

Proposal to Modify First-Year Admission Requirements for the CSU

CSU Board of Trustees
Committee on Educational Policy—Item 5
September 24-25, 2019



August 29 Board Meeting

Areas of Widespread Agreement

- We all must do better, collectively, to serve California's diverse students
- Academic preparation matters
- Importance of authentic access
- Quantitative reasoning supports success in college, the workforce and everyday life

August 29 Board Meeting

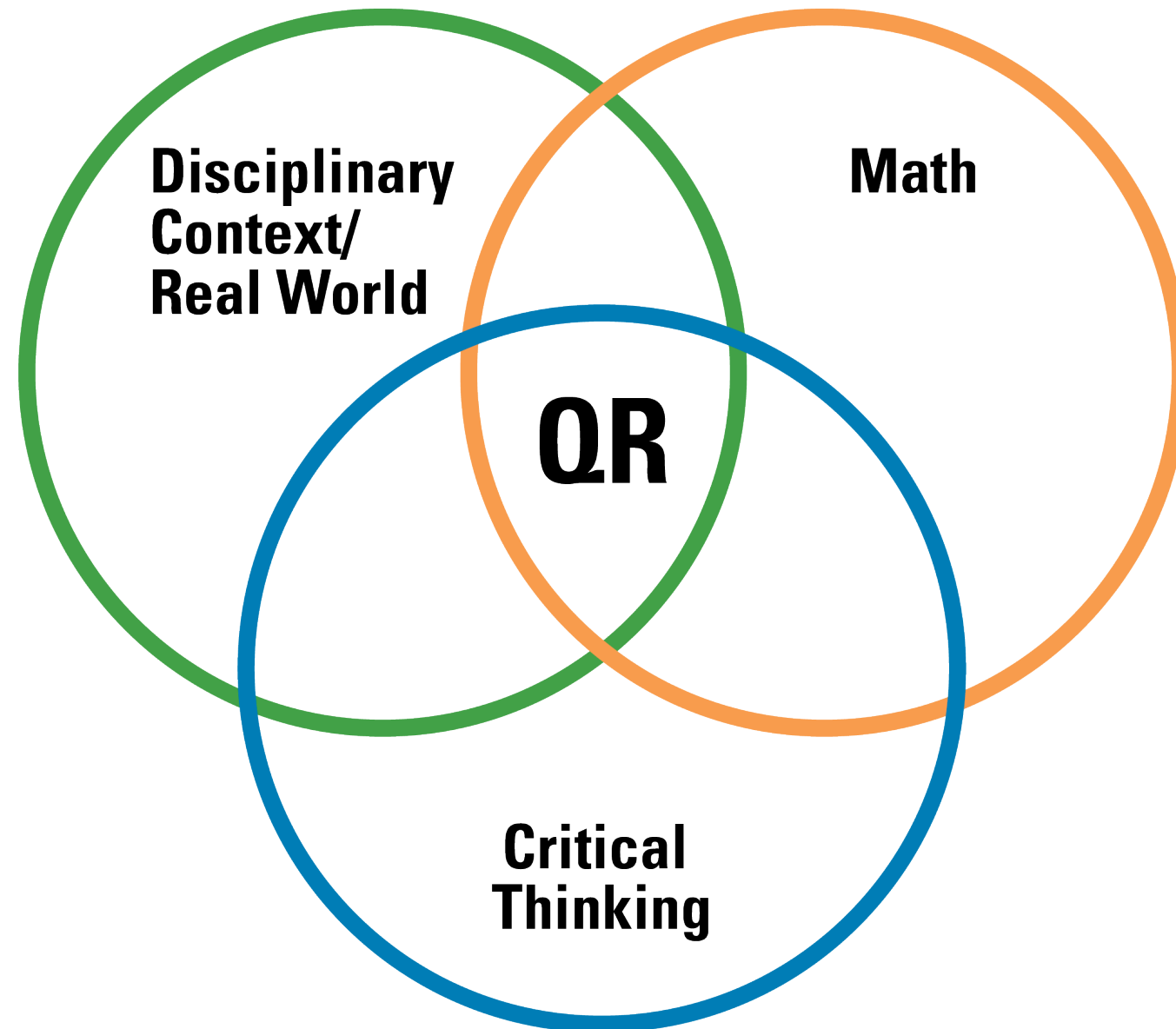
Areas with Questions

- Capacity
- Impact
- Partnerships
- Timing

Overview

- CSU Proposal
- PK-12 School District Capacity
- Implementation Plan
- Partnerships & Continued Consultation

What is “Quantitative Reasoning?”



