Ohio lawmakers propose mandatory computer science for high school

_{Ву} Laura Hancock Cleveland.com

COLUMBUS, Ohio - Ohio students would be required to complete a yearlong computer science class to graduate from high school under legislation announced Thursday morning by bipartisan lawmakers.

Companion bills – one in the Ohio House and one in the Senate – are expected to be introduced next week. They would require all Ohio high schools to have computer science classes available in the 2027-2028 school year.

A release from state Rep. Gayle Manning said that would apply to public high schools. It wasn't immediately clear whether private schools would have the same requirement.

Computer science then would become a graduation requirement with the class of 2032, said Manning, a North Ridgeville Republican who is one of the bill's sponsors.

To fulfill the requirement, students would have to take a unit of computer science, which is usually a yearlong course, some year between grades 8 and 12, she said.

The Ohio Department of Education and Workforce has <u>learning standards</u> for schools that want to offer computer science. In high school, the standards state students are to learn about computing systems, networks and the internet, data and analysis, algorithmic thinking and programming, artificial intelligence and the impacts of computing.

The legislation comes as lawmakers look to better align Ohio's learning standards to meet the needs of the workforce. Data shows the state is falling behind its neighbors in high school computer science classes.

While 62% of Ohio high schools offer computer science classes, this level is lower than nearly all of Ohio's neighbors, except for Michigan, where 55% of high schools offer computer science.

Ninety-one percent of Indiana high schools offer computer science, 78% of West Virginia high schools offer the class, and 75% of Pennsylvania and Kentucky schools offer it, according to research by <u>code.org</u>, a nonprofit focused on expanding computer science education across the country.

Requiring computer science will increase Ohio's numbers. It will also lower disparities in access to classes, said Julia Wynn, a lobbyist for Code.org.

"The data tell us that female students are less likely to enroll, even when it's offered," Wynn said, "in part because of the stereotypes about what computer science is, a lack of familiarity with it, and a lack of role models in the space that represent everyone."

Eleven states require computer science for graduation, including Indiana, which passed it last year, she said.

The bill would allow schools that can't find or train computer science teachers to offer the course to students remotely. In the state budget that passed in 2023, the legislature provided schools \$8 million to hire new teachers or cross train teachers of other subjects to also teach computer science, said state Sen. Jerry Cirino, a Kirtland Republican, who will sponsor the bill in the Senate.

Cirino said he'd be open to providing schools more money to hire or train teachers if necessary.

Seven years ago, then-state Rep. Rick Carfagna sponsored <u>a bill</u> that required the Ohio State Board of Education to develop the computer science learning standards and model curriculum that's now in use. Carfagna attended the news conference in support of the bills as a lobbyist of the Ohio Chamber of Commerce.

Carfagna's bill also added computer science to the list of classes that can count toward graduation, he said.

"My message today is the same as it was in 2017: Ohio's economic competitiveness depends on having a technology proficient workforce that's prepared with the skill set for jobs that have yet to be invented," he said. "Ohio has made great progress integrating the classes, yet as we stand here today, 38% of Ohio's high schools still have zero offerings of computer science classes, zero."

Also sponsoring the bill in the Ohio House is Rep. Don Jones, a Harrison County Republican. In the Ohio Senate, Sen. Catherine Ingram, a Cincinnati Democrat, is also sponsoring the bill.

Cirino said basic computer science knowledge is necessary for students who want to work in career-technical fields, as well as for those who want to go to college.

"If we don't have a vibrant, growing economy, we're not going be able to provide the services, educational services, Medicaid and so many other services that we provide to people who are in need," he said. "We can't do that to the same extent that we would like to if we aren't in a growing economic environment."

Scott DiMauro, president of the Ohio Education Association, said that a similar bill was introduced last year, and his union was an "interested party" on it, meaning it didn't take a position for or against it.

DiMauro doesn't know if there are enough teachers licensed or credentialed in computer science to offer the classes at every high school. Buying the equipment, in addition to training and recruiting teachers, could be expensive.

DiMauro said that the concern with adding more graduation requirements is that the student may take computer science in lieu of another important course.

"It's one thing if (a school is) already doing it and a lot of kids are taking it, the impact is going to be relatively modest," he said. "And I would suspect it's larger, more suburban schools are already doing it. But I can imagine the small rural districts, or districts that don't have as many resources, it could be harder to implement."