CSAI Report

High School Graduation Requirements in a Time of College and Career Readiness

September 2016

The work reported herein was supported by grant number #S283B050022A between the U.S. Department of Education and WestEd with a subcontract to the National Center for Research on Evaluation, Standards, and Student Testing (CRESST). The findings and opinions expressed in this publication are those of the authors and do not necessarily reflect the positions or poli-cies of CRESST, WestEd, or the U.S. Department of Education.

WestEd is a nonpartisan, nonprofit research, development, and service agency that works with education and other communities throughout the United States and abroad to promote excellence, achieve equity, and improve learning for children, youth, and adults. WestEd has more than a dozen offices nationwide, from Massachusetts, Vermont and Georgia, to Illinois, Arizona and California, with headquarters in San Francisco. For more information about WestEd, visit WestEd.org; call 415.565.3000 or, toll-free, (877) 4-WestEd; or write: WestEd / 730 Harrison Street / San Francisco, CA 94107-1242.

High School Graduation Requirements in a Time of College and Career Readiness

Ensuring that students graduate high school prepared for college and careers has become a national priority in the last decade. To support this goal, states[1] have adopted rigorous college and career readiness (CCR) standards in English language arts (ELA) and mathematics. Additionally, states have begun to require students to pass assessments, in addition to specific coursework, in order to earn a high school diploma. In the current CCR-focused policy environment, states have moved toward implementing high expectations for all students.

While there is a shift to increasing rigor in standards—expectations of what students should know and be able to do by the time they graduate from high school—increasing high school graduation rates has also become a national priority. According to recent data from the U.S. Department of Education, high school graduation rates have reached historic highs, with more than 82 percent of students from the class of 2014 graduating from high school (ED Data Express, n.d.). This may be due, in part, to states having removed assessment requirements. Five states (Alaska, Arizona, California, Georgia, and South Carolina) have eliminated their high school exit exams and retroactively issued high school diplomas to students who met all graduation requirements but did not pass the high school exit examination or assessment (Gewertz, 2016). Additionally, although Texas still has an assessment requirement in place, the state passed Senate Bill 149, which allows students in the graduating classes of 2014–15, 2015–16, and 2016–17 to receive high school diplomas even if they did not pass all of the four required assessments (Gewertz, 2016).

This report aims to explore the definition(s) of CCR across states and the efforts that states are currently engaging in to ensure that students graduate from high school ready for college and careers.

[1] For the purposes of this report, the term "states" refers to the 50 U.S. states, the District of Columbia, and eight U.S. territories (American Samoa, Commonwealth of the Northern Mariana Islands, Federated States of Micronesia, Guam, Puerto Rico, Republic of the Marshall Islands, Republic of Palau, and U.S. Virgin Islands).

Background

What does it mean to be college and career ready according to the literature? What does the literature say about students' preparation for college and careers?

According to Conley (2011), college and career ready students have the "content knowledge, strategies, skills, and techniques necessary to be successful in a postsecondary setting" without remediation or in a high-quality certificate program that enables them to enter a career with potential advancement (p. 5). Conley (2011) defines "success" as the completion of entry-level college courses or certificate classes at a level of understanding and proficiency that enables students to move on to the next course or level. As shown in Figure 1, he describes four keys to readiness: cognitive strategies, content knowledge, learning skills and techniques, and transition knowledge and skills.

Figure 1. Keys to College and Career Readiness

- Cognitive strategies: "problem formulation, research, interpretation, communication, and precision and accuracy."
- Content knowledge: "key terms and terminology, factual information, linking ideas, and organizing concepts."
- Learning skills and techniques: "time management, study skills, goal setting, self-awareness, persistence, collaborative learning, student ownership of learning, technological proficiency, and retention of factual information."
- Transition knowledge and skills: "postsecondary program selection, admissions requirements, financial aid, career pathways, postsecondary culture, role and identity issues, and agency."

(Conley, 2011, p. 9)

Conley (2013) argues that "not every student needs exactly the same knowledge and skills to be college and career ready" (p. 5). However, students must possess a basic foundation upon which they can build their knowledge and skills in postsecondary opportunities. Such a foundation can be built through the coursework in which students are engaged.

According to Achieve (2015a, 2015b), students need to complete at least three years of mathematics (up to content found in Algebra 2 or an integrated third year of mathematics) and four years of rigorous, grade-level ELA in order to be prepared for postsecondary opportunities. Achieve (2015b) acknowledges that readiness for college and careers depends on

more than mastery of ELA and mathematics content and skills, but describes these two subject areas as a foundation for the study of other content areas and "contextualized learning" (p. 13).

The Education Trust (2016) defines a college ready curriculum as requiring four years of English; three years each of mathematics, science, and social studies; and two years of a foreign language. It also defines a career ready course of study as including at least three years of study that will prepare students to enroll in postsecondary study in a career field. The Education Trust recently published a study focused on transcript data from the federal High School Longitudinal Study of 2009, tracking 23,000 students from grade 9 through graduation in 2013 and beyond. Researchers looked at the courses that students completed and the grades earned in each course. They found that only 31 percent of students completed a college ready curriculum; 13 percent completed a career ready course of study; and 8 percent completed a college and career ready course of study. These results suggest that high schools are focusing on the accrual of credits, thus treating high school graduation as an end goal, instead of preparing students for postsecondary endeavors. The study concludes that "instead of being prepared for college and career, many of our students turn out to have been prepared for neither" (Education Trust, 2016, p. 1).

A student survey administered by YouthTruth to 165,000 high school students nationwide, from the 2010–11 school year through the 2014–15 school year, found that there is a gap between students' aspirations and their preparation for college and careers. While 87 percent of students reported that they wanted to attend college, less than half (45 percent) of students felt positively about their college and career readiness. About 60 percent of students agreed that their school helped them develop the skills and knowledge needed for college-level courses. Less than half of students agreed that their school helped them figure out which careers match their abilities or interests (46 percent) and that their school helped them understand the steps that they needed to take in order to obtain the career that they want (49 percent) (YouthTruth, 2016). This research suggests a gap between students' postsecondary plans and the academic support and planning that they receive.

Between October 2014 and May 2015, Achieve administered surveys to college instructors (n = 767), employers (n = 407), and recent high school graduates (n = 1,347) about the preparedness of high school graduates for college and careers. An overwhelming majority of college instructors (78 percent) reported that public high schools are not adequately preparing graduates to meet the expectations facing them in college classes, while only 14 percent agreed that schools are adequately preparing students for college. Instructors reported that the main reasons that incoming students struggle are inadequate preparation/skills and lack of motivation or persistence. Specifically, 34 percent of instructors at two-year colleges and 43 percent of instructors at four-year colleges reported that students are not equipped with the skills to take on college coursework. Additionally, 42 percent of instructors at two-year colleges and 39 percent of

instructors at four-year colleges expressed that students struggle with college coursework because they are not motivated or persistent. Similarly, 62 percent of employers reported that public schools are not adequately preparing students to meet the expectations of the workplace (Achieve, 2015c). These findings further emphasize inadequacies in the postsecondary preparation that students are receiving in school.

In the Achieve (2015c) survey, almost half (47 percent) of recent high school graduates reported that their high school education did not fully prepare them for college. Only one quarter (26 percent) of the graduates described their high school experience as one that had high academic expectations and significantly challenged them, while 20 percent reported low expectations and 54 percent reported moderate expectations. Most (87 percent) reported that they would have worked harder if expectations had been higher. More than half (56 percent) said that communication early in high school about courses needed for college and/or careers would have had a great impact in better preparing them for postsecondary opportunities. Sixty-three percent reported that real-world learning opportunities would have had a great deal of impact in preparing them for life after graduation.

These findings from the literature suggest that students are not prepared for postsecondary education and training because they have not obtained the skills and knowledge that are necessary for success in postsecondary settings. Although large-scale efforts have been made to encourage students' college and career readiness, research has identified gaps in these efforts. A closer look at the ways in which states and their schools are preparing students to be college and career ready, and how effective these efforts might be, is needed.

To further understand how states are attempting to support students' postsecondary readiness, the Center on Standards and Assessment Implementation (CSAI) recently conducted a review of the efforts that states are engaging in, at the state level, to prepare students for college and careers. The following sections focus on states' adoption of CCR definitions and standards, in addition to the coursework and assessments that students are required to complete in each state in order to graduate from high school.

State Initiatives to Prepare Students for College and Careers

Adoption of CCR Definitions

As shown in Table 1, many states have adopted CCR definitions. Thirty-seven states have adopted a definition of college and career readiness; three states (Nevada, Texas, and Virginia) have adopted a college readiness definition, and one state (Nebraska) has adopted a career readiness definition. (Although Nebraska's definition only cites career readiness, it applies to college as well. Nebraska considers students to be career ready when they graduate from high school prepared to enter the workforce or college.) Please see Table A in the Appendix for each of these states' adopted college and/or career readiness definitions.

Table 1. States' Adoption of CCR Definitions (*n* = 41)

Adopted	State
College and career readiness definition (*n* = 37)	Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, District of Columbia, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New Mexico, New York, Ohio, Oklahoma, Oregon, South Carolina, South Dakota, Tennessee, Utah, Vermont, Washington, West Virginia, Wisconsin
College readiness definition (*n* = 3)	Nevada, Texas, Virginia
Career readiness definition (*n* = 1)	Nebraska

Common among the states that have adopted a CCR definition is the belief that to be college and career ready, students must possess the knowledge and skills to enroll in and succeed in entry-level, credit-bearing postsecondary courses without remediation and/or in a job training program or the workforce. Definitions in five states (Alabama, Arizona, Missouri, New Jersey, and New Mexico) include specific language about attaining knowledge and skills in English and mathematics in order to be ready for college and careers. Similarly, for the three states that have adopted a college readiness definition, being college ready means graduating from high school with the ability and knowledge to succeed in credit-bearing, entry-level postsecondary courses without remediation.

Adoption of CCR Standards

States have adopted CCR standards in ELA and mathematics — either the Common Core State Standards (CCSS) or state-developed CCR standards. Beginning in 2010, 50 states have adopted the CCSS. Minnesota adopted the CCSS only in ELA. Since then, six states (Arkansas, Florida, Indiana, Missouri, Oklahoma, and South Carolina) have abandoned the CCSS, in part or full, to adopt and implement their own CCR standards. Notwithstanding these changes, it is clear that, overall, states are embracing the adoption and implementation of CCR standards. See Table 2 for more information about the adoption of CCR standards in each state.

Table 2. States' Adoption of CCR Standards[2]

State	CCSS	State Standards	Standards Adoption Notes
Alabama	×		Adopted CCSS in 2010.
Alaska		×	Adopted state CCR standards in 2012.
American Samoa	×		Adopted CCSS in 2012.
Arizona	×		Adopted CCSS in 2010.
Arkansas	×	×	Adopted CCSS in 2010; replaced CCSS in mathematics with revised mathematics standards in 2016.
California	×		Adopted CCSS in 2010.
Colorado	×		Adopted CCSS in 2010.
Commonwealth of the Northern Mariana Islands	×		Adopted CCSS in 2011.
Connecticut	×		Adopted CCSS in 2010.
Delaware	×		Adopted CCSS in 2010.
District of Columbia	×		Adopted CCSS in 2010.
Federated States of Micronesia		×	Adopted state standards in 2008 (unclear whether standards are CCR).
Florida		×	Adopted CCSS in 2010, but replaced CCSS with new state CCR standards in 2014.
Georgia	×		Adopted CCSS in 2010.
Guam	×		Adopted CCSS in 2012.
Hawaii	×		Adopted CCSS in 2010.
Idaho	×		Adopted CCSS in 2011.
Illinois	×		Adopted CCSS in 2010.
Indiana		×	Adopted CCSS in 2010, but replaced CCSS with new state CCR standards in 2014.
Iowa	×		Adopted CCSS in 2010.
Kansas	×		Adopted CCSS in 2010.
Kentucky	×		Adopted CCSS in 2010.
Louisiana	×		Adopted CCSS in 2010.
Maine	×		Adopted CCSS in 2011.
Maryland	×		Adopted CCSS in 2010.

[2] Information about standards for the Republic of the Marshall Islands and the Republic of Palau was unavailable at this writing. Thus, they are not included in Table 2.

State	CCSS	State Standards	Standards Adoption Notes
Massachusetts	×		Adopted CCSS in 2010.
Michigan	×		Adopted CCSS in 2010.
Minnesota	×	×	Adopted state CCR mathematics standards in 2007 and CCSS in ELA in 2010.
Mississippi	×		Adopted CCSS in 2010.
Missouri		×	Adopted CCSS in 2010; however, required by HB 1490 to replace CCSS with new standards, which will go into effect in 2016–17.
Montana	×		Adopted CCSS in 2011.
Nebraska		×	Adopted state CCR standards in 2014.
Nevada	×		Adopted CCSS in 2010.
New Hampshire	×		Adopted CCSS in 2010.
New Jersey	×		Adopted CCSS in 2010.
New Mexico	×		Adopted CCSS in 2010.
New York	×		Adopted CCSS in 2010.
North Carolina	×		Adopted CCSS in 2010.
North Dakota	×		Adopted CCSS in 2011.
Ohio	×		Adopted CCSS in 2010.
Oklahoma		×	Adopted CCSS in 2010, but replaced CCSS with new state CCR standards in 2016.
Oregon	×		Adopted CCSS in 2010.
Pennsylvania	×		Adopted CCSS in 2010.
Puerto Rico		×	Adopted state CCR standards in 2007.
Rhode Island	×		Adopted CCSS in 2010.
South Carolina		×	Adopted CCSS in 2010, but replaced CCSS with new state CCR standards in 2015.
South Dakota	×		Adopted CCSS in 2010.
Tennessee	×		Adopted CCSS in 2010.
Texas		×	Adopted and incorporated state CCR standards into the Texas Essential Knowledge and Skills (TEKS) in 2008.
Utah	×		Adopted CCSS in 2010.
U.S. Virgin Islands	×		Adopted CCSS in 2010.
Vermont	×		Adopted CCSS in 2010.
Virginia		×	Adopted state CCR standards in mathematics in 2009 and ELA in 2010.
Washington	×		Adopted CCSS in 2011.
West Virginia	×		Adopted CCSS in 2010.
Wisconsin	×		Adopted CCSS in 2010.
Wyoming	×		Adopted CCSS in 2012.

High School Graduation Requirements

In the current policy context, in which CCR is a main focus, it is important to examine the coursework requirements that states have set for students to complete in order to graduate. CSAI conducted a review of the coursework and assessments that states require students to complete and pass, respectively, in order to receive a high school diploma. The review also focuses on high school diploma options available in each state.

States' high school graduation coursework requirements are summarized in Table B in the Appendix. In Table B, coursework requirements are presented in the form of numbers of units, credits, or years. Although they differ in name, "units," "credits," and "years" are the same unit of measurement; in the majority of the states, students earn one credit or unit for a yearlong course.[3] This report uses these terms interchangeably when discussing course requirements.

DIPLOMA OPTIONS

Overall, 50 states prescribe a set of coursework requirements to which districts can include additional requirements that students have to fulfill in order to graduate.[4] An overwhelming majority of states (*n* = 44) offer only one diploma option. Of these states, four states—North Carolina, Ohio, Oklahoma, and Wyoming—provide multiple pathways that students can pursue toward the single diploma. These pathways allow students to enroll in courses that are geared toward their interests and their future goals or aspirations. See Table 3 for more information on these pathways.

