



PA 19-128—sSB 957
Education Committee
Appropriations Committee

AN ACT CONCERNING COMPUTER SCIENCE INSTRUCTION IN PUBLIC SCHOOLS

SUMMARY: This act adds computer science to the list of subjects that public schools must teach. It makes computer programming a required component of computer science instruction, rather than a stand-alone instruction subject as under prior law (§ 1). It also establishes the “computer science education account” in the General Fund (§ 10).

The act also requires the State Board of Education (SBE) to adopt regulations by July 1, 2020, that create a computer science teaching endorsement. It makes several related changes, including requiring (1) teacher preparation programs to revise their computer-related curricula, (2) the development of an alternate route to certification (ARC) program for computer science, and (3) a computer science subject area assessment for teacher preparation and allowing satisfactory scores on this assessment to substitute for existing law’s subject area certification requirements (§§ 2-6).

Additionally, the act makes the following changes in laws relating to job training and placement in technological industries:

1. allows the Department of Economic and Community Development (DECD) to develop a model internship program for technology and advanced manufacturing (§ 7);
2. adds computer science to the Connecticut Employment and Training Commission’s (CETC) statewide plan regarding certificate, middle college, early college high school, and Early College Opportunity programs (§ 8);
3. allows DECD to identify and coordinate state resources to meet the needs of industries with anticipated job growth areas in consultation with other state agencies (§ 9); and
4. requires that the creation of student success plans for public school students in grades 6 – 12 consider career and academic choices in computer science, science, technology, engineering, and math (§ 11).

Lastly, the act requires SBE to allow applicants for teacher certification in a subject shortage area to meet a less stringent standard on the subject area assessment, using a “satisfactory” rather than an “excellent” test score as a substitute for the subject area certification requirements in law. This score standard is similar to those required by law for tests leading to other types of teaching certification (§ 6).

EFFECTIVE DATE: July 1, 2019, except the provisions about (1) the new teacher preparation program curricula take effect July 1, 2020 (§ 2), and (2)

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SBE's development of the computer science subject area assessment and DECD's coordination of state resources for industry talent needs take effect upon passage (§§ 5 & 9).

§ 2 — CURRICULA FOR TEACHER PREPARATION PROGRAMS

Until July 1, 2020, the law requires that teacher preparation programs leading to professional certification include a computer and information technology skills component, as applied to student learning and classroom instruction, communications, and data management. Starting July 1, 2020, the act instead requires that the programs include instruction in computer science, specifically. With respect to information technology skills, the act (1) requires that they be grade level- and subject area-appropriate and (2) eliminates the requirement that they be applicable to communications and data management.

§ 3 — ARC PROGRAM FOR COMPUTER SCIENCE

The act requires the Office of Higher Education (OHE), in collaboration and consultation with the State Department of Education (SDE), to develop an ARC program for computer science teachers, which must include mentored apprenticeships and program admission criteria.

§§ 4-6 — COMPUTER SCIENCE ENDORSEMENT AND ASSESSMENT

Existing law requires SBE to adopt regulations providing certification standards for computer science teachers. The regulations must allow applicants to meet these requirements by completing prescribed courses of study or through other experience SBE deems appropriate.

By July 1, 2020, the act requires that these regulations also create a computer science teaching endorsement. It requires SBE to approve and adopt, by January 1, 2020, a computer science subject area assessment for teacher certification. Beginning July 1, 2020, SBE must allow computer science certificate applicants or currently certified teachers in other subject areas seeking to teach computer science to substitute a satisfactory score on the assessment for the subject area certification requirements in law.

§ 7 — MODEL INTERNSHIP PROGRAM

The act allows DECD to (1) develop by July 1, 2020, and within available appropriations, a model internship program to help Connecticut businesses provide college internships in the fields of technology and advanced manufacturing and (2) make the model available on its website.

§ 8 — CETC PLAN

By law, CETC must develop a plan for implementing, expanding, or

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improving upon career certificate, middle college, early college high school, and Early College Opportunity programs. The plan must include education, training, and job placement in specified fields. The act adds computer science to the list of fields the plan must address.

By law, CETC must develop this plan in collaboration with the Connecticut state colleges and universities, SDE, and regional workforce development boards.

§ 9 — DECD COORDINATION OF RESOURCES TO MEET INDUSTRY TALENT NEEDS

The act allows DECD, in consultation with the Labor Department (DOL) and OHE, to identify the following:

1. anticipated areas of statewide and regional job growth in Connecticut over the next five and 10 years;
2. existing or projected needs for certificate programs, degree programs, and short- and long-term noncredit training programs to support job growth areas;
3. the certificate programs, degree programs, and noncredit training programs in the state that are most in demand by employers and students;
4. the percentage of graduates from these programs employed in Connecticut two years after graduation and the fields and industries in which they are employed; and
5. growth capacity in high-demand academic programs offered by in-state higher education institutions.

DECD may also consult with DOL and OHE to coordinate with the following:

1. state and quasi-public agencies, to prioritize and align state resources to meet the state's existing and future talent needs, and
2. municipal leaders, to (a) share the results of the above analysis with employers, public and private Connecticut higher education institutions, and other stakeholders and (b) develop a program to award grants to support evidence-based solutions to cultivate, attract, hire, and retain workers in high-demand fields and industries.

This grant program may include internship programs, education programs, incentives to attract mid-career workers, and fellowship programs to attract and retain recent graduates.

§ 10 — COMPUTER SCIENCE EDUCATION ACCOUNT

The act establishes the computer science education account as a separate, nonlapsing account in the General Fund. It must contain (1) money required or allowed by law to be deposited in the account and (2) funds received from any public or private contributions, gifts, grants, donations, bequests, or devises.

Under the act, SDE may spend the account funds to support curriculum development, teacher professional development, capacity development for school districts, and other programs that support computer science education.

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§ 11 — STUDENT SUCCESS PLANS

By law, local and regional boards of education must create an annual student success plan for each public school student starting in grade six. The act requires the boards, when creating these plans, to consider career and academic choices in computer science, science, technology, engineering, and math.

BACKGROUND

Related Acts

PA 19-58 (§ 3) requires that student success plans also include evidence of career exploration, including manufacturing careers.

PA 19-74 (§ 3) also expands teacher certification eligibility in a designated subject shortage area to include individuals receiving a satisfactory score in an SBE-approved assessment for the subject shortage area.