technical frameworks, which define what Arkansas students are to be taught, including specific grade level curriculum and a mandatory thirtyeight (38) Carnegie units defined by the Arkansas Standards of Accreditation to be taught at the high school level.

The "adequacy study statute" - Arkansas Code §10-3-2102 - requires the General Assembly "to assess, evaluate and monitor the entire spectrum of education across the State of Arkansas to determine whether equal educational opportunity for an adequate education is being substantially afforded to the school children of the State of Arkansas... ." In addition, the statute requires an evaluation of what constitutes an adequate education as well as an evaluation of the method of providing equality of educational opportunity. As part of that process, the legislature shall biennially review the academic standards (referred to in the statute as the "curriculum frameworks" before Act 936 of 2017) developed by ADE's Division of Elementary and Secondary Education (DESE). ${ }^{1}$ This report represents the current review of those standards as well as specific educational programs in place for Arkansas students.

## Academic Standards

The standards used by public school teachers throughout the state for the 2023 school year were called the Arkansas Academic Standards and were posted on the Division of Elementary and Secondary Education (DESE) website. These provided, by grade level and/or by subject area, the specific content to be covered in each course. Standards had been created and were available online for the following areas:

[^0]- Computer Science
- English Language Arts
- Fine Arts
- Health and Physical Education
- Library Media
- Mathematics
- Science
- Social Studies
- World Languages

Standards are to be reviewed and revised periodically, generally every six years or so. The process involves a committee of educators and stakeholders with professional experience related to the academic content area being discussed meeting over a course of weeks to review and update the academic standards, which then must be approved by the State Board of Education. ${ }^{2}$

The schedule for upcoming standards revision is noted in the following table:

| Academic Standard to <br> Be Revised | Committee Work | State Board Approval | Full Implementation |
| :--- | :---: | :---: | :---: |
| Mathematics | Summer 2022 | Spring 2023 | 2023 -2024 |
| English Language Arts | Summer 2022 | Spring 2023 | $2023-2024$ |
| Science | Summer 2024 | Spring 2025 | $2026-2027$ |
| Physical Education <br> Health <br> Driver's Education | Summer 2026 | Spring 2027 | 2028-2029 |
| Foreign Language <br> Library Media | Summer 2027 | Spring 2028 | $2029-2030$ |
| Fine Arts | Summer 2028 | Spring 2029 | $2030-2031$ |
| Science | Summer 2029 | Spring 2030 | $2031-2032$ |
| Social Studies <br> Arkansas History | Summer 2030 | December 2031 | $2032-2033$ |
| Mathematics | Summer 2031 | April 2032 | 2033-2034 |
| English Language Arts | Summer 2032 | April 2033 | $2034-2035$ |

## Required Courses

The courses required to be taught at each grade level can be found in the Standards for Accreditation, Appendix A, Standard 1.

In grades K-4, all students must receive instruction annually in:

- English Language Arts
- Mathematics

[^1]- Science
- Social Studies
- Fine Arts
- Health and Safety Education and Physical Education
- 1 unit of Arkansas history to be taught at each elementary grade level with an emphasis in $4^{\text {th }}$ grade
- 40 minutes of the instructional day are to be used for recess

In grades 5-8, all students must receive instruction annually in:

- English Language Arts
- Mathematics
- Science
- Social Studies
- Fine Arts
- Health and Safety Education and Physical Education
- Career and Technical Education
- 1 unit of Arkansas history to be taught with an emphasis in $5^{\text {th }}$ grade; 1 full semester of Arkansas history to be taught to all students in the $7^{\text {th }}, 8^{\text {th }}, 9^{\text {th }}, 10^{\text {th }}, 11^{\text {th }}$ or $12^{\text {th }}$ grades

In grades 9-12, the following content areas were to be offered during the 2023 school year for a total of 38 unique units, or year-long courses (a minimum 120 clock hours over a minimum 178 school days) ${ }^{3}$, unless otherwise allowed by law or rule. Until 2015, schools were considered in violation of accreditation standards if they did not teach all 38 of the required units without a corresponding waiver from teaching one or more of the required units. Act 853 of 2015 changed that, specifying in its subtitle that, "a school district is not in violation of the standards of accreditation for Arkansas public schools and school districts if a school district offers a course but no students enroll in the course."4

Within some of these content areas, specific courses were required, while others were for courses that schools may offer. The required courses for the 2023 school year in each content area are noted in parentheses in the listing below:

- English Language Arts - Six units (English 9, English 10, English 11, English 12 [English 11 and 12 can be replaced with four approved, semester-long courses] and two units from an approved selection of courses) ${ }^{5}$
- Oral Communications - One-half unit

[^2]- Science - Five units (Physical Science Integrated, Biology Integrated, Chemistry Integrated, and two units from an approved selection of courses ${ }^{6}$ )
- Mathematics - Six units (Algebra I, Geometry I, Algebra II, Pre-Calculus, and two units from an approved selection of courses ${ }^{7}$ )
- Computer Science - One unit
- World Languages - Two units of the same language
- Fine Arts - Three and one-half units (Visual Art Foundations I, Vocal Music I, one full unit from an approved list of courses and one-half unit from an approved list of courses ${ }^{8}$ )
- Social Studies - Four units (U.S. History Since 1890, World History Since 1450, Civics (one-half unit), Economics and Personal Finance (one-half unit), and one unit from an approved list of courses ${ }^{9}$ )
- Health and Safety Education and Physical Education - One and one-half units (one full unit from an approved list of courses ${ }^{10}$ and one-half unit Health and Wellness)
- Career and Technical Education - Nine units of sequenced courses representing three of the following occupational areas: Agriculture, Science and Technology; Business and Marketing Technology, Family and Consumer Sciences; Trade and Industry; Science, Technology, Engineering and Mathematics.

In addition to the above, for the 2023 school year, schools were to offer one Advanced Placement (AP) course each in English Language Arts, Mathematics, Science, and Social Studies as well as transitional courses in math and literacy. The later refer to rigorous courses designed to prepare students for college coursework. The AP and transitional courses could account for one of the additional courses from the approved lists within the respective subject areas.

