

STATE OF OKLAHOMA

2nd Session of the 58th Legislature (2022)

COMMITTEE SUBSTITUTE
FOR

HOUSE BILL NO. 4389

By: Baker

COMMITTEE SUBSTITUTE

An Act relating to school curriculum; amending 70 O.S. 2021, Section 11-103.6, which relates to subject matter standards; including emphasis on certain topics in computer science subject matter standards; modifying computer science college preparatory curriculum requirements; excluding certain courses from eligibility; modifying computer science core curriculum requirements; excluding certain courses from eligibility; amending 70 O.S. 2021, Section 11-103.6m, which relates to computer science programs; listing additional information to be included in certain annual report; providing an effective date; and declaring an emergency.

BE IT ENACTED BY THE PEOPLE OF THE STATE OF OKLAHOMA:

SECTION 1. AMENDATORY 70 O.S. 2021, Section 11-103.6, is amended to read as follows:

Section 11-103.6 A. 1. The State Board of Education shall adopt subject matter standards for instruction of students in the public schools of this state that are necessary to ensure there is attainment of desired levels of competencies in a variety of areas

1 to include language, mathematics, science, social studies and
2 communication.

3 2. School districts shall develop and implement curriculum,
4 courses and instruction in order to ensure that students meet the
5 skills and competencies as set forth in this section and in the
6 subject matter standards adopted by the State Board of Education.

7 3. All students shall gain literacy at the elementary and
8 secondary levels. Students shall develop skills in reading,
9 writing, speaking, computing and critical thinking. For purposes of
10 this section, critical thinking means a manner of analytical
11 thinking which is logical and uses linear factual analysis to reach
12 a conclusion. They also shall learn about cultures and environments
13 - their own and those of others with whom they share the earth.
14 Students, therefore, shall study social studies, literature,
15 languages, the arts, mathematics and science. Such curricula shall
16 provide for the teaching of a hands-on career exploration program in
17 cooperation with technology center schools.

18 4. The subject matter standards shall be designed to teach the
19 competencies for which students shall be tested as provided in
20 Section 1210.508 of this title, and shall be designed to prepare all
21 students for active citizenship, employment and/or successful
22 completion of postsecondary education without the need for remedial
23 coursework at the postsecondary level.

1 5. The subject matter standards shall be designed with rigor as
2 defined in paragraph 3 of subsection G of this section.

3 6. The subject matter standards for English Language Arts shall
4 give Classic Literature and nonfiction literature equal
5 consideration to other literature. In addition, emphasis shall be
6 given to the study of complete works of literature.

7 7. At a minimum, the subject matter standards for mathematics
8 shall require mastery of the standard algorithms in mathematics,
9 which is the most logical, efficient way of solving a problem that
10 consistently works, and for students to attain fluency in Euclidian
11 geometry.

12 8. The subject matter standards for history, social studies and
13 United States Government shall include study of important historical
14 documents, including the United States Constitution, Declaration of
15 Independence, Emancipation Proclamation, Federalist Papers and other
16 documents with significant history and heritage of the United
17 States, and the content of the United States naturalization test,
18 with an emphasis on the specific content of the test and the ideas
19 and concepts it references. Beginning with the 2022-2023 school
20 year, the United States naturalization test shall be administered in
21 accordance with subsection F of this section.

22 9. The subject matter standards for United States Government
23 shall include an emphasis on civics, the structure and relationship
24 between the national, state, county and local governments and

1 simulations of the democratic process. For the purposes of this
2 section, "civics" means the study of the rights and duties of
3 Oklahoma and United States citizens and of how those governments
4 work.

5 10. The subject matter standards for computer science shall
6 include an emphasis on computing systems, networks and the Internet,
7 data and analysis, algorithms and programming, and impacts of
8 computing.

