UNIVERSITY OF CALIFORNIA

BOARD OF REGENTS BRIEF ON

College and Career Readiness in California

What Is the History and Role of A-G?

University of California Board of Regents

October 2026

What is the history and role of A-G?

This brief draws on presentations to the Board of Regents on July 15, 2026, along with additional sources noted at the end. The presenters were Han Mi Yoon-Wu, Associate Vice Provost and Executive Director of Undergraduate Admissions at the UC Office of the President, and Linda Darling-Hammond, President of the State Board of Education and founder of the Learning Policy Institute.

Key points

A-G is the set of college-preparatory courses California students must complete to be eligible for UC and CSU. Students must pass 15 year-long courses in seven subject areas with a grade of C or better, taken from their high school's UC-approved course list. UC and CSU use the same course pattern and the same course lists but apply them somewhat differently.

A-G's basic structure dates to the 1890s and has changed little since. Its subject divisions trace to the national Committee of Ten (1892–94), and the pattern was formally established in UC faculty regulations in 1931. In the decades since, UC has added a few subject areas and updated course criteria, while the core design of year-long courses in discrete academic subjects has remained the same.

UC sets statewide expectations for college preparation. UC faculty define the content and skills expected in each A-G subject area, and UC reviews courses submitted by high schools across the state against those criteria; CSU uses UC's course approvals. California is the only state in which the public university system reviews and approves high school course content statewide. The result is a common statewide standard designed to give students a body of general knowledge along with foundational skills for college.

A-G's reach extends well beyond admissions. State law requires every school district serving grades 7–12 to offer A-G courses to all students; about half of districts require A-G to graduate; and the state counts A-G completion in its school accountability dashboard.

About half of California's high school graduates complete A-G. Completion rose from 45% of graduates in 2015–16 to 54% in 2024–25, supported by UC academic preparation programs and a $547.5 million state grant program in 2021. Completion rates are lowest among English learners, students with disabilities, Black students, Latino students, and low-income students. Nearly all students (98%) attend schools that offer the full sequence, but offering courses does not guarantee that courses on an approved course list are actually being taught, or that students have access to enough sections or qualified teachers. Access is particularly limited in rural and high-poverty schools.

Coordination between A-G and the K-12 system is left to UC. UC's Academic Senate governs A-G. No state law requires it to align A-G with K-12 standards or consult the K-12 system, though UC's own bylaws require consultation with the State Board of Education. UC has updated A-G after the state adopted new academic standards, most recently after new math and English standards in 2010 and science standards in 2013. California had no statewide body coordinating across education segments from 2011 until 2025, when it created the Education Interagency Council. The Council is advisory; among its roles is serving as a forum for discussion about admissions and high school graduation standards.

High schools are changing in ways that do not fit easily within A-G's course-based structure. The curriculum is more crowded: the state has added courses required for graduation, such as personal finance, alongside A-G. The line between academic and career preparation is fading. The state has invested about half a billion dollars in college and career pathways that combine A-G coursework with work-based learning, and has expanded dual enrollment so that more students earn college credit in high school. Yet career courses in pathways typically count only as electives, and dual enrollment courses are not always approved for A-G. New and interdisciplinary fields struggle to find a place: computer science counts toward science only as a third year, and only about half of high schools offer it. And A-G, like high school credit generally, measures learning by seat time in class.

Main brief

What is A-G?

A-G is the sequence of college-preparatory courses that California students must complete to be eligible for admission to the University of California (UC) and the California State University (CSU). Students must complete 15 year-long courses across seven subject areas, each with a grade of C or better.

	SUBJECT AREA	YEARS REQUIRED
A	History/social science	2 years
B	English	4 years
C	Mathematics	3 years
D	Science	2 years
E	Language other than English	2 years
F	Visual and performing arts	1 year
G	College preparatory elective	1 year

Only courses UC has approved for a student's own high school count toward the requirement. Each California high school maintains a list of its approved A-G courses.

A-G goes beyond the minimum required for graduation in most academic subject areas. The state diploma requires three years of English and two years of math through Algebra I. A-G requires four years of English and math through Geometry and Algebra II.

UC and CSU require the same A-G course pattern but apply it somewhat differently. Both systems use the same seven subject areas, the same 15-course minimum, and the same approved course lists. CSU is somewhat more flexible by allowing more ways to satisfy some subject requirements.

