WHAT IS QUANTITATIVE REASONING?

Improving the academic preparation of incoming students is vital to the California State University’s Graduation Initiative 2025 goals of increasing degree completion rates and eliminating equity gaps. A student’s experience in their first year of college can determine if they return for their second year or whether they ultimately earn a college degree.

Quantitative reasoning is the ability to analyze and synthesize information in order to gain greater understanding of issues and assess reasonableness of proposed solutions. Ultimately, quantitative reasoning supports greater critical thinking skills for students living in a data-rich world. The CSU recognizes quantitative reasoning as a foundational factor in academic preparation as well as an important lifelong skill, particularly for students pursuing high-demand careers in science, technology, engineering and mathematics (STEM).

As a result, the CSU has proposed changing admission requirements to include an additional year of quantitative reasoning for first time freshman beginning with the incoming class of 2027. Any student who is eligible for the CSU, but who cannot fulfill the new requirement due to a lack of resources and/or course availability at their high school, will be provided an exemption. The CSU intends to partner with the University of California and the California Department of Education to automate the exemption for students from schools with limited qualifying course offerings, reducing the burden on students to seek out the exemption.

EXAMPLES OF QUANTITATIVE REASONING COURSES

High school students will have the flexibility to take courses that reflect their interests or desired field of study, while also meeting CSU admission requirements. The proposed quantitative reasoning requirement could be fulfilled through the following:

- Traditional mathematics course beyond Algebra II or Integrated Mathematics III
- An additional science course beyond the required two years
- Dual enrollment in a qualifying course from a community college
- Elective courses with a quantitative reasoning foundation such as: coding; computer science; economics; engineering; personal finance; robotics
THE PATH TO THE CSU

To ensure that all students and their families are equitably prepared for this proposed change in admission requirements, the CSU is embarking on a comprehensive outreach campaign to inform and educate a wide range of stakeholders statewide. Already one-third of the 20 largest school districts in California have high school graduation requirements that align—or will align—with the CSU quantitative reasoning proposal. Integrated in this outreach campaign are opportunities to collaborate with CSU partners for data-informed activities that support summer programming; service learning; elementary, middle and high school to college transitions; PK-12 teacher professional learning and other activities focused on student success.

To ensure that all California students have the access and opportunity to earn a high-quality degree that prepares them for their future, the California State University has proposed expanding its “a-g” admission requirements to include one additional course in quantitative reasoning in high school. This level of academic preparation is essential for success in college, the workforce and in life. It is also key to closing racial and gender disparities, especially in the high-demand, high-paying STEM fields. The CSU Board of Trustees, working in collaboration with a steering committee of internal and external stakeholders, is considering next steps. The proposed requirement would be applicable for fall 2027.

FOR MORE INFORMATION

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