[3] In Idaho, one credit is equivalent to one semester/trimester of coursework. In Indiana, one credit is equivalent to one semester of work. In Nebraska, five credits are equivalent to one semester of work. CSAI converted these states' requirements to "years" in order to categorize these states' requirements as CCR or non-CCR in the following Course of Study section. See Table B in the Appendix for state-specific details.

[4] Information for six states (American Samoa, Commonwealth of the Northern Mariana Islands, Federated States of Micronesia, Guam, Puerto Rico, and Republic of the Marshall Islands) was not available at this writing; therefore, these states are not included in the diploma option counts. Colorado, Pennsylvania, and Vermont are also not included in the diploma option counts because they do not have a set of graduation requirements at the state level; local school boards develop and implement their own graduation requirements. Colorado's only statewide requirement for high school graduation is the satisfactory completion of a civics/government course that includes information on both the U.S. and Colorado. Pennsylvania requires that students complete a culminating project in which they apply, analyze, synthesize, evaluate, and communicate information.

Table 3. States with Multiple Pathways to One Diploma (*n* = 4)

State	Pathways to Diploma
North Carolina	Two pathways that lead to one diploma: • Future-Ready Core • Future-Ready Occupational
Ohio	Four pathways, including three honors pathways, that lead to one diploma: • State minimum • Academic Pathway • Career-Technical Pathway • International Baccalaureate Pathway
Oklahoma	Two pathways that lead to one diploma: • College Preparatory/Work Ready Curriculum • Core Curriculum (for students opting out of the College Preparatory/Work Ready Curriculum)
Wyoming	Three pathways, each one leading to qualification for a scholarship: • Honor or performance scholarship • Opportunity scholarship • Provisional opportunity scholarship.

Of the 50 states that have coursework requirements in place at the state level, only six (Indiana, Louisiana, Mississippi, New York, Texas, and Virginia) offer multiple diploma options (see Table 4).

Table 4. States with Multiple Diploma Options (*n* = 6)

State	Multiple Diploma Options
Indiana	• General diploma • Core 40 • Core 40 with Academic Honors • Core 40 with Technical Honors
Louisiana	• College-and-career diploma: two pathways—LA Core and Basic Core • Career diploma
Mississippi	• Traditional pathway • Career pathway • District option • Mississippi Early Exit Exam option
New York	• Local diploma • Regents diploma • Regents with Honors • Regents with advanced designations
Texas	• Foundation High School Program (default) • Minimum High School Program* • Recommended High School Program* • Distinguished Achievement Program* *These three pathways are only available for students who entered high school before 2014–15.
Virginia	• Standard Diploma • Advanced Studies Diploma

The offering of multiple pathways and diplomas provides students with options in their course of study; students can choose to pursue a course of study of their choice, depending on their interests and/or postsecondary plans and aspirations. In states that offer only one diploma option, there is still some form of choice for districts and students. That is, these one-diploma states set minimum requirements, at the state level, in terms of what students should complete, and provide districts with the flexibility to include additional requirements. In addition, many states require that students complete a certain number of elective credits, but do not specify what the electives entail; this allows districts to use their discretion to define the specific coursework that students need to complete to earn those elective credits.

COURSE OF STUDY

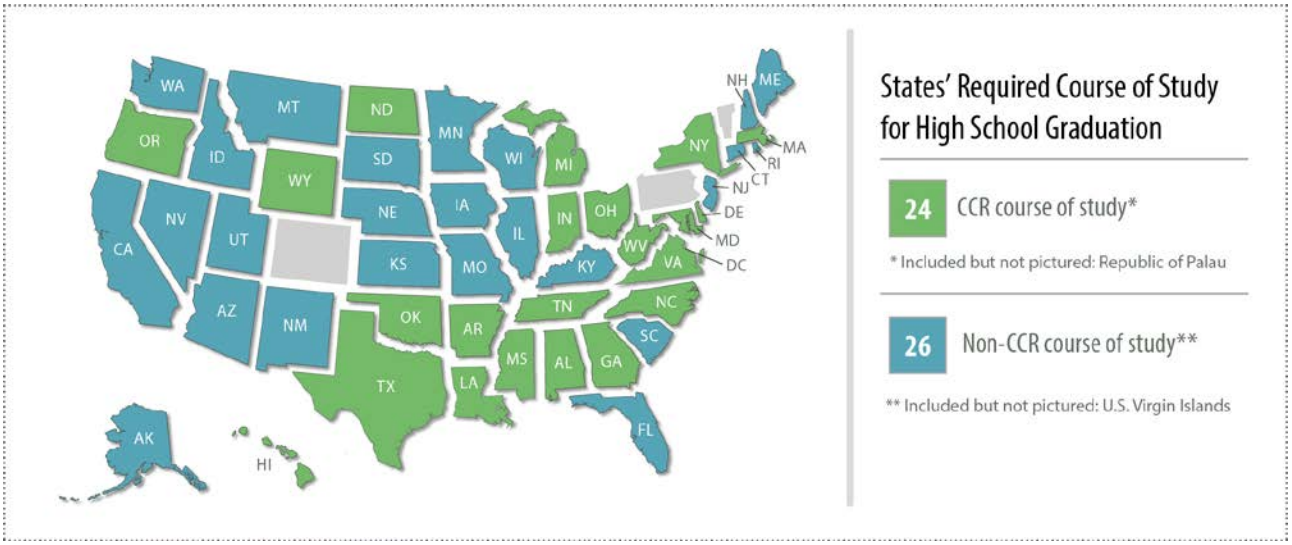
States' high school graduation coursework requirements include the study of ELA, mathematics, science, social studies, physical/health education, and electives/others. ELA includes the study of grade-level English. Mathematics comprises Algebra 1 and 2, geometry, and other higher-level mathematics courses, including, but not limited to, trigonometry, pre-calculus, calculus, and statistics. Science includes the study of life sciences and physical sciences (e.g., biology, chemistry, and physics). Social studies includes the study of U.S. history, world history, geography, economics, government/civics, and personal finance. Electives/others include, but are not limited to, fine, performing, and practical arts; career focus or career and technical education (CTE); foreign languages; and technology or computer science. See Table B in the Appendix for details on specific state requirements. In addition to reviewing states' coursework requirements, CSAI looked at college admission requirements in ten states to help determine what a CCR course of study includes. The review of college admission requriements shows that the selected states require two years of foreign language for admission. See Table C in the Appendix for details.

In reviewing states' coursework requirements, CSAI grouped states into two categories: CCR and non-CCR. CSAI defines a CCR course of study as consisting of:

- Four years of ELA,
- Three years of mathematics,
- Three years of science,
- Three years of social studies, and
- Two years of a single foreign language and/or career and technical education (CTE).

CSAI found that 24 states require or offer a CCR course of study, and 26 states require or offer a non-CCR course of study, for high school graduation.[5] See Figure 2.

Figure 2. States' Required Course of Study for High School Graduation[6]



Of the states whose high school graduation coursework requirements are not CCR, fourteen states (Arizona, Florida, Iowa, Kansas, Kentucky, Minnesota, Missouri, New Jersey, New Mexico, Rhode Island, South Carolina, South Dakota, Utah, and Wisconsin) require four years of English and at least three years each of mathematics, science, and social studies, but do not meet the two-year foreign language and/or CTE requirement. Specifically, these states do not prescribe a particular number of units for foreign language or CTE. For example, in Kentucky, students are required to complete four units of ELA; three units each of mathematics, science, and social studies; and seven units of academic and career interest standards-based learning experiences. While the requirements for the core content areas are specifically laid out, there is flexibility in how students can complete the academic and career learning experiences. Because it is unclear whether students are required to and will actually complete two years of a foreign language or CTE course, Kentucky is considered to be offering or requiring a non-CCR course of study.

[5] For the purposes of this report, states that offer multiple pathways or diplomas are identified as CCR if they offer one CCR course of study among the pathways or diplomas.

[6] Because information for American Samoa, Commonwealth of the Northern Mariana Islands, Federated States of Micronesia, Guam, Puerto Rico, and Republic of the Marshall Islands (n = 6) was not available at this writing, these states are not included in Figure 2. Colorado, Pennsylvania, and Vermont are also not included because they do not have a set of graduation requirements at the state level.

Five states (Alaska, Connecticut, Maine, New Mexico, and Washington) whose required course of study is currently considered non-CCR will implement changes to their coursework requirements in the relatively near future. With these changes, the courses of study in Connecticut and Washington will become CCR. Table 5 describes these future changes.

Table 5. Future Changes to Coursework Requirements (*n* = 5)

State	Changes to Coursework	CCR Course of Study?
Alaska	Students who graduate on or after July 1, 2017, will be required to complete an additional unit of mathematics. Coursework requirements will include: • 4 units of ELA, • 3 units of mathematics, • 2 units of science, • 3 units of social studies, • 1 unit of physical/health education, and • 9 units of locally determined electives.	No
Connecticut	For the class of 2020 and beyond, students will be required to complete five additional credits (total of 25). Students will complete an additional unit of science. Electives/other units, which currently include 1 credit of arts or vocational education and 5 undefined units, will be refined/specified. Coursework requirements will include: • 4 units of ELA, • 4 units of mathematics, • 3 units of science, • 3 units of social studies, • 1.5 units of physical/health education, • 2 units of a foreign language, • 1 unit in a humanities elective, • 1 unit in a science, technology, engineering, and mathematics elective, • 2 units in career and life skills electives (e.g., CTE, English as a second language, community service, personal finance, public speaking, nutrition and physical activity), and • 1 unit for a senior demonstration project or equivalent.	Yes
Maine	Beginning January 1, 2017, a diploma must be based on student demonstration of proficiency in meeting state standards in all content areas. Students must be allowed to show proficiency using multiple types of evidence, including, but not limited to, teacher-designed or student-designed assessments, portfolios, performance, exhibitions, projects, and community service. Note that there are no changes to the actual required coursework.	No

State	Changes to Coursework	CCR Course of Study?
New Mexico	For the class of 2017 and beyond, an additional full unit or half unit of physical/health education is required. Coursework requirements will include: • 4 units of ELA, • 4 units of mathematics, • 3 units of science, • 3.5 units of social studies, • 1.5 or 2 units of physical/health education, • 1 unit of career cluster, workplace readiness, or foreign language, and • 7.5 units of electives.	No
Washington	For the class of 2019 and beyond, an additional unit of science and two units of a foreign language or Personalized Pathway will be required. Coursework requirements will include: • 4 units of ELA, • 3 units of mathematics, • 3 units of science, • 3 units of social studies, • 2 units of physical/health education, • 1 unit of CTE, • 2 units of arts, • 2 units of foreign language or Personalized Pathway, and • 4 units of electives.	Yes

ASSESSMENTS

In the last year, a number of states have eliminated their requirements for high school exit or graduation examinations and retroactively issued diplomas to students who had completed all other graduation requirements but had not passed the required examinations. On the other hand, some states have begun to require an assessment as a condition for high school graduation.

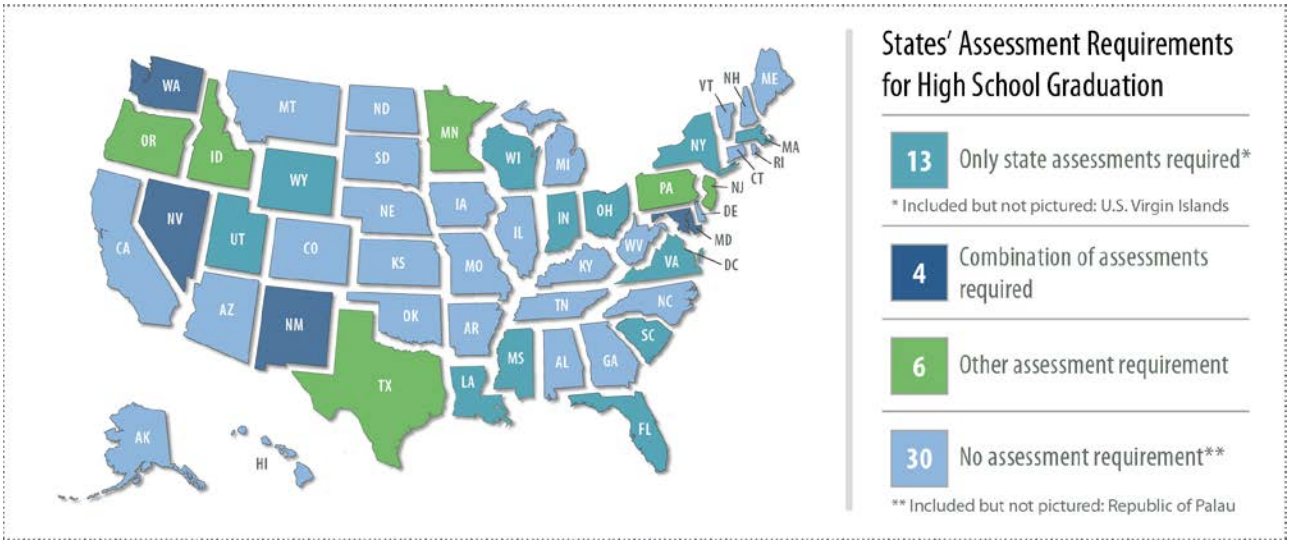
As of September 2016, 30 states do not require students to take and/or pass an assessment in order to graduate from high school, and 23 states have some assessment requirement in place.[7]

[7] Assessment information was not available for the following six states: American Samoa, Commonwealth of the Northern Mariana Islands, Federated States of Micronesia, Guam, Puerto Rico, and the Republic of the Marshall Islands. In Alaska, students have been required to take a CCR assessment (e.g., SAT, ACT, or WorkKeys) in grade 11, per House Bill 278, Alaska's Education Opportunity Act, which was signed into law and went into effect on July 1, 2014, until June 30, 2016. As of September 2016, students no longer have to take a CCR test; therefore, Alaska is included in the *n* count of states with no assessment requirement.

Of the 23 states with an assessment requirement:

- Thirteen states mandate that students take and earn a passing score, or achieve proficiency, on state assessments;
- Four states require students to use a combination of state and other assessments to meet graduation eligibility; and
- Six states provide students with several options for fulfilling this assessment requirement.

Figure 3. States' Assessment Requirements for High School Graduation



In the 13 states that require students to pass state assessments, students must pass assessments in a combination of the following subject areas:

- Mathematics (e.g., Algebra 1),
- ELA,
- Science (e.g., biology),
- Social studies (e.g., U.S. History), and
- Civics.

Five of these states (Louisiana, South Carolina, Utah, Wisconsin, and Wyoming) require students to pass a civics examination; of the five, Louisiana is the only state that requires a civics examination in addition to three other state assessments.

Maryland, Nevada, New Mexico, and Washington mandate a combination of state and other assessments for graduation:

- In Maryland, students must pass state assessments and the Partnership for Assessment of Readiness for College and Careers (PARCC) assessments in English 10, Algebra 1, Biology, and Government.
- In Nevada, students must take the ACT and pass state assessments in reading, mathematics, and science (class of 2016).
- In New Mexico, students must pass PARCC and state assessments in reading, mathematics, science, social studies, and writing.
- In Washington, students must pass the state High School Proficiency Examinations (HSPEs) and Smarter Balanced Assessment Consortium (Smarter Balanced) examinations in ELA and mathematics.