A-G establishes eligibility, not admission. Completing A-G, with a minimum GPA (3.0 for UC and 2.5 for CSU for California residents), makes a student eligible. Campuses then

decide whom to admit. UC campuses use a "comprehensive review" of 13 factors, including the number and rigor of courses taken, grades, and personal achievements. CSU campuses with more eligible applicants than space may apply additional criteria.

In practice, UC applicants go well beyond the minimum. According to Yoon-Wu, fewer than 1% of UC applicants and admitted students take only the required 15 courses. The large majority complete between 20 and 30 A-G courses.

How did A-G come about, and how has it evolved?

UC's role in reviewing California high school curricula dates to the 1880s. The subject structure that A-G still follows took shape in 1892–94, when the National Education Association's Committee of Ten proposed a standard high school program organized around core academic subjects. It also recommended that every subject be taught the same way to all students, whether or not they were headed to college.

UC's Academic Senate formally established the college-preparatory pattern in its regulations in 1931. The Senate's Board of Admissions and Relations with Schools (BOARS), which today sets A-G policy, was formed in 1939. By the early 1960s, students applying to UC had to complete 15 courses across six subject areas (A–F).

The A-G course pattern has remained largely unchanged. The pattern's most significant structural change came in 1999. In coordination with CSU, UC added a visual and performing arts requirement (now area F), and college-preparatory electives became area G. The change took effect in 2003 and produced today's seven-area, 15-course A-G sequence.

UC revised A-G course criteria after the state adopted new K-12 content standards in English, math, and science.

- **Math and English.** After California adopted the Common Core State Standards in 2010, UC revised the math and English criteria to align with the new K-12 content standards. The Common Core organizes high school math into two pathways, the traditional sequence (Algebra I, Geometry, Algebra II) and the integrated sequence (Math I–III), and UC accepts both.
- **Science.** After the state adopted the Next Generation Science Standards in 2013, UC renamed area D from "Laboratory Science" to "Science" in 2018–19. It also

broadened what counts: earth and space sciences, integrated and interdisciplinary science, engineering, and computer science.

State Board of Education President Linda Darling-Hammond told the Regents in July 2026 that these updates were "a good example of collaboration between the sectors." She noted that the old sequence of biology, chemistry, and physics, taught in that order since the Committee of Ten, had left little room for fields such as biochemistry and molecular biology.

UC has also expanded the ways high schools can build their A-G offerings. In addition to courses a school designs and submits itself, schools can add "program courses" that UC has already approved, developed by approved providers or UC programs, to their A-G lists without submitting their own. These include online courses from providers such as UC Scout, which, Yoon-Wu told the Regents, allow small and rural schools to offer the full A-G sequence.

The state has promoted the integration of career technical education (CTE) into A-G. From 2010 to 2019, the state-funded UC Curriculum Integration program developed courses combining career content with A-G subjects. More than 600 California high schools now offer those courses, which remain available at no cost. By 2023–24, 66% of CTE courses statewide met A-G requirements, up from 44% in 2018–19. Historically, most have counted toward visual and performing arts or electives rather than core academic subjects.

How does UC set statewide expectations for college preparation?

UC approves which high school courses count toward A-G. BOARS, the Academic Senate standing committee that sets A-G policy, defines the criteria each course must meet. High schools submit individual courses for review, including a syllabus and assignments so UC can evaluate their content. Approved courses are then added to the school's A-G course list. Day-to-day review is handled by UC's High School Articulation unit, which, in Yoon-Wu's words, has "the authority to approve or disapprove courses submitted by a school, and to confer with schools concerning their programs" under BOARS's delegated authority. Course approval reviews how a course is designed, not how it is taught. Darling-Hammond told the Regents that students' preparation for college depends on "whether the courses they receive are, first, well-designed, and second, well-taught by well-qualified teachers."

California's approach is unlike any other state's. Many states' public universities set course requirements for admission, but as Darling-Hammond told the Regents, "there's no

other state that both lays out admissions requirements and actually approves each and every course and its content." The result is a single statewide definition of college-preparatory coursework.

UC's course criteria define both the content and skills required in each subject. Yoon-Wu described A-G as designed to ensure that students "attain a body of general knowledge that provides breadth and perspective, as well as sufficient foundational skills across subject areas." Critical thinking and communication appear in nearly every subject area's criteria, while skills such as research, problem-solving, creativity, and collaboration appear in only some. Darling-Hammond noted that many college faculty voice concerns about "the research, analytic, writing, and problem-solving skills that students need and may not be coming to college with." She also asked whether there are ways to strengthen "the kind of learning going on in the courses, in addition to the content specifications of what they're covering."