9 B. Subject to the provisions of subsection C of this section,
10 in order to graduate from a public high school accredited by the
11 State Board of Education with a standard diploma, students shall
12 complete the following college preparatory/work ready curriculum
13 units or sets of competencies at the secondary level:

14 1. Four units or sets of competencies of English to include
15 Grammar, Composition, Literature, or any English course approved for
16 college admission requirements;

17 2. Three units or sets of competencies of mathematics, limited
18 to Algebra I, Algebra II, Geometry, Trigonometry, Math Analysis,
19 Calculus, Advanced Placement Statistics, or any mathematics course
20 with content and/or rigor above Algebra I and approved for college
21 admission requirements;

22 3. Three units or sets of competencies of laboratory science
23 approved for college admission requirements, including one unit or
24 set of competencies of life science, meeting the standards for

Biology I; one unit or set of competencies of physical science, meeting the standards for Physical Science, Chemistry or Physics; and one unit or set of competencies from the domains of physical science, life science or earth and space science such that the content and rigor is above Biology I or Physical Science;

4. Three units or sets of competencies of history and citizenship skills, including one unit of American History, one-half unit of Oklahoma History, one-half unit of United States Government and one unit from the subjects of History, Government, Geography, Economics, Civics, or non-Western culture and approved for college admission requirements;

5. Two units or sets of competencies of the same ~~foreign~~ world or non-English language or two units of computer ~~technology~~ science or technology/engineering approved for college admission requirements, whether taught at a high school or a technology center school, ~~including computer programming, hardware, and business computer applications, such as.~~ Beginning with the 2024-2025 school year, word processing, databases, spreadsheets, and graphics, excluding courses shall be excluded in addition to keyboarding or typing courses;

6. One additional unit or set of competencies selected from paragraphs 1 through 5 of this subsection or career and technology education courses, concurrently enrolled courses, Advanced Placement

1 courses or International Baccalaureate courses approved for college
2 admission requirements; and

3 7. One unit or set of competencies of fine arts, such as music,
4 art, or drama, or one unit or set of competencies of speech.

5 C. In lieu of the requirements of subsection B of this section
6 which requires a college preparatory/work ready curriculum, a
7 student may enroll in the core curriculum as provided in subsection
8 D of this section upon written approval of the parent or legal
9 guardian of the student. For students under the age of eighteen
10 (18) school districts shall require a parent or legal guardian of
11 the student to meet with a designee of the school prior to
12 enrollment in the core curriculum. The State Department of
13 Education shall develop and distribute to school districts a form
14 suitable for this purpose, which shall include information on the
15 benefits to students of completing the college preparatory/work
16 ready curriculum as provided for in subsection B of this section.

17 D. For those students subject to the requirements of subsection
18 C of this section, in order to graduate from a public high school
19 accredited by the State Board of Education with a standard diploma,
20 students shall complete the following core curriculum units or sets
21 of competencies at the secondary level:

22 1. Language Arts - Four units or sets of competencies, to
23 consist of one unit or set of competencies of grammar and
24

composition, and three units or sets of competencies which may include, but are not limited to, the following courses:

- a. American Literature,
- b. English Literature,
- c. World Literature,
- d. Advanced English Courses, or
- e. other English courses with content and/or rigor equal to or above grammar and composition;

2. Mathematics - Three units or sets of competencies, to consist of one unit or set of competencies of Algebra I or Algebra I taught in a contextual methodology, and two units or sets of competencies which may include, but are not limited to, the following courses:

- a. Algebra II,
- b. Geometry or Geometry taught in a contextual methodology,
- c. Trigonometry,
- d. Math Analysis or Precalculus,
- e. Calculus,
- f. Statistics and/or Probability,
- g. Computer Science or acceptance and successful completion of one (1) year of a full-time, three-hour career and technology program leading to an industry credential/certificate or college credit. The State

1 Board of Career and Technology Education shall
2 promulgate rules to define the provisions of this act
3 related to the accepted industry-valued credentials
4 which are industry-endorsed or industry-aligned. The
5 list of accepted industry-valued credentials shall be
6 reviewed annually and updated at least every three (3)
7 years by the Board,