Six states (Idaho, Minnesota, New Jersey, Oregon, Pennsylvania, and Texas) provide other options for students to fulfill their assessment requirement.

- In Idaho, students are required to take the SAT, ACT, or Compass examination in grade 11.
- In Minnesota, students are required to take a CCR test or pass state tests in writing, reading, and mathematics (class of 2016).
- New Jersey allows students to pass either PARCC assessments or a CCR assessment to graduate from high school. Students may also earn a high school diploma through an appeal process.
- In Oregon, students are required to pass the Smarter Balanced assessments; however, they can use banked scores from previous state tests or use CCR tests as substitutes for the Smarter Balanced assessments.
- In Pennsylvania, students can achieve proficiency on the state Keystone Exams; include their Keystone Exam scores in the calculation of their course grades (worth 33%); take and pass locally selected assessments; and/or take and pass AP or IB examinations. Additionally, if students did not pass the Keystone Exams after two attempts, they could complete a project-based alternative to demonstrate proficiency.
- In Texas, students are required to pass state end-of-course (EOC) assessments in English 1 and 2, Algebra 1, Biology, and U.S. History. However, students in the graduating classes of 2015, 2016, and 2017, who do not pass these assessments, may still receive a diploma through an individual graduation committee determination. Additionally, students may use the Texas Success Initiative EOC assessment to meet test requirements for Algebra 1 and/or English 2.

Of the states that currently have assessment requirements, Minnesota, Nevada, Ohio, and Washington plan to implement some changes to those requirements. See Table 6 for information about these changes.

Table 6. Changes to Current Assessment Requirements (*n* = 4)

State	Changes to Assessment Requirements
Minnesota	Beginning with the class of 2017, students will no longer be required to take a CCR test or pass state tests in order to earn a high school diploma. Instead, districts must offer students the opportunity to participate in a district-provided college entrance examination in grade 11 or 12; however, students are not required to participate.
Nevada	For the classes of 2017 and 2018, students will be required to take four EOC examinations in English and mathematics, as well as the ACT. The classes of 2019 and beyond will be required to take the ACT and pass all four EOC examinations.
Ohio	Beginning with the class of 2018, students must earn at least 18 points on seven EOC examinations; earn at least 12 points through workforce credentials and pass the WorkKeys test; or pass a college and career readiness test (ACT or SAT).
Washington	Beginning with the class of 2017, students will be required to pass the biology EOC examination as well as the state HSPEs and Smarter Balanced assessments in ELA and mathematics.

Six states that have not previously required a graduation assessment (Arizona, Colorado, Connecticut, North Dakota, Rhode Island, and Vermont) have now mandated such assessments, with implementation dates in the relatively near future. See Table 7 for information about these future assessment requirements.

Table 7. Future Assessment Requirements (*n* = 6)

State	Future Assessments
Arizona	The class of 2017 and beyond will be required to pass a civics test, based on the United States Immigration and Naturalization examination.
Colorado	The class of 2021 and beyond will be required to earn a minimum score on CCR assessments (e.g., ACT, Compass, WorkKeys, SAT, Advanced Placement, International Baccalaureate) in English and mathematics to demonstrate college and career readiness.
Connecticut	The class of 2020 and beyond will be required to pass end-of-school-year examinations in Algebra 1, Geometry, Biology, American History, and Grade 10 English.
North Dakota	The class of 2017 and beyond will be required to pass a civics test, based on the United States Immigration and Naturalization examination.
Rhode Island	The class of 2020 and beyond will be required to pass state assessments in six core areas (ELA, mathematics, science, social studies, arts, and technology) and to complete two performance assessments or diploma assessments (e.g., exhibitions, portfolios, comprehensive course assessments). Prior to 2020 but no earlier than 2017, districts may choose to require state assessments or other standardized assessments in addition to the two performance-based assessments.

State	Future Assessments
Vermont	The class of 2020 and beyond will be required to demonstrate proficiency in all of the following content areas: literacy, mathematics, science, social studies, physical and health education, arts, and transferable skills (e.g., communication, collaboration, creativity, innovation, inquiry, problem solving, and use of technology). Local school boards will be responsible for developing their own proficiency tests.

For more information about state assessment requirements, see Table D in the Appendix.

Conclusion

Despite a nationwide commitment to college and career readiness for all students, current literature suggests that many students do not feel prepared for college and careers. Few students are completing CCR courses of study in high school, and college instructors and employers report that high school students do not have the foundation to meet the demands of college and the workplace, respectively.

A review of states' CCR initiatives has brought several findings to light. A majority (*n* = 37) of states have adopted a CCR definition, with the belief that, in order to be ready for college and careers, students must attain the knowledge, skills, and dispositions to enroll in and satisfactorily complete entry-level postsecondary coursework and job training without remediation. A majority (*n* = 55) of states have also adopted CCR standards in ELA and mathematics, to set expectations of what students should know and be able to do in these content areas by the time they graduate from high school. While most states have moved toward setting high expectations for students in terms of standards, not all states have set high expectations in regards to high school graduation course requirements. Less than half (*n* = 24) of states require or offer a CCR course of study for students. In other words, less than half of states set coursework requirements that are aligned with those set by higher education institutions for admission to postsecondary education.

Additionally, less than half of states (*n* = 23) currently have in place an assessment requirement for high school graduation. Of those 23 states, 13 states require that students earn a passing score or demonstrate proficiency on state assessments; four states require a combination of assessments (e.g., state and PARCC/Smarter Balanced); and six states provide students with multiple options to fulfill their assessment requirement (e.g., take a college placement test, such as the ACT, SAT, or WorkKeys, or pass the state test). In the near future, six states that do not currently require an assessment will mandate that students pass an assessment as a condition for high school graduation. Regarding coursework, four states have plans for making changes to their coursework requirements; however, only two states will implement changes that are sufficient for their new requirements to be deemed college and career ready. Although rigorous CCR coursework

requirements are not currently present in all states, there are continued efforts to increase the rigor of requirements. Allowing flexibility for districts to set CCR coursework requirements at the local level is a key component of these efforts. That is, while some states may not mandate, at the state level, that students complete a CCR course of study, these states are requiring or allowing districts to identify additional and/or specific coursework that will prepare students for college and careers.

The Center on Standards and Assessment Implementation (CSAI) derived the state information in this report from websites maintained by state departments of education and government agencies; thus, the accuracy of this report is commensurate with the accuracy of those sources.

For more information about high school graduation requirements, please visit the State of the States interactive tool on the CSAI website.

Appendix

Table A. States' College and/or Career Readiness Definitions[8]

State	Definition of College and/or Career Readiness[9]
Alabama	College and career readiness means that a student who graduates from high school has the English and mathematics knowledge and skills to enroll and succeed in entry-level, credit-bearing postsecondary courses without remediation or qualify for and succeed in job training and/or education necessary for his or her chosen career.
Alaska	This state does not currently have a definition of college and/or career readiness.
Arizona	College and career readiness means that a student who graduates from high school has the English and mathematics knowledge and skills to enroll and succeed in entry-level, credit-bearing postsecondary courses without remediation or qualify for and succeed in job training and/or education necessary for his or her chosen career.
Arkansas	College and career readiness means that a student who graduates from high school has acquired the skills to successfully complete first-year, credit-bearing postsecondary courses without remediation and succeed in a chosen career.
California	College and career readiness means that a student who graduates from high school has acquired the knowledge and skills to succeed in postsecondary education, career training, or the workforce.
Colorado	College and career readiness means that a student who graduates from high school has acquired the knowledge, behaviors, and skills to enter college and the workforce and compete in the global economy.
Connecticut	College and career readiness means that a student who graduates from high school has gained core academic skills and the ability to apply them, employability skills (e.g., critical thinking and responsibility), and technical, job-specific skills that allow the student to enter career pathways that provide a sustaining wage and opportunities for advancement.
Delaware	College and career readiness means that a student who graduates from high school has the knowledge, behaviors, and skills to successfully plan and pursue an education and/or career path of his or her choice. The student will have the ability to adapt as job demands change. The student will also be able to apply his or her knowledge, collaborate, and communicate effectively.
District of Columbia	College and career readiness means that a student who graduates from high school has the preparation to enroll and succeed in credit-bearing postsecondary courses without remediation or enroll and succeed in a high-quality certificate program that allows him/her to enter a career pathway with potential future advancement.
Florida	College and career readiness means that a student who graduates from high school has the knowledge, skills, and academic preparation to enroll and succeed in introductory, credit-bearing postsecondary courses without remediation or enter and succeed in postsecondary workforce education or a job with potential future advancement.
Georgia	College and career readiness means that a student who graduates from high school has the content knowledge and skills to enroll and succeed in college (including technical college) without remediation. The student should be able to apply the acquired knowledge.

[8] Information for eight states (American Samoa, Commonwealth of the Northern Mariana Islands, Federated States of Micronesia, Guam, Puerto Rico, Republic of the Marshall Islands, Republic of Palau, and U.S. Virgin Islands) was not available at this writing; therefore, these states are not included in Table A.
[9] CCR definitions for all states in Table A, except for New Mexico and South Dakota, are based on College & Career Readiness & Success Center at American Institutes for Research (2015).

State	Definition of College and/or Career Readiness[9]
Hawaii	College and career readiness means that a student who graduates from high school has acquired the content and practical knowledge, skills, and cognitive strategies necessary to enroll in and successfully complete credit-bearing, postsecondary courses, workforce training, and/or apprenticeship programs without remediation. That student is also prepared to meaningfully engage in college, career, and the community.
Idaho	College and career readiness means that a student who graduates from high school has the essential knowledge and skills (i.e., academic skills, communication, and problem solving) to enter and succeed in college and/or careers.
Illinois	College and career readiness means that a student who graduates from high school has the knowledge and skills (including employability skills) to take credit-bearing postsecondary courses and/or pursue their career interests.
Indiana	College and career readiness means that a student who graduates from high school has acquired the knowledge, skills, and abilities to succeed in postsecondary education without remediation, or in training and economically viable career opportunities.
Iowa	College and career readiness means that a student who graduates from high school has acquired the knowledge and skills to enroll in and successfully complete credit-bearing, first-year postsecondary courses without remediation.
Kansas	College and career readiness means that a student who graduates from high school has acquired the academic and cognitive preparation and the technical and employability skills to succeed in postsecondary education, certificate programs, or the workforce without remediation.
Kentucky	College readiness means that a student who graduates from high school is prepared to successfully complete credit-bearing, entry-level postsecondary courses without remediation, and move on to subsequent courses. Career readiness means that a student who graduates from high school is prepared to take the next step in a chosen career, whether that is postsecondary coursework, certification, or the workforce.
Louisiana	This state does not currently have a definition of college and/or career readiness.
Maine	This state does not currently have a definition of college and/or career readiness.
Maryland	College and career readiness means that a student who graduates from high school has the knowledge and abilities to succeed in credit-bearing postsecondary introductory general education courses or in industry certification programs without remediation. The student will demonstrate mastery of rigorous content knowledge and the ability to apply that knowledge. The student will also be competent in the Skills for Success, which include learning, thinking, communication, technology, and interpersonal skills.
Massachusetts	College and career readiness means that a student who graduates from high school has the knowledge, skills, and abilities to successfully complete entry-level, credit-bearing college courses, participate in certificate or workplace training programs, and enter economically viable career pathways.
Michigan	College and career readiness means that a student who graduates from high school is adequately prepared to enroll and succeed in first-year postsecondary courses or technical training without remediation.
Minnesota	College and career readiness means that a student who graduates from high school has the knowledge, skills, and competencies to successfully complete credit-bearing postsecondary coursework without remediation or pursue a career pathway (including training, certification, and employment).
Mississippi	This state does not currently have a definition of college and/or career readiness.
Missouri	College and career readiness means that a student who graduates from high school has the English and mathematics knowledge and skills to qualify for and succeed in entry-level, credit-bearing postsecondary courses without remediation, or in workforce training programs for his or her chosen career that offers competitive pay and opportunities for career advancement.
Montana	This state does not currently have a definition of college and/or career readiness.

State	Definition of College and/or Career Readiness[9]
Nebraska	Career readiness means that a student who graduates from high school is ready to enter the workforce or college.
Nevada	College readiness means that a student who graduates from high school has the ability to participate and succeed in an academic program that leads to a two- or four-year college degree.
New Hampshire	College and career readiness means that a student who graduates from high school has the knowledge, skills, and dispositions necessary to enter and succeed in college and career without remediation.
New Jersey	College and career readiness means that a student who graduates from high school has the knowledge and skills in English and mathematics to be successful in his or her future plans or goals.
New Mexico[10]	College and career readiness means that a student who graduates from high school has successfully completed all the required academic coursework of a secondary education and additional courses that help focus and define his or her future studies in a postsecondary institution or career path. The student has the competence in English and mathematics to engage in entry-level, credit-bearing postsecondary coursework or enter the workforce.
New York	This state does not currently have a definition of college and/or career readiness.
North Carolina	This state does not currently have a definition of college and/or career readiness.
North Dakota	This state does not currently have a definition of college and/or career readiness.
Ohio	College and career readiness means that a student who graduates from high school has the content knowledge, skills, and behaviors necessary to qualify for and successfully complete postsecondary education without remediation, or complete training for a career of choice.
Oklahoma	College and career readiness means that a student who graduates from high school has the preparation to succeed in college or a career without remediation. Readiness also includes having knowledge of the government and the history of the United States.
Oregon	College and career readiness means that a student who graduates from high school has acquired the knowledge, skills, and professional behaviors to enter and succeed in postsecondary courses, career training, or the workplace.
Pennsylvania	This state does not currently have a definition of college and/or career readiness.
Rhode Island	This state does not currently have a definition of college and/or career readiness.
South Carolina	College and career readiness means that a student who graduates from high school has acquired the knowledge (e.g., language arts, mathematics, STEM, arts, social sciences, and foreign languages), skills (e.g., critical thinking, problem solving, collaboration, communication), and life and career characteristics (e.g., integrity, self-direction, interpersonal skills, perseverance) to succeed in college, training programs, or the workforce.
South Dakota[11]	College and career readiness means that a student who graduates from high school has the knowledge base and skills to succeed in postsecondary education without remediation, and in careers and life.
Tennessee	College and career readiness means that a student who graduates from high school has the knowledge and skills to succeed in first-year postsecondary coursework or entry-level work.
Texas	College readiness means that a student who graduates from high school has the English and mathematics knowledge to enroll and succeed in credit-bearing, entry-level postsecondary courses without remediation.

[10] New Mexico Public Education Department (n.d.).

[11] Schopp (2012); South Dakota Department of Education (2016).

State	Definition of College and/or Career Readiness[9]
Utah	College and career readiness means that a student who graduates from high school is prepared to enroll and succeed in postsecondary education or training.
Vermont	College and career readiness means that a student who graduates from high school has the foundational skills and learning strategies necessary to enter the workforce or pursue postsecondary education or training without remediation.
Virginia	College readiness means that a student who graduates from high school has attained the level of achievement to succeed in entry-level, credit-bearing college courses.
Washington	College and career readiness means that a student who graduates from high school is equipped with the skills to be successful in postsecondary education, the workforce, and society.
West Virginia	College and career readiness means that a student who graduates from high school has the knowledge, dispositions, and skills to succeed in postsecondary education and/or workforce training that leads to gainful employment.
Wisconsin	College and career readiness means that a student who graduates from high school has the knowledge, habits, and skills to succeed in postsecondary education and/or workforce training that leads to productive and sustainable employment.
Wyoming	This state does not currently have a definition of college and/or career readiness.

