

Career and Technical Education (CTE) Credit Equivalency

Content	Academic Standards	Credits	Credit Equivalency	Teacher Licensure
Science	<ul style="list-style-type: none"> Nature of Science and Engineering Earth and Space Science Physical Science Life Science Chemistry or Physics 	3 Credits	<p>A CTE course may not fulfill the biology requirement (Minn. Stat. § 120B.024, subd. 2, b).</p> <p>A CTE course may fulfill the chemistry or physics credit and the elective science credit (Minn. Stat. § 120B.024, subd. 2, b).</p>	Teachers must have a Tier 3 or 4 license in the subject they teach and have passed the relevant science MTLE licensure test (Minn R. 3505.1150, subp. 2). Agriculture teachers do not have to take the MTLE (Minn. Stat. § 120B.024, subd. 2, d).
Math	<ul style="list-style-type: none"> Number and Operation Algebra Geometry and Measurement Data Analysis and Probability 	3 Credits	<p>A CTE course may fulfill a mathematics credit (Minn. Stat. § 120B.024, subd. 2, c) for Algebra 2 or its equivalent</p> <p>Note: Algebra 1 is not a high school course for graduation.</p>	Teachers must have a Tier 3 or 4 CTE license in the subject they teach and have passed the relevant math MTLE licensure test (Minn R. 3505.1150, subp. 2).
Arts	<p>One of the arts areas (dance, music, media arts, theater, or visual arts)</p> <ul style="list-style-type: none"> Artistic Foundations Create or Make Perform or Present Respond or Critique 	1 Credit	A CTE course may fulfill an art credit (Minn. Stat. § 120B.024, subd. 2, c).	<p>Teachers must have a Tier 3 or 4 CTE license in the subject they teach and have passed the relevant art MTLE test (Minn R. 3505.1150, subp. 2).</p> <p>Note: for media arts courses, districts are encouraged to use the visual arts MTLE.</p>
Social Studies	<ul style="list-style-type: none"> U.S. History Geography Government and Citizenship World History Economics 	3.5 Credits	An agriculture or business CTE course may fulfill the one-half economics credit in social studies (Minn. Stat. § 120B.024, subd. 2, a).	Teachers must have a Tier 3 or 4 CTE license in the subject they teach; there is not a requirement for teachers to have passed the social studies MTLE licensure test (Minn R. 3505.1150, subp. 2).
Language Arts	High school students must satisfy all English and Language Arts standards	4 Credits		No CTE courses currently fulfill a language arts requirement.
Health	High school students must receive instruction in health education at least once	Local control	There is not language in statute for a state-level credit, but standards must be delivered as one of the elective credits.	No CTE courses currently fulfill a health requirement.

Table 1: Use of Career and Technical Education (CTE) to meet Minnesota Graduation Requirements

Relationships among Standards, Credit, and Licensure

Academic standards, course credit, additional legislative requirements, and licensure are separate but related issues:

1. **Standards:** Districts determine the course options or pathways through which students can complete the required standards. Students may complete state standards in one subject area (e.g., science standards) through coursework in another subject area (e.g., CTE courses).
2. **Credit:** Districts determine the type and amount of credit awarded to students for the courses they satisfactorily complete. Districts are responsible for ensuring that the credit awarded (e.g., mathematics credit or CTE credit) matches the content taught in the course. Credit means “the determination by the local school district that a student has successfully completed an academic year of study or mastered the applicable subject matter” ([Minn. Stat. § 20B.018](#)).
3. **Licensure:** CTE teachers must hold an appropriate and valid license for the subject matter they teach and not be operating on a Tier 1 or Tier 2 license or an Out-of-Field Permission (formerly a waiver or variance).

School districts must consider the following statutes and rules when determining how their students will meet state graduation requirements:

1. All students must satisfactorily complete all required state standards ([Minn. Stat. § 120B.02](#)).
2. All students must earn (a) **4 language arts** credits, (b) **3 science** credits, (c) **3 mathematics** credits, (d) **3.5 social studies** credits, and (e) **1 arts** credit:
 - a. Four credits of language arts sufficient to satisfy all of the academic standards in English language arts;
 - b. Three credits of mathematics, including an Algebra 2 credit or its equivalent, sufficient to satisfy all of the academic standards in mathematics; an Algebra 1 credit by the end of 8th grade sufficient to satisfy all of the 8th grade standards in mathematics;
 - c. Three credits of science, including at least one credit of biology, one credit of chemistry or physics, and one elective credit of science. The combination of credits under this clause must be sufficient to satisfy (1) all of the academic standards in either chemistry or physics and (2) all other academic standards in science;
 - d. Three and one-half credits of social studies, encompassing at least United States history, geography, government and citizenship, world history, and economics sufficient to satisfy all of the academic standards in social studies;
 - e. One credit of the arts sufficient to satisfy all of the state or local academic standards in the arts; and
 - f. A minimum of seven elective credits.
3. A Career and Technical Education (CTE) credit may fulfill a credit in mathematics, science (other than biology), economics, or art if:
 - If the district determines that appropriate standards are met with integrity and the CTE teacher has passed the Subject Assessment and Specialty Area MTLE licensure test in the science, mathematics, or arts area in which the credit is given ([Minn R. 3505.1150, subp. 2](#)).
 - An agricultural education teacher is not required to pass the MTLE for science. There is not a requirement for an agricultural education or a business and marketing education teacher to pass the MTLE for social studies.
 - Computer science and Project Lead the Way (PLTW) courses are included in these requirements.

For questions about using a CTE credit to meet a science, mathematics, arts, or economics credit requirement, please contact:

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