- 8 h. (1) contextual mathematics courses which enhance
9 technology preparation, or
10 (2) a science, technology, engineering and math
11 (STEM) block course meeting the requirements for
12 course competencies listed in paragraph 2 of
13 subsection B of this section, whether taught at
14 a:
15 (a) comprehensive high school, or
16 (b) technology center school when taken in the
17 tenth, eleventh or twelfth grade, taught by
18 a certified teacher, and approved by the
19 State Board of Education and the independent
20 district board of education,
21 i. mathematics courses taught at a technology center
22 school by a teacher certified in the secondary subject
23 area when taken in the tenth, eleventh or twelfth
24

grade upon approval of the State Board of Education
and the independent district board of education, or
j. any other mathematics course with content and/or rigor
equal to or above Algebra I;

3. Science - Three units or sets of competencies, to consist of
one unit or set of competencies of Biology I or Biology I taught in
a contextual methodology, and two units or sets of competencies in
the areas of life, physical, or earth science or technology which
may include, but are not limited to, the following courses:

- a. Chemistry I,
- b. Physics,
- c. Biology II,
- d. Chemistry II,
- e. Physical Science,
- f. Earth Science,
- g. Botany,
- h. Zoology,
- i. Physiology,
- j. Astronomy,
- k. Applied Biology/Chemistry,
- l. Applied Physics,
- m. Principles of Technology,
- n. qualified agricultural education courses,

- o. (1) contextual science courses which enhance technology preparation, or
- (2) a science, technology, engineering and math (STEM) block course meeting the requirements for course competencies listed in paragraph 3 of subsection B of this section, whether taught at a:
 - (a) comprehensive high school, or
 - (b) technology center school when taken in the tenth, eleventh or twelfth grade, taught by a certified teacher, and approved by the State Board of Education and the independent district board of education,
- p. science courses taught at a technology center school by a teacher certified in the secondary subject area when taken in the tenth, eleventh or twelfth grade upon approval of the State Board of Education and the independent district board of education, or
- q. other science courses with content and/or rigor equal to or above Biology I;

4. Social Studies - Three units or sets of competencies, to consist of one unit or set of competencies of United States History, one-half to one unit or set of competencies of United States Government, one-half unit or set of competencies of Oklahoma

History, and one-half to one unit or set of competencies which may include, but are not limited to, the following courses:

- a. World History,
- b. Geography,
- c. Economics,
- d. Anthropology, or
- e. other social studies courses with content and/or rigor equal to or above United States History, United States Government, and Oklahoma History;

5. Arts - One unit or set of competencies which may include, but is not limited to, courses in Visual Arts and General Music; and

6. Computer Education or World Language - One unit or set of competencies of computer ~~technology~~ science or technology/engineering, whether taught at a high school or a technology center school, ~~including computer programming, hardware and business computer applications, such as~~ and beginning with the 2024-2025 school year shall exclude word processing, databases, spreadsheets and graphics, excluding courses in addition to keyboarding or typing courses, or one unit or set of competencies of ~~foreign~~ world or non-English language.

E. 1. In addition to the curriculum requirements of either subsection B or D of this section, in order to graduate from a public high school accredited by the State Board of Education students shall complete the requirements for a personal financial

1 literacy passport as set forth in the Passport to Financial Literacy
2 Act and any additional course requirements or recommended elective
3 courses as may be established by the State Board of Education and
4 the district school board. School districts shall strongly
5 encourage students to complete two units or sets of competencies of
6 ~~foreign~~ world languages and two units or sets of competencies of
7 physical and health education.

8 2. No student shall receive credit for high school graduation
9 more than once for completion of the same unit or set of
10 competencies to satisfy the curriculum requirements of this section.

11 3. A school district shall not be required to offer every
12 course listed in subsections B and D of this section, but shall
13 offer sufficient courses to allow a student to meet the graduation
14 requirements during the secondary grade years of the student.

15 F. 1. In addition to the curriculum requirements of either
16 subsection B or D of this section, beginning with ninth graders in
17 the 2021-22 school year, in order to graduate from a public high
18 school accredited by the State Board of Education, students shall
19 pass the United States naturalization test pursuant to the
20 provisions of this subsection.

