

# Teacher Certification in Computer Science



Fact Sheet No. 23-05 (replaces 21-08)

March 2023

Update 1: Members can now apply for the SOCE in Computer Science. The application was previously not available in TEACH.

Update 2: This Fact Sheet has been updated to reflect SED adding Computer Science as a Career & Technical Education subject and what this means regarding possible teaching assignments.

The NYS Board of Regents adopted regulations in March 2018 that created a classroom teaching certificate in computer science and a corresponding tenure area. The regulations designate the computer science certificate as part of the ‘special subjects’ tenure area. The regulations also identified multiple pathways to obtain the computer science certificate that include course work, course work and/or work experience, and a ‘grandfathering’ provision for those teachers currently teaching computer science courses. Teachers who are currently teaching computer science courses can apply for a Statement of Continuing Eligibility (SOCE) up to September 1, 2024.

## What is Computer Science?

As per the March 2018 Regents item: “Through these concepts, students [will] engage in a variety of activities including: creating prototypes that use algorithms to solve computational programs; comparing interactions between application software, system software, and hardware layers; refining computational models based on data; evaluating the ways that computing impacts social and economic practices; and comparing various security measures of a computing system. These types of activities immerse students in creative problem solving where they learn how to identify and present problems that computers can solve and how computers can solve them.”

The [Computer Science and Digital Fluency Standards](https://www.nysed.gov/computer-science-digital-fluency-standards) (nysed.gov) were approved by the NYS Board of Regents in December 2020 and focus on five concepts: Impacts of Computing; Computational Thinking; Networks & Systems Design; Cybersecurity; and Digital Literacy. The standards are grouped into grade-bands: K-1, 2-3, 4-6, 7-8, and 9-12.

## Transition to the Computer Science Certificate

SED policy regarding the teaching of computer literacy (computer science) prior to these new regulations has been that teachers holding a valid teaching certificate could teach computer science courses based on local determinations regarding their expertise in computer science. The new regulations outline a process for “grandfathering” teachers currently teaching computer science courses, as well as those who begin teaching computer science courses between now and September 1, 2024.

### **Computer Science Statement of Continued Eligibility (SOCE)**

Currently certified teachers who are or will be teaching computer science courses within the 7 years prior to September 1, 2024, can apply using TEACH for the Statement of Continuing Eligibility (SOCE) in Computer Science. The SOCE allows the teacher to continue to teach computer science courses in the same school district, board of cooperative educational services, or other school that employed such individual when the statement of continued eligibility was issued. The SOCE is valid for a period of 10 years from the date it is issued. Applications for the Statement of Continued Eligibility must be submitted on TEACH on or before September 1, 2024. Applicants must possess a valid professional or permanent teaching certificate to obtain the SOCE.

The computer science certificate does not prevent teachers who hold other certificates from teaching aspects of these concepts in other subject area courses and in elementary schools.

### **Pathways to Computer Science Certification (other than SOCE)**

SED added Computer Science as a CTE Subject in October 2022 in an effort to provide flexibility in how computer science courses could be used to meet diploma and program requirements. This flexibility includes:

- Computer science in grades 5-8 could be used to meet the middle-level 1.75-unit CTE requirement.
- Considering the shortage of CTE teachers in nearly all areas, adding computer science as an eligible CTE subject to meet the middle-level requirement would help schools, especially our high-need schools, by expanding the pool of eligible teachers to deliver the 1.75-unit middle-level requirement.
- Computer science in grades 9-12 could be used as CTE coursework to meet career development and occupational studies (CDOS) commencement credential and CDOS +1 pathway requirements, increasing graduation options for students.
- Computer science in grades 9-12 could be used towards a five-unit CTE sequence in CTE leading to a Regents Diploma with Advanced Designation.
- Districts would have the ability to apply for NYSED CTE program approval for computer science programs in grades 9-12, opening opportunities for LEAs and BOCES to offer programs in a high-skill, high-wage, high-demand field leading to various industry credentials as well as the technical endorsement for students.
- Eligible schools and BOCES with Department-approved CTE programs could utilize Carl D. Perkins Career and Technical Education Act funding to improve computer science instruction.
- As CTE teachers, computer science teachers would be eligible to teach career and financial management and obtain the extension of Coordinator of Work-Based Learning Programs for Career Development. Computer science teachers would also be better able to connect the classroom to the real world with this flexibility.

This regulatory change would not impact existing computer science offerings leading to math or science credit, or elective credit. It would simply add the flexibility of utilizing computer science courses to meet requirements in CTE where appropriate.

### **Pathways to Computer Science Certification (other than SOCE)**

For individuals who seek an initial certificate in computer science other than the SOCE, the following pathways are available:

1. Approved program pathway: an individual pursuing a bachelor's degree in an educator preparation program leading to an initial certificate in computer science or a master's degree in an educator preparation program leading to an initial computer science certificate.
2. Individual evaluation pathway: an individual with a bachelor's degree or higher and at least 12 credits of coursework in computer science may pursue this pathway upon meeting pedagogy and student teaching requirements.
3. Industry experience: individuals who already have a bachelor's degree or higher and also have had three or more years of experience working in a position that requires the skills of a computer scientist may pursue this pathway and would need to complete specific pedagogical coursework.
4. Additional certificate pathway: individuals who already hold a teaching certificate may pursue an additional certificate in computer science by meeting specific computer science coursework.

