

Advancing Computer Science Skills for Student Success

Customer details

State of Arkansas
Department of Education

Division of Career and Technical
Education

<https://dcte.ade.arkansas.gov>

[https://portal.arkansas.gov/pages/
education-and-learning](https://portal.arkansas.gov/pages/education-and-learning)

Industry

Education

Students

143,925

Educators

16,542

Microsoft Imagine Academy Schools

304

Microsoft-certified students

14,391

Customer social sharing

<https://twitter.com/EdDcte>

Location

Arkansas, USA

Services

Microsoft Imagine Academy Program, Microsoft Certifications, Microsoft 365, Microsoft Teams, and deployment services from Meucci & Company, a Global Training Partner

¹State of Arkansas, Division of Career and Technical Education

²State of Arkansas, Division of Career and Technical Education

"We aim to ensure students are prepared for college and career goals in technology fields."

Angela Kremers,
Ed.D., Director, Arkansas Department of Education,
Division of Career and Technical Education, State of Arkansas

Executive summary

The State of Arkansas¹ is leading innovation throughout its schools and programs by advancing computer science skills for student success through industry-recognized certifications. Schools are working towards increasing educator professional development to connect classroom teaching with in-demand skills. Students are developing critical skills, solving complex problems, and analyzing issues in a holistic way using specialized technologies that lead toward mastery, foster community, and cultivate ethical impact.

At the core of their innovation, the Arkansas Microsoft Imagine Academy (MSIA) Program equips its schools and educators with online resources and Microsoft official curriculum needed to achieve their goals.

In mastering computer science skills and certification, students are prepared to pursue post-secondary education and opportunities to secure livable wages. Students across the state will be well-prepared for in-demand technology jobs.

Education needs

Delivering high quality programs and services to increase the workplace readiness skills of Arkansas middle and high school students is a main goal of the Arkansas Department of Education. They are pursuing these goals through innovations that accelerate career and technology education (CTE) skills within all their education pathways.²

With over 143,000 students in primary, secondary, and post-secondary schools across the state, Arkansas is creating opportunities that stretch the curriculum further into advanced topics beyond Microsoft Office and productivity skills and into areas from data science to cybersecurity and artificial intelligence (AI) aligned to in-demand skills and industry-recognized certifications. The Arkansas Microsoft Imagine Academy (MSIA) Program equips its schools and educators with online resources and Microsoft official curriculum needed to achieve their goals.

Solution

With the launch of the Microsoft Imagine Academy program across the state of Arkansas, educators can expand Career and Technical Education (CTE) resources to all its districts. Providing schools and educators with online resources needed to deliver high quality programs and services that result in attainment of industry-recognized credentials with labor market value is a high priority for the state.

According to Dr. Angela Kramer, Director of the Arkansas Department of Education at the Division of Career and Technical Education, “We are pleased to see the continued growth in the number of technologies earned by students. With a strong track record of success, our next goal will be to increase the number of Microsoft Technology Associate (MTA) and expert-level Microsoft Official Specialist (MOS) certifications earned to ensure students are prepared for college and career goals in technology fields.”

Schools are working towards increasing the number of educator MTA certifications in the state to address the global need to close the skills gap for the future workforce. Most in-demand³ hard skills in 2020, for instance, include business analysis, analytical reasoning, and fundamental technical concepts which the MTA and MOS certifications address to enhance technical credibility.

For Arkansas, “Microsoft 365 has been an economical way to provide technical skills to students and we are seeing continued interest there from our schools and educators,” says Carolyn Betts, Program Advisor of Business and Marketing Technology at the Division of Career and Technical Education for the State of Arkansas.

Having taught middle school and high school for over a decade at Morrilton High School, Betts knows first-hand the value of certification as an educator. With nearly a dozen of her own certifications, she is also familiar with the rigor the certification process entails, this experience helped her to prepare students to earn their own certifications.

Betts and her colleagues are also leading advanced technology programs which include robotics. Having such well-rounded offerings prepare students for foundational knowledge in areas of the most in-demand skills. They are now introducing industry certifications in STEM areas such as artificial intelligence (AI) and Microsoft Azure.