Act 611 of 2021 required Holocaust education to be included as grade-appropriate instruction in grades 5-12, so that students would gain an understanding of the causes, course, and effects of the Holocaust. DESE, working with partner organizations, developed curriculum units as well as other resources and professional development to assist with the implementation of this instruction.

The specific courses within these content areas are updated in a separate document annually, which is approved by the State Board of Education generally during the second semester of the school year preceding the fall of the school year in which they will be required. (Please see Appendix A for the 2023 documents.)

[^3]
## Input from Arkansas Educators

The BLR included two questions dealing with the academic standards and content instruction in the 2024 Educatory Surveys, both of which were addressed to teachers and reflected their opinions in the 2023 school year. ${ }^{11}$ Teachers were asked to what extent they agreed with the following statements:


Nearly two-thirds of responding teachers agreed or strongly agreed that state and districts content standards had a positive influence on their satisfaction with teaching, while $90 \%$ of teachers said they made an effort to coordinate the content of their courses with what other teachers were covering in their classes.

[^4]
## Graduation Requirements and Smart Core

Arkansas Code Annotated §6-15-2901 et seq. directs the Department of Education to establish and regularly review the academic standards "to ensure that the Arkansas academic standards are rigorous and prepare students for college, career, and community engagement." The graduation requirements are courses identified within the required 38 units that are to be offered. Although there is flexibility of courses that can be taken within the content areas, the requirements set by the State Board of Education called for all students to successfully complete 22 units before graduation in 2023.

Smart Core was the default high school curriculum required for graduation during the 2023 school year. The Smart Core courses included four English Language Arts, four mathematics, three sciences, three social sciences, one computer science (which can satisfy the fourth math or third science requirement), one-half health and safety, one-half physical education, one-half fine arts, one-half oral communications and six career focus credits. The list of courses that could satisfy Smart Core requirements in 2023 are included in Appendix B.

Students, parents, or guardians could request a waiver from the Smart Core curriculum beginning in the students' middle school or junior high years. Of the students in grades 7-12, 5,380 statewide, or 2.4\% were coded as having waivers from Smart Core during the 2023 school year. Over half of those students who opted out were in their junior and senior years, and only 100 of the students opting out were in the seventh grade. The difference for those students who opted out was that they were not required to take Algebra II or a higher-level math beyond Algebra II.

In addition to successfully completing the 22 required courses for graduation, students had to earn a credit in a course that included Personal and Family Finance, ${ }^{12}$ pass the Arkansas Civics Exam, ${ }^{13}$ and complete cardiopulmonary resuscitation (CPR) training ${ }^{14}$. Students graduating in 2026 must earn a unit of computer science, and students graduating in 2027 must complete a minimum of 75 -clock hours of documented community service during grades 9-12. ${ }^{15}$

[^5]
## Graduation Requirements in Comparison States

Information about the graduation requirements for all states are illustrated in the following map and charts. ${ }^{16}$

## States' Total Credit Requirements for Graduation



Notes: Colorado, Massachusetts and Pennsylvania allow local districts to set graduation credit requirements. Vermont allows students to demonstrate proficiency in required subjects to graduate.

States' Required Credits for Graduation by Subject Areas

| STATE | ELA | Social Studies | Science | Mathematics | Other credits |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Alabama | 4.0 | 4.0 | 4.0 | 4.0 | 8.0 |
| Alaska | 4.0 | 3.0 | 2.0 | 3.0 | 1.0 |
| Arizona | 4.0 | 3.0 | 3.0 | 4.0 | 8.0 |
| Arkansas | 4.0 | 3.0 | 3.0 | 4.0 | 8.5 |
| California | 3.0 | 3.0 | 2.0 | 2.0 | 3.0 |
| Colorado* | --- | 0.5 | --- | --- | --- |
| Connecticut | 4.0 | 3.0 | 2.0 | 3.0 | 2.0 |
| Delaware | 4.0 | 3.0 | 3.0 | 4.0 | 10.0 |
| District of Columbia | 4.0 | 4.0 | 4.0 | 4.0 | 8.0 |
| Florida | 4.0 | 3.0 | 3.0 | 4.0 | 10.0 |

[^6]| STATE | ELA | Social Studies | Science | Mathematics | Other credits |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Georgia | 4.0 | 3.0 | 4.0 | 4.0 | 8.0 |
| Hawaii | 4.0 | 4.0 | 3.0 | 3.0 | 9.5 |
| Idaho | 4.5 | 2.5 | 3.0 | 3.0 | 1.5 |
| Illinois | 4.0 | 2.0 | 2.0 | 3.0 | 3.8 |
| Indiana | 4.0 | 3.0 | 3.0 | 3.0 | 7.5 |
| lowa | 4.0 | 3.0 | 3.0 | 3.0 | 1.0 |
| Kansas | 4.0 | 3.0 | 3.0 | 3.0 | 8.0 |
| Kentucky | 4.0 | 3.0 | 3.0 | 3.0 | 9.0 |
| Louisiana | 4.0 | 4.0 | 4.0 | 4.0 | 8.0 |
| Maine | 4.0 | 2.0 | 2.0 | 2.0 | 1.0 |
| Maryland | 4.0 | 3.0 | 3.0 | 3.0 | 5.0 |
| Massachusetts* | --- | --- | --- | --- | --- |
| Michigan | 4.0 | 3.0 | 3.0 | 4.0 | 4.0 |
| Minnesota | 4.0 | 3.5 | 3.0 | 3.0 | 8.0 |
| Mississippi | 4.0 | 4.0 | 4.0 | 4.0 | 8.0 |
| Missouri | 4.0 | 3.0 | 3.0 | 3.0 | 11.0 |
| Montana | 4.0 | 2.0 | 2.0 | 2.0 | 3.0 |
| Nebraska | 4.0 | 3.0 | 3.0 | 3.0 | --- |
| Nevada | 4.0 | 2.0 | 2.0 | 3.0 | 11.5 |
| New Hampshire | 4.0 | 2.5 | 2.0 | 3.0 | 8.5 |
| New Jersey | 4.0 | 3.0 | 3.0 | 3.0 | 6.5 |
| New Mexico | 4.0 | 3.5 | 3.0 | 4.0 | 9.5 |
| New York | 4.0 | 4.0 | 3.0 | 3.0 | 4.5 |
| North Carolina | 4.0 | 4.0 | 3.0 | 4.0 | 7.0 |
| North Dakota | 4.0 | 3.0 | 3.0 | 3.0 | 9.0 |
| Ohio | 4.0 | 3.0 | 3.0 | 4.0 | 6.0 |
| Oklahoma | 4.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Oregon | 4.0 | 3.0 | 3.0 | 3.0 | 5.0 |
| Pennsylvania* | --- | --- | --- | --- | --- |
| Rhode Island | 4.0 | 3.0 | 3.0 | 4.0 | 6.0 |
| South Carolina | 4.0 | 3.0 | 3.0 | 4.0 | 10.0 |
| South Dakota | 4.0 | 3.0 | 3.0 | 3.0 | 8.5 |
| Tennessee | 4.0 | 3.0 | 3.0 | 4.0 | 8.0 |
| Texas | 4.0 | 3.0 | 3.0 | 3.0 | 9.0 |
| Utah | 4.0 | 3.0 | 3.0 | 3.0 | 11.0 |
| Vermont** | --- | --- | --- | --- | --- |
| Virginia | 4.0 | 3.0 | 3.0 | 3.0 | 8.0 |
| Washington | 4.0 | 3.0 | 3.0 | 3.0 | 11.0 |
| West Virginia | 4.0 | 4.0 | 3.0 | 4.0 | 7.0 |
| Wisconsin | 4.0 | 3.0 | 3.0 | 3.0 | 2.0 |
| Wyoming | 4.0 | 3.0 | 3.0 | 3.0 | --- |