### **Changes to Part 30 Tenure Rules**

Computer science will be considered a "special subject" across all grades. After September 1, 2023 an educator who was previously appointed tenure in a different tenure area may choose to continue to receive credit toward tenure and seniority rights in their previous tenure area while devoting a substantial portion of their time to teaching computer science courses, or they may choose to change their tenure area to receive credit and accrue seniority rights in the special subject tenure area of computer science.

For educators assigned/appointed on or after September 1, 2023, who are devoting a substantial portion (40% or more) of their time teaching computer science, probationary appointments and appointments in tenure will be made in accordance with normal tenure rules. Specifically, these teachers must be appointed tenure in the special subject tenure area: computer science.

## ATTACHMENT A

### REGULATIONS AMENDMENT TO THE RULES OF THE BOARD OF REGENTS AND THE REGULATIONS OF THE COMMISSIONER OF EDUCATION

Pursuant to Education Law sections 101, 207, 210, 215, 305, 3001, 3004 and 3009.

1. Subdivision (d) of section 30-1.2 of the Rules of the Board of Regents shall be amended as follows:

(d) The provisions of this Subpart shall apply to a professional educator employed by a school district or board of cooperative educational services to devote a substantial portion of his or her time to the provision of instruction in computer science, on or after August 1, 1975, as follows:

(1) A professional educator employed by a school district or board of cooperative educational services on September 1, 2023, who was previously appointed by the board to tenure or a probationary period in a tenure area identified in this Subpart shall either:

(i) continue to receive credit toward tenure and/or accrue tenure and seniority rights in his or her previous tenure area from the initial date of his or her assignment and continue to receive tenure and/or seniority rights in his or her previous tenure area while assigned to devote a substantial portion of his or her time to the provision of instruction in computer science: or

(ii) if the professional educator provides knowing consent to the school district or board of cooperative educational services to change his or her tenure area pursuant to section 30-1.9 of this Subpart by September 1, 2023, he or she may receive credit toward tenure and/or accrue tenure and seniority rights in the special subject 8 tenure area of computer science, established in section 30-1.8 of this Subpart, from the date of his or her initial assignment to a position where he or she devoted a substantial portion of his or her time to the provision of instruction in computer science and he or she shall continue to receive tenure and seniority rights in that tenure area while assigned to a position where he or she devotes a substantial portion of his or her time to the provision of computer science instruction appropriate for such tenure area.

(2) Any school district or board of cooperative educational services that appoints or assigns a professional educator on or after September 1, 2023, to devote a substantial portion of his or her time to the provision of computer science instruction shall make probationary appointments and appointments on tenure in accordance with section 30-1.8(e) of this Subpart.

(3) Any board of cooperative educational services that appoints a professional educator on or after September 1, 2023 to devote a substantial portion of his or her time to computer science instruction as a result of a board of cooperative educational services taking over a program formerly operated by a school district or a county vocational education and extension board pursuant to section 3014-a of the Education Law, shall credit the professional educator with tenure and seniority rights in the special subject tenure area for computer science instruction established in section 30-1.8(e) of this Subpart from the initial date of his or her assignment to the performance of computer science instruction in the school district or county vocational education and extension board and shall continue to credit the professional educator with tenure and/or seniority rights in such tenure area

while he or she is assigned to 9 devote a substantial portion of his or her time to the performance of computer science instruction in such tenure area at the board of cooperative educational services.

(4) Any board of education that appoints a professional educator on or after September 1, 2023 to devote a substantial portion of his or her time to computer science instruction as a result of a school district taking over a program formerly operated by a board of cooperative educational services pursuant to section 3014-b of the Education Law, where the professional educator is serving in a computer science instruction tenure area pursuant to section 30-1.9(b) of this Subpart, shall credit the professional educator with tenure and seniority rights in a tenure area for which he or she holds the proper certification as described in section 30-1.9(b) of this Subpart, from the initial date of his or her assignment to the performance of computer science instruction in the board of cooperative educational services and shall continue to credit such professional educator with tenure and/or seniority rights in such tenure area while he or she is assigned to devote a substantial portion of his or her time to the performance of computer science instruction provided that he or she holds the proper certification for such tenure area.

**Statement of continued eligibility for teachers of computer science.**

Section 80-3.14 of the Regulations of the Commissioner of Education shall be amended as follows:

(a) Upon application, any person holding a valid certificate in the classroom teaching service and employed within the **seven** years immediately preceding September 1, 2024 as a teacher of computer science courses in a New York State public school or board of cooperative educational services or any other school where teacher certification is required, may be issued a statement of continued eligibility so that such person may continue to teach computer science courses in the employing school district, school or board of cooperative educational services. The statement of continued eligibility shall be valid for 10 years from the date the statement of continued eligibility is issued, and the candidate shall not be required to hold a computer science certificate as prescribed in section 80-3.2 of this Subpart, provided such person holds a permanent or professional certificate in another certification area in the classroom teaching service.

(b) A statement of continued eligibility shall only be valid for service in the school district, board of cooperative educational services, or other school that employed such individual when the statement of continued eligibility was issued.

(c) Applications for the statement of continued eligibility must be filed with the department on or before September 1, 2024.