



General Assembly

## Amendment

January Session, 2019

LCO No. 10260



Offered by:

SEN. MCCRORY, 2<sup>nd</sup> Dist.  
SEN. BERTHEL, 32<sup>nd</sup> Dist.  
SEN. MARONEY, 14<sup>th</sup> Dist.  
SEN. WITKOS, 8<sup>th</sup> Dist.  
SEN. FONFARA, 1<sup>st</sup> Dist.  
SEN. DAUGHERTY ABRAMS,  
13<sup>th</sup> Dist.

SEN. MARTIN, 31<sup>st</sup> Dist.  
REP. SANCHEZ, 25<sup>th</sup> Dist.  
REP. ROJAS, 9<sup>th</sup> Dist.  
REP. PAVALOCK-D'AMATO, 77<sup>th</sup> Dist.  
REP. D'AMELIO, 71<sup>st</sup> Dist.  
REP. PERILLO, 113<sup>th</sup> Dist.

To: Subst. Senate Bill No. 957

File No. 595

Cal. No. 284

**"AN ACT CONCERNING THE INCLUSION OF COMPUTER SCIENCE INSTRUCTION IN THE PUBLIC SCHOOL CURRICULUM, PROGRAMS OF TEACHER PREPARATION AND ALTERNATE ROUTE TO CERTIFICATION PROGRAMS AND THE CREATION OF AN ADJUNCT COMPUTER SCIENCE INSTRUCTOR PERMIT AND A COMPUTER SCIENCE ENDORSEMENT."**

1 Strike everything after the enacting clause and substitute the  
2 following in lieu thereof:

3 "Section 1. Subsection (a) of section 10-16b of the general statutes is  
4 repealed and the following is substituted in lieu thereof (*Effective July*  
5 *1, 2019*):

6 (a) In the public schools the program of instruction offered shall  
7 include at least the following subject matter, as taught by legally

8 qualified teachers, the arts; career education; consumer education;  
9 health and safety, including, but not limited to, human growth and  
10 development, nutrition, first aid, including cardiopulmonary  
11 resuscitation training in accordance with the provisions of section 10-  
12 16qq, disease prevention and cancer awareness, including, but not  
13 limited to, age and developmentally appropriate instruction in  
14 performing self-examinations for the purposes of screening for breast  
15 cancer and testicular cancer, community and consumer health,  
16 physical, mental and emotional health, including youth suicide  
17 prevention, substance abuse prevention, including instruction relating  
18 to opioid use and related disorders, safety, which shall include the safe  
19 use of social media, as defined in section 9-601, and may include the  
20 dangers of gang membership, and accident prevention; language arts,  
21 including reading, writing, grammar, speaking and spelling;  
22 mathematics; physical education; science, which may include the  
23 climate change curriculum described in subsection (d) of this section;  
24 social studies, including, but not limited to, citizenship, economics,  
25 geography, government, history and Holocaust and genocide  
26 education and awareness in accordance with the provisions of section  
27 10-18f; computer science, including, but not limited to, computer  
28 programming instruction; and in addition, on at least the secondary  
29 level, one or more world languages and vocational education. For  
30 purposes of this subsection, world languages shall include American  
31 Sign Language, provided such subject matter is taught by a qualified  
32 instructor under the supervision of a teacher who holds a certificate  
33 issued by the State Board of Education. For purposes of this  
34 subsection, the "arts" means any form of visual or performing arts,  
35 which may include, but not be limited to, dance, music, art and theatre.

36 Sec. 2. Subsection (d) of section 10-145a of the general statutes is  
37 repealed and the following is substituted in lieu thereof (*Effective July*  
38 *1, 2020*):

39 (d) On and after July 1, [1998] 2020, any [candidate in a] program of  
40 teacher preparation leading to professional certification shall [complete  
41 a] include, as part of the curriculum, instruction in computer science,

42 and [other] instruction in information technology skills [component of  
43 such program,] as applied to student learning and classroom  
44 instruction [, communications and data management] that are grade-  
45 level and subject area appropriate.

46 Sec. 3. Section 10-155d of the general statutes is repealed and the  
47 following is substituted in lieu thereof (*Effective July 1, 2019*):

48 (a) The Office of Higher Education shall encourage and support  
49 experimentation and research in the preparation of teachers for public  
50 elementary and secondary schools. To help fulfill the purposes of this  
51 section, the Office of Higher Education shall appoint an advisory  
52 council composed of qualified professionals which shall render  
53 assistance and advice to the office. In carrying out its activities  
54 pursuant to this section, the office shall consult with the State Board of  
55 Education and such other agencies as it deems appropriate to assure  
56 coordination of all activities of the state relating to the preparation of  
57 teachers for public elementary and secondary schools.