*Graduation requirements set at local level.
**Students meet requirements for graduation when they demonstrate proficiency in the curriculum subjects.

In addition, 13 states -- Florida, Indiana, Louisiana, Maryland, Massachusetts, Mississippi, New Jersey, New Mexico, New York, Ohio, Texas, Virginia and Washington - require students to pass exit exams to earn their standard diplomas. ${ }^{17}$

## College and Career Readiness

Readiness for college and career has been a focus for public education in recent decades, though definitions vary from state to state and from organization to organization. Arkansas's current definition of college and career readiness is located in A.C.A. § 6-15-2903(2) as part of the definition for the mandated college and career readiness assessment. The assessment is "a set of criterion-referenced measurements of a student's acquisition of the knowledge and skills that the student needs to [b]e successful in future endeavors, including credit-bearing, first-year courses at an institution of higher education such as a two-year or four-year college, trade school, or technical school; or [e]mbark on a career."

When Augenblick, Palaich and Associates (APA), hired by the Senate and House Education Committees in 2020, presented its Arkansas School Finance Study, one of the consultant's recommendations was for Arkansas "to adopt a career readiness definition that includes: (1) core academic knowledge and skills, (2) capabilities, (3) behavior skills and dispositions, and (4) postsecondary preparation and planning." APA recommended the following definition:

Upon high school graduation, Arkansas students should be prepared to take the next steps toward a career regardless of whether that is college (two- or four-year), a technical program, military service, or an entry-level career position.

More specifically, an Arkansas student who is career ready will have:

- Gained core academic knowledge in mathematics, science, and English language arts to enable them to successfully complete credit-bearing, first-year courses at a postsecondary institution.
- Demonstrated capabilities such as communication, critical thinking, collaborative problemsolving, time management, and information and technology skills.
- Developed behavioral skills and dispositions such as dependability, perseverance, working effectively with others, adapting, and managing stress.
- Developed financial literacy.

All Arkansas students should be guided in career exploration, planning, and decision-making throughout their K-12 education to enable them to successfully navigate their chosen career path. This includes knowledge of careers, industries, and postsecondary education and training opportunities, identification of individual interests and abilities, and development of a personalized postsecondary plan with the concrete steps that need to be taken to enter a specific career field after graduation. Further, students should have had opportunities to participate in advanced, concurrent enrollment, career and technical education (CTE) or other career-focused courses, internships, and apprenticeships to demonstrate that they are career ready. ${ }^{18}$

The Senate Education Committee included the APA definition for college- and career-readiness in its 2022 adequacy recommendations.

[^7]
## Advanced Courses

Most Arkansas high school students have access to advanced coursework either though Advanced Placement or International Baccalaureate course offerings or through college-level concurrent courses.

## Advanced Placement and International Baccalaureate

The Rules Governing the Standards for Accreditation call for advanced education courses to be offered in accordance with Arkansas laws and with ADE rules. Arkansas Code Annotated §6-16-1204 stipulates that, beginning with the 2008-09 school year, each Arkansas high school shall offer a minimum of four Advanced Placement (AP) courses, with one each in English, math, science and social studies. That directive is reflected on the course list for the 2023 school year. State law allows for International Baccalaureate (IB) courses to be offered instead of AP courses. ${ }^{19}$ Both AP and IB classes are weighted on a five-point scale rather than a four-point scale ( $A=5$ points toward grade point average). ${ }^{20}$

During the 2023 school year, AP or IB courses were taught in $219^{21}$ - or $94 \%$ - of the state's school districts and in nine ${ }^{22}$ of 21 - or $43 \%$ - of the state's open-enrollment public charter school systems. Within those 228 districts and charter school systems, 257 high schools and seven junior highs feeding into high schools offered at least one AP course. Little Rock's Central High School offered the most AP courses (36), while 10 schools offered one AP course during the 2023 school year. The most popular AP course - or the course with the highest enrollment across the state - was AP English Language and Composition.

[^8]

Statewide enrollment in AP and IB courses during the 2023 school year was almost 45,000, which was made up of more than 27,000 unique students, meaning some students were enrolled in more than one AP class during the school year. As reported in the previous Student Achievement section of the adequacy study, of the 43,142 AP tests taken, $43 \%$ received scores of 3,4 or 5 (the scores many colleges require to grant course credit), compared with $62 \%$ nationally. According to DESE, Arkansas is one of a handful of states that pays for students' AP tests, which could result in a lower passing rate. ${ }^{23}$

[^9]Three charter school systems had waivers from AP/IB class requirements for their high schools: Graduate Arkansas Charter, KIPP Delta Public Schools, and Responsive Ed Solutions Premier High School of Springdale. In addition, the North Little Rock School District had a waiver from AP/IB class requirements for North Little Rock Center of Excellence.

