

Oversight Hearing – Overview of course requirements for purposes of college admission

AHED Oversight Hearing October 10, 2024

Overview of course requirements for purposes of college admission.

Topics to cover during briefing:

- What are A –G requirements?
- UC Decision – Current Policy
- How did we get here?
- Why is this important?
- What is the potential impact?

- Terms to know –
 - BOARS – UC Board of Admission and School Relations [Part of the UC Academic Senate]
 - UC Regents – 26 (18 appointees, seven ex-officious, and one student regent).

What are A-G requirements?

A-G are the specific high school courses each graduating high school student **MUST** take in order to meet the **MINIMUM** qualifications to the CSU and the UC.

- The UC high school articulation unit in the Office of the President decides which high school courses qualify as A-G.
- There are differences between CSU A-G and UC A-G course types.
- The main focus of this hearing will be Area C – Mathematics.

Area C - Mathematics

- UC Requirement – Three years of math [Algebra I – Geometry – Algebra II or Math I-II-III]. AND fourth year recommended in an advance mathematics course.
- CSU Requirement – Three years of math [Algebra I – Geometry – Algebra II or Math I-II-III].
- In 2020, UC adopted a policy allowing for courses to be substitutes for Algebra II. Any math that was considered an advance mathematics course could replace Algebra II in the sequence such as Data Science, AP Statistics or Pre-calculus.

- What is data science?
 - Data science is an emerging discipline, and there is yet to be a consensus on exactly what content constitutes “data science.” Data science education organizations have conceptualized it as a cyclical process that includes problem formulation, data collection, data analysis, and interpretation and communication of findings.

UC Decision

Beginning in the 2025-2026 school year

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1. UC will no longer accept Data Science as a substitute for Algebra II;
2. Data Science and Advance Statistics are no longer considered an advance mathematics; and,
3. Fourth Year mathematics courses are divided into four categories based on the applicants intended major.

UC Decision

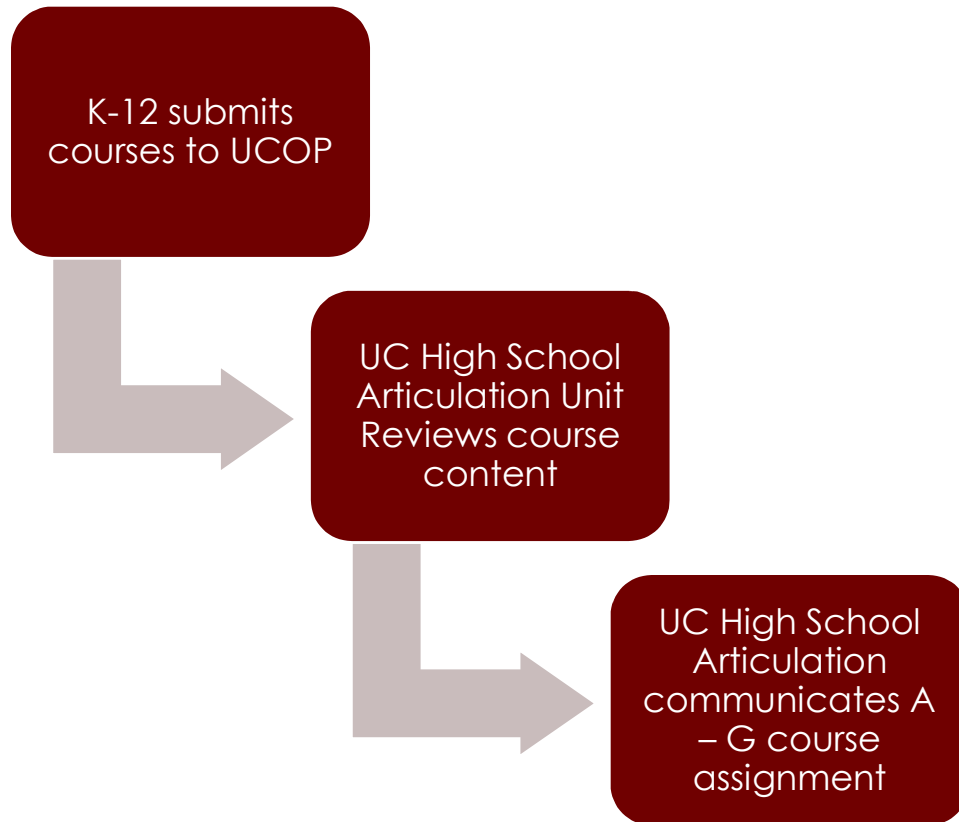
1. Category 1 (Everyone) – Basic Math Requirement – Algebra I – Geometry – Algebra II; Math I-II-III;
2. Category 2 (STEM – substitutes for Category 1) – Pre-Calculus and Calculus
3. Category 3 (Social Science) – Statistics
4. Category 4 (Humanities) – All other mathematics courses including Data Science.

A student must take Category 1 for admission and then anything from category 2-4 for the 4th year recommended course.

How did we get here?

- UC High School Articulation Unit began approving data science course for Area C in 2016 based on the content requirements provided by UC BOARS for “advance mathematics.”
- 2020 – UC BOARS approved alternative sequences for meeting the basic mathematics requirement including that Data Science and AP Statistics could be a replacement for Algebra II.
- UCLA and Stanford Professors write “Introduction to Data Science” which is begin offered at high schools throughout the state.

How did we get here?



- For decades UC BOARS delegated the responsibility of course approval for A-G to UC High School Articulation Unit.
- UC BOARS opined UC High School Articulation Unit did not adequately implement the course content requirements for Area C Mathematics.

How did we get here?

- A subset of UC professors expressed that incoming students were not prepared for calculus and ***that calculus in high school is the gold standard for admission and academic preparation for the UC.***
- 2020-2023 – State Board of Education began working to adopt a new mathematics framework which included data science definitions and guidance for potential coursework.
- UC BOARS made the decision in July 2023 several days prior to the K-12 State Boards vote on the framework.

1. Decisions on what “courses” qualify as A-G impacts admission to both the UC and the CSU.
2. Decision was made by UC BOARS before the data science courses were evaluated for content requirements and before the scope of impact to students was determined.
3. Neither K-12 nor the CSU were consulted before the decision was made.

Why is this important?

- Prior decisions to change course requirements for A-G were done by workgroups whose membership included K-12, CSU, and other UC stakeholders were allowed to opine.
- Prior decisions to change course requirements were completed after the K-12 framework was adopted, curriculum was approved, and textbooks were provided.
- K-12 courses were evaluated and then determined whether they were A-G qualified. This new policy removes “approved courses” from the list with no clear justification as to why.

What is the potential impact?

- Only traditional math sequences will be offered at high schools.
- Impacts current 7th-10th graders, if implemented next year.
- For math courses to be approved in time for the change, the K-12 districts should have submitted the courses to the UC for approval last Summer.
- Students will need to take Algebra I in 8th grade to qualify for STEM majors in the UC.
- AP Statistics and Transfer-Level Statistics will not longer be substitutes for Algebra II for purposes of college admissions.