How does A-G reach beyond admissions?

A-G began as an eligibility requirement for admission, but UC has long shaped what California high schools teach. State law, local graduation policies, and the state's accountability system have extended its reach well beyond UC and CSU admissions.

Every district must offer it. Education Code Section 51228 requires every school district serving any of grades 7–12 to offer all students a course of study that meets UC and CSU admission requirements.

Many districts require it to graduate. In a 2015–16 survey by the Public Policy Institute of California (PPIC), 51% of unified and high school districts had built the A-G sequence into their graduation requirements, including some of the state's largest. Of those, 72% required a C or better in each course. Darling-Hammond described how districts have responded over time by "replacing non-A-G courses with A-G-approved alternatives, adjusting course sequences, and aligning local graduation requirements."

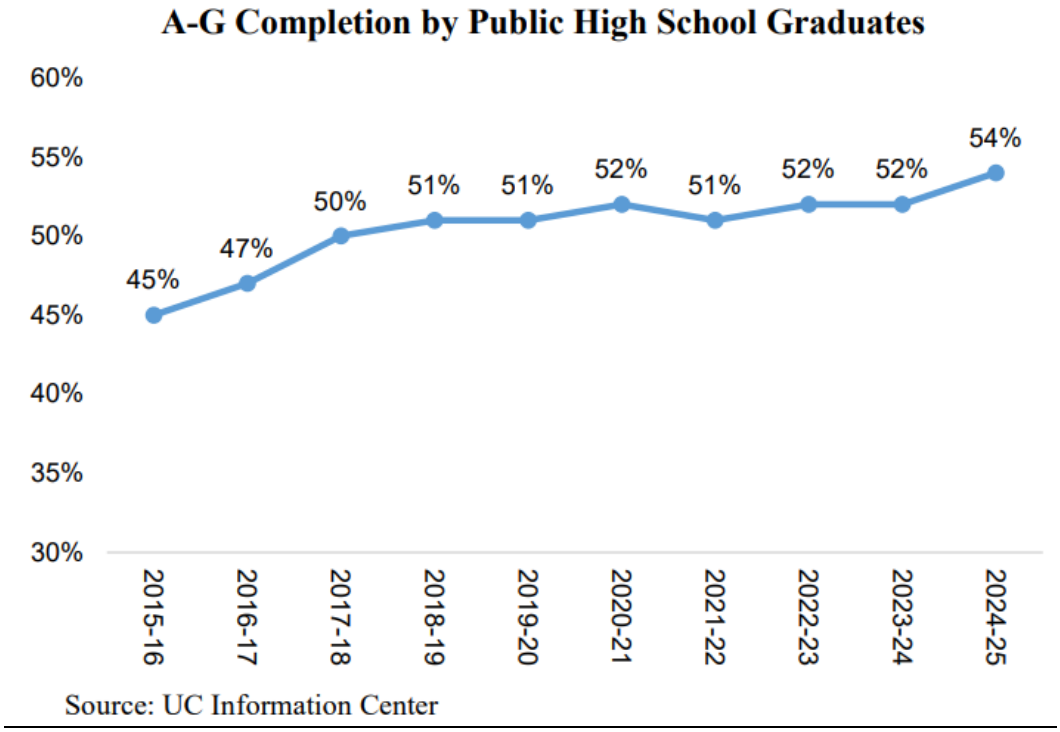
The state uses A-G completion to measure school performance. Yoon-Wu told the Regents that "California does not have a statewide college-readiness requirement," but "A-G completion is one of the state's college and career indicators." For students, completing A-G is one of several ways to count as "prepared" on the College/Career Indicator of the California School Dashboard. Schools and districts are then rated on the share of their

graduates who are prepared, and the Dashboard publishes those results online for families, educators, and the community.

Changes to A-G ripple through high schools. As Darling-Hammond put it, "the K–12 system will want to be in sync and able to incorporate what is, for all high schools, a very significant event whenever there's a change in A-G."

Who completes A-G?