## AP Enrollment Statistics



The College Board created the Advanced Placement program in 1952 as a program for high achieving students to potentially earn college credit by passing a test in the corresponding class. ${ }^{24}$ The authors of a 2015 research paper examining the impacts AP participation has for students point to earlier research that found that students who took AP exams were more likely to enroll in four-year colleges and to earn higher grade point averages while in college, bachelor's degrees, and subsequent higher incomes than students who did not take an AP course. Additional research cited found that students who successfully completed AP courses were more likely to earn advanced degrees. ${ }^{25}$ The same paper also pointed to research that finds that earning high grades in AP courses did not reduce students' time to graduate college, with further research explaining that the rapid expansion of the AP program in the last 15 years resulted in students enrolling in AP courses though they were not academically ready for advanced classes. However, the authors performed their own study of data to determine if taking AP courses helped students score higher on the ACT college admissions exam and found that, "We believe our study can be added to the rich body of literature that indicates that the AP program is beneficial for students." ${ }^{26}$

A 2018 study found several predictors for success in AP or IB courses, including good mental health, strong educational histories (particularly strong academic skills exhibited in the $8^{\text {th }}$ grade), good family socio-economic status, and student motivation and engagement levels. Risk factors for success in advanced coursework, on the other hand, were found to include higher levels of parent-child stressors and greater tendencies to respond to school-level stress through avoidance. ${ }^{27}$

In 2021, the Center for American Progress, which, according to its website, is a "public policy research and advocacy organization which presents a liberal viewpoint on economic and social issues," looked at

[^10]gaps among AP participants and found that "Black and Indigenous students are more likely to enroll in schools offering fewer AP courses... ." In addition, regardless of the level of AP offerings in school, the study found that Black, Latino/Latina, and Indigenous students were less likely to enroll in an AP course, take an AP test, or receive a passing score on an AP exam. ${ }^{28}$

## Concurrent Courses

Arkansas Code Annotated §6-16-1204 provides that schools may offer concurrent enrollment courses (in which students earn both high school credit and college-level credit) if they do so through an Arkansas institution of higher education that, upon completion, would qualify for academic credit in both the institution and a public high school that "is in one (1) of the four (4) core areas of math, English, science, and social studies; meets the requirements of 6-16-1204(b); and is listed in the Arkansas Course Transfer System of the Division of Higher Education." Districts may decide to offer these courses with a weighted grading scale ( $\mathrm{A}=5$ points). ${ }^{29}$ To enroll in a concurrent course, students must be admitted by the higher education institution offering the course and must have met all prerequisites for the course.

Concurrent credit courses may be offered at reduced rates of tuition. In 2017, Act 1118 added that students qualifying for free or reduced-price lunches do not have to pay the costs of qualifying concurrent credit courses for up to six credit hours, ${ }^{30}$ and, in 2019, Act 456 created the Arkansas Concurrent Challenge Scholarship Program, ${ }^{31}$ which allows any remaining funds after the distribution of Arkansas Academic Challenge Scholarships under A.C.A. § 6-85-201 et seq. and Arkansas Workforce Challenge Scholarships under A.C.A. § 6-85-301 et seq. to be used for $\$ 125$ scholarships per concurrent course for college credit up to a maximum $\$ 500$ per student. According to the Arkansas Division of Higher Education, 13,059 awards totaling \$1,472,062 were provided to 8,467 students in Fall 2022, and another 12,069 awards totaling $\$ 1,374,315$ were provided to 8,297 students in Spring 2023. All who applied received the scholarship. ${ }^{32}$

Total enrollment in concurrent courses during the 2023 school year was almost 22,000, which was made up by 10,540 individual students, meaning that some students were enrolled in more than one concurrent course in during the school year.

According to the Arkansas Division of Higher Education Annual Report on Concurrent Education published in December 2021, 55\% of students taking general education concurrent courses in the 20182021 fall semesters made A's in the class; 29\% made B's, 11\% made C's, 1\% made D's, and 4\% made F's.

During the 2023 school year, concurrent courses were taught in $222^{33}$ - or $95 \%$ - of the state's school districts and in seven ${ }^{34}$ of 21 - or $33 \%$-- of the state's open enrollment charter school systems. Within

[^11]those 230 districts and charter school systems, 253 high schools and three junior highs feeding into high schools offered at least one concurrent credit course. Arkansas Virtual Academy High School offered the most concurrent courses (29), while 12 high schools offered one concurrent course during the 2023 school year. The most popular concurrent course - or the course with the highest enrollment across the state - was English Composition.

Concurrent Courses Taught in Arkansas School Districts, 2023


## Concurrent Enrollment Statistics



River Valley Virtual Academy in the Van Buren School District was the only school with a waiver concerning concurrent credit courses in the 2023 school year.

## Review of Research

In 2017, the What Works Clearinghouse, identified five studies of dual enrollment programs that together support the findings that these programs have "positive effects on students' degree attainment (college), college access and enrollment, credit accumulation, completing high school, and general academic achievement (high school)... ." 35

The Arkansas Concurrent Enrollment Report, published in January 2024, cites research findings that concurrent students nationally are more likely than their peers who did not participate in concurrent courses "to graduate high school, matriculate, and persist to credential completion, while experiencing lower rates of developmental/remedial placement upon matriculation." ${ }^{36}$ The study found the Arkansas data show similar results in that "the college-going rates of Arkansas high school graduates who completed concurrent coursework are consistently more than 20 percent higher than the general population of Arkansas high school graduates. The report also says the data indicates that access to concurrent enrollment opportunities is not equal across regions of the state.

[^12]
## Arkansas Computer Science Initiative

Act 187 of 2015 required each public high school and public charter high school to offer a course "of high quality" and that meets or exceeds the state board's curriculum standards in computer science. ADE developed and adopted curriculum standards and courses. ADE also provided course codes for Advanced Placement and International Baccalaureate computer science courses. Act 414 of 2021, known as the Computer Science Education Advancement Act, required students, beginning with the entering ninth-grade class of the 2023 school year, to complete one credit of a DESE-approved computer science course to graduate and for school districts and charter school systems to employ a computer science teacher starting with the 2024 school year.

