



**TO:** The Honorable Members of the Board of Regents

**FROM:** William P. Murphy *William P. Murphy*

**SUBJECT:** Proposed Amendment of Sections 52.21 and 80-3.7 of the Regulations of the Commissioner of Education Relating to the Content Core Requirement in Registered Teacher Preparation Programs and the Individual Evaluation Pathway to Certification for Candidates Who Are Seeking an Additional Science Certificate

**DATE:** June 2, 2022

**AUTHORIZATION(S):** *Don McGreevey* *Belmont*

**SUMMARY**

**Issue for Decision (Consent)**

Should the Board of Regents adopt the proposed amendment of sections 52.21 and 80-3.7 of the Regulations of the Commissioner of Education relating to the content core requirement in registered teacher preparation programs and the individual evaluation pathway to certification for candidates who are seeking an additional science certificate?

**Reason(s) for Consideration**

Review of policy.

**Proposed Handling**

The proposed amendment is submitted to the Full Board for adoption as a permanent rule at its June 2022 meeting. A copy of the proposed amendment is included (Attachment A).

**Procedural History**

The proposed amendment was presented to the Higher Education Committee for discussion at its February 2022 meeting. A Notice of Proposed Rule Making was published in the State Register on March 2, 2022, for a 60-day public comment period. Following publication in the State Register, the Department received 15 comments on

the proposed amendment. An Assessment of Public Comment is included (Attachment B). A Notice of Adoption will be published in the State Register on June 29, 2022. No changes to the proposed amendment are recommended at this time. Supporting materials are available upon request from the Secretary to the Board of Regents.

### **Background Information**

The Department collects data on statewide teacher shortage areas and reports the shortage areas annually to the U.S. Department of Education. One of the persistent statewide shortage areas is the sciences, which include biology, chemistry, earth science, and physics. School districts have acknowledged problems locating science teachers on a local level, particularly in smaller school districts, that are able to teach multiple science disciplines

Most registered teacher preparation programs require candidates to complete coursework in a content core, which is a major or its equivalent of at least 30 semester hours in the subject area(s) of the certificate sought consistent with the current requirements of 8 NYCRR 52.21. For example, candidates who are simultaneously preparing for two or more classroom teaching certificates need to complete the content core requirement in each of the subject area(s) of the certificates sought, requiring as much as 60 semester hours of content. This is expensive and requires a significant commitment of additional time.

To address the shortage of science teachers, the Department is proposing to revise the content core requirement in registered teacher preparation programs such that programs would require candidates who hold a classroom teaching certificate in a science certificate title, or are simultaneously preparing for two or more classroom teaching certificates in different science certificate titles, to complete 18 semester hours for the content core in the subject area(s) of the additional science certificate(s). By reducing the number of semester hours in the second content core, candidates may be more interested in seeking an additional science certificate in a different discipline and be able to complete the requirements for an additional science certificate during their program.

For similar reasons, the Department proposes to revise the content core requirement for candidates pursuing teacher certification outside of a registered teacher preparation program via the individual evaluation pathway (8 NYCRR 80-3.7). In this pathway, candidates who hold a science certificate and seek an additional science certificate in a different discipline would also only be required to complete 18 semester hours for the content core in the subject area of the additional science certificate.

### **Related Regents Items**

February 2022: [Proposed Amendment of Sections 52.21 and 80-3.7 of the Regulations of the Commissioner of Education Relating to the Content Core Requirement in](#)

[Registered Teacher Preparation Programs and the Individual Evaluation Pathway to Certification for Candidates Who Are Seeking an Additional Science Certificate](https://www.regents.nysed.gov/common/regents/files/222hed1.pdf)  
(<https://www.regents.nysed.gov/common/regents/files/222hed1.pdf>)

**Recommendation**

It is recommended that the Board of Regents take the following action:

VOTED: That sections 52.21 and 80-3.7 of the Regulations of the Commissioner of Education be amended, as submitted, effective June 29, 2022.

**Timetable for Implementation**

If adopted at the June meeting, the proposed amendment will become effective on June 29, 2022.

**Attachment A**

AMENDMENT TO THE REGULATIONS OF THE COMMISSIONER OF EDUCATION

Pursuant to sections 14, 101, 207, 208, 305, 308, 3001, 3004, and 3009 of the Education Law.

