



TO: P-12 Education Committee

FROM: Jhone M. Ebert 

SUBJECT: Unit of Study Requirements for Career and Technical Education in Grades 7 and 8

DATE: August 31, 2017

AUTHORIZATION(S):  

SUMMARY

Issue for Decision

Should the Board of Regents amend §100.4(c)(1) of the Commissioner's regulations regarding the distribution of the unit of study requirements in grades 7 and 8 in Career and Technical Education (CTE), to allow for greater flexibility in meeting those requirements across various CTE disciplines?

Reason(s) for Consideration

Implementation of Policy.

Proposed Handling

The proposed rule is being presented to the P-12 Education Committee at the September 2017 Regents meeting for adoption as permanent rule. A copy of the proposed amendment is included as Attachment B.

Procedural History

A Notice of Proposed Rule Making was published in the State Register on May 24, 2017. Subsequently, a Notice of Emergency Adoption was published in the State Register on July 16, 2017. An Assessment of Public Comment is included as Attachment C. Supporting materials are available upon request from the Secretary to the Board of Regents.

Background Information

With respect to units of study for grades 7 and 8, current regulations require that all students complete the following by the end of grade 8:

- 2 units English Language Arts
 - 2 units Mathematics
 - 2 units Social Studies
 - 2 units Science
- CTE
- 1 unit Technology Education – May begin as early as grade 5, provided that in public schools, it must be taught by a certified Technology Education teacher
 - $\frac{3}{4}$ units Home and Careers Skills Course (Family and Consumer Sciences) – May begin as early as grade 5, provided that in public schools, it must be taught by a certified FACS teacher
 - $\frac{1}{2}$ unit Visual Arts
 - $\frac{1}{2}$ unit Music
 - $\frac{1}{2}$ unit Health – May begin as early as grade 6, provided that in public schools, it must be taught by a certified health education teacher.
 - 1 unit Languages other than English – May begin in any grade prior to grade 8, provided that in public schools, it must be taught by a teacher certified in that area
 - Physical Education – Minimum of 3 periods per week during one semester of each school year and two periods during the other semester (or a comparable time each semester)
 - Library and Information Skills – The equivalent of 1 period per week in grades 7 and 8

Current Middle Level (Grades 5-8) CTE Requirements

Current regulations provide for the first formal introduction in CTE in two specific disciplines: Family and Consumer Sciences (FACS) and Technology Education. As noted above, both FACS and Technology Education instruction may begin as early as grade 5, provided that in public schools these subjects must be taught by teachers certified in those subjects. Students experience a total of 70 weeks or 1.75 units of study in grades 5-8 taught by certified teachers in FACS and Technology Education. These courses address not only CTE content, but also instruction in the intermediate CDOS standards providing the foundation students need to make informed selections of graduation pathways (including the CTE, STEM, or CDOS pathways) available to them when they enter high school.

Challenges

Districts face a number of challenges with the existing requirements:

- 1) There is shortage of certified teachers in the areas of FACS and Technology Education to fill the need across the state.
- 2) Middle level student experiences in CTE are limited to FACS and Technology Education which represent only 2 of 6 CTE content areas and may not directly address other relevant CTE content areas in business, health sciences, agriculture, or trade and technical education.
- 3) Opportunities to create sequential programs that align to high school pathways and course offerings are limited to only 2 of 6 areas in CTE.

Proposed Changes

The Department is proposing added flexibility to allow the CTE requirement at the middle level (grades 5-8) to be met in new and innovative ways in order to address the challenges above. The Department is proposing to:

- 1) provide students with a broad-based introduction to Career and Technical Education through the lens of the 6 CTE content areas;
- 2) allow districts to meet the unit of study requirement utilizing any of the 6 CTE content areas as a vehicle; and,
- 3) provide guidance to districts on how to utilize available certified teachers and resources to repurpose the CTE experience at the middle level to better prepare students for available pathways in CTE, STEM, and CDOS at the high school level.

Benefits

- Currently CTE certification allows assignments in K-12 or 7-12. Opening the middle level requirement to all six CTE disciplines would expand the pool of teachers eligible for recruitment into open positions. Teachers certified in trade and technical subjects, business, agriculture or health sciences would become viable candidates for middle level positions.
- Districts will be better positioned to design meaningful articulated programs in any CTE discipline creating a link between middle and high school programs.

Options

Opening the door to various CTE disciplines would allow districts that are struggling to meet the current middle level CTE requirement, to create a new approach to CTE. Districts that have effective FACS and Technology Education programs could continue to meet the unit of study requirement in the traditional manner. Districts that wish to explore new ways to deliver this instruction can do so by creating articulated programs that better align to available CTE, STEM or CDOS pathways at the high school level.