21 2. School districts shall offer the United States
22 naturalization test to students at least once per school year,
23 beginning as early as eighth grade at the discretion of the school
24 district; provided, any student may retake the exam upon request,

1 and as often as desired, until earning a passing score. For
2 purposes of this subsection, a passing score shall be 60 out of 100
3 questions.

4 3. School districts shall exempt students with disabilities
5 whose individualized education program (IEP), consistent with state
6 law, indicates that the student is to be assessed with alternate
7 achievement standards through the Oklahoma Alternate Assessment
8 Program (OAAP).

9 G. For purposes of this section:

10 1. "Contextual methodology" means academic content and skills
11 taught by utilizing real-world problems and projects in a way that
12 helps students understand the application of that knowledge;

13 2. "Qualified agricultural education courses" means courses
14 that have been determined by the State Board of Education to offer
15 the sets of competencies for one or more science content areas and
16 which correspond to academic science courses. Qualified
17 agricultural education courses shall include, but are not limited
18 to, Horticulture, Plant and Soil Science, Natural Resources and
19 Environmental Science, and Animal Science. The courses shall be
20 taught by teachers certified in agricultural education and comply
21 with all rules of the Oklahoma Department of Career and Technology
22 Education;

23 3. "Rigor" means a level of difficulty that is thorough,
24 exhaustive and accurate and is appropriate for the grade level;

1 4. "Sets of competencies" means instruction in those skills and
2 competencies that are specified in the subject matter standards
3 adopted by the State Board of Education and other skills and
4 competencies adopted by the Board, without regard to specified
5 instructional time; and

6 5. "Unit" means a Carnegie Unit as defined by the North Central
7 Association's Commission on Schools.

8 H. 1. The State Board of Education shall adopt a plan to
9 ensure that rigor is maintained in the content, teaching
10 methodology, level of expectations for student achievement, and
11 application of learning in all the courses taught to meet the
12 graduation requirements as specified in this section.

13 2. The State Board of Education shall allow as much flexibility
14 at the district level as is possible without diminishing the rigor
15 or undermining the intent of providing these courses. To accomplish
16 this purpose, the State Department of Education shall work with
17 school districts in reviewing and approving courses taught by
18 districts that are not specifically listed in subsections B and D of
19 this section. Options may include, but shall not be limited to,
20 courses taken by concurrent enrollment, advanced placement, or
21 correspondence, or courses bearing different titles.

22 3. The State Board of Education shall approve an advanced
23 placement computer science course to meet the requirements of course
24 competencies listed in paragraph 2 of subsection B of this section

1 if the course is taken in a student's senior year and the student is
2 concurrently enrolled in or has successfully completed Algebra II.

3 4. Technology center school districts may offer programs
4 designed in cooperation with institutions of higher education which
5 have an emphasis on a focused field of career study upon approval of
6 the State Board of Education and the independent district board of
7 education. Students in the tenth grade may be allowed to attend
8 these programs for up to one-half (1/2) of a school day and credit
9 for the units or sets of competencies required in paragraphs 2, 3
10 and 6 of subsection B or D of this section shall be given if the
11 courses are taught by a teacher certified in the secondary subject
12 area; provided, credit for units or sets of competencies pursuant to
13 subsection B of this section shall be approved for college admission
14 requirements.

15 5. If a student enrolls in a concurrent course, the school
16 district shall not be responsible for any costs incurred for that
17 course, unless the school district does not offer enough course
18 selection during the student's secondary grade years to allow the
19 student to receive the courses needed to meet the graduation
20 requirements of this section. If the school district does not offer
21 the necessary course selection during the student's secondary grade
22 years, it shall be responsible for the cost of resident tuition at
23 an institution in The Oklahoma State System of Higher Education,
24

1 fees, and books for the concurrent enrollment course, and providing
2 for transportation to and from the institution to the school site.