1. Subclause (1) of clause (a) of subparagraph (iii) of paragraph (3) of subdivision (b) of section 52.21 of the Regulations of the Commissioner of Education shall be amended to read as follows:

(1) specialist option - a major or the equivalent in English, a language other than English, biology, chemistry, earth science, physics, mathematics, or social studies; provided that the content core in social studies shall include study in economics, government, and at least a total of 21 semester hours of study in the history and geography of the United States and the world. Provided, however, that:

(i) for candidates who hold a classroom teaching certificate in a science certificate title, and are seeking a classroom teaching certificate in a different science certificate title(s), the program shall only require 18 semester hours of study for the content core in the subject area(s) of the additional science certificate title(s); and

(ii) for candidates who are simultaneously preparing for two or more classroom teaching certificates in different science certificate titles, the program shall require a major or the equivalent for the content core in one of the subject areas of the science certificate title and only 18 semester hours of study for the content core in the subject area(s) of the additional science certificate title(s); or

(2) ...

2. Clause (a) of subparagraph (iv) of paragraph (3) of subdivision (b) of section 52.21 of the Regulations of the Commissioner of Education shall be amended to read as follows:

(a) Content core. In addition to meeting the general requirements for the content core prescribed in clause (2)(ii)(a) of this subdivision, the content core shall be a major or its equivalent in one of the liberal arts and sciences that provides a knowledge base for assisting students in grades 7 through 12 in meeting the State learning standards for students, as applicable to one of the following subjects and prescribed in Part 100 of this Title: English, a language other than English, biology, chemistry, earth science, physics, mathematics, or social studies, provided that the content core in social studies shall include study in economics, government, and at least a total of 21 semester hours of study in the history and geography of the United States and the world. Provided, however, that:

(i) for candidates who hold a classroom teaching certificate in a science certificate title, and are seeking a classroom teaching certificate in a different science certificate title(s), the program shall only require 18 semester hours of study for the content core in the subject area(s) of the additional science certificate title(s); and

(ii) for candidates who are simultaneously preparing for two or more classroom teaching certificates in different science certificate titles, the program shall require a major or the equivalent for the content core in one of the subject areas of the science certificate title and only 18 semester hours of study for the content core in the subject area(s) of the additional science certificate title(s).

3. Subparagraph (iii) of paragraph (2) of subdivision (a) of section 80-3.7 of the Regulations of the Commissioner of Education shall be amended to read as follows:

(iii) Content core. The candidate shall complete 30 semester hours of coursework in the subject area of the certificate title, which may include no more than six of the 30 semester hours in a cognate, meaning a related field as determined by the department; provided, however, that a candidate seeking an initial certificate in computer science shall only be required to complete 12 semester hours of coursework in the subject area of the certificate title; provided further, however, that a candidate who holds a classroom teaching certificate in a science certificate title and is seeking a certificate in a different science certificate title(s), shall only be required to complete 18 semester hours of coursework in the subject area(s) of the additional science certificate title(s).

ASSESSMENT OF PUBLIC COMMENT

Since publication of the Notice of Proposed Rule Making in the State Register on March 2, 2022, the State Education Department (Department) received the following comment on the proposed amendment:

1. COMMENT: Fourteen commenters support the proposed regulatory amendment. The comments, which can be grouped into the following categories, are summarized below:

- **Science Teacher Shortage.** Commenters state that:
  - School districts struggle to find qualified teachers with the necessary certificates, especially at the middle school level.
  - The proposed reduction in requirements for a second science certificate will broaden the candidate pool.
  - Changing the content requirements will not lower the standards of education in New York State; it will open up the field to qualified candidates who can benefit our students, which is critical in light of the national teacher shortage.
  - The COVID-19 pandemic and Next Generation Science Standards have both contributed to an unfortunate reticence among teacher candidates to obtain science certification in New York State. Removing an unnecessary hurdle such as a heavy load for potential science teachers warrants serious consideration.

- A retired superintendent spoke to concerns regarding the hiring and scheduling of science teachers; there is a shortage of science teachers, and teachers who hold at least two science certificates are extremely hard to find.
- As a hiring manager who benefited from the previous policy of 18 credits for additional science certification and struggles to find dually certified professionals, they predicted that this policy change will be of great benefit in getting properly certified teachers in classrooms.
- An educator spoke to the extreme difficulties districts have in all aspects relating to curriculum, staffing, scheduling, etc. in the science department due to the “siloes” system of content area certificates. This educator also observes that several hard-working and over-qualified colleagues were unable to teach additional subjects due to the arduous, additional 30-credit requirement. They indicated that this proposal represents an important step that will relieve some of the worsening teacher shortage without meaningfully sacrificing the rigorous standards for achieving certification.
- **Staffing Flexibility:** Commenters state that:
  - We need teachers who are versatile in their scheduled course placements, as this would allow greater ability to meet the scheduling needs for classes.
  - Many smaller school districts do not have enough sections to support one full-time physics or chemistry teacher; teachers with multiple certifications are essential, but it is nearly impossible to achieve without a second

degree. Other secondary teaching certificates allow teachers to teach all grades from 7-12, but science teachers would need four certificates to fill these same vacancies.