## Computer Science Enrollment Statistics



Act 654 of 2023 amended the 2021 law by adding that graduation requirements could be met by successful completion of a DESE-approved computer science course "or computer science-related career and technical education course before the student graduates." The law also stipulates that the course could be taken as early as eighth grade to count toward a student's graduation. Act 635 of 2023 further amended the Computer Science Education Advancement Act of 2021 by changing the language concerning employment of a computer science teacher from mandatory to permissive wording, by replacing the word "shall" hire with "may" hire.

During 2023 year, computer science courses were taught in $14^{37}$ charter systems and 231 school districts (all but Marmaduke, Strong-Huttig, and Shirley school districts) as classroom-based courses or remotely as digital-learning courses, according to the APSCN data, with about 25,000 enrolled students.

No waivers from computer science course offerings were listed for the 2023 school year.

[^13]

## 2023 LEGISLATION

## Incorporating the LEARNS Act

## Community Service Diploma Requirements

The act requires each public high school student, beginning with the graduating class of 2026-202 7, to complete at least seventy-five (75) hours of documented community service in grades nine through twelve (9-12) with specific requirements established for each grade.

## Indoctrination Section

Section 16 defines "prohibited indoctrination" and requires DESE to review curricular materials for indoctrination purposes, and allows ASBE to promulgate rules to implement the section.

## Child Sexual Abuse and Human Trafficking Prevention Program

The act requires public schools to implement a child sexual abuse and human trafficking prevention program, provide training for teachers on child sexual abuse and human trafficking prevention, notify parents and legal guardians when instruction on child sexual abuse and human trafficking prevention occurs, and allow parents and legal guardians to exempt their child from instruction on child sexual abuse and human trafficking prevention. The act requires the Division of Elementary and Secondary Education to enhance or adapt curriculum materials to assist public schools in providing the required instruction on child sexual abuse and human trafficking prevention.

## Digital Learning Section

The act repeals the digital course requirement for graduation.

## Course Choice Program

The act requires ASBE to establish a program in which students can take courses from outside providers if the course is not offered at their school or they are in a C-, D- or F-graded school.

## Other 2023 Legislation

Act 48 establishes Holocaust Education Week during the last full week of classes in January in all public schools in order to educate students about the significance and history of the Holocaust.

Act 100 requires that the receipt of a high school diploma through the passage of a nationally recognized high school equivalency exam, such as the GED test, be treated the same as the receipt of a high school diploma from an accredited secondary school for purposes of employment.

Act 243 authorizes the Division of Elementary and Secondary Education to consult with industry stakeholders to establish a pilot program to provide agricultural education in elementary schools beginning with the 2025-2026 school year. The act also authorizes the division to provide and report on a program evaluation regarding the success and impact of the pilot program.

Act 662 allows a public school district or an open-enrollment public charter school to award a terminally ill student a high school diploma before the established graduation date if criteria are met. The act declares an emergency and is effective on and after April 11, 2023.

Act 290 establishes Mental Health Awareness Week during the first full week of classes in May in Arkansas schools in order to raise awareness of mental illness, remove stigma and misunderstanding associated with mental illness, and provide support for those who experience mental illness.

Aст 637 requires that, beginning with the 2023-2024 school year, each public school provide instruction on adoption awareness at the beginning of each school year to students enrolled in grades six through twelve (6-12) for a period of time not to exceed one (1) hour during each school year. The adoption education required by the act may be provided during a regular class period or at a special event organized for purposes of providing the required adoption awareness instruction. The act requires the State Board of Education to develop curricula, standards, materials, and units relating to required adoption awareness instruction.

Act 654 permits a career readiness assessment administered to a student in grades ten through twelve (10-12) to include without limitation the ACT WorkKeys National Career Readiness Certificate and requires that a Platinum, Gold, Silver, or Bronze credential through the ACT WorkKeys be used by an institution of higher education as transcribable credit towards the attainment of a postsecondary technical degree. The act allows a public high school student to meet the requirement to earn one (1) unit of credit in an approved high school computer science course by completing an approved high school computer science course or a computer science-related career and technical education course. The act also requires the Division of Career and Technical Education to review new and existing career and technical pathways to determine which courses within the career and technical pathways meet criteria for weighted credit and to publish a list of all approved career and technical pathways annually by January 1. The act permits weighted credit to be awarded for a career and technical pathway to a student upon the completion of the relevant career and technical pathway and the student's earning of the high-value industry credential aligned with the career and technical pathway.

Act 720 repeals the requirement that the State Board of Education approve programs and activities in which students participate in order to obtain community service hours and requires that programs and activities approved for purposes of community service satisfy certain criteria.

Aст 723 requires that each health and safety course offered by a public school district or openenrollment public charter school include information regarding breastfeeding, including without limitation the benefits of breastfeeding as health nutrition for all infants and for lactating mothers.

## APPENDIX A: 38 REQUIRED COURSES



## Division of Elementary

 \& SECONDARY EDUCATION
## Thirty- Eight Required High School Courses

The thirty-eight required high school courses reflect the minimum courses a school must offer. Schools must offer the following: *38 unique courses, even if a course falls into two categories
*One math and one literacy transitional course (T)
*At least one Advanced Placement (AP) course in each of the core areas of English Language Arts, Mathematics, Science and Social Studies
*Arkansas History if not taught in the 7th or 8th grade

