



California Community Colleges

SYSTEM WEBINAR SUMMARY: STEM Equity via Placement and Support (June 2024)

This [webinar](#) focused on ways that the California Community Colleges (CCC) can unlock opportunities in STEM through innovative and equitable placement and support practices. Guest presenters included Tammi Marshall and Daniel Curtis of Cuyamaca College, and Andrew Bloom and Jeff O'Connell of Ohlone College.

What are Recent Updates on AB705/1705 Implementation?

- As a system, we have come a long way in reforming assessment and placement practices over the last 20 years, through the Basic Skills Initiative, the Multiple Measures Assessment Project, Basic Skills Outcome Transformation Grants, and efforts related to AB705, AB1805, and AB1705.
- In 2012, more than 90% of first-time students were assigned to developmental education, especially in math. Through significant efforts, this has changed dramatically over the last five years such that almost 85% of students are now starting in transfer-level courses and the number who successfully complete transfer-level math in their first year has more than doubled.
- AB1705 specifies that, to place students in a math prerequisite for STEM Calculus I, colleges must demonstrate that students are unlikely to succeed in the course without additional preparation, and that such placement will improve the probability of course completion. Another criterion has been added to demonstrate that students' probability of completing the second calculus course in their STEM program is also improved. Criteria for student placement and implementation options for colleges are summarized in a recent [memo](#).
- Colleges' AB1705 submissions are due July 1, 2024 to AB705@cccco.edu. Colleges must report their status and plans by choosing among available options and can submit local data. CIOs received a college-level report and STEM data validation template related to this required submission, and support resources are available on the Chancellor's Office Equitable Placement [webpage](#).

How are Colleges Supporting Equitable Success in STEM?

- Cuyamaca College places students in Calculus I with corequisite support.
 - Any student who completed precalculus in high school has direct [access](#) to Calculus, and any student who places into PreCalculus can choose to take that or instead take Calculus with corequisite support.

- Students take Calculus I/corequisite as a cohort, with the classes (5-unit course with 2-unit support) scheduled back-to-back and the support aspects seamlessly integrated into the Calculus I instruction aspects.
- The class uses activity-based instruction with seamless just-in-time review. For example, in a lesson on calculating average velocity, the class introduces function notation and domain and interval notation that students without precalculus may not know, prior to introducing the main topics required to support the lesson's primary objective.
- The college's data show that first-time student enrollment in Calculus I increased by 83% when placement practices changed. Two-thirds (66%) of students in the Calculus I with support class succeeded in fall 2024, and those who had no precalculus in high school actually completed at a higher rate (71%) than those who had precalculus (62%).
- The college is studying its early outcomes to better understand patterns of success to support continuous quality improvement under the new model.
- Ohlone College is evolving its approach based on trial and error.
 - The college began its AB705 implementation by creating a 4-unit Calculus course that included a separate co-requisite support portion of the class. They also tried having separate noncredit support classes open to everyone in the relevant math courses, to ensure the cost of an additional unit was not the barrier. But neither model has attracted much enrollment.
 - The college has a Foundations of Math Success [course](#) that covers study skills and other skills related to college success skills that appear to be a bigger issue than limited math skills, and a STEM [Summer Bridge Program](#).
 - In 2024/25, the college is integrating the noncredit support curriculum they already developed into Calculus courses, keeping those portions of the course noncredit but extending the hours the classes meet to accommodate the extra material. The courses are attracting enrollment, with most classes full and some with waiting lists. Precalculus will still be available (for now).
 - The college is using faculty workgroups to revise curriculum and pedagogy.

What Resources Can Support Colleges in Adopting Equitable Practices?

- The Vision Resource Center has related [webinars](#) in the [Equitable Placement](#) community (log-in required).
- Colleges can request a [Partnership Resource Team](#) to guide them in improving their placement and support practices to better support equitable outcomes.
- The Chancellor's Office has curated a set of technical assistance opportunities for colleges, including the [Equity Accelerator](#), [Motivate Lab](#), [Carnegie Math Pathways](#), the [NROC Project's EdReady](#) tool, and EdTrust West's [community of practice](#).