Table B. States' High School Graduation Requirements—Coursework[12]

Table B provides detailed course requirement information for each state. Course requirements—typically in the form of number of units, credits, or years—are presented for the following content areas: ELA, mathematics, science, social studies, physical/health education, and electives/others (e.g., foreign language, CTE courses, fine arts); relevant notes are included to provide additional information. Although they differ in name, "units," "credits," and "years" are the same unit of measurement; in most states, students earn one credit or unit for a yearlong course. The table includes one row of information for most states; some states have multiple rows to indicate course requirements for multiple diploma options and/or multiple pathways that students may take to obtain one diploma. In addition, future changes in course requirements for an individual state (e.g., additional requirements for future graduating classes) are included in separate rows. The "CCR Course of Study?" column includes information about whether or not the requirements for each state are considered CCR by CSAI (see the definition of a CCR course of study on page 12).

State	CCR Course of Study?	Coursework Requirements	Notes
Alabama **(24 credits)**	Yes	4—ELA 4—mathematics 4—science 4—social studies 1.5—physical/health education 2.5—electives 1—career preparedness 3—CTE and/or foreign language and/or arts education	ELA includes English 9–12. Mathematics includes Algebra 1, Geometry, and Algebra 2 or Algebra 2 with Trigonometry, or their equivalent/substitute; 1 credit should be from the Alabama Course of Study for Mathematics or equivalent/substitute. Science includes biology and a physical science (i.e., chemistry, physics, or physical science); 2 credits should be from the Alabama Course of Study for Science or equivalent/substitute. Social studies includes 1 credit each in World History, U.S. History 1, and U.S. History 2, and .5 credit each in U.S. Government and Economics. Physical/health education includes Lifelong Individualized Fitness Education (LIFE) or JROTC. Each student is required to have a four-year plan that reflects the student's aspirations and prepares the student for life after high school, whether that is postsecondary education or work.

[12] Information for six states (American Samoa, Commonwealth of the Northern Mariana Islands, Federated States of Micronesia, Guam, Puerto Rico, and Republic of the Marshall Islands) was not available at this writing; therefore, these states are not included in Table B.

State	CCR Course of Study?	Coursework Requirements	Notes
Alaska **(21 credits—for students graduating before July 1, 2017)**	No	4—ELA 2—mathematics 2—science 3—social studies 1—physical/health education 9—locally determined	Social studies includes .5 credit in Alaska history.
Alaska **(22 credits—for students graduating on or after July 1, 2017)**	No	4—ELA 3—mathematics 2—science 3—social studies 1—physical/health education 9—locally determined	Social studies includes .5 credit in Alaska history.
Arizona **(22 credits)**	No	4—ELA 4—mathematics 3—science 3—social studies 7—electives 1—CTE/vocational education or fine art	Mathematics includes Algebra 1 and 2, Geometry, and an additional mathematics course determined by districts. Social studies includes 1 credit of American History, 1 credit of World History/Geography, .5 credit of government, and .5 credit of economics.

State	CCR Course of Study?	Coursework Requirements	Notes
Arkansas **(21.5 units)**	Yes	4—ELA 4—mathematics 3—science 3—social studies 1—physical/health education .5—oral communication .5—fine arts 6—career focus .5—economics (can count toward social studies or career focus)	Mathematics must include Algebra 1 and 2 and Geometry; 1 unit must be taken in grade 11 or 12. Science must include biology. Note that computer science can meet the fourth mathematics requirement or the third science requirement. Social studies must include 1 unit each in world history and American history and .5 unit in civics. Physical/health education consists of .5 unit in health and safety and .5 unit in physical education.
California **(13 credits—state minimum)**	No	3—ELA 2—mathematics 2—science 3—social studies 2—physical/health education 1—foreign language, visual or performing arts, or CTE	One credit is one year's worth of work. Mathematics must include Algebra 1. Science includes biological and physical sciences. Social studies includes one year of U.S. history and geography; one year of world history, culture, and geography; one semester of American government and civics; and one semester of economics.
Colorado	-	-	Colorado's only statewide requirement for high school graduation is the satisfactory completion of a civics/government course that includes information on both the U.S. and Colorado. Local school boards set their own graduation requirements, which were to have been adopted by the 2015–16 school year.

State	CCR Course of Study?	Coursework Requirements	Notes
Connecticut **(20 credits—for classes of 2004–19)**	No	4—ELA 3—mathematics 2—science 3.5—social studies 1—physical/health education 1—arts or vocational education 5.5—undefined	Social studies includes .5 credit in civics and American government. Students are required to have a student success plan that includes their career and academic choices from grades 6–12.
Connecticut **(25 credits—beginning with class of 2020)**	Yes	4—ELA 4—mathematics 3—science 3—social studies 1.5—physical/health education 2—foreign language 1—humanities elective 1—science, technology, engineering, and mathematics elective 2—career and life skills electives (e.g., CTE, English as a second language, community service, personal finance, public speaking, nutrition and physical activity) 1—senior demonstration project or equivalent	ELA includes composition. Mathematics includes Algebra 1, Geometry, and Algebra 2 or Probability and Statistics. Science includes at least 1 credit each in life science and physical science. Social studies includes 1 credit in American history and .5 credit in civics and American government. Physical/health education consists of 1 credit in physical education and .5 credit in health and safety education. Students are required to have a student success plan that includes their career and academic choices from grades 6–12.

State	CCR Course of Study?	Coursework Requirements	Notes
Delaware **(24 credits)**	Yes	4—ELA 4—mathematics 3—science 3—social studies 1.5—physical/health education 2—sequenced foreign language 3—career pathway 3.5—electives	Mathematics must be no less than the traditional requirements of Geometry, Algebra 1, and Algebra 2 courses; students in the class of 2016 are required to complete an Algebra 2 or Integrated Math 3 course. A credit in mathematics must be earned in grade 12. Science must include biology. Social studies must include U.S. history. Physical/health education consists of 1 credit in PE and .5 credit in health education. Students may demonstrate proficiency on a nationally recognized language proficiency assessment (except English) to fulfill the foreign language requirement. Every student in grades 8–12 is required to have a Student Success Plan (SSP), which tracks/monitors progress toward graduation, developed by the student, student's advisor, and parent/guardian.
District of Columbia **(24 credits)**	Yes	4—ELA 4—mathematics 4—science 4—social studies 1.5—physical/health education 2—foreign language .5—arts 3.5—electives .5—music	Mathematics includes Algebra 1 and 2, Geometry, and a higher-level mathematics course. Science includes biology, 2 laboratory sciences, and 1 other science. Social studies includes World History 1 and 2, DC history, U.S. government, and U.S. history. Students are required to complete 100 hours of community service. In 2012, the DC State Board of Education proposed revisions to the high school course requirements, which would result in students obtaining 26 credits, completing 100 hours of community service, participating in a physical activity, and completing a thesis/culminating project in order to graduate. As of September 2016, it is unclear if all of these proposed changes have been approved and/or implemented.

State	CCR Course of Study?	Coursework Requirements	Notes
Florida **(24 credits)**	No	4—ELA 4—mathematics 3—science 3—social studies 1—physical/health education 1—fine and performing arts, speech and debate, or practical arts 8—electives	Mathematics includes Algebra 1 and Geometry. Science includes Biology 1; two of the three credits must have a laboratory component. The social studies requirement consists of 1 credit of world history, 1 credit of U.S. history, and .5 credit each of U.S. government and economics with financial literacy. One course must be taken online. Overall, students must earn a 2.0 GPA on a 4.0 scale.
Georgia **(23 credits)**	Yes	4—ELA 4—mathematics 4—science 3—social studies 1—physical/health education 3—Career, Technical and Agricultural Education (CTAE) and/or modern language/Latin and/or fine arts 4—electives	ELA requirement includes American Literature/Composition and grade 9 Literature and Composition. The mathematics requirement includes Mathematics I or GPS Algebra, Mathematics II or GPS Geometry, and Mathematics III or GPS Advanced Algebra. Science must include biology; physical science or physics; and chemistry, earth systems, environmental science, or an Advanced Placement/International Baccalaureate course. The fourth science unit may be used to meet both the science requirement and the elective requirement. Social studies consists of 1 credit of U.S. history, 1 credit of world history, and .5 credit each of American government/civics and economics. Three units of JROTC may be used to satisfy the physical/health education requirement if approved by the district. All students are "encouraged" to earn 2 units in the same language—an admissions requirement for the University of Georgia institutions and other Georgia postsecondary institutions, excluding the Technical College System of Georgia.

State	CCR Course of Study?	Coursework Requirements	Notes
Hawaii **(24 credits)**	Yes	4—ELA 3—mathematics 3—science 4—social studies 1.5—physical/health education 2—world language (same language), fine arts, CTE, or JROTC 6—electives .5—personal transition plan	ELA shall include 1 credit each of ELA 1 and 2, .5 credit of Expository Writing, and 1.5 credits of ELA basic electives. Mathematics must include Algebra 1, Geometry, and a mathematics basic elective. Science must include biology. Social studies includes .5 credit of Modern History of Hawaii, .5 credit of Participation in a Democracy, and 1 credit each in U.S. History and Government, World History and Culture, and a social studies basic elective. Physical/health education includes .5 credit of Physical Education Lifetime Fitness, .5 credit in a PE basic elective, and .5 credit in Health Today and Tomorrow. Students are required to complete a senior project, which may count toward one elective credit. Each student is required to have a Personal Transition Plan (PTP), which is a plan of action to transition from high school to college and careers. Elements of the PTP include goal attainment, identification of available resources, evidence to support the plan of action taken, and self-evaluation. Students, parents, and school personnel have a shared responsibility in the development and execution of the PTP during high school. Students can earn an honors recognition certificate (i.e., academic honors, CTE honors, or STEM honors). Additional requirements apply.

State	CCR Course of Study?	Coursework Requirements	Notes
Idaho **(46 credits*)**	No	9—ELA 6—mathematics 6—science 5—social studies 1—physical/health education 2—humanities (e.g., interdisciplinary humanities, fine arts, or foreign language) 17—electives	ELA requirement consists of 8 credits in English and 1 credit in speech. Mathematics must include Algebra 1 and Geometry. Two mathematics credits must be taken in the last year of school; however, students who have completed 6 credits of mathematics prior to fall of their senior year, including at least 2 semesters of an Advanced Placement or dual-credit calculus or high-level course, are exempt from this requirement. Students must take pre-algebra before entering grade 9. Science must include 4 laboratories. Social studies must include U.S. history, economics, and American government. Note that districts are required to offer students at least one advanced opportunity, such as concurrent credit, AP, or technology preparatory courses. Students are required to complete a senior project that includes a written report and oral presentation. Project guidelines are set by the district. *One credit is equivalent to one semester/trimester of coursework.
Illinois **(12 units—for 3-year high schools*)**	No	4—ELA 2—writing-intensive courses** 3—mathematics 2—science 2—social studies See Notes for physical/health education requirement. 1—art, music, foreign language (includes American Sign Language), or vocational education	Mathematics must include Algebra 1 and a course with geometry content. Social studies must include one unit of the history of the United States or a combination of the history of the United States and American government, and, for students entering 9th grade in the 2016–17 school year or after, one half-semester (.5 unit) of civics as part of the 2-unit social studies requirement. All students must participate in physical education on a daily basis in each year of high school, and must take 18 weeks (one semester) of health education and 9 weeks (one quarter) of consumer education during high school. Over the three-year high school experience, these requirements add another 3.75 units of state-imposed study, which a school district may or may not count toward meeting its local graduation requirements (total number of required units). *One unit is equivalent to one year's worth of work. **One unit must be offered as an ELA course and can count toward meeting one year of ELA; the other writing-intensive course may be counted toward the fulfillment of other state graduation requirements, when applicable, if writing-intensive content is provided in a subject area other than ELA.

State	CCR Course of Study?	Coursework Requirements	Notes
Illinois **(16 units—for 4-year high schools*)**	No	4—ELA 2—writing-intensive courses** 3—mathematics 2—science 2—social studies See Notes for physical/health education requirement. 1—art, music, foreign language (includes American Sign Language), or vocational education 4—undefined (locally determined)	Mathematics must include Algebra 1 and a course with geometry content. Social studies must include one unit of the history of the United States or a combination of the history of the United States and American government, and, for students entering 9th grade in the 2016–17 school year or after, one half-semester (.5 unit) of civics as part of the 2-unit social studies requirement. All students must participate in physical education on a daily basis in each year of high school, and must take 18 weeks (one semester) of health education and 9 weeks (one quarter) of consumer education during high school. Over the four-year high school experience, these requirements add another 4.75 units of state-imposed study, which a school district may or may not count toward meeting its local graduation requirements (total number of required units). *One unit is equivalent to one year's worth of work. **One unit must be offered as an ELA course and can count toward meeting one year of ELA; the other writing-intensive course may be counted toward the fulfillment of other state graduation requirements, when applicable, if writing-intensive content is provided in a subject area other than ELA.

State	CCR Course of Study?	Coursework Requirements	Notes
Indiana **(40 credits*—general diploma)**	No	8—ELA 4—mathematics 4—science 4—social studies 3—physical/health education 6—college and career pathway courses 5—flex credits (one of the following: additional elective courses in a college and career pathway; courses involving workplace learning such as Cooperative Education or Internship courses; high school/college dual credit courses; or additional courses in language arts, social studies, mathematics, science, world languages, or fine arts) 6—electives	ELA must include literature, composition, and speech. Mathematics must include 2 credits in Algebra 1 or Integrated Math 1. Science must include 2 credits in Biology 1, and at least 1 credit must be from a physical science or Earth and space science course. Social studies must include 2 credits in U.S. history and 1 credit in U.S. government. Physical/health education consists of 2 credits in physical education and 1 credit in health and wellness. *One credit is equivalent to one semester's worth of work. Indiana's general diploma requires 4 years of ELA; 2 years each of mathematics, science, and social studies; 1.5 years of physical/health education; 3 years of college and career pathway courses; 3 years of electives; and 2.5 years of flex electives.
Indiana **(40 credits*—Core 40)**	Yes	8—ELA 6—mathematics 6—science 6—social studies 3—physical/health education 5—directed electives (world languages, fine arts, CTE) 6—electives (college and career pathway courses recommended)	ELA must include "a balance" of literature, composition, and speech. Mathematics must include 2 credits in Algebra 1, 2 credits in Geometry, and 2 in Algebra 2. Students must take a mathematics course each year in high school. Science must include 2 credits in Biology 1 and 2 credits in Chemistry 1, Physics 1, or Integrated Chemistry–Physics. Social studies must include 2 credits in U.S. history, 1 credit in U.S. government, 1 credit in economics, and 2 credits in world history/civilization or geography/history of the world. Physical/health education consists of 2 credits in physical education and 1 credit in health and wellness. *One credit is equivalent to one semester's worth of work. The Core 40 diploma requires 4 years each of ELA; 3 years each of mathematics, science, and social studies; 1.5 year of physical/health education; 2.5 years of directed electives; and 3 years of electives (college and career pathway courses).