- A science leader who is charged with hiring teachers for their district indicated that they must make a concerted effort to hire teachers with at least two certificates in order to have flexibility in scheduling and never run into a situation of having to let a teacher go because they are not certified to teach the available courses.
- **Content Knowledge.** Commenters state that:
  - The additional 12 credits, beyond the proposed 18 credits, do not improve the quality of science teachers or their ability to learn what is necessary but have merely hamstrung districts looking for science teachers.
  - Having an additional certificate boosts science teachers' skills and content knowledge.
  - Many programs of study and research have overlapping areas of content and put an individual in a position to competently understand the content in several areas of science without necessarily majoring in each subject. An individual with a strong science background is in a position to self-study and demonstrate their understanding in ways other than majoring in a subject area.
  - The way in which the amendment is constructed does not force a lack of preparation for science teaching but instead encourages a greater focus on the necessities of preparation for the classroom.

- Eighteen credits will give teachers the foundation in a new area of certification to begin teaching a broader range of topics, while experience and professional development throughout their career will allow them to continue to grow and hone their skills. The reduced number of required credits will encourage teachers to expand their fields of study as they will see additional areas of certification as attainable. This, in turn, will produce educators with more balanced and well-rounded backgrounds who are better suited to implement the New York State Science Learning Standards.
- An instructional coach found that the principal issue facing most content specialists such as science teachers is not their grasp of content that is reflected by 30 credits of advanced-level science course work, but pedagogical understanding that reflects the innovations of Learning Science.
- **High Cost and Number of Credits.** Commenters state that:
  - The current regulations cost too much time and money, leaving many teachers graduating with a single certificate.
  - The burden of additional credits beyond 18 is costly and nearly impossible to achieve.
  - One teacher described her personal experience, expressing dismay that there are many teachers with a strong science background who could enjoy similar successes, but are unable to do so because of the large number of credits required for a second certification. They were fortunate

to have obtained science certificates in areas of strength that were not their undergraduate major.

- **Equity.** A commenter stated that some schools are suffering with the ability to offer coursework to their students due to a lack of certified teachers, and this situation is causing an equity issue between student experiences. A small adjustment to the credit hours needed to obtain a second science certificate is a small price to pay for all students being able to access a quality education across the state.
- **Additional Comments.** A commenter mentioned the proposed amendment to a room of science leaders, and there was a very positive response.

DEPARTMENT RESPONSE: The Department appreciates the supportive comments. Since the comments are supportive of the proposed rule, no changes are necessary.

2. COMMENT: A commenter who is a former earth science and physics teacher believes that earth science teachers should be required to meet a few competency requirements, similar to social studies teachers since content preparation has been shown to be one of the most highly correlated variables in teacher success and student performance. From the commenter's perspective, teaching earth science requires preparation in four relatively unique fields: geology, meteorology, oceanography, and astronomy. The commenter states that their bachelor's and master's degrees in geology and work experience did not prepare them to teach meteorology or astronomy. The commenter thinks teachers should be required to have coursework in at least geology

and meteorology and suggests that three of the four fields are covered in the proposed 18 credits for an additional science certificate in earth science.

The commenter highlights the General Science extension that requires 18 credits in two sciences different from the subject area of the base science certificate, which increases the likelihood that a teacher would have preparation in biology and all the physical sciences. Additionally, the commenter indicates that this is useful knowledge for middle school teachers teaching courses for non-high school credit, and earth science is a course for high school credit, suggesting even more so that similar logic should be applied.

DEPARTMENT RESPONSE: The comment is outside the scope of the proposed rule; therefore no changes are necessary.

3. COMMENT: A commenter requested that the science teacher certification requirements remain unchanged.

DEPARTMENT RESPONSE: The commenter does not provide a rationale as to why they find the proposed rule unsatisfactory. The vast majority of public comments identify several benefits of reducing the number of semester hours for the content core requirement for an additional science certificate, including addressing the science teacher shortage. Therefore, no changes to the proposed rule are necessary.