3 It is the intent of the Legislature that for students enrolled
4 in a concurrent enrollment course which is paid for by the school
5 district pursuant to this paragraph, the institution charge only the
6 supplementary and special service fees that are directly related to
7 the concurrent enrollment course and enrollment procedures for that
8 student. It is further the intent of the Legislature that fees for
9 student activities and student service facilities, including the
10 student health care and cultural and recreational service fees, not
11 be charged to such students.

12 6. Credit for the units or sets of competencies required in
13 subsection B or D of this section shall be given when such units or
14 sets of competencies are taken prior to ninth grade if the teachers
15 are certified or authorized to teach the subjects for high school
16 credit and the required rigor is maintained.

17 7. The three units or sets of competencies in mathematics
18 required in subsection B or D of this section shall be completed in
19 the ninth through twelfth grades. If a student completes any
20 required courses or sets of competencies in mathematics prior to
21 ninth grade, the student may take any other mathematics courses or
22 sets of competencies to fulfill the requirement to complete three
23 units or sets of competencies in grades nine through twelve after
24

1 the student has satisfied the requirements of subsection B or D of
2 this section.

3 8. All units or sets of competencies required for graduation
4 may be taken in any sequence recommended by the school district.

5 I. As a condition of receiving accreditation from the State
6 Board of Education, all students in grades nine through twelve shall
7 enroll in a minimum of six periods, or the equivalent in block
8 scheduling or other scheduling structure that allows for instruction
9 in sets of competencies, of rigorous academic and/or rigorous
10 vocational courses each day, which may include arts, vocal and
11 instrumental music, speech classes, and physical education classes.

12 J. 1. Academic and vocational-technical courses designed to
13 offer sets of competencies integrated or embedded within the courses
14 that provide for the teaching and learning of the appropriate skills
15 and knowledge in the subject matter standards, as adopted by the
16 State Board of Education, may, upon approval of the Board, in
17 consultation with the Oklahoma Department of Career and Technology
18 Education if the courses are offered at a technology center school
19 district, be counted for academic credit and toward meeting the
20 graduation requirements of this section.

21 2. Internet-based courses offered by a technology center school
22 that are taught by a certified teacher and provide for the teaching
23 and learning of the appropriate skills and knowledge in the subject
24 matter standards may, upon approval of the State Board of Education

1 and the independent district board of education, be counted for
2 academic credit and toward meeting the graduation requirements of
3 this section.

4 3. Internet-based courses or vocational-technical courses
5 utilizing integrated or embedded skills for which no subject matter
6 standards have been adopted by the State Board of Education may be
7 approved by the Board, in consultation with the Oklahoma Department
8 of Career and Technology Education if the courses are offered at a
9 technology center school district, if such courses incorporate
10 standards of nationally recognized professional organizations and
11 are taught by certified teachers.

12 4. Courses offered by a supplemental education organization
13 that is accredited by a national accrediting body and that are
14 taught by a certified teacher and provide for the teaching and
15 learning of the appropriate skills and knowledge in the subject
16 matter standards may, upon approval of the State Board of Education
17 and the school district board of education, be counted for academic
18 credit and toward meeting the graduation requirements of this
19 section.

20 K. The State Board of Education shall provide an option for
21 high school graduation based upon attainment of the desired levels
22 of competencies as required in tests pursuant to the provisions of
23 Section 1210.508 of this title. Such option shall be in lieu of the
24 amount of course credits earned.

1 L. The State Board of Education shall prescribe, adopt and
2 approve a promotion system based on the attainment by students of
3 specified levels of competencies in each area of the core
4 curriculum.

5 M. Children who have individualized education programs pursuant
6 to the Individuals with Disabilities Education Act (IDEA), and who
7 satisfy the graduation requirements through the individualized
8 education program for that student shall be awarded a standard
9 diploma.

10 N. Students who enter the ninth grade in or prior to the 2007-
11 08 school year who are enrolled in an alternative education program
12 and meet the requirements of their plans leading to high school
13 graduation developed pursuant to Section 1210.568 of this title
14 shall be awarded a standard diploma.