58 (b) The Office of Higher Education, with the approval of the  
59 Commissioner of Education, shall expand, within available  
60 appropriations, participation in its summer alternate route to  
61 certification program and its weekend and evening alternate route to  
62 certification program. The office shall expand the weekend and  
63 evening program for participants seeking certification in a subject  
64 shortage area pursuant to section 10-8b. The office, in collaboration  
65 with the Department of Education, shall develop (1) a regional  
66 alternate route to certification program targeted to the subject shortage  
67 areas, [and] (2) an alternate route to certification program for former  
68 teachers whose certificates have expired and who are interested in  
69 resuming their teaching careers, and (3) an alternate route to  
70 certification program targeted for computer science teachers.

71 (c) The Office of Higher Education, in consultation with the  
72 Department of Education, shall develop alternate route to certification  
73 programs for (1) school administrators and superintendents, [and] (2)

74 early childhood education teachers, and (3) computer science teachers.  
75 The programs shall include mentored apprenticeships and criteria for  
76 admission to the programs.

77 Sec. 4. Subsection (e) of section 10-145d of the general statutes is  
78 repealed and the following is substituted in lieu thereof (*Effective July*  
79 *1, 2019*):

80 (e) [The] Not later than July 1, 2020, the State Board of Education  
81 shall adopt regulations, in accordance with chapter 54, to provide  
82 standards for the certification of computer science teachers. Such  
83 regulations shall create a computer science endorsement and make  
84 provision for certification requirements to be met by either (1)  
85 completion of prescribed courses of study, or (2) such other experience  
86 as the state board shall deem appropriate.

87 Sec. 5. (*Effective from passage*) Not later than January 1, 2020, the State  
88 Board of Education shall approve and adopt a subject area assessment  
89 for computer science for purposes of certification pursuant to chapter  
90 166 of the general statutes.

91 Sec. 6. Section 10-145l of the general statutes is repealed and the  
92 following is substituted in lieu thereof (*Effective July 1, 2019*):

93 (a) On and after July 1, 2010, the State Board of Education shall  
94 allow an applicant for certification to teach in a subject shortage area  
95 pursuant to section 10-8b or a certified employee seeking to teach in  
96 such a subject shortage area to substitute achievement of [an excellent]  
97 a satisfactory score, as determined by the State Board of Education, on  
98 any appropriate State Board of Education approved subject area  
99 assessment for the subject area requirements for certification pursuant  
100 to section 10-145f.

101 (b) On and after July 1, 2020, the State Board of Education shall  
102 allow an applicant for certification to teach computer science, or a  
103 certified employee seeking to teach computer science, to substitute  
104 achievement of a satisfactory score, as determined by the State Board

105 of Education, on the appropriate State Board of Education approved  
106 subject area assessment for the subject area requirements for  
107 certification pursuant to section 10-145f.

108 Sec. 7. (NEW) (*Effective July 1, 2019*) Not later than July 1, 2020, the  
109 Department of Economic and Community Development may, within  
110 available appropriations, develop a model internship program for use  
111 by companies and businesses in the state. The model internship  
112 program shall assist such companies and businesses in providing  
113 students attending public and independent institutions of higher  
114 education in the state with internship opportunities in the fields of  
115 technology and advanced manufacturing. The department may make  
116 such model internship program available on its Internet web site.

117 Sec. 8. Section 31-11ff of the general statutes is repealed and the  
118 following is substituted in lieu thereof (*Effective July 1, 2019*):

119 (a) For purposes of this section:

120 (1) "Early college high school" means a school in which persons who  
121 are underrepresented in higher education, including, but not limited  
122 to, low-income youth, first-generation college students, English  
123 language learners and minority students, may simultaneously earn,  
124 tuition free, a high school diploma and an associate degree or up to  
125 two years of credit toward a bachelor's degree;

126 (2) "Middle college program" means a collaboration between a  
127 school district's high schools and a regional-community technical  
128 college or a four-year college or university where a student may (A)  
129 take core high school courses or courses for which college or  
130 university-level credit may be given, and (B) attribute all such credits  
131 earned toward a program of higher learning at an institution of higher  
132 education in which such student enrolls upon graduation from the  
133 middle college program; and

134 (3) "Connecticut Early College Opportunity program" or "CT-ECO"  
135 means a collaboration between a school district's high schools, a local

136 community college and a company or business entity where a student  
137 may earn an industry-recognized, two-year postsecondary degree in  
138 addition to a high school diploma.

