The California State University

Proposal to Modify First-Year Admission Requirements for the CSU

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

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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

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August 29 Board Meeting

Areas with Questions

- Capacity
- Impact
- Partnerships
- Timing

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Overview

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

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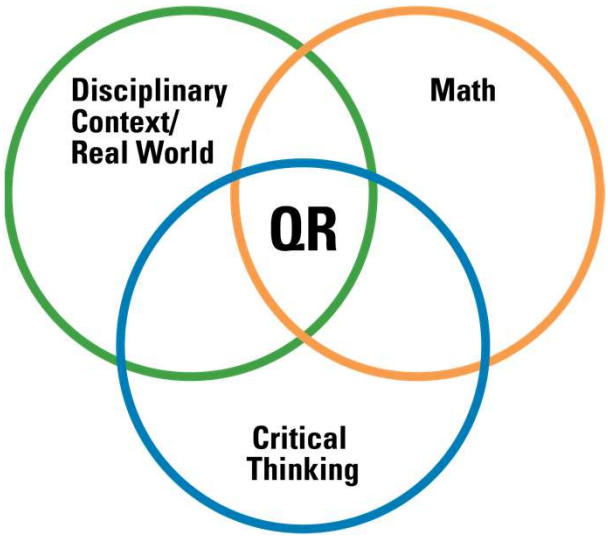
What is "Quantitative Reasoning?"



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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

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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

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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**

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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

CSU Institutional Research & Analyses: Fall 2018 First-Time Student Data

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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

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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

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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

AP = Advanced Placement

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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

AP = Advanced Placement
WBL = Work Based Learning
ROP = Regional Occupational Program
IB = International Baccalaureate

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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

AP = Advanced Placement
PLTW = Project Lead the Way
RCOE = Riverside County Office of Education

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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
www.ed-data.org

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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)

CSU Review of UCOP 2019-20 a-g Approved Course List

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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 Institutional Research & Analyses: Fall 2018 First-Time Student Data

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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

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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

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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

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