MSIA online resource materials are used extensively in educator curriculum. Students are learning to persist in overcoming the challenges that occur when completing tasks that come with learning new technologies. I remind educators often, “Let students know, ‘It’s okay if you fail the first time. Pick yourself up and prepare a little better and try again,’” says Betts. Such encouragement helps students build the confidence toward their mastery of new technology skills.

Meucci & Company, a Microsoft Global Training Partner, was brought in to provide educator training and deployment services to ensure schools were ready to integrate the MSIA program curriculum and certification testing. They worked with the DOE to manage rolling out MSIA curriculum and resources, setting up metrics for success, and provide educator professional development so they felt confident in the classroom. “Our collaboration provided us with experienced trainers to help our schools,” says Betts. “Since working with Meucci & Company last year, for example, I have noticed more requests for information about Microsoft 365. And as more educators and schools look for this resource, we know that educators are listening and looking to industry to provide additional support they may need.”

A student-centered approach

Educators are helping students recognize that making and correcting “mistakes” that take place during problem solving is part of the learning process. They build on this foundation, and “more and more, we have been emphasizing that these learnings—like industry certifications—are stackable,” says Betts. “For students who learn computer technology, take relevant industry-certified exams, and earn their certification in the 9th grade—they can pursue the subsequent Microsoft certification in the 10th grade, and so on.”

And in some cases, says Betts, “some students may start certifying in Microsoft Word and Microsoft Excel during their first year, and then continue with Microsoft PowerPoint as they progress through their areas of study. They then continue to stack certifications until they reach mastery level.” Access to MSIA resources also give all educators the opportunity to introduce technology beyond computer science courses. Betts echoes, “other students take a class sometime during 10th to 12th grades as part of a course offered by the business programs.”

Immersive-learning educators

Providing Microsoft skills training and successfully getting students certified helps the state and their schools deliver diverse CTE learning opportunities and services that extend learning through technology-driven experiences.

“Our educators are motivated,” says Betts. “We also know that the educators who certify are those working with students to get them certified.”

In addition to students working towards their certifications—so are educators. Like Betts, who earned her certifications while an educator, over 14,000 educators have earned industry-recognized certifications. Educators can use their no-cost exams as a benefit of MSIA to pursue their certifications throughout the year.

Many educators who are looking toward earning their technology credentials are encouraged to pursue these aspirations. “For some educators,” shares Betts, “the mindset is ‘How am I going to prepare students to certify successfully if I don’t know what they’re preparing them for?’”

Connected learning

Students can experience varied technologies during their program. Educators are also using Microsoft Teams as a combined collaboration and communication tool with students. “Educators have been asking the state to offer more training in Microsoft Teams especially as schools are preparing to begin using Microsoft 365,” says Betts. Educators are conscientious about using tools in the classroom with “security and privacy aims and more collaborative working environments that educators need.”

Work- and life-ready skills

Beyond jobs, preparing students with the option to pursue higher education is important. “We have several college partners across the state who grant college credit for CTE courses that students take,” says Betts. “These efforts are designed to accelerate traditional enrollments by offering credit hours per certification exam that students earn. Our higher education partners know our track record in preparing students using rigorous curriculum leading to industry-recognized technical certification.”

The state is also encouraging school leaders and educators to consider partnership building throughout its local business communities. “We want to increase communication with parents and employers about the certification opportunities we provide,” Betts says. “My team regularly advise educators to be sure to let students know how to communicate the value of certifications they are earning with people they know.”

As the state considers other opportunities to ensure its future workforce is prepared with in-demand skills, they’re looking to industry partners to help advance STEM and Microsoft certifications that support innovations around cloud computing such as Azure—Microsoft’s leading cloud solution infrastructure. “I know some of our partners in the industry have preference for hiring our grads with earned certifications under their belt,” says Betts.

The earned certification helps communicate mastery of skills which new grads can immediately use upon hire. “Some industry partners have shared, ‘If they have the essential skills we are looking for, they get extra consideration in the hiring process with earned certifications,’” says Betts.

Overall, it is evident that the state of Arkansas, in partnership with their school leaders and educators, and the MSIA deployment team at Meucci & Company are creating new CTE pathways as a needed response to the new roles and job markets emerging in the industry.

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³ LinkedIn, n.d.