State	CCR Course of Study?	Coursework Requirements	Notes

Indiana
 	
(47 credits minimum*—Core 40 with Academic Honors)**
	Yes	8—ELA
		
		8—mathematics
		
		6—science
		
		6—social studies
		
		3—physical/health education
		
		5—directed electives (world languages, fine arts, CTE)
		
		6—electives
		
		6–8—world language (6 credits in one language or 4 credits each in two languages)
		
		2—fine arts
			ELA must include a balance of literature, composition, and speech. Mathematics must include 2 credits each in Algebra 1, Geometry, and Algebra 2. Students must take a mathematics course each year in high school. Science must include 2 credits in Biology 1 and 2 credits in Chemistry 1, Physics 1, or Integrated Chemistry–Physics. Social studies must include 2 credits in U.S. history, 1 credit in U.S. government, 1 credit in economics, and 2 credits in world history/civilization or geography/history of the world. Physical/health education consists of 2 credits in physical education and 1 credit in health and wellness.
			
			*One credit is equivalent to one semester's worth of work. The Core 40 with Academic Honors diploma requires 4 years each of ELA and mathematics; 3 years each of science and social studies; 1.5 years of physical/health education; 2.5 years of directed electives; 3 years of electives; 3 years in one world language or 2 years each in two languages; and 1 year of fine arts.
			**Students must complete all Core 40 requirements in addition to the following:
			- Earning 2 additional mathematics credits, 6–8 world language credits, and 2 fine arts credits;
			- Earning a grade of "C" or better in courses that count toward the diploma;
			- Having a grade point average (GPA) equivalent to a "B" or better;
			- Earning one of the following:
			  - Four credits in 2 or more AP courses and taking corresponding AP exams;
			  - Six verifiable college credits in dual-credit courses;
			  - Two of the following: a minimum of 3 verifiable college credits; 2 credits in AP courses and corresponding exams; or 2 credits in International Baccalaureate (IB) standard-level courses and corresponding IB exams;
			- Earning a combined score of 1750 or higher on the SAT critical reading, mathematics and writing sections, and a minimum score of 530 on each;
			- Earning an ACT composite score of 26 or higher and completing written section; and
			- Earning 4 credits in IB courses and taking corresponding exams.

State	CCR Course of Study?	Coursework Requirements	Notes

Indiana
 	
(47 credits minimum*—Core 40 with Technical Honors)**
	Yes	8—ELA
		
		6—mathematics
		
		6—science
		
		6—social studies
		
		3—physical/health education
		
		5—directed electives (world languages, fine arts, CTE)
		
		6—electives
		
		6—college and career preparation courses
			ELA must include "a balance" of literature, composition, and speech. Mathematics must include 2 credits in Algebra 1, 2 credits in Geometry, and 2 in Algebra 2. Students must take a mathematics course each year in high school. Science must include 2 credits in Biology 1 and 2 credits in Chemistry 1, Physics 1, or Integrated Chemistry–Physics. Social studies must include 2 credits in U.S. history, 1 credit in U.S. government, 1 credit in economics, and 2 credits in world history/civilization or geography/history of the world. Physical/health education consists of 2 credits in physical education and 1 credit in health and wellness.
			
			*One credit is equivalent to one semester's worth of work. The Core 40 with Technical Honors diploma requires 4 years of ELA; 3 years each of mathematics, science, and social studies; 1.5 year of physical/health education; 2.5 years of directed electives; 3 years of electives; and 3 years of college and career preparation courses.
			**Students must complete all Core 40 requirements in addition to the following:
			- Six credits in the college and career preparation courses in a state-approved college and career pathway and a certification or credential, or pathway dual credits resulting in 6 college credits;
			- Earning a grade of "C" or better in courses;
			- Having a GPA equivalent to a "B" or better; and
			- Completing one of the following:
			  - Any one of the options (A–F) of the Core 40 with Academic Honors;
			  - Earning the following scores or higher on WorkKeys: Reading for Information—Level 6, Applied Mathematics—Level 6, and Locating Information—Level 5;
			  - Earning the following minimum score(s) on ACCUPLACER: Writing 80, Reading 90, Math 75; or
			  - Earning the following minimum score(s) on Compass; Algebra 66, Writing 70, Reading 80.

State	CCR Course of Study?	Coursework Requirements	Notes
Iowa **(14 units*)**	No	4—ELA 3—mathematics 3—science 3—social studies 1—physical/health education	*One unit is a yearlong course. Social studies may include .5 unit of U.S. government and 1 unit of U.S. history.
Kansas **(21 units)**	No	4—ELA 3—mathematics 3—science 3—social studies 1—physical/health education 1—fine arts 6—electives	ELA includes reading, writing, literature, communication, and grammar. Mathematics includes algebraic and geometric concepts. Science includes physical, biological, and Earth and space science concepts; at least one unit must be a laboratory course. Social studies includes world history; U.S. history; U.S. government, including the Constitution of the U.S.; and concepts of economics and geography. Physical education includes health and may include safety, first aid, or physiology.
Kentucky **(22 credits—state minimum)**	No	4—ELA 3—mathematics 3—science 3—social studies 1—physical/health education 1—history and appreciation of visual and performing arts 7—academic and career interest standards-based learning experiences	ELA requirement consists of English 1–4; students are required to take ELA every year of high school. Mathematics includes Algebra 1, Geometry, and Algebra 2. Science incorporates lab-based scientific investigation experiences. Physical/health education requirement includes .5 credit of health and .5 credit of PE. Students are required to demonstrate performance-based competency in technology.

State	CCR Course of Study?	Coursework Requirements	Notes
Louisiana **(24 credits—LA Core for college-and-career diploma)**	Yes	4—ELA 4—mathematics 4—science 4—social studies 2—physical/health education 2—sequenced foreign language 1—arts 3—electives	Physical/health education requirement consists of 1.5 credits in physical education and .5 credit in health.
Louisiana **(24 credits—Basic Core for college-and-career diploma)**	Yes	4—ELA 4—mathematics 3—science 3—social studies 2—physical/health education 8—electives (6 credits must be in a career area of concentration)	Physical/health education requirement consists of 1.5 credits in physical education and .5 credit in health.
Louisiana **(23 credits—career diploma)**	Yes	4—ELA 4—mathematics 3—science 3—social studies 2—physical/health education 7—electives (career area of concentration)	Physical/health education requirement consists of 1.5 credits in physical education and .5 credit in health.

State	CCR Course of Study?	Coursework Requirements	Notes
Maine **(in years)—effective until 2020***	No	4—ELA 2—mathematics 2—science 2—social studies 1—fine arts (art, music, forensics, or drama)	Science includes at least one year of laboratory study. Social studies includes American history, government, civics, and personal finance. *Beginning January 1, 2017, a diploma must be based on student demonstration of proficiency in meeting state standards in all content areas. Students must be allowed to show proficiency by presenting multiple types of evidence, including but not limited to teacher-designed or student-designed assessments, portfolios, performance, exhibitions, projects, and community service.
Maryland **(21 credits)**	Yes	4—ELA 3—mathematics 3—science 3—social studies 1—physical/health education 1—fine arts 1—technology education One of the following: A) 3 electives and 2 credits in foreign language, American sign language, or advanced technology B) 1 elective and 4 credits by completing a state-approved career and technology program	Mathematics must include algebra, geometry, and other content. Beginning with students entering grade 9 in 2014–15, enrollment in a mathematics course in each year of high school is mandatory. Science includes Biology and 2 credits, which must include a lab experience in Earth science, life science, or physical science. Social studies consists of U.S. history; world history; and local, state, and national government. Physical/health education requirement consists of .5 credit each in physical education and health.

State	CCR Course of Study?	Coursework Requirements	Notes
Massachusetts **(in years)**	Yes	4—ELA 4—mathematics 3—science 3—social studies See Notes for physical/health education requirement. 2—sequenced foreign language 1—arts 5—additional core courses such as business education, health, and/or technology	Science must be lab-based. Social studies must include the instruction of American history and civics. Physical education must be taught. Massachusetts provides additional learning opportunities, including advanced-placement classes, dual enrollment, a senior project, online courses for high school or college credit, and service or work-based learning. Note that the state describes these as "opportunities"; there is no language about them being required.
Michigan **(18 credits)**	Yes	4—ELA 4—mathematics 3—science 3—social studies 1—physical/health education 1—visual, performing, and applied arts 2—foreign language (beginning with the graduating class of 2016)	Students must complete at least one mathematics or mathematics-related credit or experience during their final year of high school. Social studies consists of 1 credit in U.S. history and geography, 1 credit in world history and geography, .5 credit in economics, and .5 credit in civics/government.
Minnesota **(21.5 credits)**	No	4—ELA 3—mathematics 3—science 3.5—social studies 1—arts 7—electives	One course credit is an academic year of study. Mathematics must include algebra, geometry, statistics, and probability. Students in the class of 2015 and beyond must complete an Algebra 2 credit or its equivalent as part of the 3-credit requirement. In addition, students must also complete an Algebra 1 credit by the end of grade 8. Science must include biology in addition to chemistry, physics, or CTE; CTE must meet the standards underlying the chemistry or physics credit. Social studies includes U.S. history, geography, government and citizenship, world history, and economics.

State	CCR Course of Study?	Coursework Requirements	Notes
Mississippi **(24 credits—traditional pathway)**	No	4—ELA 4—mathematics 4—science 4—social studies 1—physical/health education 1—business and technology 1—art 5—electives	ELA must include English 1–2. Mathematics must include Algebra 1. Science must include Biology 1. Social studies consists of 1 credit in U.S. history, 1 credit in world history, and .5 credit each in geography, economics, U.S. government, and Mississippi studies. Physical/health education consists of .5 credit each of health and physical education. Business and technology must include Technology Foundations, Information and Communication Technology (ICT), grade 9 STEM, or Computer Applications and Keyboarding. All students must have an Individual Career and Academic Plan (iCAP) that is personalized to meet their educational and career goals.
Mississippi **(21 credits—career pathway)**	Yes	4—ELA 3—mathematics 3—science 3—social studies .5—physical/health education 1—integrated technology 4—CTE electives 2.5—electives	ELA must include English 1–2. Mathematics must include Algebra 1. Science must include Biology 1. Social studies must include 1 credit in U.S. history, .5 credit in U.S. government, and .5 credit in Mississippi studies. The .5 credit in physical/health education can be in comprehensive health or physical education. Business and technology must include Technology Foundations, ICT, grade 9 STEM, or Computer Applications and Keyboarding. All students must have an Individual Career and Academic Plan (iCAP) that is personalized to meet their educational and career goals.
Mississippi **(21 credits—district option)**	No	4—ELA 4—mathematics 3—science 3—social studies .5—physical/health education 1—business and technology 1—art 4.5—electives	ELA must include English 1–2. Mathematics must include Algebra 1. Science must include Biology 1. Social studies consists of 1 credit in U.S. history, 1 credit in world history, and .5 credit each in U.S. government and Mississippi studies. Physical/health education consists of .5 credit of health. Business and technology must include Technology Foundations, ICT, grade 9 STEM, or Computer Applications and Keyboarding. All students must have an Individual Career and Academic Plan (iCAP) that is personalized to meet their educational and career goals.

State	CCR Course of Study?	Coursework Requirements	Notes
Mississippi **(17.5 credits—Mississippi Early Exit Exam option*)**	Yes (see Notes)	2—ELA 3—mathematics 2—science 2.5—social studies 1—physical/health education 1—business and technology 1—fine art 5—electives (should align with postsecondary admission standards)	ELA must include English 1–2. Mathematics must include Algebra 1. Science must include Biology 1. Social studies consists of 1 credit in U.S. history, 1 credit in world history, and .5 credit each in U.S. government and Mississippi studies. Physical/health education consists of .5 credit each in health and physical education. Business and technology must include Technology Foundations, ICT, grade 9 STEM, or Computer Applications and Keyboarding. All students must have an Individual Career and Academic Plan (iCAP) that is personalized to meet their educational and career goals. *This option only applies to students in an Innovative Program, approved by the State Board of Education. The Mississippi Early Exit Diploma indicates that students are ready to do college-level work without remediation. In order to qualify for this diploma, in addition to earning the credits listed, students must meet college and career qualification scores in all core content areas on a series of end-of-course exams and/or the required benchmarks for college readiness on the ACT or institution of higher learning–approved college entrance exam.
Missouri **(24 units)**	No	4—ELA 3—mathematics 3—science 3—social studies .5—physical/health education 1—fine arts 1—practical arts .5—personal finance* 7—electives	Social studies must include 1 unit in American history and .5 unit in government. Practical arts courses include computer applications, school publications, technology education, and CTE courses. *Students may take personal finance to fulfill a social studies or practical arts requirement. In both cases, the total number of electives will increase to 7.5 units (from 7 units).

State	CCR Course of Study?	Coursework Requirements	Notes
Montana **(20 units)**	No	4—ELA 2—mathematics 2—science 2—social studies 1—physical/health education 1—arts 1—career and technical education 7—locally defined	Physical/health education consists of .5 unit of health enhancement each year for two years.
Nebraska **(200 credit hours*)**	No	40—ELA 30—mathematics 30—science 30—social studies 70—locally defined	Eighty percent of the 200 credit hours must be from the core curriculum. ELA content must include composition, verbal communication, literature, research skills, and technical reading and writing. Mathematics content must include algebraic, geometric, data analysis, and probability concepts. Science content must include biological, Earth/space, and physical science concepts with corresponding science inquiry skills and laboratory experience. Social studies content must include civics/government, geography, United States and world history, and economic concepts. *Five credit hours are equivalent to one semester's worth of work. Nebraska requires 4 years of ELA, 3 years each of mathematics, science, and social studies; and 7 yearlong or 14 half-year locally defined courses.
Nevada **(22.5 credits)**	No	4—ELA 3—mathematics 2—science 2—social studies 2.5—physical/health education 1—arts and humanities .5—computers 7.5—electives	Social studies consists of 1 credit each in American government and American history. Physical/health education consists of 2 credits in physical education and .5 credit in health education.

State	CCR Course of Study?	Coursework Requirements	Notes
New Hampshire **(20 credits)**	No	4—ELA 3—mathematics 2—science 2.5—social studies 1.5—physical/health education .5—information and communications technology .5—arts education 6—electives	Mathematics must include algebra. Science consists of 1 credit each in physical sciences and biological sciences. Social studies consists of 1 credit in U.S. and New Hampshire history; .5 credit in U.S. and New Hampshire government/civics; .5 credit in world history, global studies, or geography; and .5 credit in economics. Physical/health education consists of .5 credit in health education and 1 credit in physical education.
New Jersey **(120 credits*)**	No	20—ELA 15—mathematics 15—science 17.5—social studies 15—physical/health education 10—visual, performing, and/or practical arts 5—career education and consumer, family, and life skills or vocational/CTE 22.5—undefined	Mathematics includes Algebra 1, geometry, and a third year of mathematics that builds upon Algebra 1 and geometry. Science includes laboratory biology; chemistry, environmental science, or physics; and an additional lab/inquiry-based science. Social studies includes history and integrated civics, economics, geography, and global content (world history). Economics, worth 2.5 credits, must include financial, economic, business, and entrepreneurial literacy. At least 3.75 credits of physical/health education must be taken each year of enrollment. *Note that 2.5 credits are equal to .5 academic year. New Jersey requires 4 years of ELA; 3 years of mathematics; 3 years of science; 3.5 years of social studies; 3 years of physical/health education; 2 years of visual, performing, and/or practical arts; 1 year of career education and consumer, family, and life skills or vocational/CTE; and 4 yearlong undefined courses and 1 half-year course or 9 half-year undefined courses.