| Engllch Language Arts |  | Computer sotenos |  | Sooter stuallos |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Must offer 2 full oredite from below |  | Muct offer 1 full oredit from below |  | Muct offer 3 full oredite from below |  |
| 410000 Englizh 9 411000 Englizh 10 | 1 full credit <br> 1 full credit | Any ADE Approved Year 1 Computer 3cience and Computing One-Credit Course Total requirea Computar totence: | $\begin{aligned} & 1 \text { full credit } \\ & 1 \text { fith oredit } \end{aligned}$ | 470000 United atates Hiatory Since 1890 <br> 471000 Worid History aince 1450 | 1 full creat <br> 1 ful credt |
| Muct offer 2 full oredite from below |  |  |  | 472000 Clivics | 1/2 crealt |
| 412000 Englizh 11 | 1 full credit | Mathematios |  | 474300 Economics and Personal Finance | 1/2 crealt |
| 413000 English 12 <br> 1 full credit <br> 418010 English 11/12 U.3. Hatory Semina |  | Muct offer 4 full oredits from below |  | Muct offer 1 full oredit from below |  |
|  |  | 430000 Ajgebra I | 1 full crealt | 473000 Arkanzas History | $1 / 2$ credit |
| Documents | $1 / 2 \mathrm{creds}$ | 431000 Geometry | 1 full creat | 474700 African American History | $1 / 2$ credit |
| 418020 Englah 11/12 Cross-Cultural Uterature | 1/2 credr | 432000 Algebra II | 1 full crealt | 474400 Pzychology | $1 / 2$ credit |
| 418030 Englah 11/12 Comparatve Literature | 1/2 creds | 433000 Pre Calculus | 1 full crealt | 474500 Sociology | 1/2 credit |
| 418040 English 11/12 Film as Literature | 1/2 credr | Muct offer 2 full oredits from below |  | 474100 United atates Govemment | 1/2 crealt |
| 418100 Englah 11/12 Public Relatons | $1 / 2 \mathrm{cred}$ | 439050 Advanced Topics and Modeing in Mathematics | 1 full crealt | 474600 Worid Geography <br> AP Social Studies course | $1 / 2$ credit <br> 1 full credt |
| 418110 English 11/12 Reading and Writing for |  | 439070 Agebra ill (T) 1 fall creat <br> 434010 Calculvs 1 fall creat |  | * At lesst one AP course from this content aroe must be afforod. |  |
| 418120 Englah 11/12 Mass Communicatons | $1 / 2$ creds | 439090 atatatics | 1 All creat | Official IB offorings |  |
| 418200 English 11/12 Reading and Writing for |  | 439120 Quantrative Uteracy (T) | 1 fall creat | Total required Soolal stualies: | 4 full ored |
| зтем | 1/2 credr | 439110 Tranailional Math Ready (T) 1 full cre |  |  |  |
| 418210 Englah 11/12 Entrepreneurahlp and |  | 439130 Technical Math for College and Career 1 full credt AP Mathematcs Course 1 full crealt |  | Fins Arts |  |
| Innovation | $1 / 2 \mathrm{creds}$ |  |  | Muct offer 2 full oredite from below |  |
| 418220 Englizh 11/12 Techrical Reading and |  | - At loast one AP course from |  | 450000 Visual Art Foundatons I | 1 full crealt |
| Writing for Trade and Industry | $1 / 2 \mathrm{creds}$ | this contort ares must be offered. |  | 452000 Vocal Ensemble I | 1 full creat |
| Must offer $1 / 2$ oreait trom below |  | Oflicial IB offorings |  | Muct offer 1 full oredit from below |  |
| 414200 Oral Communications: Personal Communication | $1 / 2 \mathrm{credr}$ | Total requlred Mathematioc: | © fin oredits | $\begin{aligned} & \text { 451000 Band I } \\ & 451200 \text { Jazz Band I } \end{aligned}$ | 1 full crealt <br> 1 full crealt |
| 414210 Oral Communications: ProteszionalCommunicationM |  | Solemes |  | 451100 Orchestral | 1 full creat |
|  |  |  | Muct offer 3 full oredits from below |  | Muct offer $1 / 2$ oredit from below |  |
| Must offer 2 oreaitc from below |  | 423000 Phyalcal acience integrated 1 full credit <br> 420000 siology integrated 1 full credt <br> 421000 Chemiatry integrated 1 full credit |  | Any Fine Arts course within the approved dacipine areas: |  |
|  | 1 full credit $1 / 2$ credt |  |  |  |  |
| 417010 Creatve Writing |  |  |  | - Visual Art |  |
| 414050 Debate I <br> 416010 Dramatic Llterature | 1 full crealt | Muct offer 2 full oredits from below |  | - Theater |  |
|  | 1 full credit | 425050 Aatronomy | 1 full creat |  |  |
| 416000 Ela Drama | $1 / 2$ credt | 421010 Chemlatry II | 1 full creat | - omilal AP and IE offerings |  |
| 414020 Forenalcs I | 1 full credit |  | 425020 Earth Science 1 fall crealt <br> 424020 Environmental Science 1 fall crealt |  | Total required Fine Arts: $\mathbf{3 1 / 2}$ orseits |  |
| 415000 Journallam | 1 full credit |  |  |  |  |  |  |  |
| 495030 Tranaltional Lteracy Ready (T) <br> Additional Englath 11/12 courses <br> AP English course <br> - At loest one AP course from this content aroa must be offored. Official /B offorings | 1 full credit | 424030 Anstomy/Phyziology <br> 1 full credt |  | Phycloal Eduastion |  |
|  | 1 full credit | 422010 Phyzics <br> - At loast one AP course from this contont ares must be offorod. Omicial IB offorings | 1 full creat | Muct offer 1 full oredit from below |  |
|  |  |  |  | 485010 Persona Finess for Life 485020 Recreational Oports | 1/2 credit <br> 1/2 credit |
|  |  |  |  | 485030 Outdoor Purzults | $1 / 2$ credit |
|  |  |  |  | 485040 Athletics | $1 / 2$ credit |
| Total required Engllich Language Arts: | 6 arsalts |  |  | Total required Pmycloal Ediseation: | 1 full oredit |
|  |  | Total requtred Estanoes: 6 finl oredits |  |  |  |
| Worta Languages |  |  |  | Heath and Wellinees |  |
| Must offer 2 full credis from the same language |  | Carear Eduoation |  | 480000 Healt and Weiness | $1 / 2$ credit |
| Total reculred Worta Langusges: | 2 full ereaits | Muat offer programs of atudy representing three (3) of the following occupational areas: <br> - Agricuture acience and Technology <br> - Buziness and Marketing Technology <br> - Family and Consumer Ociences <br> - Trade and industry <br> - Science, Technology, Engineering s Mathematica |  | Total required Hoalth and Wollnece: | 1/2 aredit |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  | Total requlred Carcer Eduostion: | - fin oredits |  |  |
| 1 full credive 1 full-jear course |  | 1/2 creat- 1 semester course |  | (T)- Transitional Course |  |
| Approved Pre AP courses may be implemented in lieu of the corresponding courses in the thirty-elaht reguired list. The Pre AP croaswak is located on the Deas course approval webpage. |  |  |  |  |  |