15 O. Any student who completes the curriculum requirements of the
16 International Baccalaureate Diploma Program shall be awarded a
17 standard diploma.

18 P. Any student who successfully completes an advanced
19 mathematics or science course offered pursuant to Section 1210.404
20 of this title shall be granted academic credit toward meeting the
21 graduation requirements pursuant to paragraph 2 or 3, as
22 appropriate, of subsection B or D of this section.

23 Q. For purposes of this section, the courses approved for
24 college admission requirements shall be courses which are approved

1 by the Oklahoma State Regents for Higher Education for admission to
2 an institution within The Oklahoma State System of Higher Education.

3 R. Students who have been denied a standard diploma by the
4 school district in which the student is or was enrolled for failing
5 to meet the requirements of this section may re-enroll in the school
6 district that denied the student a standard diploma following the
7 denial of a standard diploma. The student shall be provided
8 remediation or intervention and the opportunity to complete the
9 curriculum units or sets of competencies required by this section to
10 obtain a standard diploma. Students who re-enroll in the school
11 district to meet the graduation requirements of this section shall
12 be exempt from the hourly instructional requirements of Section 1-
13 111 of this title and the six-period enrollment requirements of this
14 section.

15 S. The State Department of Education shall collect and report
16 data by school site and district on the number of students who
17 enroll in the core curriculum as provided in subsection D of this
18 section.

19 SECTION 2. AMENDATORY 70 O.S. 2021, Section 11-103.6m,
20 is amended to read as follows:

21 Section 11-103.6m A. The State Department of Education shall
22 develop by December 31, 2019, a rubric for computer science programs
23 in elementary, middle and high schools to serve as a guide to
24 schools for implementing quality computer science programs.

1 B. The rubric shall include but not be limited to the following
2 recommendations:

3 1. No less than one computer science course taught by a teacher
4 with a computer science certification at each school site, which may
5 include core content courses where computer science concepts are
6 integrated; and

7 2. Allowing all students to have access to career exploration
8 activities that address how computer science skills are utilized.

9 C. 1. Beginning in the 2024-2025 school year, all public high
10 schools and public charter high schools in this state shall offer a
11 minimum of one computer science course to students.

12 2. Beginning in the 2024-2025 school year, all public middle
13 and elementary schools and public charter middle and elementary
14 schools in this state shall offer instruction aligned to the
15 Oklahoma Academic Standards for Computer Science. Instruction may
16 be offered through stand-alone computer science courses or through
17 integration in other courses.

18 D. Each course or offering required by subsection C of this
19 section shall:

20 1. Be aligned to the Oklahoma Academic Standards for Computer
21 Science and current research-based instructional practices;

22 2. Be of high quality, as defined by the State Board of
23 Education; and
24

1 3. Be offered in an in-person setting or as a virtual or
2 distance course option only when a traditional classroom setting is
3 not feasible.

4 E. By June 30, 2025, and by June 30 each year thereafter, the
5 State Department of Education shall publish on its website a report
6 regarding computer science courses or content offered at each school
7 and district during the previous school year. The report shall
8 include ~~the~~, at a minimum:

9 1. The names and course codes of computer science courses
10 offered in each school including a course description, to the extent
11 such information is available;

12 2. The course delivery mode, such as in-person school, career
13 and technology education, virtual school, and other variations or
14 combinations;

15 3. Educator qualifications including, but not limited to, area
16 of certification, micro-credential, endorsement, highest academic
17 degree, and National Board certification; and

18 4. Aggregate data on the following:

19 a. the number and percentage of students who enrolled in
20 each computer science course, disaggregated by
21 demographics including, but not limited to, special
22 education status, English language learner status,
23 eligibility for free and reduced-price meals, race,
24 and ethnicity, and

b. the number of computer science instructors at each
school and demographic information, as available.

SECTION 3. This act shall become effective July 1, 2022.

SECTION 4. It being immediately necessary for the preservation
of the public peace, health or safety, an emergency is hereby
declared to exist, by reason whereof this act shall take effect and
be in full force from and after its passage and approval.

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