State	CCR Course of Study?	Coursework Requirements	Notes
New Mexico **(24 units—for classes of 2015 and 2016)**	No	4—ELA 4—mathematics 3—science 3.5—social studies 1—physical/health education 1—career cluster, workplace readiness, or foreign language 7.5—electives	Mathematics must include 1 unit of content that is equal to or greater than Algebra 2. Science includes 2 units in courses with a laboratory component. Social studies includes 1 unit each in U.S. history and geography, world history and geography, and government and economics, and 0.5 unit in New Mexico history. Note that one of the total units must be honors, advanced placement, dual credit, or distance learning.
New Mexico **(24.5 or 25 units—class of 2017 and beyond)**	No	4—ELA 4—mathematics 3—science 3.5—social studies 1.5 or 2—physical/health education 1—career cluster, workplace readiness, or foreign language 7.5—electives	Mathematics must include 1 unit of content that is equal to or greater than Algebra 2. Science includes 2 units in courses that include a laboratory component. Social studies includes 1 unit each in U.S. history and geography, world history and geography, and government and economics, and 0.5 unit in New Mexico history. Physical/health education consists of 1 unit in physical education and .5 or 1 unit in health education; health education taken in middle school may be used to satisfy the health education requirement. Note that one of the total number of units must be honors, advanced placement, dual credit, or distance learning.
New York **(22 credits—applicable to students entering high school in 2008–15; for local, Regents, and Regents with Honors diplomas)**	No	4—ELA 3—mathematics 3—science 4—social studies 2.5—physical/health education 1—language other than English (LOTE) 1—visual art, music, dance, and/or theater 3.5—electives	Social studies consists of 1 credit in U.S. history, .5 credit each in government and economics, and 2 credits in another course. Physical/health education consists of .5 credit of health and 2 credits of physical education (PE); students must participate in PE each semester.

State	CCR Course of Study?	Coursework Requirements	Notes
New York **(22 credits—applicable to students entering high school in 2008–15, for Regents with advanced designations diplomas)**	Yes	4—ELA 3—mathematics 3—science 4—social studies 2.5—physical/health education 1—language other than English (LOTE) 1—arts 3.5—electives 2 credits in LOTE or a 5-unit sequence in the arts or CTE	Social studies consists of 1 credit in U.S. history, .5 credit each in government and economics, and 2 credits in another course. Physical/health education consists of .5 credit of health and 2 credits of physical education (PE); students must participate in PE each semester.
North Carolina **(22 credits—Future-Ready Core—one of two pathways leading to one diploma)**	Yes	4—ELA 4—mathematics 3—science 4—social studies 1—physical/health education 6—electives (2 credits of any combination from either CTE, arts education, or world languages*; 4 credits strongly recommended— four-course concentration—from one of the following: CTE, JROTC, arts education, and any other subject area, such as science, social studies, mathematics, English)	ELA requirement consists of English 1–4 or a designated combination of four courses. Mathematics must include Algebra 1, Geometry, and Algebra 2 or Integrated Math 1–3; the fourth mathematics course should be aligned with the student's post-high-school plans. Science must include physical science, biology, and environmental science. Social studies must include civics and economics, world history, American History 1: Founding Principles, American History 2 or advanced-placement U.S. History, and an additional social studies course. Note that students may receive one or more endorsements on their high school diploma. Endorsements indicate that students have completed specific course concentrations preparing them for college or careers. Endorsements include Career Endorsement; College Endorsement; College/UNC Endorsement; NC Academic Scholars Endorsement; and Global Languages Endorsement. *World language is not required for high school graduation, but a 2-credit minimum is required for admission to a university in the University of North Carolina system.

State	CCR Course of Study?	Coursework Requirements	Notes
North Carolina **(22 credits—Future-Ready Occupational—one of two pathways leading to one diploma)**	No	4—ELA 3—mathematics 2—science 2—social studies 1—physical/health education 6—occupational preparation electives 4—CTE electives 1—arts discipline (recommended)	ELA consists of OCS English 1–4; English 1 and 2 are aligned with the CCSS. Mathematics consists of OCS Introduction to Math, OCS Algebra 1, and OCS Financial Management; OCS Algebra 1 is aligned with the CCSS. Science consists of OCS Applied Science and OCS Biology, the second of which is aligned with state standards. Social studies consists of OCS Social Studies 1 (government/U.S. history) and 2 (self-advocacy/problem solving). Occupational preparation electives consist of OCS Preparation 1–4, which includes completion of 300 hours of school-based training, 240 hours of community-based training, and 360 hours of paid employment. Note that students may receive one or more endorsements on their high school diploma. Endorsements indicate that students have completed specific course concentrations preparing them for college or careers. Endorsements include Career Endorsement; College Endorsement; College/UNC Endorsement; NC Academic Scholars Endorsement; and Global Languages Endorsement.
North Dakota **(22 units)**	Yes	4—ELA 3—mathematics 3—science 3—social studies 1—physical/health education 3—foreign language, Native American languages, fine arts, or CTE 5—undefined	ELA must be a sequence that includes literature, composition, and speech. Science must include 1 unit each in physical science and biology. Social studies must include 1 unit of U.S. history; .5 unit of U.S. government, .5 unit of economics or 1 unit of problems and democracy; and 1 unit (or 2 half-units) of any other social studies course. Physical/health education consists of 1 unit of physical education (PE) or .5 unit each of PE and health.

State	CCR Course of Study?	Coursework Requirements	Notes
Ohio **(20 units—state minimum)**	No	4—ELA 4—mathematics 3—science 3—social studies 1—physical/health education 5—electives	Mathematics must include 1 unit of Algebra 2 or the equivalent. Science must include 1 unit of physical sciences, 1 unit of life sciences, and 1 unit of advanced study in one or more of the following: chemistry, physics, or other physical science; advanced biology or other life science; astronomy, physical geology, or other Earth or space science. Social studies must include .5 unit each of American history and American government. Electives must be selected from "one or any combination of foreign language, fine arts, business, career-technical education, family and consumer sciences, Junior Reserve Officer Training Corps programs, technology, agricultural education, or ELA, mathematics, science, or social studies courses not otherwise required." Note that credits earned from coursework, such as additional physical education or additional health courses, may not be used to meet the electives requirement. Students must receive instruction in economics and financial literacy and take at least two semesters of fine arts.
Ohio **(20 units—Academic Pathway)**	Yes	4—ELA 4—mathematics 4—science 4—social studies 3—world languages 1—fine arts	Mathematics includes Algebra 1, Algebra 2, Geometry, and another higher-level course, or a four-year sequence of courses that contains equivalent content. Science includes one unit each of physics and chemistry. World languages must include no fewer than 2 units for which credit is sought. Course credits are six of eight criteria for graduation. The other two criteria are maintaining an overall GPA of at least 3.5 up to the last grading period of the senior year and obtaining a composite score of 27 on the ACT or a combined score of 1210 on the SAT (excluding the required writing section). To earn an Academic Pathway Diploma, students must meet at least seven of the eight criteria.

State	CCR Course of Study?	Coursework Requirements	Notes
Ohio **(20 units—Career-Technical Pathway)**	Yes	4—ELA 4—mathematics 4—science 4—social studies 4—CTE program*	Mathematics includes Algebra 1, Algebra 2, Geometry, and another higher-level course, or a four-year sequence of courses that contains equivalent content. Science includes 2 advanced sciences. Course credits are six of eight criteria for graduation. The other two criteria are maintaining an overall GPA of at least 3.5 up to the last grading period of the senior year and obtaining a composite score of 27 on the ACT or a combined score of 1210 on the SAT (excluding the required writing section). To earn a Career-Technical Pathway Diploma, students must meet at least seven of the eight criteria. *The CTE program should lead to a credential, result in an apprenticeship, or be part of an articulated career pathway.
Ohio **(21 units—International Baccalaureate Pathway)**	Yes	4—ELA 4—mathematics 4—science 4—social studies 4—foreign languages 1—fine arts	Two International Baccalaureate essays are required. Mathematics includes Algebra 1, Algebra 2, Geometry, and another higher-level course, or a four-year sequence of courses that contains equivalent content. Science includes biology, chemistry, and at least one additional advanced science. Foreign languages includes at least 2 units in one language. Course credits are six of eight criteria for graduation. The other two criteria are maintaining an overall GPA of at least 3.5 up to the last grading period of the senior year and obtaining a composite score of 27 on the ACT or combined score of 1210 on the SAT (excluding the required writing section). Students must also complete assessments in a minimum of six academic disciplines. To earn an International Baccalaureate Diploma, students must meet at least seven of the eight criteria.

State	CCR Course of Study?	Coursework Requirements	Notes
Oklahoma **(23 units—College Preparatory/ Work Ready Curriculum)**	Yes	4—ELA 3—mathematics 3—science 3—social studies 2—sequenced foreign or non-English language or computer technology 1—fine arts or speech 6—electives 1—additional unit selected from any courses previously listed	ELA consists of English 1–4. Mathematics includes only course credits earned in high school. Science must include biology, chemistry, physics, and another lab science course approved for college admission requirements. Social studies consists of 1 unit in U.S. history, .5 unit in U.S. government, .5 unit in Oklahoma history, and 1 unit selected from history, government, geography, economics, civics, or non-Western culture and approved to meet college admission requirements. Note that computer technology courses exclude keyboarding or typing courses. Students must also demonstrate satisfactory knowledge in financial literacy. Districts must offer this as part of existing courses or as a separate course, which may be considered an elective. Additionally, all students are required to receive instruction in cardiopulmonary resuscitation (CPR) and be aware of the purpose of an automated defibrillator, at least once between grade 9 and graduation.
Oklahoma **(23 units—Core Curriculum—for students opting out of the College Preparatory/ Work Ready Curriculum)**	No	4—ELA 3—mathematics 3—science 3—social studies 2—arts 8—electives	ELA consists of 1 unit in Grammar and Composition, and 3 units that may include American Literature, English Literature, World Literature, Advanced English courses, or other English courses with content and/or rigor equal to or above grammar and composition. Mathematics includes 1 unit in Algebra 1, and 2 units in Algebra 2, Geometry, Trigonometry, Math Analysis or Pre-calculus, Calculus, Statistics and/or Probability, Computer Science 1, Computer Science 2, Mathematics of Finance, Intermediate Algebra, and contextual mathematics courses that enhance technology preparation. Science includes 1 unit in Biology 1, and 2 units in the areas of life, physical, or Earth science or technology. Social studies includes 1 unit in U.S. history, .5 to 1 unit in U.S. government, .5 unit in Oklahoma history, and .5 to 1 unit in another course, which may include World History, Geography, Economics, Anthropology, or other social studies courses with content and/or rigor equal to or above that of the aforementioned courses.

State	CCR Course of Study?	Coursework Requirements	Notes
Oregon **(24 units)**	Yes	4—ELA 3—mathematics 3—science 3—social studies 2—physical/health education 3—foreign language, arts, CTE 6—electives	Mathematics includes Algebra 1 and above. Science must include scientific inquiry and laboratory experiences. Students also have to satisfy personalized learning requirements, which include the development of an education plan and profile and participation in extended learning opportunities (e.g., career-related learning experiences, application of knowledge in new situations). The education plan and profile are to guide students' learning and document progress toward their goals.
Pennsylvania	-	-	Students have to complete a culminating project in which they apply, analyze, synthesize, evaluate, and communicate information. Course requirements are up to the local school board.
Republic of Palau **(27 units)**	Yes	5—ELA 4—mathematics 3—science 5—social studies 2—physical/health education 6—Career Academy Program, including Career Development 2—electives	Social studies includes 2 units in Palauan studies. Physical/health education consists of 1 unit each of health and physical education.
Rhode Island **(20 courses—minimum)**	No	4—ELA 4—mathematics 3—science 3—social studies 6—may include world languages, the arts, PE and health, and/or technology, pursuant to district policies and state law	-

State	CCR Course of Study?	Coursework Requirements	Notes
South Carolina **(24 units)**	No	4—ELA 4—mathematics 3—science 3—social studies 1—physical/health education 1—computer science (including keyboarding) 1—foreign language or CTE 7—electives	Social studies includes 1 unit in U.S. history and constitution, .5 unit each in economics and U.S. government, and 1 unit in another social studies course. Physical/health education may include Junior ROTC. Note that students must pass a high school credit course in science in which an end-of-course assessment is administered.
South Dakota **(22 units—minimum)**	No	4—ELA 3—mathematics 3—science 3.5—social studies 1—physical/health education 1—approved CTE, capstone experience or service learning, OR world language 1—fine arts 5.5—undefined	ELA must include 1.5 units in writing, 1.5 units in literature (of which .5 must be in American literature), .5 unit in speech or debate, and .5 unit in a language arts elective. Mathematics must include Algebra 1 and 2, and Geometry. Science must include biology, any physical science, and chemistry or physics. Social studies must include 1 unit each in U.S. history and U.S. government, and .5 unit each in world history and geography; social studies also includes .5 unit of personal finance or economics. Physical/health education consists of health or health integration. For the fine arts requirement, districts may decide to offer credit for participation in extracurricular fine-arts activities; a maximum of .25 credit may be granted for each activity in each school year. Students are required to have a personal learning plan.

State	CCR Course of Study?	Coursework Requirements	Notes
Tennessee **(22 credits)**	Yes	4—ELA 4—mathematics 3—science 3.5—social studies 1.5—physical/health education 2—foreign language* 1—fine arts* 3—electives, consisting of mathematics and science, CTE, fine arts, humanities, Advanced Placement, or International Baccalaureate	Mathematics includes Algebra 1 and 2, Geometry, and a fourth higher-level mathematics course. Note that students must be enrolled in mathematics each school year. Science includes biology, chemistry or physics, and a third lab course. Social studies includes U.S. history and geography, world history and geography, U.S. government and civics, economics, and personal finance (.5 credit). Personal finance may be substituted with 3 years of Junior ROTC. *Foreign language and fine arts may be waived for students not going to a university, to expand and enhance the elective focus.
Texas **(22 credits—default Foundation High School Program)**	Yes	4—ELA 3—mathematics 3—science 3—social studies 1—physical/health education 2—sequenced foreign language 1—fine arts 5—electives	ELA must include English 1–3 and an advanced English course. Mathematics must include Algebra 1, Geometry, and an advanced mathematics course. Science must include 1 credit in biology, 1 credit in Integrated Physics and Chemistry (IPC) or an advanced science course, and 1 credit in an advanced science course. Social studies must include U.S. history, U.S. government (.5 credit), economics (.5 credit), and world history or world geography. Students must demonstrate proficiency in speech skills (a course is not required; how students demonstrate proficiency is up to districts). Students may earn endorsements on their high school diplomas, which can be STEM, Business & Industry, Public Services, Arts & Humanities, and/or Multidisciplinary Studies. Endorsements can be earned by successfully completing curriculum requirements for the endorsement and earning four credits in mathematics, four credits in science, and two additional elective credits.