## APPENDIX B: SMART CORE COURSES

The courses below are tied to specific course code numbers and are identified by the Arkansas Department of Education as courses that meet the Smart Core graduation requirements.


| Comparative Literature |
| :--- |
| Film as Literature |
| Public Relations |
| Reading and Writing for Business Professions |
| Reading and Writing for STEM Professions |
| Mass Communications |
| Entrepreneurship and Innovation |
| Technical Reading/Writing for Trade \& Industry |
| Mathematics -4 Credits |
| Algebra I-1 Credit |
| Algebra I |
| Pre-AP Algebra I |
| Algebra I (requires ADE approval) |
| Concurrent Credit Algebra I |
| Algebra I-Part A \& Algebra I-Part B |
| Geometry - 1 Credit |
| Geometry |
| Geometry (requires ADE approval) |
| Concurrent Credit Geometry |
| Geometry-Part A \& Geometry-Part B |
| Pre-Ap Geometry w/Statistics |
| Algebra II - 1 Credit |
| Algebra II |
| Pre-AP Algebra 2 |
| Algebra II (requires ADE approval) |
| Concurrent Credit Algebra II |
| IB Math: Applications and Interpretation SL Year 1 |
| Fourth Math or Computer Science Flex* - 1 Credit - A CS Flex credit or one of the following: |
| Pre Calculus |
| Calculus |
| Advanceres Ag Power and Technical System \& Architecture (PLTW) Weighted Credit |
| Algebra III |
| Mathematical Applications and Algorithms |
| Statistics |
| Transitional Math Ready (SREB) |



| Concurrent Credit Physics |
| :--- |
| Third Science or Computer Science Flex* - 1 Credit - an additional Biology, Physical Science, CS Flex, or 1 of the <br> following: <br> Environmental Science <br> Anatomy/Physiology <br> Earth Science <br> Astronomy <br> Concurrent Credit College Algebra <br> Principles of Agriculture Science-Animal (CASE) Weighted Credit <br> Natural Resources \& Ecology (CASE) Weighted Credit <br> Principles of Agriculture Science-Plant (CASE) Weighted Credit <br> Chemistry of Foods <br> Human Body Systems <br> AP Environmental Science <br> Concurrent Credit Anatomy and Physiology <br> Concurrent Credit Environmental Science <br> Concurrent Credit Earth Science <br> Concurrent Credit Astronomy <br> IB Environmental Systems and Societies <br> Social Studies -3 Credits <br> Civics - 0.5 Credit <br> Civics (0.5 credit) <br> Civics (0.5 credit) (requires ADE approval) <br> IB American Government <br> AP United States Government \& Politics (for Civics credit) <br> Concurrent Credit Civics <br> World History - 1 Credit <br> World History Since 1450 <br> Pre-AP World History <br> World History (requires ADE approval) <br> World History (Weighted - requires ADE approval) <br> AP World History <br> Concurrent Credit World History <br> Econonomics with Personal Finance (0.5 credit) <br> ADE Approved AP Macroeconomics \& Personal Finance (0.5 credit) <br> United States History Since 1890 <br> United States History (Weighted - requires ADE approval) <br> AP United States History <br> United States History (requires ADE approval) <br> IB History of the Americas <br> Concurrent Credit United States History |


| ADE Approved AP Microeconomics \& Personal Finance (0.5 credit) |
| :--- |
| Personal Finance |
| See https://bit.ly/383OLjE |
| *Computer Science - Optional Flex Credit |
| Optional credits for 4th math or 3rd science requirements |
| Any course starting with 465 or 565 |
| See https://goo.gl/y95ZTc |
| Health and Safety - 0.5 Credit |
| Health and Wellness |
| JROTC Health |
| Health and Safety (requires ADE approval) |
| Other Concurrent Credit Health Ed. |
| Physical Education - 0.5 Credit |
| Personal Fitness for Life |
| Recreational Sports |
| Outdoor Pursuits |
| Athletics |
| JROTC Physical Education |
| Physical Education (requires ADE approval) |
| Concurrent Credit Physical Ed. |
| Fine Arts - 0.5 Credit |
| Credit chosen from courses coded 450000-459999 or 550010-559999 |
| Oral Communication - 0.5 Credit |
| Forensics I |
| Debate I |
| Integrated Oral Communication NT |
| Oral Communication: Personal Communication |
| Oral Communication: Professional Communication |
| Oral Comm. (Weighted - requires ADE approval) |
| Concurrent Credit Oral Communication |
| Oral Communication (requires ADE approval) |
| Career Focus - 6 Credits |
| Unused credits chosen from courses beginning with a 4 or 5 |


[^0]:    ${ }^{1}$ Ark. Code Ann. § 10-3-2102(f)(2).

[^1]:    ${ }^{2}$ A.C.A. § 6-15-2906(b) and (c) "Arkansas Academics Standards Revision Cycle" found at https://dese.ade.arkansas.gov/Files/20201209101511 Standards-Revision-Cycle.pdf. and https://dese.ade.arkansas.gov/admin/Files/ARKANSAS_ACADEMIC_STANDARDS_REVISION_CYCLE_(1)_LS.pdf

[^2]:    ${ }^{3}$ Arkansas Division of Elementary and Secondary Education Rules Governing Standards for Accreditation of Arkansas Public Schools and School Districts, Effective May 2, 2022, Appendix A, Standard 1-A.1.3
    ${ }^{4}$ A.C.A. § 6-15-213(1)(B)
    ${ }^{5}$ According to the Division of Elementary and Secondary Education document entitled "Thirty-Eight Required High School Courses" for the 2023 school year, one of the following English Language Arts courses must be offered: Critical Reading, Creative Writing, Debate I, Dramatic Literature, ELA Drama, Forensics I, Journalism, Transitional Literacy Ready, AP English course. Retrieved at https://dese.ade.arkansas.gov/admin/Files/AR Thirty-Eight Required High School Courses LS.pdf.