139 (b) The Connecticut Employment and Training Commission shall  
140 develop, in collaboration with the Connecticut state colleges and  
141 universities, Department of Education, and regional work force  
142 development boards established pursuant to section 31-3j, a state-wide  
143 plan for implementing, expanding or improving upon career certificate  
144 programs established under section 10-20a, middle college programs,  
145 early college high school programs and Connecticut Early College  
146 Opportunity programs to provide education, training and placement  
147 in jobs available in the manufacturing, health care, construction, green,  
148 science, technology, computer science, engineering and mathematics  
149 industries and other emerging sectors of the state's economy. Such  
150 plan shall include a proposal to fund such programs.

151 Sec. 9. (NEW) (*Effective from passage*) The Department of Economic  
152 and Community Development, in consultation with the Labor  
153 Department and Office of Higher Education, may, within available  
154 appropriations:

155 (1) Identify (A) anticipated areas of job growth in the state over the  
156 next five and ten years, state-wide and by region, (B) existing or  
157 projected needs for certificate programs, degree programs and short-  
158 term and long-term noncredit training programs to support areas of  
159 job growth, (C) the certificate programs, degree programs and  
160 noncredit training programs in the state that are most in demand by  
161 employers and students, the percentage of graduates of such programs  
162 who are employed in the state two years after graduation and the  
163 fields and industries in which such graduates are employed, and (D)  
164 the capacity for growth in high-demand academic programs offered by  
165 institutions of higher education in the state;

166 (2) Coordinate with state agencies and quasi-public agencies to  
167 prioritize and align state resources to meet the existing and future

168 talent needs of the state, identified pursuant to subdivision (1) of this  
169 section; and

170 (3) Coordinate with municipal leaders to (A) share the results of the  
171 analysis performed under subdivision (1) of this section with  
172 employers, public and independent institutions of higher education in  
173 the state and other stakeholders, and (B) develop a program to award  
174 grants to support evidence-based solutions to cultivate, attract, hire  
175 and retain workers in high-demand fields and industries. Such  
176 program may include, but not be limited to, internship programs,  
177 education programs, incentives to attract mid-career workers and  
178 fellowship programs to attract and retain recent graduates.

179 Sec. 10. (NEW) (*Effective July 1, 2019*) There is established an account  
180 to be known as the "computer science education account", which shall  
181 be a separate, nonlapsing account within the General Fund. The  
182 account shall contain any moneys required or permitted by law to be  
183 deposited in the account and any funds received from any public or  
184 private contributions, gifts, grants, donations, bequests or devises to  
185 the account. The Department of Education may make expenditures  
186 from the account to support curriculum development, teacher  
187 professional development, capacity development for school districts,  
188 and other programs for the purposes of supporting computer science  
189 education.

190 Sec. 11. Subsection (j) of section 10-221a of the general statutes is  
191 repealed and the following is substituted in lieu thereof (*Effective July*  
192 *1, 2019*):

193 (j) For the school year commencing July 1, 2012, and each school  
194 year thereafter, each local and regional board of education shall create  
195 a student success plan for each student enrolled in a public school,  
196 beginning in grade six. Such student success plan shall include a  
197 student's career and academic choices in grades six to twelve,  
198 inclusive. On and after July 1, 2020, in creating such student success  
199 plans, consideration shall be given to career and academic choices in

200 computer science, science, technology, engineering and mathematics."

This act shall take effect as follows and shall amend the following sections:		
Section 1	<i>July 1, 2019</i>	10-16b(a)
Sec. 2	<i>July 1, 2020</i>	10-145a(d)
Sec. 3	<i>July 1, 2019</i>	10-155d
Sec. 4	<i>July 1, 2019</i>	10-145d(e)
Sec. 5	<i>from passage</i>	New section
Sec. 6	<i>July 1, 2019</i>	10-145l
Sec. 7	<i>July 1, 2019</i>	New section
Sec. 8	<i>July 1, 2019</i>	31-11ff
Sec. 9	<i>from passage</i>	New section
Sec. 10	<i>July 1, 2019</i>	New section
Sec. 11	<i>July 1, 2019</i>	10-221a(j)