About half of California high school graduates complete A-G, and the share is rising. According to UC, just over half (54%) of California's 2024–25 public high school graduates completed the A-G sequence, up from 45% in 2015–16.[1]



[1]The 2015–16 figure is not fully comparable with later years. Beginning in 2016–17, the California Department of Education changed how it calculates the four-year cohort graduation rate: students who transfer to adult education or community college now remain in the cohort, and adult education diplomas and passing the California High School Proficiency Exam no longer count as regular graduation. The department advises against comparing rates from 2016–17 onward with earlier years.

Completion of A-G varies widely by school and student group. A 2026 CalMatters analysis of state data found that 222 of the state's 1,468 traditional high schools had completion rates below 30%, while more than 400 exceeded 70%. According to the California Department of Education, completion rates among 2024–25 graduates were 79% for Asian students, 59% for white students, 47% for Latino students, 47% for low-income students, and 45% for Black students. Rates were lowest for English learners (29%) and students with disabilities (24%). PPIC reports that since 2018, completion rates have risen fastest for Black and Latino students.

UC and the state have invested in raising A-G completion rates.

- **UC academic preparation programs.** Katherine Newman, UC Provost and Executive Vice President for Academic Affairs at the time, said in introducing the presenters that UC programs such as UC Scout and MESA work to improve college readiness and close gaps in A-G completion, "especially in lower-income communities and rural schools." She credited them in part for the rise in completion.
- **A-G Completion Improvement Grant.** In 2021, the state appropriated $547.5 million for this program. It required districts to plan how they would raise A-G eligibility among low-income students, English learners, and foster youth, including giving students the chance to retake courses.

Offering courses doesn't guarantee access to them. Yoon-Wu reported that 98% of the state's more than 2 million public school students attend a school that offers the full A-G sequence. Even among alternative and continuation schools, 60% do. But Darling-Hammond noted that "even where courses are offered, there may or may not be enough sections to allow every student to take them." She said there is "less access in small, rural schools, as well as in some high-poverty, high-concentration schools," in part because of "the lack of fully qualified teachers to teach all of the sections and courses," with shortages "for the last decade" in math, science, and world languages.

How is A-G coordinated with K-12 and the rest of the education system?

UC holds the authority. The California Constitution gives the UC Board of Regents broad autonomy, and the Regents have delegated the setting of admission requirements, including A-G, to the Academic Senate, which acts through BOARS. CSU faculty rely on UC's course approvals. The Regents keep final authority to approve or overturn Senate

decisions on admissions. Darling-Hammond described the arrangement to the Regents in July: "the A-G curriculum is really owned by the UC system."

UC's bylaws require coordination with the K-12 system. UC has constitutional autonomy, so no state law requires it to consult the K-12 system when it changes A-G. UC's own Academic Senate bylaws do require BOARS to "consult with representatives from the State Board of Education and K-12 subject matter specialists on proposed changes to course requirements for undergraduate admissions." That consultation requirement was added in April 2025, after the chair of the Assembly Higher Education Committee asked UC to formalize consultation and legislators signaled they were considering legislation to encourage it.

Statewide bodies coordinating across education segments have been advisory, and from 2011 to 2025 there was none. California's 1960 Master Plan for Higher Education gives UC, CSU, and the community colleges each their own role and governance. The California Postsecondary Education Commission, which coordinated across the three systems, lost its funding in 2011, leaving the state without a formal coordinating body. A voluntary faculty forum has continued to operate: the Intersegmental Committee of the Academic Senates brings together faculty leaders from the three systems and has issued statements about the competencies expected of entering college students. It has no authority over A-G and no standing K-12 membership.

In October 2025, the state created the California Education Interagency Council, which, unlike these higher education bodies, includes K-12 and workforce leaders. Chaired by the State Board President, its members include the President of UC, the CSU and community college chancellors, the State Superintendent of Public Instruction, and the Secretary of Labor and Workforce Development. Among its roles is serving as "a forum for communication to discuss the impacts" of proposed changes to graduation and admissions requirements. Its findings carry no obligation to act without further legislation.

How neatly do recent changes in California's high schools fit within A-G?