Programs could be created to address the intermediate standards and, when available, could also provide accelerated instruction in CTE for students in grade 8 so such students could earn credit toward a pathway in CTE, STEM, or CDOS before entering high school. Attachment A illustrates some examples of the various ways districts could meet the intermediate requirements in CTE under the proposed flexibility. Should the Regents adopt the proposed regulatory amendment, districts that have vacancies in teaching positions in FACS and/or Technology Education may begin to use this flexibility during the 2017-18 school year. All other districts must use this option beginning in the 2018-19 school year.

Current Initiative

Work is underway, led by members of the FACS, Business and Technology Education professional associations and supported by NYSED and the CTE Technical Assistance Center, to plan to enhance the existing 1 ¾ unit of middle level FACS and Technical Education by creating a foundational course called “Introduction to CTE.” Should the Regents adopt the proposed regulatory amendment, this work will serve as a model for the other CTE disciplines. Introduction to CTE would:

- bridge middle level CTE to high school CTE; and
- expose students to all CTE content areas; and
- follow a module format allowing for flexibility in delivery; and
- foster acceleration into graduation pathways (CTE, STEM, CDOS) that capitalize on students’ interest.

Draft theme and content modules developed by the FACS Association are serving as models for further development by the Business, Technology, Agriculture, Health Sciences, and Trade and Technical education communities.

Related Regents Items

<http://www.regents.nysed.gov/common/regents/files/517p12a3.pdf>

Recommendation

Staff recommends that the Regents take the following action:

VOTED: That section 100.4(c) of the Regulations of the Commissioner of Education be amended, as submitted, effective September 27, 2017.

Timetable for Implementation

If adopted at the September Regents meeting, the proposed amendment will become effective as a permanent rule on September 27, 2017.

Sample Middle Level CTE Delivery Models

	Current Delivery Model	Sample Middle-level CTE only	Sample Middle-level CTE and Foundational High School CTE	Sample Middle-level CTE and Focused High School CTE
CTE Program	1 unit of Technology Education ¾ unit Home and Career Skills (FACS)	1 ¾ unit CTE Theme Modules supported by CTE Content Modules	1 ¼ unit CTE Theme Modules supported by CTE Content Modules and ½ unit Careers and Financial Management	¾ unit CTE Theme Modules supported by CTE Content Modules and 1 unit high school CTE
Teacher	Technology Education Family and Consumer Sciences	Any certified CTE teacher depending on content modules chosen	Any certified CTE teacher depending on content modules chosen	Any certified CTE teacher depending on content chosen
Student Outcomes	Student has fulfilled Intermediate unit of study requirements	Student has demonstrated attainment of intermediate standards Student is prepared for high school CTE coursework which may begin in grade 9 Student has an employability profile	Student has demonstrated attainment of intermediate standards prior to grade 8 Student is prepared for high school CTE coursework which begins in grade 8 Student has an employability profile	Student has demonstrated attainment of intermediate standards prior to grade 8 Student is prepared for focused, content-rich, high school CTE which begins in grade 8 Student has an employability profile
Connections to High School Graduation Pathways	Student has not earned high school credit Student has been introduced to career clusters and pathways.	Student has not earned high school credit Student has begun an employability profile which is required in the CTE and CDOS graduation pathways	Student has earned ½ unit high school credit in a course required for all CTE approved programs Student has begun an employability profile which is required in the CTE and CDOS graduation pathways	Student has earned 1 unit high school credit for a course which has an associated high school program Student has begun an employability profile which is required in the CTE and CDOS graduation pathways

Attachment B

AMENDMENT OF THE REGULATIONS OF THE COMMISSIONER OF EDUCATION

Pursuant to Education Law sections 101, 207, 208, 209, 305, 308, 309 and 3204

Paragraph (1) of subdivision (c) of section 100.4 of the Regulations of the Commissioner of Education is amended, effective September 27, 2017, as follows:

(c) Units of study in grades 7 and 8.