[^3]:    ${ }^{6}$ Ibid, two of the following science courses must be offered: Astronomy, Chemistry II, Earth Science, Environmental Science, Anatomy/Physiology, AP science course.
    ${ }^{7}$ Ibid, two of the following mathematics courses must be offered: Advanced Topics and Modeling in Mathematics, Algebra III (transitional), Calculus, Statistics, Quantitative Literacy (transitional), Transitional Math Ready, Technical Math for College and Career, AP mathematics course).
    ${ }^{8}$ Ibid, one full credit from the following fine arts courses must be offered: Band I, Jazz Band I, Orchestra I; one-half credit from the following discipline areas must be offered: music, visual art, theater, dance, AP/IB offerings).
    ${ }^{9}$ Ibid, one full credit from the following social studies courses must be offered: Arkansas History, African American History, Psychology, Sociology, United States Government, World Geography (all $1 / 2$ credit courses); AP Social Studies (1 credit).
    ${ }^{10}$ Ibid, one full credit from the following physical education courses (all $1 / 2$ credit): Personal Fitness for Life, Recreational Sports, Outdoor Pursuits, Athletics.

[^4]:    ${ }^{11}$ Please see Teachers 2024 Adequacy Survey, question 19.

[^5]:    ${ }^{12}$ Ark. Code Ann. § 6-16-135.
    ${ }^{13}$ Ark. Code Ann. § 6-16-149.
    ${ }^{14}$ Ark. Code Ann. § 6-16-143.
    ${ }^{15}$ Ark. Code Ann. § 6-16-1901(a).

[^6]:    ${ }^{16}$ Information for map and chart retrieved from the 2022 Digest of Education Statistics, Table 234.3" Course credit requirements and exit exam requirements for a standard high school diploma and the use of other high school completion credentials, by state: 2019," retrieved at https://nces.ed.gov/programs/digest/d22/tables/dt22 234.30.asp?current=yes.

[^7]:    ${ }^{17}$ Ibid.
    ${ }^{18}$ Augenblick, Palaich and Associates, WestED and Partners, "Arkansas School Finance Study," prepared for the Arkansas Senate and House Education Committee, December 2020.

[^8]:    ${ }^{19}$ A.C.A. § 6-16-806
    ${ }^{20}$ DESE "Rules Governing Grading and Course Credit."
    ${ }^{21}$ School districts not teaching AP or IB classes during the 2023 school year included Caddo Hills, Calico Rock, Danville, Deer/Mt. Judea, Dermott, Jasper, Kirby, Lead Hill, Omaha, Ozark Mountain, Poyen, Shirley, South Pike County, and Viola.
    ${ }^{22}$ Charter systems teaching AP or IB classes during the 2023 school year included Arkansas Arts Academy, Founders Classical Academies of Arkansas, Arkansas Connections Academy, Academics Plus Public Charter Schools, LISA Academy, Arkansas Virtual Academy, eStem Public Charter School, Arkansas Lighthouse Academies, and Haas Hall Academy.

[^9]:    ${ }^{23}$ Email from Kiffany Pride, Ed.D, Assistant Commissioner of Learning Services, ADE, DESE, dated May 29, 2024.

[^10]:    24 "The Impact of Participation in the Advanced Placement Program on Students' College Admissions Test Scores" by Warne, Russel T.; Larsen, Ross; Anderson, Braydon; Odasso, Alyce J. in The Journal of Educational Research, 108L 400-416I 2015.
    ${ }^{25}$ Ibid.
    ${ }^{26}$ Ibid.
    27 "Predictors of Success Among High School Students in Advanced Placement and International Baccalaureate Programs" by Suldo, Shannon M.; Shaunessy-Dedrick, Elizabeth; Ferron, Joh; Dedrick, Robert F. in Gifted Child Quarterly, Volume 62(4) 350-373, 2018.

[^11]:    28 "Closing Advance Coursework Equity Gaps for All Students" by Chatterji, Roby; Campell, Neil; and Quirk, Abby for the Center for American Progress, July 2021.
    ${ }^{29}$ See Ark. Code Ann. § 6-15-902(b). See also DESE "Rules Governing Grading and Course Credit."
    ${ }^{30}$ DESE's "Rules Governing Grading and Course Credit."
    ${ }^{31}$ A.C.A. § 6-85-401 et seq.
    ${ }^{32}$ Email from Sonia Hazelwood, Chief Data Officer, Assistant Commissioner, Information Systems and Technology and Innovation, Arkansas Division of Higher Education, Arkansas Department of Education, dated February 6, 2024.
    ${ }^{33}$ School districts not teaching concurrent courses during the 2023 school year included Rector, Cleveland County, Greene County, Mineral Springs, Nashville, Pine Bluff, Blytheville, Osceola, Barton, Marvell-Elaine, Marked Tree, and East Poinsett County.
    ${ }^{34}$ Charter systems teaching concurrent courses during the 2023 school year included Arkansas Arts Academy, Arkansas Connections Academy, Friendship Aspire Academy, KIPP Delta Public Schools, Academic Plus School District, Arkansas Virtual Academy, and Arkansas Lighthouse Charter Schools.

[^12]:    ${ }^{35}$ WWC Intervention Report: Dual Enrollment Programs, Institute of Education Sciences, U.S. Department of Education, February 2017.
    ${ }^{36}$ Arkansas Concurrent Enrollment Report: Landscape Analysis and Recommendations by Zinth Jennifer with Zinth Consulting, LLC, January 2024.

[^13]:    ${ }^{37}$ Charter systems reported in APSCN as teaching computer science courses during the 2023 school year included: Arkansas Arts Academy, Founders Classical Academies of Arkansas, Arkansas Connections Academy, Friendship Aspire Academy, KIPP Delta Public Schools, Academics Plus Charter Schools, LISA Academy, Arkansas Virtual Academy, eSTEM Public Schools, Arkansas Lighthouse Academies, Graduate Arkansas Charter, Premier High Schools of Arkansas, Future School of Fort Smith, HAAS Hall Academy.