Over the past decade, California has invested in redesigning how middle and high schools teach and support students, as well as how students move into college and careers. Much of this work draws on research on adolescent development and the science of learning, which finds that adolescence is a critical window for development and that students learn best through strong relationships and engaging, applied work, conditions that "the factory

model inherited from 100 years ago was not designed to provide" (Immordino-Yang et al., 2026). Major investments include:

- Golden State Pathways Program (2022, $500 million)
- California Community Schools Partnership Program (about $4.1 billion since 2021)
- Expanded dual enrollment through the College and Career Access Pathways program (2022, $100 million)
- Secondary School Redesign Pilot (2025, $10 million, increased by $50 million in 2026)

These efforts move toward blending academic and career learning, starting college coursework in high school, and applied learning that spans subjects and grade levels. In July, Darling-Hammond described several ways these shifts fit uneasily within A-G.

The line between academic and career preparation is fading. "The old system, where there was a vocational strand for some students and an academic strand for others, is really disappearing," Darling-Hammond told the Regents. She noted that the state has spent "about half a billion dollars on college and career pathways that bring both A-G coursework and experiential learning—internships, business partnerships, industry- and community-connected learning—into the same set of programs." In Golden State Pathways programs, all students must have access to a full suite of A-G courses, but according to PPIC, career technical courses in these programs, even highly technical, academic ones, typically count only as college-preparatory electives rather than toward core subject areas. The Governor's 2025 Master Plan for Career Education, developed by a council of education, labor, and business leaders, builds on this direction. It calls for career pathways from TK–12 through college with built-in dual enrollment and work-based learning, and for a "Career Passport" that records students' verified skills alongside their academic records.

Students move in and out of college. Darling-Hammond pointed to dual enrollment as a way students can earn a certificate, such as in health technology, that they use in their employment "on the way to coming back for a nursing or medical degree later." She said that "students aren't just going straight from high school to college." She also noted that dual enrollment courses taken at community colleges are not always approved for A-G through the high school approval system. She said students sometimes have "to do the same thing twice under two different course names."

The curriculum is crowded, and new fields struggle to find a place. Darling-Hammond described "a crowded high school curriculum," with legislative additions layered on top of A-G, such as a one-semester personal finance graduation requirement, starting with the class of 2030–31. She also noted that fields such as computer science, which "weren't part of the knowledge base in 1894," are "still not easily finding a home in the A-G curriculum." She cited figures that only about half of California high schools offer computer science, and only about a third of schools serving mostly students of color do. Even after UC's 2018–19 science revision, computer science and engineering courses can count toward science only as a third year. Interdisciplinary courses raise a related question, in her words: "do interdisciplinary courses all have to be electives?" On artificial intelligence, she said students will need "deep knowledge of technologies and how they operate," and that such topics "still have to find a way into the curriculum, with more certainty than we've been able to provide in the past."

Seat time remains the measure of learning. A-G, like high school credit generally, is counted in year-long courses based on the Carnegie unit, a standard for instructional time adopted in 1906. The Carnegie Foundation has since noted that the unit was designed to standardize time spent in class, not to measure what students learn. Darling-Hammond asked: "Applied and experiential learning, we know from cognitive science, is more powerful than seat time alone: how do we evolve our seat-time, Carnegie-unit-based systems, in both K–12 and higher education, to allow for applications of learning?" Experiential learning is one focus of the state's Secondary School Redesign Pilot, which supports schools in offering engaging and authentic learning opportunities and helping students develop and demonstrate durable skills. Its evaluation is due in 2029.

Looking ahead

This brief describes what A-G is, how it developed, and how it connects to the rest of California's education system. Later briefs in the series take up the questions it raises:

- what future students are being prepared for (Brief 2)
- what the evidence shows about innovative secondary school models (Brief 3)
- how other systems around the world define and measure readiness (Brief 4)
- how A-G shapes what students learn in high school (Brief 5)

Resources

A full list of sources used to create this brief is here. For further information on key points, we suggest:

- University of California Board of Regents. (2026, July 15). *Academic and Student Affairs Committee* [Video]. YouTube. https://www.youtube.com/watch?v=nJMpXZh3oVU&t=499s
- Silva, E., White, T., & Toch, T. (2015). *The Carnegie unit: A century-old standard in a changing education landscape*. Carnegie Foundation for the Advancement of Teaching. https://files.eric.ed.gov/fulltext/ED554803.pdf
- Ugo, I., & Assan, E. (2026). *College readiness in California* [Fact sheet]. Public Policy Institute of California. https://www.ppic.org/publication/college-readiness-in-california/
- University of California Office of the President. (n.d.-a). *A–G subject requirements* [Course criteria by subject area]. UC High School Articulation. https://hs-articulation.ucop.edu/guide/a-g-subject-requirements/