(1) Except as otherwise provided herein, all students shall be provided instruction designed to enable them to achieve, by the end of grade 8, State intermediate learning standards through:

(i) English language arts, two units of study;

(ii) social studies, two units of study;

(iii) science, two units of study;

(iv) mathematics, two units of study;

(v) technology education, one unit of study, provided that for the 2018-2019 school year and thereafter, this unit of study requirement shall be replaced by that described in subparagraph (xiii) of this subdivision;

(vi) home and career skills, three quarters of a unit of study, provided that for the 2018-2019 school year and thereafter, this unit of study requirement shall be replaced by that described in subparagraph (xiii) of this subdivision;

(vii) physical education, as required by section 135.4(c)(2)(ii) of this Title;

(viii) health education, one half unit of study, as required by section 135.3(c) of this Title;

(ix) the arts, including one half unit of study in the visual arts, and one half unit of study in music;

(x) library and information skills, the equivalent of one period per week in grades 7 and 8;

(xi) languages other than English pursuant to section 100.2 (d) of this Part; [and]

(xii) career development and occupational studies[.]; and

(xiii) for students in schools that have vacancies in teacher positions for the courses described in subparagraphs (v) and (vi) of this subdivision during the 2017-2018 school year, and for all students in the 2018-2019 school year and thereafter, career and technical education (i.e., technology education, family and consumer sciences, trade and technical subjects, business, agriculture, and/or health sciences), for a total of one and three fourths units of study.

(2) The requirements for technology education, home and career skills, career and technical education and library and information skills may be met by the integration of the State learning standards of such subjects into other courses in accordance with the following criteria:

(i) In public schools, the unit of study requirements specified in subparagraphs (1)(v), (vi), [and/or] (xii) and (xiii) of this subdivision are met.

(ii) In public schools, the subjects of technology education, [and] home and career skills, and any other career and technical education shall be taught by persons certified to teach those subjects.

(iii) In public schools, library and information skills shall be taught by library media specialists and classroom teachers to ensure coordination and integration of library instruction with classroom instruction.

(iv) In nonpublic schools, the unit of study requirements specified in subparagraphs (1)(v), (vi), [and/or] (xii) and (xiii) of this subdivision may be met, or their equivalents may be met, by the incorporation of the State learning standards of such subjects into the syllabi for other courses and/or by appropriate results on examinations which demonstrate student mastery of the learning standards of such subjects. The chief administrative officer of a nonpublic school shall document the manner in which such nonpublic school has implemented the provisions of this subparagraph. Such documentation shall be in writing and available for review upon request by the commissioner.

(3) The unit of study requirement for technology education, [and/or] home and career skills, and any other career and technical education included in paragraph (1) of this subdivision may be initiated in grade 5, provided that in public schools such subjects shall be taught by teachers appropriately certified in [those areas] career and technical education.

8 NYCRR §100.4(c)(1)

ASSESSMENT OF PUBLIC COMMENT

Since publication of a Notice of Proposed Rule Making in the State Register on May 24, 2017, the State Education Department received the following comments:

1. COMMENT:

Several commenters expressed support for the amendment which will allow the 1.75 unit of Career and Technical Education (CTE) to include all six areas of CTE and thereby make CTE opportunities more available to all students. Commenters highlighted the literacy skills, critical thinking skills, science, math, and other subject areas which are incorporated into existing family and consumer sciences (FACS) curriculum. CTE courses are the vehicle that will drive our students into those industries that most need skilled workers. Middle school students need access to our coursework as a stepping stone into high school and post-secondary programs.

DEPARTMENT RESPONSE:

No response necessary as the comment is supportive.

2. COMMENT:

Commenters support the amendments and believe that “Introduction to CTE” will provide all middle-level students with a high-quality Introduction to CTE experience that will springboard them into the CTE, CDOS, and STEM pathways in the high school. Specifically, middle level “Introduction to CTE” will: bridge middle level CTE to high school CTE; expose all students to all CTE content areas, and highlight the sixteen career clusters through the Common Career Technical Core standards; foster acceleration into

graduation pathways in CTE, CDOS, and STEM; be a model for high quality middle level CTE. The majority of classroom strategies are hands-on, problem/project-based learning in these areas. The learning experiences expose students to the 16 career cluster and the 6 CTE content areas to prepare students for their futures, regardless of the pathway they choose.

DEPARTMENT RESPONSE

No response necessary as the comment is supportive.

3. COMMENT:

Commenter, New York Association of Agricultural Educators is the professional organization representing more than 100 agricultural educators in New York State. Our members teach students in grades 7-12 about agriculture, food, and natural resources equipping them with a wide variety of skills including science, mathematics, communications, leadership, management, and technology. In our integrated programs, students explore the food, agricultural, natural resource, technical and science-based work environments. Of the outcomes in our programs the most important is that students explore careers and develop pathways in these areas.

Middle school CTE is an important starting point for the development of pathways for secondary education. CTE is more suited to empower students with the skills necessary to make appropriate choices regarding high school programs and coursework within career pathways.