CSU Proposal

- An admission requirement that incoming first-year students must have completed one course of quantitative reasoning
- Requirement could be fulfilled by coursework in science, math or an elective course with a quantitative reasoning foundation
- Students would be encouraged to take the course in their senior year

Current “a-g” Requirements

Area	Subject	Courses
a.	History and Social Science	2
b.	English	4
c.	Mathematics	3
d.	Laboratory Science	2
e.	Language Other Than English	2
f.	Visual and Performing Arts	1
g.	College Preparatory Elective or an additional course from a-f	1
Total Required Courses		15

Proposed “a-g” Requirements

Area	Subject	Courses
a.	History and Social Science	2
b.	English	4
c.	Mathematics	3
d.	Laboratory Science	2
e.	Language Other Than English	2
f.	Visual and Performing Arts	1
g.	College Preparatory Elective or an additional course from a-f AND a course from c, d or a quantitative reasoning course within g	2
Total Required Courses		16

Course-Taking Behavior of Entering CSU Students

- Students took 21 a-g courses in high school
- Consistent across all ethnic groups
- Proposal would require students take 16 a-g courses



Examples of Qualifying Courses

College Preparatory Electives (Area 'g')

- Personal Finance
- Introduction to Business
- Coding
- Robotics
- Healthcare Analysis
- Economics
- Agricultural Biology
- Veterinary Science
- Forensics
- Green Technology
- Sports Medicine
- Engineering
- Computer Science
- Game Development

Multiple Paths to Completion

9TH GRADE

10TH GRADE

11TH GRADE

12TH GRADE

Student A
Arts

Algebra I

Geometry

Algebra II

Personal Finance

Student B
STEM

Integrated
Math I

Integrated
Math II

Integrated
Math III

Pre-Calculus

Student C
Social Sciences

Algebra I

Geometry

Environmental
Science

AP Statistics

Student D
Undecided

Integrated
Math I

Integrated
Math II

Integrated
Math III

Introduction to
Business Finance

Fortuna High School (Humboldt County)

- Sustainable Agriculture Biology
- Agriculture and Soil Chemistry
- Programming Fundamentals (dual enrollment)
- Intro to Game Development (dual enrollment)
- Anatomy
- Chemistry (Honors)
- AP Calculus A/B
- Green Technology
- Financial Management
- Pre-calculus
- Statistics/Probability
- Calculus AB
- Environmental Science
- Chemistry and Agri-science
- STEM Physics
- Statistics

Fresno High School (Fresno County)

- Advanced Topics in Medicine
- Advanced Topics in Medical Research
- Applications Programming
- Biochemistry
- Computer Science IB HL1
- Computer Science IB HL2
- Construction Technology I
- Construction Technology II
- Cybersecurity
- Engineering I
- Engineering II
- Foods and Nutrition
- Forensic Research and Biotechnology
- Global Economics and Finance
- Money and Banking
- Robotics and Electronics
- WBL Technology
- Mathematical Studies IB
- Mathematics IB
- Trigonometry - Elementary Functions
- Advanced Sciences Topics AB
- AP Computer Science Principles
- Biology
- Biology IB
- Biotechnology Accelerated & Research
- Chemistry
- Chemistry IB
- Clinical Anatomy & Physiology
- Engineering Research and Development
- ROP Environmental Science & Technology
- Environmental Systems & Societies
- Neuroscience
- Physical Forensic Science
- Physics
- Physics and Technology
- Physiology
- Zoology

Martin Luther King High School (Riverside County)