State	CCR Course of Study?	Coursework Requirements	Notes
Texas **(22 credits—Minimum High School Program*)**	No	4—ELA 3—mathematics 2—science 3—social studies 1—physical/health education 1—fine arts .5—communication applications or professional communications (CTE) 7.5—electives (one must be an academic elective)	ELA consists of English 1–4; English 4 can be substituted with an approved alternative course. Mathematics includes Algebra 1, Geometry, and a State Board–approved mathematics course. Science includes biology, in addition to either IPC or a Chemistry and Physics course. Either IPC or the Chemistry and Physics course serves as an academic elective. Social studies includes 1 credit in U.S. history, .5 credit in U.S. government, .5 credit in economics, and .5 credit in world history or world geography. Students may earn endorsements on their high school diplomas, which can be STEM, Business & Industry, Public Services, Arts & Humanities, and/or Multidisciplinary Studies. Endorsements can be earned by successfully completing curriculum requirements for the endorsement and earning four credits in mathematics, four credits in science, and two additional elective credits. *This program is only available for those who entered high school before 2014–15.
Texas **(26 credits—Recommended High School Program*)**	Yes	4—ELA 4—mathematics 4—science 4—social studies 1—physical/health education 2—sequenced foreign language .5—communication applications or professional communications (CTE) 5.5—electives	ELA consists of English 1–4. Mathematics includes Algebra 1, Geometry, and an additional mathematics course. Science includes biology, chemistry, physics, and an additional course. Social studies includes 1 credit in U.S. history, .5 credit in U.S. government, .5 credit in economics, 1 credit in world history, and 1 credit in world geography. Students may earn endorsements on their high school diplomas, which can be STEM, Business & Industry, Public Services, Arts & Humanities, and/or Multidisciplinary Studies. Endorsements can be earned by successfully completing curriculum requirements for the endorsement and earning four credits in mathematics, four credits in science, and two additional elective credits. *This program is only available for those who entered high school before 2014–15.

State	CCR Course of Study?	Coursework Requirements	Notes
Texas **(26 credits—Distinguished Achievement Program*)**	Yes	4—ELA 4—mathematics 4—science 4—social studies 1—physical/health education 3—sequenced foreign language .5—communication applications or professional communications (CTE) 4.5—electives	ELA consists of English 1–4. Mathematics includes Algebra 1, Geometry, and an additional mathematics course. Science includes biology, chemistry, physics, and an additional course. Social studies includes 1 credit in U.S. history, .5 credit in U.S. government, .5 credit in economics, 1 credit in world history, and 1 credit in world geography. Students may earn endorsements on their high school diplomas, which can be STEM, Business & Industry, Public Services, Arts & Humanities, and/or Multidisciplinary Studies. Endorsements can be earned by successfully completing curriculum requirements for the endorsement and earning four credits in mathematics, four credits in science, and two additional elective credits. *This program is only available for those who entered high school before 2014–15.
Utah **(24 credits)**	No	4—ELA 3—mathematics 3—science 3—social studies 2—physical/health education 3.5—directed coursework (1.5—fine arts, 1—career and technical education, .5—computer technology, .5—general financial literacy) 5.5—electives	Mathematics includes Secondary Mathematics 1–3 or higher. Students who successfully complete calculus have met graduation requirements regardless of the number of credits they have taken. Science includes 2 credits from the foundation areas of Earth systems, biological science, chemistry, advanced-placement computer science, or physics, and 1 credit from the applied/advanced science list or foundation areas listed above. Social studies includes 1 credit in U.S. history, .5 credit in geography, .5 credit in civilization, .5 credit in U.S. government and citizenship, and an additional .5 credit in a course determined by the district. Physical/health education includes .5 credit in health, .5 credit in participation skills, .5 credit in fitness for life, and .5 credit in individualized lifetime activities. Note that team sport/athletic participation can be used in place of participation skills or individualized lifetime activities (.5 credit maximum).

State	CCR Course of Study?	Coursework Requirements	Notes
U.S. Virgin Islands **(24 credits)**	No	4—ELA 1—developmental reading/writing 3—mathematics 3—science 2—social studies 2—physical/health education 2—Spanish or French 1—speech 1—computer science 1—industrial arts, home economics, or pre-vocational agriculture 4—electives	A credit is one school year's worth of work. Mathematics includes algebra and geometry. Science includes general science and biology. Social studies includes Virgin Islands/Caribbean/U.S. history.
Vermont	-	-	According to the Vermont Agency of Education, local school boards are responsible for developing and adopting graduation requirements. Demonstration of proficiency will be the only way to determine progress and graduation eligibility, beginning with the class of 2020.
Virginia **(22 credits—Standard Diploma)**	Yes	4—ELA 3—mathematics 3—science 4—social studies 2—physical/health education 2—foreign language, fine arts, or CTE (1 credit in fine or performing arts or CTE) 4—electives (at least 2 sequential electives)	Mathematics includes Algebra 1, Geometry, Algebra 2, Functions and Data Analysis, or other courses above Algebra 2. Science must include at least two different science disciplines: Earth sciences, biology, chemistry, and/or physics. Social studies includes U.S. and Virginia history, U.S. and Virginia government, and one course in world history and/or geography. One credit in economics and personal finance is also part of social studies. The two sequential electives should provide a foundation for further education, training, or preparation for employment. Students may earn diploma seals for recognition, which include Governor's Seal, Board of Education Seal, Board of Education's Career & Technical Education Seal, Board of Education's Advanced Mathematics & Technology Seal, Board of Education's Excellence in Civics Education Seal, and Board of Education's Seal of Biliteracy.

State	CCR Course of Study?	Coursework Requirements	Notes
Virginia **(26 credits—Advanced Studies Diploma)**	Yes	4—ELA 4—mathematics 4—science 5—social studies 2—physical/health education 3—foreign language (three years of one language or two years of two languages) 1—fine arts or CTE 3—electives	Mathematics includes Algebra 1, Geometry, Algebra 2, Functions and Data Analysis, or other courses above Algebra 2. Science must include at least three different science disciplines: Earth sciences, biology, chemistry, or physics. Social studies includes U.S. and Virginia history, U.S. and Virginia government, and two courses in world history and/or geography. One credit in economics and personal finance is also part of social studies. Note that students must successfully complete one virtual course, which may be non-credit-bearing, to graduate with an Advanced Studies Diploma. Students may earn diploma seals for recognition, which include Governor's Seal, Board of Education Seal, Board of Education's Career & Technical Education Seal, Board of Education's Advanced Mathematics & Technology Seal, Board of Education's Excellence in Civics Education Seal, and Board of Education's Seal of Biliteracy.
Washington **(20 credits—for the class of 2016–18)**	No	4—ELA 3—mathematics 2—science 3—social studies 2—physical/health education 1—CTE 1—arts 4—electives	Science must include 1 credit with a laboratory. Students are required to have a High School and Beyond Plan, which is a collection of documents designed to help students think about their future and choose coursework that prepares them for their goals after high school. Each school district determines the guidelines for the Plan.

State	CCR Course of Study?	Coursework Requirements	Notes
Washington **(24 credits—for the class of 2019 and beyond)**	Yes	4—ELA 3—mathematics 3—science 3—social studies 2—physical/health education 1—CTE 2—arts 2—foreign language or Personalized Pathway requirement 4—electives	Up to 2 credits can be waived locally, based on a student's circumstances. Students are required to have a High School and Beyond Plan, which is a collection of documents designed to help students think about their future and choose coursework that prepares them for their goals after high school. Each school district determines the guidelines for the Plan.
West Virginia **(24 credits)**	Yes	4—ELA 4—mathematics 3—science 4—social studies 2—physical/health education 1—arts 2—electives 4—personalized education plan*	ELA includes English 9–12. Transitional English Language Arts for Seniors can be used a substitute for grade 12 ELA. For mathematics, there are recommended sequences for different pathways: - Professional pathway includes Algebra 1 or Math 1, Geometry, Algebra 2, Trigonometry, and Pre-calculus. - Skilled pathway includes Algebra 1 or Math 1, Geometry, Conceptual Math, and Transitional Math for Seniors or Algebra 2. Science must include physical science in grade 9 and biology or conceptual biology in grade 10; other classes can include chemistry and life science. Social studies include World Studies, United States Studies, and Contemporary Studies and Civics for the Next Generation, taken in that order. *This plan includes coursework that will lead to placement in entry-level, credit-bearing academic college courses, an industry-recognized certificate or license, or workforce training programs. Students are encouraged to take at least one advanced course with corresponding exam, a fourth science credit, and 2 credits in one world language, and/or 4 credits culminating in acquisition of a CTE credential. Note that world language is not required, but undergraduate admission to West Virginia four-year colleges and universities include the completion of 2 credits in the same world language.

State	CCR Course of Study?	Coursework Requirements	Notes
Wisconsin **(23.5 credits)**	No	4—ELA 3—mathematics 3—science 3—social studies 2—physical/health education 8.5—combination of vocational education, foreign languages, fine arts, and other courses (school board discretion)	ELA includes writing composition. Social studies includes state and local government. Physical/health education consists of 1.5 credits in physical education and .5 credit in health education. Note that health education may be taken in middle school.
Wyoming **(in years*; to qualify for honor or performance scholarship)**	Yes	4—ELA 4—mathematics 4—science 3—social studies 2—sequenced foreign language (may include American Sign Language or native language of the Eastern Shoshone or Northern Arapahoe) One of the following: 2—additional years of foreign language (4 years total: at least 2 years must be sequenced in the same language) 2—fine and performing arts 2—career-vocational education	*Each course is one year's worth of work. Mathematics consists of Algebra 1 and 2, Geometry, and an additional mathematics course. Science may include physics, chemistry, biology, geology, computer science, physical science, and/or another science course. Social studies includes a combination of the following areas: world history, American history, geography, American government, and/or economic systems and institutions. Students may earn endorsements, which include Advanced, Comprehensive, and General. These endorsements will be included/stated in each student's transcript.

State	CCR Course of Study?	Coursework Requirements	Notes
Wyoming **(in years*; to qualify for opportunity scholarship)**	Yes	4—ELA 4—mathematics 4—science 3—social studies One of the following: 2—sequenced foreign language (may include American Sign Language or native language of the Eastern Shoshone or Northern Arapahoe) 2—fine and performing arts 2—career-vocational education	*Each course is one year's worth of work. Mathematics consists of Algebra 1 and 2, Geometry, and an additional mathematics course. Science may include physics, chemistry, biology, geology, computer science, physical science, and/or another science course. Students may earn endorsements, which include Advanced, Comprehensive, and General. These endorsements will be included/stated in each student's transcript.
Wyoming **(in years*; to qualify for provisional opportunity scholarship)**	Yes	4—ELA 3—mathematics 3—science 3—social studies One of the following: 2—sequenced foreign language (may include American Sign Language or native language of the Eastern Shoshone or Northern Arapahoe) 2—fine and performing arts 2—career-vocational education	*Each course is one year's worth of work. Mathematics must include two of the following three: Algebra 1, Algebra 2, and Geometry. Science may include physics, chemistry, biology, geology, computer science, physical science, and/or another science course. Students may earn endorsements, which include Advanced, Comprehensive, and General. These endorsements will be included/stated in each student's transcript.

Table C. Course Requirements for College Admission in Selected States (*n* = 10)

Table C provides detailed course requirement information for entry to four-year higher education institutions in ten states (California, Illinois, Kentucky, Maryland, Massachusetts, Michigan, North Carolina, Texas, Washington, and Wisconsin). Relevant notes are included to provide additional information.

State	Coursework Requirements	Notes
California **(15 credits—A–G university requirements)**	4—ELA 3—mathematics* 2—science 2—social studies 2—sequenced foreign language 1—visual and performing arts 1—college-prep elective	One credit is one year's worth of work. ELA includes composition and literature. Mathematics must include/integrate topics covered in elementary and advanced algebra and two- and three-dimensional geometry. Science must include at least two of the following: biology, chemistry, and physics. Social studies includes one year of world history, cultures, and historical geography, and one year of U.S. history or .5 year of U.S. history and .5 year of American government or civics. Visual and performing arts can include dance, music, theater, or the visual arts. College-prep elective is chosen from among all of the aforementioned courses. *Note that a fourth year of mathematics is recommended. (Regents of the University of California, 2015)
Illinois **(in years)**	4—ELA 3–4—mathematics 3—science 3—social studies 2—foreign language	Mathematics includes algebra, geometry, and advanced algebra/trigonometry. (Board of Trustees of the University of Illinois, 2016)
Kentucky **(24 credits—pre-college curriculum*)**	4—ELA 3—mathematics 3—science 3—social studies 1—physical/health education 1—history and appreciation of visual and performing arts 7—academic and career interest standards-based learning experiences 2—single world language	ELA requirement consists of English 1–4; students are required to take ELA every year of high school. Mathematics includes Algebra 1, Geometry, and Algebra 2. Science incorporates lab-based scientific investigation experiences. Physical/health education requirement includes .5 credit of health and .5 credit of PE. Students are required to demonstrate performance-based competency in technology. *These are required for admission to state-supported higher education institutions in Kentucky. (Kentucky Department of Education, 2016)

State	Coursework Requirements	Notes
Maryland **(in years)**	4—ELA 4—mathematics 3—science 3—social studies 2—foreign language	Mathematics includes Algebra 1, Geometry, and Algebra 2. Students who complete Algebra II prior to their senior year must complete the fourth mathematics requirement by taking a course or courses that utilize non-trivial algebra; courses that meet this requirement include Algebra 2, Trigonometry, Precalculus, Calculus, Statistics, and College Algebra. Science must be in at least two different areas and must include two lab experiences. (University of Maryland, 2016)
Massachusetts **(16 college preparatory courses*)**	4—ELA 4—mathematics 3—science 2—social studies 2—sequenced foreign language 2—electives	Mathematics must include Algebra 1 and 2 and geometry, trigonometry, or comparable course; mathematics must be taken in the final year of high school. Science courses must be drawn from natural science, physical science, and/or technology/engineering; courses must include a lab component. One unit of social studies must be in U.S. history. The two elective units can be in ELA, mathematics, science, social studies, arts and humanities, or computer science. *One course is equivalent to one full school year of study. (Massachusetts Department of Higher Education, 2013)
Michigan **(18 credits)**	4—ELA 3—mathematics 3—science 3—social studies 2—foreign language 5—electives	Students are "encouraged" to take at least two laboratory science courses. Electives can include music, art, industrial arts, business education (including typing), home economics, physical education, and others. (Regents of the University of Michigan, 2016)
North Carolina **(16 units—minimum)**	4—ELA 4—mathematics 3—science 2—social studies 2—single foreign language	Mathematics must include Algebra 1, Geometry, Algebra 2, and an advanced mathematics course (for which Algebra 2 is a prerequisite). For students attending a North Carolina public high school, the fourth unit of mathematics must be one of the following courses: AP Calculus, AP Statistics, Pre-Calculus, Discrete Mathematics, IB Mathematics Level 2, Integrated Mathematics 4, Advanced Functions and Modeling, or Essentials for College Math. For North Carolina students attending a non-public school and for all out-of-state students, the fourth mathematics course must be comparable to the aforementioned list of courses. Science must include at least one unit in a life or biological science, one unit in a physical science, and one laboratory course. Social studies must include U.S. history. (University of North Carolina at Chapel Hill, n.d.)