The agricultural education program incorporates work experience, leadership development, and rigorous classroom instruction. Our teachers work closely with

business and industry, thus this three-component model gives students the skills and experience to explore career paths and gain the skills necessary to become college and career ready.

NYAAE fully supports the Regents decision to amend the regulation by opening it up to the six career and technical content areas (Agricultural; Business & Marketing; Family & Consumer Sciences; Health Occupations; Technology; and Trade, Technical & Industrial education). This flexibility will empower school districts to determine the best combination of CTE disciplines that meets their needs based on the availability of resources and priorities. In addition we join NYSACTE in recommending that an additional $\frac{1}{4}$ unit be added to the existing $1\frac{3}{4}$ Career and Technical Education mandate. These additional contact hours will ensure that our middle school students will enter high school with a broader and deeper understand of the career and technical education.

DEPARTMENT RESPONSE:

No response necessary as the comment is supportive.

4. COMMENT:

Commenter, a recent graduate and new CTE teacher, supports the amendments which will allow the $1\frac{3}{4}$ credit of CTE to be expanded to include all 6 branches of CTE. I plan to teach my future middle school students many topics that include: Nutrition & Wellness, Culinary, Sustainability, Career Development, Personal Environment Management and Community Connections. Along with focusing on 21st Century Process skills, I plan to incorporate service learning projects as well. As an educator, I want my students to be able to receive a quality education that will lead to career readiness. I

believe this initiative will support not only teachers, but the many students who deserve CTE curriculum to be a part of their school experience.

DEPARTMENT RESPONSE

No response necessary as the comment is supportive.

5. COMMENT:

Commenters expressed concern about the amendments. Specifically that the combined 1 $\frac{3}{4}$ credit of CTE would eliminate technology education. Commenters expressed that existing technology education and engineering classes empower students to problem solve world issues, and allow them to experience the roles of engineers and innovators. Technology education and engineering classes offer students opportunities to become collaborators and thinkers in real world applications. Our students are leaving our classes with knowledge of materials processing by being exposed to machines such as scroll saws, wood lathes, band saws, hand drills. They're learning about robotics and computer programming, and alternative sources of energy. Our students are learning engineering and design and creating structures that can withstand the forces of an earthquake. In science they are learning about Newton's laws of motion and in technology they can see it happen when they launch rockets. If ever there were a course to complement all other courses it is technology education and engineering.

DEPARTMENT RESPONSE:

The scope of the revised regulation does not prohibit districts from meeting the 1.75 units of CTE required instruction with instruction in Technology Education and does not eliminate Technology Education from the middle level program. Rather, schools with

existing high quality Technology Education programs are now able to grow and enhance those programs under the revised regulation and could in fact offer more instruction in this area if desired. Therefore, no revisions to the proposed regulation are necessary.

6. COMMENT:

Commenter, New York State Association for Career and Technical Education (NYSACTE) supports this change to be inclusive of all CTE areas but has a few concerns. Commenter expressed concern that districts may choose to offer just one of the CTE content areas. While we believe this is not the intent of the change; is there a mechanism to assure that districts, and middle school administrators, understand this change is an effort to allow middle school students a broader exposure to skills and careers? How do we insure that with this new regulation that districts are in compliance?

We believe middle school CTE is an important starting point for pathways education and enables students to make appropriate choices regarding future coursework. However, we believe that in order to accomplish the goal of exposing students to more CTE options the requirement should be increased another $\frac{1}{4}$ unit, for a total of 2 CTE units.

DEPARTMENT RESPONSE:

The scope of the proposed regulation does not increase the units of instruction required for Career and Technical Education. Districts that are able to increase this time may do so, however, the Department is cognizant that in some districts across the state an increase in the requirement would strain existing schedules and resources. Therefore, no revisions to the proposed regulation are necessary.

7. COMMENT:

The proposed amendment is ill-conceived. It would substitute a mish-mosh of programs with no clear conceptual thread for a program that has evolved over 30 years into a strong research-based discipline with a focus on overarching and transferable ideas: Design, systems thinking, modeling, and human values (in contexts that are authentic to learners and important to economic prosperity). There is an enormous body of research and scholarship in the US and globally in support of consistent academic work to maintain contemporary disciplinary currency. The amendment would do away with 30 years of progress with one swipe of the pen.

DEPARTMENT RESPONSE:

The scope of the regulatory amendment does not require that districts eliminate any existing programs. All existing programs that meet the former regulatory requirements will continue to meet the new revised requirement. Therefore, no revisions to the proposed regulation are necessary.