- Business, Technology and 21st Century Skills
- Digital Electronics
- Earth Science
- Exploring Computer Science
- Game Design 1
- Game Design 2
- PLTW Civil Engineering and Architecture
- PLTW Principles of Engineering
- PLTW Computer Integrated Manufacturing
- PLTW Digital Electronics
- PLTW Engineering Design and Development
- Introduction to Engineering Design
- RCOE Sports Medicine & Therapeutic Services
- RCOE Sports Medicine Advanced
- AP Calculus AB
- AP Calculus BC
- AP Computer Science
- AP Statistics
- Probability and Statistics
- Anatomy/Physiology
- AP Biology
- AP Chemistry
- AP Environmental Science
- AP Physics 1
- AP Physics 2
- Biology of the Living Earth
- Chemistry in the Earth System
- Marine Biology
- Physics of the Universe

Exemption

Ongoing Commitment to Student Access

- If a student does not have access to a qualifying course, they would receive an exemption and additional academic support
- Partnership with CDE would automate the exemption
- Exemption data would further support capacity-building efforts
- Exemption would “phase-out” as schools built capacity

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High School Graduation Requirements Align with the CSU Proposal

- San Diego Unified
- Long Beach Unified
- Elk Grove Unified
- Fresno Unified
- San Bernardino City Unified
- Oakland Unified
- Stockton Unified*
- La Canada**
- Rocklin Unified
- Lake Elsinore Unified
- Murrieta Valley Unified
- Perris Union
- San Jacinto Unified

*Beginning with the Class of 2023

**Beginning with the Class of 2021

Existing High School Capacity

Of California Comprehensive High Schools...

- 99.7% offer at least one qualifying course
- 96.2% offer at least three qualifying courses (one math course and two or more science or electives)

Existing High School Capacity

Schools with Limited Capacity

- 16 out of 1,453 high schools offer fewer than 3 qualifying courses or only offer a math course
 - Graduated a combined 450 students
 - Approximately 56 students met the existing a-g requirements

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Implementation Plan

Identified the Districts Where Further Examination of Student Course-Taking Behavior is Needed

- Baldwin Park Unified
- Calexico Unified
- Central Unified
- Central Union High
- Chico Unified
- Coachella Valley Unified
- Delano Joint Union High
- Kern County Office of Education
- Kern High
- Lodi Unified
- Manteca Unified
- Merced Union High
- Oceanside Unified
- Salinas Union High
- San Gabriel Unified
- San Juan Unified
- Santa Rosa High
- Turlock Unified
- Visalia Unified
- Wasco Unified High
- Washington Unified

CSU is Partnering with PK-12 Districts to Build Capacity by 2026

Implementation Area	Strategy and Investment
Curriculum	CMRCI Bridge Courses
	CSU Center for Advancement of Instruction in Quantitative Reasoning
	University of California - Course Management Portal
Teaching Capacity	CSU Colleges/Schools of Education
	Math-Science Teacher Initiative
	Center for Closing the Achievement Gap
Communication	CSU Counselor Conferences
	CSU Outreach and Recruitment
	California College Guidance Initiative

Implementation Plan

Will Follow the Expository Reading and Writing Curriculum Model for Capacity Building

- Courses developed by CSU and high school faculty
- Partnerships with California's county offices of education to integrate courses into high schools
- CSU Center for the Advancement of Reading and Writing supports professional development

CSU is Partnering with PK-12 Districts to Build Capacity by 2026

Through Bridge Courses

- Los Angeles
- Monterey
- Nevada
- Placer
- Riverside
- Sacramento
- San Bernardino
- San Diego
- San Luis Obispo
- Santa Barbara
- Santa Clara
- Solano
- Yolo

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Through Bridge Courses

Course Title	Number of Schools	Students (approx.)
Transition to College Level Mathematics	8	197
Transition to College Mathematics and Statistics	48	2,131
Quantitative Reasoning with Advanced Math Topics	52	4,293
Mathematical Reasoning with Connections	48	2,963
Discrete Mathematics for Pre-College Students	12	1,204
Totals	168	10,788

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In Summary

This proposed policy will...

- Improve students' success in college, the workforce and daily life
- Provide students with flexibility
- Provide PK-12 districts support and time to prepare
- Ensure that no student is denied access to the CSU through matters beyond their control