State	Coursework Requirements	Notes
Texas **(22 credits)**	4—ELA 3—mathematics 3—science 3—social studies 1—physical/health education 2—sequenced foreign language 1—fine arts 5—electives	ELA must include English 1–3 and an advanced English course. Mathematics must include Algebra 1, Geometry, and an advanced mathematics course. Science must include 1 credit in biology, 1 credit in Integrated Physics and Chemistry (IPC) or an advanced science course, and 1 credit in an advanced science course. Social studies must include U.S. history, U.S. government (.5 credit), economics (.5 credit), and world history or world geography. Students must demonstrate proficiency in speech skills (a course is not required; how students demonstrate proficiency is up to districts). Students may earn endorsements on their high school diplomas, which can be STEM, Business & Industry, Public Services, Arts & Humanities, and/or Multidisciplinary Studies. Endorsements can be earned by successfully completing curriculum requirements for the endorsement and earning four credits in mathematics, four credits in science, and two additional elective credits. (Texas Education Code, Sec. 51.803)
Washington **(16 credits)**	4—ELA 4—mathematics 2—science 3—social studies 2—world languages .5—fine, visual, or performing arts .5—academic elective	One credit of mathematics is for a senior-year mathematics-based quantitative course. Science must be lab-based. (University of Washington, 2016)
Wisconsin **(17 credits*)**	4—ELA 3—mathematics 3—science 3—social studies 4—electives 2—foreign language**	Mathematics must include at least one credit of algebra and one credit of geometry. Electives may be chosen from English, mathematics, natural science, social science/history, foreign language, fine arts, computer science, and other academic areas. *All University of Wisconsin (UW) System campuses require new freshmen to have completed a minimum of 17 high school credits. **Two years of a single foreign language are required for admission to UW Madison and strongly recommended for admission to other UW System campuses. (Board of Regents of the University of Wisconsin System, 2016)

Table D. States' High School Graduation Requirements—Assessments[13]

State	Assessment(s) Required?	Assessment Information/Notes
Alabama	No	-
Alaska	No	Prior to June 30, 2016, students were required to take a CCR assessment (SAT, ACT, or WorkKeys) in grade 11, per House Bill 278, Alaska's Education Opportunity Act, which was signed into law and went into effect on July 1, 2014.
Arizona	No	Beginning with the class of 2017, students will be required to pass a civics test, based on the United States Immigration and Naturalization examination.
Arkansas	No	-
California	No	-
Colorado	No	Beginning with the class of 2021, students will be required to earn a minimum score on CCR assessments (e.g., ACT, Compass, WorkKeys, SAT, Advanced Placement [AP], International Baccalaureate [IB]) in English and mathematics to demonstrate college and career readiness.
Connecticut	No	Beginning with the class of 2020, students must pass end-of-school-year examinations in Algebra 1, Geometry, Biology, American History, and Grade 10 English.
Delaware	No	-
District of Columbia	No	-
Florida	Yes	Students in the class of 2016 were required to pass state assessments—the Grade 10 Florida Comprehensive Assessment Test (FCAT) in reading and the Algebra 1 end-of-course (EOC) assessment. Beginning with the class of 2017, students are required to pass the Grade 10 Florida Standards Assessment (FSA) in ELA and the Algebra 1 EOC. Students can use CCR assessments as substitutes: the ACT or SAT as substitute for the FSA in ELA and the Postsecondary Education Readiness Test as substitute for the Algebra 1 EOC.
Georgia	No	-
Hawaii	No	-
Idaho	Yes	Students are required to take the SAT, ACT, or Compass examination in grade 11.
Illinois	No	-
Indiana	Yes	Students are required to pass state assessments—the Indiana Statewide Testing for Educational Progress-Plus (ISTEP+) end-of-course assessments (ECAs)—in Algebra 1 and English 10. The class of 2018 will the last cohort for which the ECAs will be the high school graduation assessment. The class of 2019 will be required to take and pass the ISTEP+ Grade 10 Assessment in ELA and mathematics.
Iowa	No	-
Kansas	No	-
Kentucky	No	-

[13] Information for six states (American Samoa, Commonwealth of the Northern Mariana Islands, Federated States of Micronesia, Guam, Puerto Rico, and Republic of the Marshall Islands) was not available at this writing; therefore, these states are not included in Table D.

State	Assessment(s) Required?	Assessment Information/Notes
Louisiana	Yes	Students are required to pass a civics test, based on the United States Immigration and Naturalization examination, and three state assessments, one in each of the following categories: Algebra 1 or Geometry, English 2 or 3, and Biology or U.S. History.
Maine	No	-
Maryland	Yes	Students are required to pass courses and assessments (state assessments and PARCC) in English 10, Algebra 1, Biology, and Government.
Massachusetts	Yes	Students are required to pass the state grade 10 Massachusetts Comprehensive Assessment System (MCAS) assessments in ELA, mathematics, and science and technology/engineering.
Michigan	No	-
Minnesota	Yes	The class of 2016 is the last cohort required to take a CCR test (ACT plus Writing, WorkKeys, Compass, Armed Services Vocational Aptitude Battery [ASVAB], or an equivalent district-determined assessment) or pass/achieve proficiency on state tests in writing, reading, and mathematics. For the class of 2017 and beyond, districts must offer students the opportunity to participate in a district-provided college entrance examination in grade 11 or 12; however, students are not required to participate.
Mississippi	Yes	Students are required to pass state assessments in Algebra 1, Biology 1, U.S. History, and English 2.
Missouri	No	-
Montana	No	-
Nebraska	No	-
Nevada	Yes	The class of 2016 is required to take the ACT and pass state assessments—the Nevada High School Proficiency Exams (HSPEs)—in reading, mathematics, and science. For the classes of 2017 and 2018, students will be required to take four EOC examinations in English and mathematics, as well as the ACT. The classes of 2019 and beyond will be required to take the ACT and pass all four EOC examinations. EOC exams are offered in the following subjects: ELA 1, ELA 2, Math 1 with a focus in Algebra 1, Math 2 with a focus in geometry, Integrated Math 1, and Integrated Math 2.
New Hampshire	No	-
New Jersey	Yes	Students are required to pass PARCC or CCR assessments (SAT, ACT, PSAT, ACT Aspire, ASVAB, or Accuplacer) or meet criteria of the New Jersey Department of Education Portfolio Appeal.
New Mexico	Yes	Students are required to pass PARCC or state assessments in reading, mathematics, and writing, and state assessments in science and social studies. Students can use CCR/alternative assessments (e.g., AP, PSAT, SAT, ACT, Accuplacer, Compass, IB, ACT Plan, and/or EOC examinations) as substitutes.
New York	Yes	Students are required to pass state (Regents) examinations—one each in mathematics, science, social studies, and ELA, and a Pathway Assessment.
North Carolina	No	-
North Dakota	No	Beginning with the class of 2017, students will be required to pass a civics test, based on the United States Immigration and Naturalization examination.

State	Assessment(s) Required?	Assessment Information/Notes
Ohio	Yes	Students are required to pass state assessments—Ohio Graduation Tests—in reading, writing, mathematics, science, and social studies. This requirement will end with the class of 2017. Beginning with the class of 2018, students must earn at least 18 points on seven EOC examinations; earn at least 12 points through workforce credentials and pass the WorkKeys test; or pass a college and career readiness test (ACT or SAT). EOC examinations are Algebra 1 or Integrated Math 1; Geometry or Integrated Math 2; American Government; American History; English 1; English 2; and Biology.
Oklahoma	No	-
Oregon	Yes	Students are required to pass the Smarter Balanced assessments—specifically, to earn at least certain scores in reading (2515), mathematics (2543), and writing (2583). Students can use banked scores from previous state assessments (i.e., the Oregon Assessment of Knowledge and Skills), or use CCR tests (e.g., AP, SAT, Asset, Compass, WorkKeys), as substitutes for the Smarter Balanced assessments.
Pennsylvania	Yes	Students must demonstrate proficiency in each main subject area as determined by: • Keystone Exams (either passing the exams or counting exam scores, worth at least 33 percent, in course grade); • Locally developed, independently validated assessments that are as rigorous as the Keystone Exams; and/or • AP or IB exams. Keystone exams are available in 10 core subjects/courses: Algebra 1 and 2, Geometry, Biology, Chemistry, English Composition, Literature, Civics and Government, U.S. History, and World History. Keystone Exams can replace locally developed final exams in these courses. Students may retake a Keystone Exam to raise their score; if a student has not achieved proficiency after two attempts, he or she can complete a project-based alternative to demonstrate his or her knowledge in the subject area.
Republic of Palau	No	-
Rhode Island	No	Beginning with the class of 2020, students will be required to pass state assessments in six core areas (ELA, mathematics, science, social studies, arts, and technology) and to complete two performance assessments or diploma assessments (e.g., exhibitions, portfolios, comprehensive course assessments). Prior to 2020 but no earlier than 2017, districts may choose to require state assessments or other standardized assessments in addition to the two performance-based assessments. If a student retakes a state assessment and does not pass, the student may demonstrate proficiency through successful completion of an alternative assessment approved by the Council on Elementary and Secondary Education.
South Carolina	Yes	Students are required to pass a civics test, which is an EOC classroom examination given within the required U.S. History and Constitution course or another course.
South Dakota	No	-
Tennessee	No	-

State	Assessment(s) Required?	Assessment Information/Notes
Texas	Yes	Students are required to pass state EOC assessments in English 1 and 2, Algebra 1, Biology, and U.S. History; however, students who do not pass these assessments may still receive a diploma through an individual graduation committee determination according to Senate Bill 149. This bill applies to students in the graduating classes of 2015, 2016, and 2017 who have failed the EOC assessment in no more than two courses. Additionally, students may use the Texas Success Initiative EOC assessment, administered in college preparatory courses, to meet test requirements for Algebra 1 and/or English 2.
Utah	Yes	Students are required to pass a civics test, based on the United States Immigration and Naturalization examination.
U.S. Virgin Islands	Yes	Students are required to pass a state assessment—High School Competency Exam—that includes a writing component. (Note that this information may not be current.)
Vermont	No	Beginning with the class of 2020, students must demonstrate proficiency in all of the following content areas: literacy, mathematics, science, social studies, physical and health education, arts, and transferable skills (e.g., communication, collaboration, creativity, innovation, inquiry, problem solving, and use of technology). Local school boards will be responsible for developing their own proficiency tests.
Virginia	Yes	Students are required to pass state assessments—Standards of Learning (SOL). Students must earn a certain number of credits on English, mathematics, lab science, history and social sciences, and additional student-selected tests.
Washington	Yes	Students are required to pass the state HSPEs and Smarter Balanced assessments in ELA and mathematics. Beginning with the class of 2017, students will be required to pass the biology EOC examination as well as the state HSPEs and Smarter Balanced assessments in ELA and mathematics.
West Virginia	No	-
Wisconsin	Yes	Students are required to pass a civics test, based on the United States Immigration and Naturalization examination.
Wyoming	Yes	Students are required to pass a civics test on the principles of the constitutions of the state of Wyoming and the United States.

References

Achieve. (2015a). *How the states got their rates*. Retrieved from http://www.achieve.org/files/15-366%20Achieve_StateGradRate2014_1215.pdf

Achieve. (2015b). *The college and career readiness of U.S. high school graduates.* Retrieved from http://www.achieve.org/files/CCRHSGrads-March2016.pdf

Achieve. (2015c). *Rising to the challenge: Views on high school graduates' preparedness for college and success* [PowerPoint presentation]. Retrieved from http://www.achieve.org/files/AchieveSurveyIIPowerPoint.pdf

Board of Trustees of the University of Illinois. (2016). *First year requirements*. Retrieved from http://admissions.uic.edu/undergraduate/requirements-deadlines/first-year-requirements

Board of Regents of the University of Wisconsin System. (2016). *UW system college preparatory course requirements*. Retrieved from http://uwhelp.wisconsin.edu/admissions/freshman/collegeprep.aspx

College & Career Readiness & Success Center at American Institutes for Research. (2015). *CCRS interactive state map*. Retrieved from http://www.ccrscenter.org/ccrs-landscape/state-profile

Conley, D. T. (2011). *Four keys to college and career readiness* [PowerPoint presentation]. Retrieved from http://knowledgecenter.csg.org/kc/system/files/conleyPDF.pdf

Conley, D. T. (2013). *Common Core and college and career readiness* [PowerPoint presentation]. Retrieved from http://icsps.illinoisstate.edu/wp-content/uploads/2013/10/CONLEY_Illinois_091213-Final.pdf

ED Data Express. (n.d.). *Data about elementary and secondary schools in the U.S.* [Search for regulatory adjusted cohort graduation rates in 2013–14]. Retrieved from http://eddataexpress.ed.gov/state-tables-main.cfm/reportPage/newPubCustomResults

Education Trust. (2016). *Meandering toward graduation: Transcript outcomes of high school graduates*. Retrieved from https://edtrust.org/wp-content/uploads/2014/09/MeanderingTowardGraduation_EdTrust_April2016.pdf

Gewertz, C. (2016). States move to issue high school diplomas retroactively. *Education Week*. Retrieved from http://www.edweek.org/ew/articles/2016/01/27/states-move-to-issue-high-school-diplomas.html

Kentucky Department of Education. (2016). *Minimum high school graduation requirements*. Retrieved from http://education.ky.gov/curriculum/hsgradreq/Pages/default.aspx

Massachusetts Department of Higher Education. (2013). *Admissions standards for the Massachusetts State University System and the University of Massachusetts: Guide for high school guidance counselors*. Boston, MA: Author. Retrieved from http://www.mass.edu/shared/documents/admissions/admissionsstandards.pdf

New Mexico Public Education Department. (n.d.). *College and Career Readiness Bureau (CCRB).* Retrieved from http://www.ped.state.nm.us/ped/CCR_index.html

Regents of the University of California. (2015). *A-G subject requirements*. Retrieved from http://www.ucop.edu/agguide/a-g-requirements/

Regents of the University of Michigan. (2016). *College preparation*. Retrieved from http://admissions.umich.edu/apply/freshmen-applicants/college-preparation

Schopp, M. (2012). *Secretary's column: Ensuring South Dakota students are college and career ready*. Pierre, SD: South Dakota Department of Education. Retrieved from http://doe.sd.gov/pressroom/educationonline/2012/june/art_secretary.asp

South Dakota Department of Education. (2016). *Outcome #4: Students graduate high school ready for postsecondary and the workforce.* Retrieved from https://doe.sd.gov/outcomes/grads.aspx

Texas Education Code, Sec. 51.803. Retrieved from http://www.statutes.legis.state.tx.us/Docs/ED/htm/ED.51.htm#51.801

University of Maryland. (2016). *Freshman applicant requirements*. Retrieved from https://www.admissions.umd.edu/apply/freshman.php

University of North Carolina at Chapel Hill. (n.d.). *Minimum course requirements*. Retrieved from http://admissions.unc.edu/minimum-course-requirements/

University of Washington. (2016). *College academic distribution requirements (CADR).* Retrieved from https://admit.washington.edu/apply/freshman/policies/cadr

YouthTruth. (2016). *Learning from student voice: Most high schoolers feel unprepared for college and careers*. Retrieved from http://www.youthtruthsurvey.org/wp-content/uploads/2016/01/YouthTruth-Learning-From-Student-Voice-College-and-Career-Readiness-2016.pdf